Sun Secure Global Desktop 4.4 Reference Manual

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Contents

Preface

The Sun Secure Global Desktop 4.4 Reference Manual is a comprehensive reference of the available settings and commands for controlling and configuring Sun Secure Global Desktop Software (SGD). This document is written for SGD Administrators.

How This Book Is Organized

Chapter 1 describes global settings which apply to all SGD servers in the array.

Chapter 2 describes server settings which apply to the specified SGD server in the array.

Chapter 3 describes the supported object types in SGD and their attributes. Usage details for setting attributes using the Administration Console are included, along with the equivalent SGD command line.

Chapter 4 describes the available SGD commands. Examples are included for each command.

Using UNIX Commands

This document might not contain information on basic UNIX® commands and procedures such as shutting down the system, booting the system, and configuring devices. Refer to your system documentation for this information. This document does, however, contain information about specific SGD commands.

Shell Prompts

Shell	Prompt
C shell	*machine-name*%
C shell superuser	*machine-name*#
Bourne shell and Korn shell	$
Bourne shell and Korn shell superuser	#

Typographic Conventions

Typeface*	Meaning	Examples
AaBbCc123	The names of commands, files, and directories; on-screen computer output	Edit your .login file. Use ls -a to list all files. % You have mail.
AaBbCc123	What you type, when contrasted with on-screen computer output	% **su** Password:
AaBbCc123	Book titles, new words or terms, words to be emphasized. Replace command-line variables with real names or values.	Read Chapter 6 in the *User's Guide*. These are called *class* options. To delete a file, type **rm** *filename*.

* **The settings on your browser might differ from these settings.**

Related Documentation

The documents listed as online are available at:

http://www.sun.com/documentation

Application	Title	Part Number	Format	Location
Release Notes	*Sun Secure Global Desktop 4.4 Release Notes*	820-2548-10	HTML	Online
			PDF	Software CD and online
Installation	Sun Secure Global Desktop 4.4 Installation Guide	820-2549-10	HTML	Online
			PDF	Software CD and online
Administration	Sun Secure Global Desktop 4.4 Administration Guide	820-2550-10	HTML	Online
User	Sun Secure Global Desktop 4.4 User Guide	820-2552-10	HTML	Online

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Please include the following document title and part number in the subject line of your email:

Sun Secure Global Desktop 4.4 Reference Manual, part number 820-2551.

CHAPTER 1

Global Settings

Use the Global Settings tabs to configure settings which apply to Sun Secure Global Desktop (SGD) as a whole. Changes made in the Global Settings tabs affect all SGD servers in the array.

In SGD, an array is a collection of SGD servers that share configuration information.

This chapter includes the following topics:

Secure Global Desktop Authentication Tab

Use the settings on the Secure Global Desktop Authentication tab to control how users log in to SGD. The attributes apply to all SGD servers in the array. Changes to the settings take effect immediately.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

User authentication can be performed by an external authentication mechanism (*third-party authentication*), or SGD can perform the authentication using a specified repository (*system authentication*).

The Secure Global Desktop Authentication tab contains the following sections:

- **Tokens and Cache.** This section contains the following settings:
  - Token Generation
  - Password Cache
- **Secure Global Desktop Effective Sequence.** This section displays a summary of the current SGD authentication settings. If you click the Change User Authentication button, the Authentication Wizard starts. The Wizard enables you to configure SGD authentication. See The Authentication Wizard.
- **LDAP Repository Details.** If you are using lightweight directory access protocol (LDAP) authentication, this section displays a summary of your LDAP directory server settings.

The Authentication Wizard

The Authentication Wizard guides you through the process of setting up authentication for SGD users. The number of steps shown in the Authentication Wizard depend on the choices you make as you work though the Wizard.

The available steps in the Authentication Wizard are as follows:

- **Overview.** Includes background information about how users authenticate to SGD.
- **Third-Party/System Authentication.** Select whether you want to use third-party authentication, system authentication or both.

  This step contains the following settings:
  - Third-Party Authentication
  - System Authentication
- **Third-Party Authentication – User Identity and Profile.** For third-party authentication only. Choose search methods to use for finding the user identity and user profile of the authenticated user.

  This step contains the following settings:
  - Search Local Repository
  - Search LDAP Repository
  - Use Default Third-Party Identity
  - Use Default LDAP Profile
  - Use Closest Matching LDAP Profile

- **System Authentication – Repositories.** For system authentication only. Select one or more check boxes to enable repositories that SGD uses for locating user information. The repositories are listed in the order in which they are tried. If one repository authenticates the user, no more repositories are tried.

  This step contains the following settings:

  - LDAP/Active Directory
  - Unix
  - Authentication Token
  - Windows Domain Controller
  - SecurID
  - Anonymous
- **Unix Authentication – User Profile.** For system authentication only. This screen is shown if UNIX authentication is selected. Select one or more check boxes to specify how to find the user profile for the authenticated UNIX user. The authentication methods are listed in the order in which they are tried. If one method finds a matching user profile, no more search methods are tried.

  This step contains the following settings:

  - Search Unix User ID in Local Repository
  - Search Unix Group ID in Local Repository
  - Use Default User Profile
- **Windows Domain Authentication – Domain Controller.** For system authentication only. This screen is shown if the Windows Domain Controller system authentication repository is selected. Here, you specify the name of the domain controller.

  This step contains the Windows Domain setting.
- **LDAP Repository Details.** For third-party or system authentication. This screen is shown if an LDAP or Active Directory system authentication repository is selected, or if the Search LDAP Repository option is selected for third-party authentication. Here, you specify details of the LDAP repository to use.

  This step contains the following settings:

  - Active Directory
  - LDAP
  - URLs
  - User Name and Password
  - Client Certificates
  - Active Directory Base Domain
  - Active Directory Default Domain

- **Review Selections.** Shows a summary of the choices you have made using the Wizard. You can review your authentication settings before confirming the changes.

Token Generation

Usage: Select or deselect the check box.

Description

Whether to create authentication tokens for users so they can log in automatically to SGD.

To ensure that an authentication token cannot be intercepted and used by a third party, use secure Hypertext Transfer Protocol over Secure Socket Layer (HTTPS) web servers and enable SGD security services.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Generate Authentication Tokens

Command Line

Command option: `--login-autotoken 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables generation of authentication tokens for users.

```
--login-autotoken 0
```

Password Cache

Usage: Select or deselect the check box.

Description

Whether to save the username and password that the user types to log in to SGD in the password cache.

If you are using SecurID authentication, do not save the username and password, as SecurID passwords cannot be reused.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Authentication ⇒ Save SGD Login Details in Cache

Command Line

Command option: `--launch-savettapassword 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example saves user log in details in the password cache.

```
--launch-savettapassword 1
```

Third-Party Authentication

Usage: Select or deselect the check box.

Description

Select the check box to enable third-party authentication.

This setting enables you to give access to SGD to users who have been authenticated by a third-party mechanism, such as web server authentication.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ External Authentication ⇒ Use Third Party Authentication

Command Line

Command option: `--login-thirdparty 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example disables third-party authentication.

```
--login-thirdparty 0
```

System Authentication

Usage: Select or deselect the check box.

Description

Specifies that user authentication is done by the SGD server. Selecting this option enables the Wizard screens for system authentication settings.

Command Line

There is no command line equivalent for this setting.

Search Local Repository

Usage: Select or deselect the check box.

Description

This attribute specifies a search method used by SGD to determine the identity and user profile of a user who has been authenticated by a third-party authentication mechanism.

This search method searches for the user identity in the local repository and then uses the matching user profile.

If additional search methods are selected, the search methods are used in the order shown. However, third-party authentication does not support ambiguous users and so the first match found is used.

If the searches do not produce a match, the standard login page is displayed and the user must log in to SGD in the normal way.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ User Identity Mapping ⇒ Search ENS for Matching Person

Command Line

Command option: `--login-thirdparty-ens 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, searching the local repository for a matching user profile is disabled.

```
--login-thirdparty-ens 0
```

Search LDAP Repository

Usage: Select or deselect the check box.

Description

Specifies that the LDAP repository is searched to find the user identity for a user who has been authenticated by a third-party authentication mechanism.

The search method used is defined by the Use Default LDAP Profile or Use Closest Matching LDAP Profile attribute.

Command Line

There is no command line equivalent for this setting.

Use Default Third-Party Identity

Usage: Select or deselect the check box.

Description

This attribute specifies a search method used by SGD to determine the identity and user profile of a user who has been authenticated by a third-party authentication mechanism.

This search method does not perform a search. The user identity is the third-party username. The third-party user profile, `System Objects/Third Party Profile`, is used.

If additional search methods are selected, the search methods are used in the order shown. However, third-party authentication does not support ambiguous users and so the first match found is used.

If the searches do not produce a match, the standard login page is displayed and the user must log in to SGD in the normal way.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ User Identity Mapping ⇒ Use Default Profile

Command Line

Command option: `--login-thirdparty-noens 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, using the default user profile is disabled.

```
--login-thirdparty-noens 0
```

Use Default LDAP Profile

Usage: Select the option.

Description

This attribute specifies a search method used by SGD to determine the identity and user profile of a user who has been authenticated by a third-party authentication mechanism.

This search method searches for the user identity in an LDAP repository and then uses the default LDAP user profile, `System Objects/LDAP Profile`.

If additional search methods are selected, the search methods are used in the order shown. However, third-party authentication does not support ambiguous users and so the first match found is used.

If the searches do not produce a match, the standard login page is displayed and the user must log in to SGD in the normal way.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ User Identity Mapping ⇒ Search LDAP and Use LDAP Profile

Command Line

Command option: `--login-ldap-thirdparty-profile 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, searching LDAP and using the default LDAP profile is disabled.

```
--login-ldap-thirdparty-profile 0
```

Use Closest Matching LDAP Profile

Usage: Select the option.

Description

This attribute specifies a search method used by SGD to determine the identity and user profile of a user who has been authenticated by a third-party authentication mechanism.

This search method searches for the user identity in an LDAP repository and then uses the closest matching user profile in the local repository, allowing for differences between the LDAP and SGD naming systems.

SGD searches for the following until a match is found:

- A user profile with the same name as the LDAP person object.

  For example, if the LDAP person object is `cn=Emma Rald,cn=Sales,dc=Indigo Insurance,dc=com`, SGD searches the local repository for `dc=com/dc=Indigo Insurance/cn=Sales/cn=Emma Rald`.

- A user profile in the same organizational unit as the LDAP person object but with the name `cn=LDAP Profile`.

  For example, `dc=com/dc=Indigo Insurance/cn=Sales/cn=LDAP Profile`.

- A user profile in any parent organizational unit with the name `cn=LDAP Profile`.

  For example, `dc=com/dc=Indigo Insurance/cn=LDAP Profile`.

- If there is no match, the profile object `System Objects/LDAP Profile` is used for the user profile.

If additional search methods are selected, the search methods are used in the order shown. However, third-party authentication does not support ambiguous users and so the first match found is used.

If the searches do not produce a match, the standard login page is displayed and the user must log in to SGD in the normal way.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ User Identity Mapping ⇒ Search LDAP and Use Closest ENS Match

Command Line

Command option: `--login-ldap-thirdparty-ens 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, searching LDAP and using the closest matching LDAP profile is disabled.

```
--login-ldap-thirdparty-ens 0
```

LDAP/Active Directory

Usage: Select or deselect the check box.

Description

Specifies that an LDAP directory server or Active Directory server is used for authentication.

Selecting this option enables the Wizard screen where you can type in LDAP directory server or Active Directory server details.

Command Line

There is no command line equivalent for this setting.

Unix

Usage: Select or deselect the check box.

Description

Enables UNIX authentication.

Selecting this option enables the Wizard screen where you can configure UNIX authentication settings.

Command Line

There is no command line equivalent for this setting.

Authentication Token

Usage: Select or deselect the check box.

Description

Enables authentication using an authentication token.

Authentication using an authentication token can only be used when the SGD Client is operating in Integrated mode.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Authentication Token Login Authority

Command Line

Command option: `--login-atla 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, authentication using an authentication token is disabled.

```
--login-atla 0
```

Windows Domain Controller

Usage: Select or deselect the check box.

Description

Enables authentication against a Windows domain controller.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ NT Login Authority

Command Line

Command option: `--login-nt 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, Windows Domain Controller authentication is disabled.

```
--login-nt 0
```

SecurID

Usage: Select or deselect the check box.

Description

Enables users with RSA SecurID tokens to log in to SGD.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ SecurID Login Authority

Command Line

Command option: `--login-securid 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, SecurID authentication is disabled.

```
--login-securid 0
```

Anonymous

Usage: Select or deselect the check box.

Description

Enables users to log in to SGD without supplying a username and password.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Anonymous User Login Authority

Command Line

Command option: `--login-anon 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, anonymous user authentication is disabled.

```
--login-anon 0
```

Search Unix User ID in Local Repository

Usage: Select or deselect the check box.

Description

Specifies a search method used to find the user profile for an authenticated UNIX user. Select this attribute to search for the user identity in the local repository and use the matching user profile.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ ENS Login Authority

Command Line

Command option: `--login-ens 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, searching for the UNIX User ID in the local repository is enabled.

```
--login-ens 1
```

Search Unix Group ID in Local Repository

Usage: Select or deselect the check box.

Description

Specifies a search method used to find the user profile for an authenticated UNIX user. Select this attribute to use the UNIX user identity and search for a user profile in the local repository that matches the user's UNIX Group ID.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ UNIX Group Login Authority

Command Line

Command option: `--login-unix-group 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, searching for the UNIX Group ID in the local repository is enabled.

```
--login-unix-group 1
```

Use Default User Profile

Usage: Select or deselect the check box.

Description

Specifies a search method used to find the user profile for an authenticated UNIX user. Select this attribute to use the default UNIX user profile, `System Objects/UNIX User Profile`, for the authenticated user.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ UNIX User Login Authority

Command Line

Command option: `--login-unix-user 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, using the default UNIX user profile `(System Objects/UNIX User Profile)` is enabled.

```
--login-unix-user 1
```

Windows Domain

Usage: Type the Windows domain name in the field.

Description

The name of the domain controller used for Windows domain authentication.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Windows NT Domain

Command Line

Command option: `--login-nt-domain` *dom*

Usage: Replace *dom* with the name of the Windows domain controller used to authenticate users.

In the following example, users are authenticated with the Windows domain controller `sales.indigo-insurance.com`.

```
--login-nt-domain sales.indigo-insurance.com
```

Active Directory

Usage: Select the option.

Description

Enables Active Directory authentication.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Active Directory Login Authority

Command Line

Command option: `--login-ad 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, Active Directory authentication is enabled.

```
--login-ad 1
```

LDAP

Usage: Select the LDAP option.

Description

Enables LDAP authentication.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ LDAP Login Authority

Command Line

Command option: `--login-ldap 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, LDAP authentication is enabled.

```
--login-ldap 1
```

URLs

Usage: Type the uniform resource locators (URLs) in the field. Type each separate URL on a line and press the Return key.

Description

The locations of the LDAP directory servers or Active Directory servers used for the following authentication mechanisms.

- LDAP authentication
- Third-party authentication (Search LDAP Repository options)
- Active Directory authentication

If you use an LDAP directory for authentication, you can use SGD Directory Services Integration (DSI). DSI enables you to use an LDAP version 3 directory instead of the local repository for holding user information. Using DSI means you do not need to mirror your LDAP organization in the local repository.

See the *Sun Secure Global Desktop Administration Guide* for more information about using DSI.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ LDAP Server ⇒ URL

LDAP Authentication

For *LDAP authentication* or *third-party authentication*, type in a list of URLs.

The URLs are used in the order they are listed. If the first LDAP directory server listed is unavailable, SGD tries the next one in the list.

Each URL has the form `ldap://`*server*`:`*port*`/`*searchroot*. Each of these options is defined as follows:

- **Server.** The DNS name of the LDAP directory server.
- **Port.** The TCP port which the LDAP directory server listens on for connections. You can omit this (and the preceding ":") to use the default port.
- **Searchroot.** The position in the LDAP directory structure from where the LDAP repository starts searching for matching users.
  For example, `dc=indigo-insurance,dc=com`.

Use an `ldaps://` URL if your LDAP directory server uses Secure Sockets Layer (SSL) connections. Extra configuration is required for SSL connections. See the *Sun Secure Global Desktop Administration Guide* for more information about securing connections to LDAP directory servers.

Active Directory Authentication

For an *Active Directory repository*, type in the URL of an Active Directory domain in the form `ad://`*domain*. For example, `ad://east.indigo-insurance.com`.

The URL *must* start `ad://`. Only type *one* domain.

Command Line

Command option: `--login-ldap-url` *url*

Usage: Replace *url* with the URLs of one or more LDAP directory servers.

In the following example, the URL of an LDAP directory server is specified.

```
--login-ldap-url "ldap://melbourne.indigo-insurance.com/dc=indigo-
insurance,dc=com"
```

User Name and Password

Usage: Type the user name and password in the fields.

Description

The user name and password of a user that has privileges to search an LDAP directory server or Active Directory server. This is not required for some LDAP directory servers.

For *LDAP authentication* or *third-party authentication*, type the distinguished name of a user, such as `cn=Bill Orange,cn=Users,dc=indigo-insurance,dc=com`.

For *Active Directory authentication*, type a user principal name such as `orange@indigo-insurance.com`.

Note – For security reasons, the password is not displayed, even if it has been previously set.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ LDAP Server ⇒ Username

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ LDAP Server ⇒ Password

Command Line

From the command line, use the `tarantella passcache new --ldap` command.

Command option: `tarantella passcache new --ldap --resuser` *resuser* `--respass` *respassr*

Usage: Replace *resuser* and *respass* with the user name and password.

The following example specifies a user name (`test1`) and password (`test2`) for searching an LDAP directory server.

```
tarantella passcache new --ldap --resuser test1 --respass test2
```

Client Certificates

Usage: Select or deselect the check box.

Description

Whether to use client certificates to authenticate the connection to an Active Directory server.

This enables you to use secure connections for the Active Directory server. Extra configuration is required for SSL connections. See the *Sun Secure Global Desktop Administration Guide* for more information about securing connections to LDAP directory servers.

This option is disabled by default.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Active Directory ⇒ Use Certificates

Command Line

Command option: `--login-ldap-pki-enabled 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables the use of client certificates to authenticate the connection to an Active Directory server.

```
--login-ldap-pki-enabled 1
```

Active Directory Base Domain

Usage: Type a domain name in the field.

Description

The domain that SGD uses for Active Directory authentication if users only supply a partial domain when they log in.

For example, if the base domain is set to `indigo-insurance.com` and a user logs in with the user name `rouge@west`, SGD tries to authenticate `rouge@west.indigo-insurance.com`.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Active Directory ⇒ Base Domain

Command Line

Command option: `--login-ad-base-domain` *dom*

Usage: Replace *dom* with the base domain name to use for Active Directory authentication.

In the following example, a base domain of indigo-insurance.com is specified.

```
--login-ad-base-domain indigo-insurance.com
```

Active Directory Default Domain

Usage: Type a domain name in the field.

Description

The domain that SGD uses for Active Directory authentication if users do not supply a domain when they log in.

For example, if the default domain is set to `east.indigo-insurance.com` and a user logs in with the user name `rouge`, SGD tries to authenticate `rouge@east.indigo-insurance.com`.

Array Manager: Secure Global Desktop Login Properties (Array-Wide) ⇒ Active Directory ⇒ Default Domain

Command Line

Command option: `--login-ad-default-domain` *dom*

Usage: Replace *dom* with the default domain name to use for Active Directory authentication.

In the following example, a base domain of west.indigo-insurance.com is specified.

```
--login-ad-default-domain west.indigo-insurance.com
```

Application Authentication Tab

Settings on the Application Authentication tab control the user experience when starting applications.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect immediately.

This tab contains the following sections:

- Authentication

  This section contains the following settings:

  - Password Cache Usage
  - Action When Password Expired
  - Smart Card Authentication
- Authentication Dialog

  This section contains the following settings:

  - Dialog Display
  - "Save Password" Box
  - "Always Use Smart Card" Box
- Launch Dialog

  This section contains the following settings:

  - Display Delay
  - "Launch Details" Pane

Password Cache Usage

Usage: Select or deselect the check box.

Description

Whether to try the password the user typed for the SGD server (if it is stored in the password cache) as the password for the application server.

SGD server passwords might be stored in the cache if some applications are configured to run on the SGD host, or if Password Cache is selected.

This setting can be overridden by a application server object's Password Cache Usage attribute.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Authentication ⇒ Try Secure Global Desktop Password if Cached

Command Line

Command option: `--launch-trycachedpassword 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example uses the SGD password stored in the password cache when authenticating to an application server.

```
--launch-trycachedpassword 1
```

Action When Password Expired

Usage: Select an option.

Description

The action to take if the user's password has expired on the application server.

The command line options and their Administration Console equivalents are shown in the following table.

Administration Console	Command Line	Description
Authentication Dialog	`dialog`	Show an SGD authentication dialog.
Aged Password Handler	`manual`	Show a terminal window, where the user can change their password.
Launch Failure	`none`	Take no further action. Treat as a startup failure.

Array Manager: Application Launch Properties (Array-Wide) ⇒ If Password Has Expired

Command Line

Command option: `--launch-expiredpassword manual | dialog | none`

Usage: Specify an option.

In the following example, the user can change their password using a terminal window.

```
--launch-expiredpassword manual
```

Smart Card Authentication

Usage: Select or deselect the check box.

Description

Enable users to log in with a smart card. Smart card authentication is only supported for applications running on a Microsoft Windows Server 2003 application server.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Authentication ⇒ Allow Smart Card Authentication

Command Line

Command option: `--launch-allowsmartcard 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables users to log in using a smart card.

```
--launch-allowsmartcard 1
```

Dialog Display

Usage: Select or deselect the check boxes.

Description

Controls when the application server's authentication dialog is displayed. The check boxes are inter-related, enabling you to select from three possible options.

The command line options and their Administration Console equivalents are shown in the following table.

Administration Console	Command Line	Description
On Shift-Click (selected) On Password Problem (selected)	user	Show the authentication dialog if the user holds down the Shift key when they click an application's link, or if there is a password problem.
On Shift-Click (deselected) On Password Problem (selected)	system	Only show the authentication dialog when there is a password problem.
On Shift-Click (deselected) On Password Problem (deselected)	`none`	Never show the authentication dialog.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Authentication Dialog

Command Line

Command option: `--launch-showauthdialog user | system | none`

Usage: Specify an option.

In the following example, the application server's authentication dialog is shown if you hold down the Shift key and click a link to start an application, or if there is a problem with the password.

```
--launch-showauthdialog user
```

"Save Password" Box

Usage: Select or deselect the check boxes.

Description

Two attributes that control the initial state of the Save Password check box in the application server authentication dialog and whether users can change it.

If users cannot change the setting, the Initially Checked setting determines whether users can save passwords in the application server password cache.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Save Password

Command Line

Command option: `--launch-savepassword-initial checked | cleared`

Command option: `--launch-savepassword-state enabled | disabled`

Usage: Specify a valid option.

In the following example, the initial state of the Save Password check box is *selected*. Users can change this setting.

```
--launch-savepassword-initial checked
--launch-savepassword-state enabled
```

“Always Use Smart Card” Box

Usage: Select or deselect the check boxes.

Description

Two attributes that control the initial state of the Always Use Smart Card check box in the application server authentication dialog box and whether users can change it.

If users cannot change the setting, the Initially Checked setting determines whether the user’s decision to always use smart card authentication is cached.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Always Use Smart Card

Command Line

Command option: `--launch-alwayssmartcard-initial checked|cleared`

Command option: `--launch-alwayssmartcard-state enabled|disabled`

Usage: Specify a valid option.

In the following example, the initial state of the Always Use Smart Card check box is *selected*. Users can change to this setting.

```
--launch-alwayssmartcard-initial checked
--launch-alwayssmartcard-state enabled
```

Display Delay

Usage: Enter a time period, measured in seconds, in the field.

Description

The delay in seconds before showing the Application Launch dialog to users.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Launch Dialog

Command Line

Command option: `--launch-showdialogafter` *secs*

Usage: Replace *secs* with the delay, measured in seconds.

In the following example, the Application Launch dialog is displayed after two seconds.

```
--launch-showdialogafter 2
```

"Launch Details" Pane

Usage: Select or deselect the check boxes.

Description

Attributes that control the initial display state of the Launch Details area of the Application Launch dialog, whether users can change it and whether to show the Launch Details area if an application startup fails.

If users cannot change the setting, the Showed by Default setting determines whether the users see the application launch details.

Array Manager: Application Launch Properties (Array-Wide) ⇒ Launch Details

Array Manager: Application Launch Properties (Array-Wide) ⇒ If Launch Fails

Command Line

Command option: `--launch-details-initial shown | hidden`

Command option: `--launch-details-state enabled | disabled`

Command option: `--launch-details-showonerror 1 | 0`

Usage: Specify a valid option.

In the following example, the initial state of the Launch Details area is *hidden*. Users can change this setting. The Launch Details area is shown if the application fails to start.

```
--launch-details-initial hidden
--launch-details-state enabled
--launch-details-showonerror 1
```

Communication Tab

Settings on the Communication tab control connections between the client device, the SGD server, and application servers. They also control the resumability behavior for application sessions.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

This tab contains the following sections:

- Ports

  This section contains the following settings:

  - Unencrypted Connections Port
  - Encrypted Connections Port
- Application Sessions

  This section contains the following settings:

  - AIP Keepalive Frequency
  - Timeout for User Session Resumability
  - Timeout for General Resumability
- Synchronization

  This section contains the Resource Synchronization Service setting.

Unencrypted Connections Port

Usage: Type a port number in the field.

Description

The Transmission Control Protocol (TCP) port number used for *unencrypted* connections between client devices and SGD servers.

Open this port in your firewall to enable connections from users who have standard connections. Standard connections are connections that do not use Secure Sockets Layer (SSL).

You must restart every SGD server in the array for changes to this attribute to take effect.

The default is TCP port 3144.

Array Manager: Array Properties (Array-Wide) ⇒ Port Numbers (Unencrypted Connections)

Command Line

Command option: `--array-port-unencrypted` *tcp-port*

Usage: Replace *tcp-port* with the port number to use for unencrypted connections.

In the following example, TCP port 3144 is used for unencrypted connections.

```
--array-port-unencrypted 3144
```

Encrypted Connections Port

Usage: Type a port number in the field.

Description

The TCP port number used for *encrypted* connections between client devices and SGD servers.

Open this port in your firewall to enable connections from users who have secure (SSL-based) connections to SGD.

You must restart every SGD server in the array for changes to this attribute to take effect.

The default is TCP port 5307.

Array Manager: Array Properties (Array-Wide) ⇒ Port Numbers (Encrypted Connections)

Command Line

Command option: `--array-port-encrypted` *tcp-port*

Usage: Replace *tcp-port* with the port number to use for encrypted connections.

In the following example, TCP port 5307 is used for encrypted connections.

```
--array-port-encrypted 5307
```

AIP Keepalive Frequency

Usage: Type a time period, measured in seconds, in the field.

Description

Determines how often a keepalive message is sent to client devices during application sessions. The default value is 100 seconds.

Some HTTP proxy servers close a connection if there is no activity on it. Using a keepalive ensures that a connection stays open.

Set this to `0` to disable keepalive messages.

This setting is also used keep open connections between the SGD Client and the SGD server for client drive mapping.

Changes to this attribute take effect immediately.

Array Manager: Emulator Session Properties (Array-Wide) ⇒ AIP Keepalive

Command Line

Command option: `--sessions-aipkeepalive` *secs*

Usage: Replace *secs* with the keepalive time period, measured in seconds.

In the following example, a keepalive message is sent to the client device every 100 seconds.

```
--sessions-aipkeepalive 100
```

Timeout for User Session Resumability

Usage: Type a timeout value, measured in minutes, in the field.

Description

For applications configured to be resumable during the user session, the length of time (in minutes) a suspended application session is guaranteed to be resumable if the connection to SGD is lost. Note that if the user logs out, the application sessions end. See the Application Resumability attribute.

After this period, the SGD server ends the session.

You can override this setting using the Application Resumability: Timeout attribute of an application.

Note – If an application is terminated because the SGD Client exits unexpectedly, the timeout is the timeout plus 20 minutes.

Changes to this attribute take effect immediately.

Array Manager: Emulator Session Properties (Array-Wide) ⇒ Resumability Timeout ⇒ Webtop Session

Command Line

Command option: `--sessions-timeout-session` *mins*

Usage: Replace *mins* with the timeout value, measured in minutes.

In the following example, the application session is resumable for 1440 minutes (24 hours).

```
--sessions-timeout-session 1440
```

Timeout for General Resumability

Usage: Type a timeout value, measured in minutes, in the field.

Description

For applications configured to be generally resumable, the length of time (in minutes) a suspended application session is guaranteed to be resumable after the user logs out or the connection to SGD is lost. See the Application Resumability attribute.

After this period the SGD server ends the session.

You can override this setting using the Application Resumability: Timeout attribute of an application.

Note – If an application is terminated because the SGD Client exits unexpectedly, the timeout is the timeout plus 20 minutes.

Changes to this attribute take effect immediately.

Array Manager: Emulator Session Properties (Array-Wide) ⇒ Resumability Timeout ⇒ Always

Command Line

Command option: `--sessions-timeout-always` *mins*

Usage: Replace *mins* with the timeout value, measured in minutes.

In the following example, the application session is resumable for 11500 minutes.

```
--sessions-timeout-always 11500
```

Resource Synchronization Service

Usage: Select or deselect the check box.

Description

Whether to enable replication of resources for the array.

If enabled, synchronization starts at a time determined by the Daily Resource Synchronization Time for each SGD server in the array.

Resource synchronization is enabled by default.

Changes to this attribute take effect immediately.

Array Manager: Array Properties (Array-Wide) ⇒ Enable Resource Synchronization

Command Line

Command option: `--array-resourcesync 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example disables resource synchronization for the array.

```
--array-resourcesync 0
```

Client Device Tab

Attributes on the Client Device tab are settings for the user's client device. This tab controls the use of client device features for applications displayed through SGD.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

This tab contains the following sections:

- Client Drive Mapping

  This section contains the following settings:

  - Client Drive Mapping
  - Windows Internet Naming Service (WINS)
  - Fallback Drive Search
- Audio

  This section contains the following settings:

  - Windows Audio
  - Unix Audio
- Other Features

  This section contains the following settings:

  - Smart Card
  - Serial Port Mapping
  - Copy and Paste
  - Client's Clipboard Security Level
  - Time Zone Map File
- Profile Editing

  This section contains the Editing setting.

Client Drive Mapping

Usage: Select or deselect the check box.

Description

Whether to enable client drive mapping (CDM) for the array.

To use client drive mapping, the Sun Secure Global Desktop Enhancement Module (SGD Enhancement Module) must be installed and running on the application server.

If you enable drive mapping, CDM services only become available when you restart all SGD servers in the array. To manually start CDM services without restarting the array, run the `tarantella start cdm` command on all SGD servers in the array.

If you disable drive mapping, the CDM processes only stop when you restart all SGD servers in the array. To manually stop CDM services without restarting the array, run the `tarantella stop cdm` command on all SGD servers in the array.

Changes to this attribute only take effect for new user sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Client Drive Mapping ⇒ Let Users Access Client Drives

Command Line

Command option: `--array-cdm 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables CDM for the array.

```
--array-cdm 1
```

Windows Internet Naming Service (WINS)

Usage: Select or deselect the check box.

Description

Whether to enable the Windows Internet Naming Service (WINS) to improve client drive access performance. Without WINS, performance can be limited by known problems with Microsoft Windows networking.

WINS services use User Datagram Protocol (UDP) port 137 on the SGD server.

Only enable WINS if either of the following is true:

- Your Microsoft Windows application servers are on the same subnet as an SGD server in the array
- Your Microsoft Windows application servers list an SGD server in the array as a WINS server

Changes to this attribute take effect on an SGD server the next time the server starts.

Array Manager: Array Properties (Array-Wide) ⇒ Client Drive Mapping ⇒ Use WINS for Better Performance

Command Line

Command option: `--array-cdm-wins 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example disables WINS services for the array.

```
--array-cdm-wins 0
```

Fallback Drive Search

Usage: Select a drive letter from the Start At list and select a Direction option.

Description

Used for client drives that cannot be mapped using the configured drive letter, because that drive letter is already in use. This attribute specifies the drive letter to start searching from and the direction to search. The first unused drive letter is used to map the client drive.

The Start At list is used to specify the drive letter to start searching from. The Direction option specifies whether the alphabetic search is done backwards or forwards.

Changes to this attribute take effect for new user sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Client Drive Mapping ⇒ Fallback Drive

Command Line

Command option: `--array-cdm-fallbackdrive` *letter-direction*

Usage: Replace *letter-direction* with a drive letter to start from and a search direction.

Allowed values are of the form `[a-zA-Z][+-]`. For example, `V-` to start at drive V and search alphabetically backwards, or `f+` to search forwards from drive F. Drive letters are case-insensitive.

The default setting when CDM is enabled is to start at drive V and search backwards.

The following example starts at drive T and searches backwards.

```
--array-cdm-fallbackdrive t-
```

Windows Audio

Usage: Select or deselect the check box.

Description

Whether to enable Windows audio services for the array.

Audio is only available for applications running on a Microsoft Windows 2003 application server. Audio redirection must also be enabled on the application server.

Changes to this attribute only take effect for new user sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Audio ⇒ Enable Windows Audio Service

Command Line

Command option: `--array-audio 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example disables Windows audio services for the array.

```
--array-audio 0
```

Windows Audio Sound Quality

Array Manager: Array Properties (Array-Wide) ⇒ Audio ⇒ Windows Audio Sound Quality

Usage: Select an option.

Description

The sample rate of the audio data.

Adjusting the audio quality increases or decreases the amount of audio data sent.

By default, SGD uses Medium Quality Audio.

The sample rates are as follows:

- **Low Quality Audio –** 8 kHz.
- **Medium Quality Audio –** 22.05 kHz.
- **High Quality Audio –** Same as Medium Quality Audio. This is a Terminal Services restriction.

Command Line

Command option: `--array-audio-quality low | medium | high`

Usage: Specify an audio quality setting.

The following example specifies medium quality audio for Windows audio services.

```
--array-audio-quality medium
```

Unix Audio

Usage: Select or deselect the check box.

Description

Whether to enable UNIX audio services for the array.

Unix audio is only available for X applications. The audio module of the SGD Enhancement Module must be installed and running on the application server.

Changes to this attribute only take effect for new user sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Audio ⇒ Enable UNIX Audio Service

Command Line

Command option: `--array-unixaudio 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example disables UNIX audio services for the array.

```
--array-unixaudio 0
```

Unix Audio Sound Quality

Usage: Select an option.

Description

The sample rate of the audio data.

Adjusting the audio quality increases or decreases the amount of audio data sent.

By default, SGD uses Medium Quality Audio.

The sample rates are as follows:

- **Low Quality Audio –** 8 kHz
- **Medium Quality Audio –** 22.05 kHz
- **High Quality Audio –** 44.1 kHz

Array Manager: Array Properties (Array-Wide) ⇒ Audio ⇒ UNIX Audio Sound Quality

Command Line

Command option: `--array-unixaudio-quality low | medium | high`

Usage: Specify an audio quality setting.

The following example specifies medium quality audio for UNIX audio services.

```
--array-unixaudio-quality medium
```

Smart Card

Usage: Select or deselect the check box.

Description

Whether to enable smart card services for the array.

Support for smart cards is only available for applications running on a Microsoft Windows Server 2003 application server.

Changes to this attribute only take effect for new user sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Smart Card ⇒ Enable Smart Card Services

Command Line

Command option: `--array-scard 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables smart card services for the array.

```
--array-scard 1
```

Serial Port Mapping

Usage: Select or deselect the check box.

Description

Whether to enable access to serial ports for the array.

By default, access to serial ports is enabled.

Access to serial ports for individual users can be enabled and disabled using the Serial Port Mapping attribute for organization, organizational unit or user profile objects.

Changes to this attribute only take effect for new user sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Serial Port ⇒ Enable Serial Port Mapping

Command Line

Command option: `--array-serialport 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables access to serial ports for the array.

```
--array-serialport 1
```

Copy and Paste

Usage: Select or deselect the check box.

Description

Whether to allow copy and paste operations for Windows and X application sessions for the array.

By default, copy and paste is allowed.

Copy and paste operations for individual users can be enabled and disabled using the Copy and Paste attribute for organization, organizational unit or user profile objects.

Changes to this attribute only take effect for new application sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Clipboard ⇒ Enable Copy and Paste

Command Line

Command option: `--array-clipboard-enabled 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables copy and paste for Windows and X application sessions.

```
--array-clipboard-enabled 1
```

Client's Clipboard Security Level

Usage: Type a number in the field.

Description

The security level for the SGD Client.

Used to control copy and paste operations between Windows or X application sessions and applications running on the client device.

The security level can be any positive integer. The higher the number, the higher the security level. The default security level is 3.

Changes to this attribute only take effect for new application sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Clipboard ⇒ Client Security Level

Command Line

Command option: `--array-clipboard-clientlevel` *num*

Usage: Replace *num* with a positive integer that specifies the security level.

The following example specifies a client clipboard security level of 3.

```
--array-clipboard-clientlevel 3
```

Time Zone Map File

Usage: Type the file name in the field.

Description

A file that contains mappings between UNIX client device and Windows application server time zone names.

Command Line

Command option: `--xpe-tzmapfile` *filename*

Usage: Replace *filename* with the path to the time zone map file.

In the following example, a time zone map file is specified.

```
--xpe-tzmapfile "%%INSTALLDIR%%/etc/data/timezonemap.txt"
```

Editing

Usage: Select or deselect the check box.

Description

Whether to allow users to edit their own profiles for use with the SGD Client.

By default, profile editing is enabled.

If profile editing is disabled, it is disabled for *all* users, including SGD Administrators. However, SGD Administrators can still create and edit profiles using the Profile Editor application.

Profile editing for individual users can be enabled and disabled using the Client Profile Editing attribute for organization, organizational unit or user profile objects.

Changes to this attribute only take effect for new user sessions.

Array Manager: Array Properties (Array-Wide) ⇒ Profile Editing ⇒ Enable User Profile Editing

Command Line

Command option: `--array-editprofile 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables user profile editing for the array.

```
--array-editprofile 1
```

Printing Tab

Attributes on the Printing tab control printing from Windows applications that use the Microsoft RDP Windows Protocol. The settings on this tab are default settings which can be overridden by the Client Printing: Override (`--userprintingconfig`) attribute for an organization, organizational unit or user profile object.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Client Printing

Usage: Select an option.

Description

Controls the client printers users can print to from Windows application.

By default, users can print to all their client printers.

If you select the No Printer option, you can still use an SGD PDF printer.

Changes to this attribute take effect for new user sessions.

If SGD is configured so you can only print to the client's default printer and you want to print to a different printer, log out of SGD. Then change the default printer and log in to SGD again.

Array Manager: Printing Properties (Array-Wide) ⇒ Printing

Command Line

Command option: `--printing-mapprinters 2 | 1 | 0`

Usage: Specify one of the following options:

- **2 –** Allow users to print to all client printers
- **1 –** Allow users to print to the client's default printer
- **0 –** No client printers available

The following example enables the user to print to all client printers from a Windows application.

```
--printing-mapprinters 2
```

Universal PDF Printer

Usage: Select or deselect the check box.

Description

Enables users to print from a Windows application using the SGD Universal PDF printer.

When a user prints to the Universal PDF printer, the print job is converted into a PDF file and is printed on the user's client device.

This is enabled by default.

Changes to this attribute take effect for new user sessions.

Array Manager: Printing Properties (Array-Wide) ⇒ PDF Printing ⇒ Let Users Print to a PDF Printer

Command Line

Command option: `--printing-pdfenabled 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables printing from Windows applications to the SGD Universal PDF printer.

```
--printing-pdfenabled 1
```

Make Universal PDF Printer the Default

Usage: Select or deselect the check box.

Description

Sets the SGD Universal PDF printer as the client's default printer when printing from a Windows application.

When a user prints to the Universal PDF printer, the print job is converted into a PDF file and is printed on the user's client device.

This attribute is only available if the Universal PDF printer is enabled.

By default, the Universal PDF printer is not the default printer.

Changes to this attribute take effect for new user sessions.

Array Manager: Printing Properties (Array-Wide) ⇒ PDF Printing ⇒ Make PDF Printer the Default for Windows 2000/3

Command Line

Command option: `--printing-pdfisdefault 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, the SGD Universal PDF printer is set to be the client's default printer.

```
--printing-pdfisdefault 1
```

Universal PDF Viewer

Usage: Select or deselect the check box.

Description

Enables users to print from a Windows application using the SGD Universal PDF Viewer printer.

When a user prints to the Universal PDF Viewer printer, the print job is converted into a PDF file and can be viewed, saved or printed on the user's client device.

This setting is enabled by default.

Changes to this attribute take effect for new user sessions.

Array Manager: Printing Properties (Array-Wide) ⇒ PDF Printing ⇒ Let Users Print to a PDF Local File

Command Line

Command option: `--printing-pdfviewerenabled 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables printing from Windows applications to the SGD Universal PDF Viewer printer.

```
--printing-pdfviewerenabled 1
```

Make Universal PDF Viewer the Default

Usage: Select or deselect the check box.

Description

Sets the SGD Universal PDF Viewer printer as the client's default printer when printing from a Windows application.

When a user prints to the Universal PDF Viewer printer, the print job is converted into a PDF file and can be viewed, saved or printed on the user's client device.

This attribute is only available if Universal PDF Viewer is enabled.

By default, the Universal PDF Viewer printer is not the default printer.

Changes to this attribute take effect for new user sessions.

Array Manager: Printing Properties (Array-Wide) ⇒ PDF Printing ⇒ Make PDF File Printer the Default for Windows 2000/3

Command Line

Command option: `--printing-pdfviewerisdefault 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, the SGD Universal PDF Viewer printer is set to be the client's default printer.

```
--printing-pdfviewerisdefault 0
```

Postscript Printer Driver

Usage: Type the printer driver name in the field.

Description

The name of the printer driver to use for SGD PDF printing. This printer driver must be installed on every Windows application server used with SGD.

The printer driver must be a PostScript printer driver.

The default is `HP Color LaserJet 8500 PS`.

The name of the printer driver must match the name of the printer driver installed on the Windows application server exactly. Pay particular attention to the use of capitals and spaces. The *install-dir*`/etc/data/default.printerinfo.txt` file contains all the common printer driver names, ordered by manufacturer. To avoid errors, copy and paste the driver name from this file.

Changes to this attribute take effect for new user sessions.

Array Manager: Printing Properties (Array-Wide) ⇒ PDF Printing ⇒ Driver Name

Command Line

Command option: `--printing-pdfdriver` *driver_name*

Usage: Replace *driver_name* with the PDF printer driver name.

In the following example, an HP Laserjet 4000 driver is used for PDF printing.

```
--printing-pdfdriver "HP Laserjet 4000 Series PS"
```

Performance Tab

Attributes on the Performance tab are used to specify the following load balancing settings:

- The method for selecting the SGD server used to host the application session
- The method for selecting the application server used to host the application

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect immediately.

Application Session Load Balancing

Usage: Choose an option.

Description

The algorithm used at application start time to choose the SGD server in the array that hosts the application session. In other words, the method used to choose where to run the Protocol Engine when a user starts an application.

Select the Server Hosting the User Session option to choose the SGD server in the array that is hosting the user session.

Array Manager: Load Balancing Properties (Array-Wide) ⇒ Emulator Sessions ⇒ Use Array Member With

Command Line

Command option: `--sessions-loadbalancing-algorithm` *algorithm*

Usage: Replace *algorithm* with the load balancing algorithm to use for application sessions.

The following algorithms are available:

- **Server Hosting the User Session –** `.../_beans/com.sco.tta.server.loadbalancing.tier2.LocalLoadBalancingPolicy`
- **Least CPU Load –** `.../_beans/com.sco.tta.server.loadbalancing.tier2.CpuLoadBalancingPolicy`
- **Fewest Application Sessions –** `.../_beans/com.sco.tta.server.loadbalancing.tier2.SessionLoadBalancingPolicy`

The following example specifies that the SGD server hosting the user session is used to host the application session.

```
--sessions-loadbalancing-algorithm \
.../_beans/com.sco.tta.server.loadbalancing.tier2.LocalLoadBalancingPolicy
```

Application Load Balancing

Usage: Select an option.

Description

The default algorithm SGD uses to choose the best application server to run the application. The server is selected from those defined on the application object's Hosting Application Servers tab.

This attribute is only used if the value of the application object's Application Load Balancing attribute is not set to Override Global Setting.

Select one of the following settings:

- **Most Free Memory.** Choose the application server with the most free memory.
- **Least CPU Load.** Choose the application server with the most CPU idle time.
- **Fewest Applications.** Choose the application server that is running the fewest application sessions through SGD. This is the default setting.

Note – To use the Most Free Memory and Least CPU Load algorithms, you must install the SGD Enhancement Module on the application server.

Array Manager: Load Balancing Properties (Array-Wide) ⇒ Applications ⇒ Use Application Server With

Command Line

Command option: `--launch-loadbalancing-algorithm cpu | memory | sessions`

Usage: Specify a valid option.

In the following example, the application server with the fewest application sessions is used to run the application.

```
--launch-loadbalancing-algorithm sessions
```

Security Tab

Attributes on the Security tab are global security settings which apply to all SGD servers in the array.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

New Password Encryption Key

Usage: Select or deselect the check box.

Description

Whether to generate a new encryption key for the password cache when an SGD server is restarted.

If a new encryption key is generated, the existing password cache is preserved and encrypted with the new key.

Array Manager: Security Properties (Array-Wide) ⇒ Password Cache ⇒ Generate New Encryption Key on Restart

Command Line

Command option: `--security-newkeyonrestart 1 | 0`

Usage: Specify `1` (true) or `0` (false).

In the following example, a new encryption key for the password cache is not generated when an SGD server is restarted.

```
--security-newkeyonrestart 0
```

Timeout for Print Name Mapping

Usage: Type a timeout value, measured in seconds, in the field.

Description

The period of time an entry in the print name mapping table is retained. This table is used to ensure that users can print from an application and then exit the application, without losing the print job.

The timer starts counting when the user closes the last application on the application server.

Set the timeout value to be greater than the maximum delay between choosing to print from an application and the printer responding.

If you change this value, all existing expiry timeouts are reset. Changes take effect immediately.

To flush the table, type in 0 and click Apply. You can then set the timeout to the required value.

To display the table, use the `tarantella print status --namemapping` command.

Array Manager: Security Properties (Array-Wide) ⇒ Print Name Mapping ⇒ Expire After

Command Line

Command option: `--security-printmappings-timeout` *seconds*

Usage: Replace *seconds* with the timeout value, measured in seconds.

In the following example, the print name mapping table is retained for 1800 seconds (30 minutes).

```
--security-printmappings-timeout 1800
```

Connection Definitions

Usage: Select or deselect the check box.

Description

Whether to take note of the Connections attribute when a user logs in to SGD.

Select the check box (or set the command line option to 1) if you are using the Connections attribute for user profile, organizational unit or organization objects.

Deselect the check box if SGD security services are not enabled.

If SGD security services are enabled, connections are secure unless the check box is selected *and* some connections are defined otherwise.

Deselecting the check box enables users to log in more quickly.

Changes to this attribute take effect immediately.

Array Manager: Security Properties (Array-Wide) ⇒ Connection Types ⇒ Apply When Users Log In

Command Line

Command option: `--security-applyconnections 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example disables checking of connections for SGD log ins.

```
--security-applyconnections 0
```

X Authorization for X Display

Usage: Select or deselect the check box.

Description

Whether to secure all SGD X displays using X authorization. This prevents users from accessing X displays they are not authorized to access.

X authorization is enabled by default.

To use X authorization, `xauth` must be installed on the application server.

If X authorization is enabled, SGD checks the standard locations for the `xauth` binary. Extra configuration might be needed if the binary is in a nonstandard location.

Changes to this attribute take effect immediately.

Note – This setting only secures the X display between the SGD server and the application server.

Array Manager: Security Properties (Array-Wide) ⇒ X Displays ⇒ Use X Authorization (xauth)

Command Line

Command option: `--security-xsecurity 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables X authorization.

```
--security-xsecurity 1
```

Monitoring Tab

Settings on the Monitoring tab are used to configure system message log filters and enable billing services.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Log Filter

Usage: Type log filter definitions in the field. Press the Return key to add new entries.

Description

This attribute specifies which diagnostic messages are logged and a destination file or handler for log messages.

The attribute contains multiple values, each of the form:

component/*subcomponent*/*severity*:*destination*

Use the wildcard (`*`) to match multiple components, subcomponents and severities.

Valid destinations are a file name or the name of a plug-in log handler.

File names can include the placeholder `%%PID%%`, which is substituted with a process ID.

Changes to this attribute take effect immediately.

The *Sun Secure Global Desktop Administration Guide* includes details of the available log filters and how to set them.

Array Manager: Array Properties (Array-Wide) ⇒ Log Filter

Command Line

Command option: `--array-logfilter` *filter...*

Usage: Replace *filter...* with a list of log filter definitions. Separate each *filter* definition with a space. Quote any filters that contain wildcards (`*`), to stop your shell from expanding them.

The following example specifies a log filter that stores all warnings and error messages for the SGD server to a `.log` file.

```
--array-logfilter */*/*error:jserver%%PID%%_error.log
```

Billing Service

Usage: Select or deselect the check box.

Description

Whether to enable billing services for the array.

This might use significant additional disk space on SGD servers in the array.

If enabled, you can use `tarantella query billing` to analyze the billing logs.

You must restart an SGD server for billing services to start.

Array Manager: Array Properties (Array-Wide) ⇒ Enable Billing Services

Command Line

Command option: `--array-billingservices 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example disables billing services for the array.

```
--array-billingservices 0
```

Licenses Tab

The Licenses tab consists of two sections as follows:

- The New License Key field enables you to add new SGD license keys
- The Licenses table shows a summary of license status for the array

New License Key

Usage: Type a license key in the field.

Description

To add a license key, type or paste the key into the empty field. Click the Add button to validate and activate the key.

As you add license keys, SGD updates the information in the Licenses table.

If an invalid license key is entered, a validation error message is displayed.

Array Manager: Licenses Properties (Array-Wide) ⇒ License Keys

Licenses Table

The Licenses table shows the number of user licenses and application licenses for the SGD array. The current usage of licenses is also shown.

The number of license keys is indicated in brackets at the top of the table.

Array Manager: Licenses Properties (Array-Wide) ⇒ License Summary

The Licenses table includes the following columns:

- Key
- User
- Application
- Load Management

Key

Lists the installed license keys for the SGD array.

To remove a license key, click the Delete link in the Licenses table.

As you remove license keys, SGD updates the information in the Licenses table.

If you remove all the license keys, SGD reverts to evaluation mode or expired evaluation mode, depending on how recently you installed the software.

You cannot log in to an SGD server when it is in expired evaluation mode.

To license a server when it is in expired evaluation mode, you must either add a valid license key (using `tarantella license add`) or join the server to an array that is already fully licensed.

User

Shows the number of user licenses for each license key.

Subcolumns in the User column indicate the number of standard and secure user licenses.

The current number of user licenses being used is shown in the Current Use row of the table.

A user license is used when a user logs in and freed when the user logs out.

Application

Shows the number of application licenses for each license key.

Subcolumns in the Application column indicate the number of licenses for each application type (Windows, Unix, AS/400 and Mainframe).

The current number of application licenses being used is shown in the Current Use row of the table.

An application license is used when a user starts the first application of one of the application types. The application license is freed when the last application of the same type terminates. A second application of the same type started by the same user does not use an additional license. Suspended applications use licenses.

Load Management

Indicates whether load management is active for each license key.

Command Line

From the command line, use the `tarantella license` commands to add and remove license keys and to show license status and license usage information. See "The `tarantella license` command" on page 240.

CHAPTER 2

Secure Global Desktop Server Settings

Secure Global Desktop servers are machines running the SGD software. By adding at least one other server you create an array. An array can distribute load between its servers and therefore increase reliability. One server in the array is the *primary server*, which is responsible for replicating configuration data. Other servers in the array are called *secondary servers*.

Use the Secure Global Desktop Server Settings tab to set up an SGD server array, or to configure settings for a particular SGD server.

This chapter includes the following topics:

Secure Global Desktop Servers Tab

The Secure Global Desktop Servers tab gives you an overview of the current status of each SGD server in the array, including how many user and application sessions each server is hosting.

SGD server information is shown in the Secure Global Desktop Server List table.

If you click the name of a server in the Secure Global Desktop Server List table a series of tabs are displayed. The tabs are used to view and change the configuration for the server.

The following tabs are shown:

- General Tab
- Security Tab
- Performance Tab
- Protocol Engines Tab
- User Sessions Tab
- Application Sessions Tab

The Secure Global Desktop Server List Table

The number of SGD servers in the array is indicated in brackets at the top of the table.

The Add Server button adds an SGD server to the array. The SGD server is added as a secondary server.

If you select a secondary server in the table, the Make Primary button makes the selected server the primary server in the SGD array.

The Remove Server button removes the selected SGD server from the array. The selected SGD server must be a secondary server.

You update the Secure Global Desktop Server List table by clicking the Reload button.

The Secure Global Desktop Server List table includes the following information for each SGD server in the array:

- **Server**. Domain Name System (DNS) name of the SGD server.
- **Type.** Whether the server is a primary or secondary server.

- **Status.** Server status, for example, whether the server is running.
- **Start Time.** When the server was last started.
- **Accepting Connections**. Whether the server is accepting standard connections, secure connections or both types of connection. Secure connections use the Secure Sockets Layer (SSL) to encrypt data. Standard connections do not encrypt data.
- **User Sessions.** The current number of user sessions on this server. The numbers of user sessions using standard and secure connections are shown.
- **Application Sessions.** The current number of application sessions on this server, including those which are currently suspended. The numbers of graphical application sessions and terminal-based application sessions are shown.

Command Line

From the command line, use the `tarantella array` commands to add servers to the SGD array, remove servers from the SGD array, make a secondary server the primary server, or view information about the SGD array. See "The `tarantella array` command" on page 224.

General Tab

Attributes on the General tab are general settings for a particular SGD server.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect immediately.

External DNS Names

Usage: Type the external DNS names of this server in the field. Press the Return key after each name definition.

Description

The external DNS names of this server.

This setting enables you to use different names, depending on the IP address of the client.

Only change this setting if this server is known by different names on the network, for example, inside and outside a firewall.

Each name has the following format:

IP-pattern:*DNS name*

IP-pattern is a regular expression, or a subnet mask, matching a client IP address. For example, `192.168.10.*`, or `192.168.10.0/24`.

If this server only has one name, use one line matching all clients. For example, `*:www.indigo-insurance.com`.

The order of the names is important. The DNS name for the *first* matching IP pattern is used.

Note – You must restart the SGD server for a change to this setting to take effect.

Array Manager: General Properties (Server-Specific) ⇒ DNS Name

Command Line

Command option: `--server-dns-external` *IP-pattern:dns-name*

Usage: Replace *IP-pattern* with a regular expression for the client IP addresses. Replace *dns-name* with the external DNS name of the server. Use a comma to separate multiple DNS names.

In the following example, a DNS name of boston.indigo-insurance.com is used for clients with an IP address in the 192.168.10.* range. All other clients use a DNS name of www.indigo-insurance.com.

```
--server-dns-external "192.168.10.*:boston.indigo-insurance.com, \
*:www.indigo-insurance.com"
```

User Login

Usage: Select or deselect the check box.

Description

Whether to allow users to log in to this SGD server.

To “decommission” an SGD server, deselect the check box. No users can log in and no new application sessions can start. Users currently logged in to this server, or with application sessions hosted on this server, are not affected. Users can log in to another SGD server in the array and resume application sessions hosted on this server.

Users are redirected to the web page defined by the Redirection URL attribute. Typically, you set this to another SGD server in the array.

Array Manager: General Properties (Server-Specific) ⇒ Secure Global Desktop Login

Command Line

Command option: `--server-login enabled | disabled`

Usage: Specify `enabled` or `disabled`.

In the following example, user logins are disabled for the SGD host.

```
--server-login disabled
```

Redirection URL

Usage: Type a redirection URL in the field.

Description

If the SGD server does not allow users to log in, client devices are redirected to this URL.

If the attribute is not set, client devices are redirected to a page telling users that they cannot log in.

Array Manager: General Properties (Server-Specific) ⇒ Redirection URL

Command Line

Command option: `--server-redirectionurl` *url*

Usage: Replace *url* with the address of a web page to redirect to.

The following example specifies a redirection URL of `www.indigo-insurance.com`.

```
--server-redirectionurl "www.indigo-insurance.com"
```

Security Tab

Attributes on the Security tab are security settings for a particular SGD server in the array.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect immediately.

Connection Types

Usage: Select the check box for each connection type you want to make available to users.

Description

The possible connection types available to users.

Secure connections use SSL to encrypt transmissions.

For standard connections, transmissions are not encrypted.

Array Manager: Security Properties (Server-Specific) ⇒ Connection Types

Command Line

Command option: `--security-connectiontypes` *types*

Usage: Specify the connection types to use.

Valid settings are `std` (standard connections only), `ssl` (secure connections only), or `std,ssl` (both standard and secure connections).

The following example specifies standard connections only.

```
--security-connectiontypes std
```

SSL Accelerator Support

Usage: Select or deselect the check box.

Description

Select the check box to enable support for an external SSL accelerator.

Selecting this check box enables the SGD SSL daemon to accept plain text traffic and pass it on to the SGD server as if it was SSL traffic it had decoded.

Array Manager: Security Properties (Server-Specific) ⇒ SSL Accelerator Support

Command Line

Command option: `--security-acceptplaintext 1 | 0`

Usage: Specify `1` (true) or `0` (false).

The following example enables SSL accelerator support.

```
--security-acceptplaintext 1
```

Firewall Forwarding URL

Usage: Type a URL in the field.

Description

The absolute URL to forward all web server traffic not related to SGD.

Use this feature if you plan to run SGD on the same port as your web server, so that you do not have to open any additional ports in your firewall.

Array Manager: Security Properties (Server-Specific) ⇒ Firewall Forwarding URL

Command Line

Command option: `--security-firewallurl` *server-url*

Usage: Replace *server-url* with a firewall forwarding URL.

The following example specifies a URL to forward all non-SGD web traffic to.

```
--security-firewallurl https://127.0.0.1:443
```

Performance Tab

Use attributes on the Performance tab to tune the SGD server.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Maximum Simultaneous Requests

Usage: Type a number in the field.

Description

The maximum number of requests the server processes simultaneously.

As a rough guide, set this to the number of central processing units (CPUs) multiplied by 4.

Too high a setting might degrade performance.

Changes to this attribute take effect immediately.

Array Manager: Tuning Properties (Server-Specific) ⇒ Processing Limits ⇒ Maximum Simultaneous Requests

Command Line

Command option: `--tuning-maxrequests` *num*

Usage: Replace *num* with the maximum number of simultaneous requests.

The following example sets the maximum number of simultaneous requests to 7.

```
--tuning-maxrequests 7
```

Maximum Simultaneous User Sessions

Usage: Type a number in the field.

Description

The maximum number of simultaneous user sessions (connections between SGD Clients and the SGD server).

Once the limit is reached, connections are refused.

Too high a setting might degrade performance.

Changes to this attribute take effect immediately.

Array Manager: Tuning Properties (Server-Specific) ⇒ Processing Limits ⇒ Maximum Simultaneous Webtop Connections

Command Line

Command option: `--tuning-maxconnections` *num*

Usage: Replace *num* with the maximum number of simultaneous user sessions.

The following example sets the maximum number of simultaneous user sessions to 1000.

```
--tuning-maxconnections 1000
```

Maximum File Descriptors

Usage: Type a number in the field.

Description

The maximum number of open file descriptors allowed.

Increasing this value increases the number of simultaneous connections that can be handled.

This value affects all SGD server components.

Too high a setting might degrade performance.

Changes to this attribute take effect when the server restarts.

Array Manager: Tuning Properties (Server-Specific) ⇒ File Descriptors

Command Line

Command option: `--tuning-maxfiledescriptors` *num*

Usage: Replace *num* with the maximum number of open file descriptors.

The following example sets the maximum number of open file descriptors to 4096.

```
--tuning-maxfiledescriptors 4096
```

JVM Size

Usage: Type numbers in the fields.

Description

These attributes control the size and expansion rate of the memory allocated to the SGD server's Java™ Platform, Standard Edition Runtime Environment (JRE). The following attributes are available:

- The amount of memory, in megabytes, to allocate initially for the SGD server's Java Virtual Machine (JVM). Set this to no greater than the amount of random access memory (RAM) on the host.
- A scaling factor (expressed as a percentage), used to increase the amount of JVM memory dynamically when needed.
- An absolute maximum size in megabytes, that is never exceeded.

Too high a setting might degrade performance.

Changes to this attribute take effect when the server or JVM restarts.

Array Manager: Tuning Properties (Server-Specific) ⇒ Server JVM Size

Command Line

Command option: `--tuning-jvm-initial` *MB*

Usage: Replace *MB* with the initial memory allocation for the JVM, in megabytes.

Command option: `--tuning-jvm-scale` *percent*

Usage: Replace *percentage* with a dynamic scaling factor, expressed as a percentage.

Command option: `--tuning-jvm-max` *MB*

Usage: Replace *MB* with the maximum memory allocation for the JVM, in megabytes.

The following examples set the initial JVM size to 58 megabytes. The amount of JVM memory can be scaled up to 150% when needed. The maximum JVM size is set to 512 megabytes.

```
--tuning-jvm-initial 58
--tuning-jvm-scale 150
--tuning-jvm-max 512
```

Daily Resource Synchronization Time

Usage: Type a number in the field.

Description

When to start resource synchronization each day, if enabled for the array.

Use the server's local time zone.

Express the time in 24-hour clock format. For example, use 16:00 for 4 p.m.

Changes to this attribute take effect immediately.

Array Manager: Tuning Properties (Server-Specific) ⇒ Resource Synchronization

Command Line

Command option: `--tuning-resourcesync-time` *hh:mm*

Usage: Replace *hh:mm* with the time, in 24-hour clock format.

The following example sets the resource synchronization time to 4:00 (4 a.m.)

```
--tuning-resourcesync-time 4:00
```

Load Balancing Groups

Usage: Type the load balancing groups for this SGD server in the field.

Description

This attribute is a string identifying the load balancing group for an SGD server in an array. This information can be used for application load balancing.

This setting is used to enable optimal bandwidth usage. SGD servers are chosen from the same load balancing groups as application servers, where possible.

Leave this attribute blank unless your array spans a wide area network (WAN), or includes slow links, and you are using load balancing.

More than one string is allowed, but this slows application launch.

If used, set this attribute on all SGD servers in the array, and all application server objects in the organizational hierarchy.

Array Manager: General Properties (Server-Specific) ⇒ Location

Command Line

Command option: `--server-location` *location*

Usage: Replace *location* with a string identifying the load balancing group for the SGD server in the array.

The following example specifies a location of boston.

```
--server-location boston
```

Protocol Engines Tab

The Protocol Engines tab contains several tabs where you can change settings for the Protocol Engines running on the SGD server.

A Protocol Engine is an SGD software component that runs on an SGD server. Protocol Engines emulate native protocols, such as X11 and RDP, and communicate with application servers. Protocol Engines also send display data to the client device using Adaptive Internet Protocol (AIP).

You can change settings for the following Protocol Engines:

- Character
- X
- Execution

- Channel
- Print
- Audio
- Smart Card

Character Protocol Engine Tab

Use the attributes on the Character Protocol Engine tab to tune terminal emulator processes.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect for new Protocol Engines only. Existing Protocol Engines are not affected.

Maximum Sessions

Usage: Type a number in the field.

Description

The maximum number of application sessions each Character Protocol Engine handles.

More Character Protocol Engines are started to meet demand.

Array Manager: Character Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Maximum Sessions per Engine

Command Line

Command option: `--cpe-maxsessions` *num*

Usage: Replace *num* with the maximum number of application sessions.

The following example specifies a maximum application sessions setting of 20 for each Character Protocol Engine.

```
--cpe-maxsessions 20
```

Exit Timeout

Usage: Type a number in the field.

Description

The length of time, in seconds, a Character Protocol Engine process continues to run without any active connections.

Array Manager: Character Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Exit After

Command Line

Command option: `--cpe-exitafter` *secs*

Usage: Replace *num* with the time period, measured in seconds.

In the following example, the Protocol Engine exits after 60 seconds if there are no active connections.

```
--cpe-exitafter 60
```

Command-Line Arguments

Usage: Type command-line arguments in the field.

Description

Any arguments to the Protocol Engine. For example, the name of a log file.

Only change this setting if Technical Support ask you to.

Array Manager: Character Protocol Engine Properties (Server-Specific) ⇒ Command-Line Arguments

Command Line

Command option: `--cpe-args` *args*

Usage: Replace *args* with the arguments to pass to the Protocol Engine.

The following example specifies an error log file for the Protocol Engine.

```
--cpe-args cpeerror.log
```

X Protocol Engine Tab

Use attributes on the X Protocol Engine tab to tune graphical emulator processes.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect for new Protocol Engines only. Existing Protocol Engines are not affected.

Monitor Resolution

Usage: Type a number in the field.

Description

The default monitor resolution (in dots per inch) to assume.

You can override this value using an application's Monitor Resolution attribute.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Monitor Resolution

Command Line

Command option: `--xpe-monitorresolution` *dpi*

Usage: Replace *dpi* with the monitor resolution, in dots per inch.

The following example specifies a monitor resolution of 96 dots per inch.

```
--xpe-monitorresolution 96
```

Font Path

Usage: Type path names for the fonts directories in the field.

Description

Directories on the SGD host containing the fonts used by the X Protocol Engine.

Font paths are listed in search order.

Use %%INSTALLDIR%% to represent the SGD installation directory.

You can include font servers, for example, `tcp/boston:7000`.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Font Path

Command Line

Command option: `--xpe-fontpath` *fontpath*

Usage: Replace *fontpath* with a list of font directories. Separate each directory in the font path with a comma ",".

The following example specifies a list of font directories used by the X Protocol Engine.

```
--xpe-fontpath %%INSTALLDIR%%/etc/fonts/misc,\
%%INSTALLDIR%%/etc/fonts/TTF,%%INSTALLDIR%%/etc/fonts/Type1
```

RGB Database

Usage: Type the path name of the RGB database file in the field.

Description

Full path name on the SGD host of the RGB database used by the X Protocol Engine to resolve color names to RGB values.

Use %%INSTALLDIR%% to represent the SGD installation directory.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ RGB Database

Command Line

Command option: `--xpe-rgbdatabase` *file*

Usage: Replace *file* with the full path name of the RGB database file.

The following example specifies the RGB database used by the X Protocol Engine.

```
--xpe-rgbdatabase %%INSTALLDIR%%/etc/data/rgb.txt
```

Keyboard Map

Usage: Select the required keyboard map option. For custom keyboard maps, type a file name in the field.

Description

The default keyboard map to use for graphical applications.

To specify a keyboard map based on a locale, do one of the following:

- Select LANG Variable to use the locale of the SGD server
- Select Client's Input Locale to use the locale of the client device

The actual keyboard map used is determined using the *install-dir*`/etc/data/keymaps/xlocales.txt` file.

Note – You can use the * and ? wildcards in the `xlocales.txt` file to support a wide range of input locales. See the `xlocales.txt` file for details.

Alternatively, you can type a filename to always use a particular keyboard map.

You can override this for each user with the user profile object's Keyboard Map attribute.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Keyboard Map

Command Line

Command option: `--xpe-keymap lang | client-locale |` *file*

Usage: Specify a valid setting. For custom keyboard maps, replace *file* with the full path name of the keyboard map file.

In the following example, a keyboard map based on the locale of the client device is used.

```
--xpe-keymap client-locale
```

Client Window Size

Usage: Type numbers for horizontal and vertical display sizes, in pixels, in the fields.

Description

The maximum expected horizontal and vertical display resolution for client devices connecting to this server.

Use these attributes to tune the Client Window Management value of the Window Type attribute.

These attributes only apply for applications with Window Type set to Client Window Management. Use them to avoid clipping problems.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Client Window Management

Command Line

Command option: `--xpe-cwm-maxwidth` *pixels*

Command option: `--xpe-cwm-maxheight` *pixels*

Usage: Replace *pixels* with a value for maximum display width or maximum display height.

The following example specifies a maximum display size of 1280 x 960 pixels.

```
--xpe-cwm-maxwidth 1280
--xpe-cwm-maxheight 960
```

Session Start Timeout

Usage: Type a number in the field.

Description

How long the X Protocol Engine waits for X applications to connect, in seconds.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Session Start Timeout

Command Line

Command option: `--xpe-sessionstarttimeout` *seconds*

Usage: Replace *seconds* with a timeout value, in seconds.

The following example specifies a timeout value of 60 seconds when starting an X session.

```
--xpe-sessionstarttimeout 60
```

Maximum Sessions

Usage: Type a number in the field.

Description

The maximum number of application sessions each X Protocol Engine handles.

More X Protocol Engines are started to meet demand.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Maximum Sessions per Engine

Command Line

Command option: `--xpe-maxsessions` *num*

Usage: Replace *num* with the maximum number of application sessions.

The following example specifies a maximum sessions setting of 20 for each X Protocol Engine.

```
--xpe-maxsessions 20
```

Exit Timeout

Usage: Type a number in the field.

Description

The length of time, in seconds, an X Protocol Engine process continues to run without any active connections.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Exit After

Command Line

Command option: `--xpe-exitafter` *secs*

Usage: Replace *num* with the time period, measured in seconds.

In the following example, the Protocol Engine exits after 60 seconds if there are no active connections.

```
--xpe-exitafter 60
```

Command-Line Arguments

Usage: Type command-line arguments in the field.

Description

Any arguments to the Protocol Engine. For example, the name of a log file.

Only change this setting if Technical Support ask you to.

Array Manager: X Protocol Engine Properties (Server-Specific) ⇒ Command-Line Arguments

Command Line

Command option: `--xpe-args` *args*

Usage: Replace *args* with the arguments to pass to the Protocol Engine.

The following example specifies an error log file for the Protocol Engine.

```
--xpe-args xpeerror.log
```

Execution Protocol Engine Tab

Use the attributes on the Execution Protocol Engine tab to tune application startup processes.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect for new Protocol Engines only. Existing Protocol Engines are not affected.

Maximum Sessions

Usage: Type a number in the field.

Description

The maximum number of application sessions each Execution Protocol Engine handles.

More Execution Protocol Engines are started to meet demand.

Array Manager: Execution Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Maximum Sessions per Engine

Command Line

Command option: `--execpe-maxsessions` *num*

Usage: Replace *num* with the maximum number of application sessions.

The following example specifies a maximum sessions setting of 10 for each Execution Protocol Engine.

```
--execpe-maxsessions 10
```

Exit Timeout

Usage: Type a number in the field.

Description

The length of time, in seconds, an Execution Protocol Engine process continues to run without any active connections.

Array Manager: Execution Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Exit After

Command Line

Command option: `--execpe-exitafter` *secs*

Usage: Replace *secs* with the time period, measured in seconds.

In the following example, the Protocol Engine exits after 60 seconds if there are no active connections.

```
--execpe-exitafter 60
```

Login Script Directory

Usage: Type a directory path name in the field.

Description

The directory on the SGD host where login scripts are stored.

Use %%INSTALLDIR%% to represent the SGD installation directory.

If an application object's Login Script attribute uses a relative path name, for example `unix.exp`, this directory is assumed.

Only change this setting if Technical Support ask you to.

Array Manager: Execution Protocol Engine Properties (Server-Specific) ⇒ Login Script Directory

Command Line

Command option: `--execpe-scriptdir` *dir*

Usage: Replace *dir* with the path name for the login script directory.

In the following example, the login script directory for a default SGD installation is `/opt/tarantella/var/serverresources/expect`.

```
--execpe-scriptdir %%INSTALLDIR%%/var/serverresources/expect
```

Command-Line Arguments

Usage: Type command-line arguments in the field.

Description

Any arguments to the Protocol Engine. For example, the name of a log file.

Only change this setting if Technical Support ask you to.

Array Manager: Execution Protocol Engine Properties (Server-Specific) ⇒ Command-Line Arguments

Command Line

Command option: `--execpe-args` *args*

Usage: Replace *args* with the arguments to pass to the Protocol Engine.

The following example specifies an error log file for the Protocol Engine.

```
--execpe-args execpeerror.log
```

Channel Protocol Engine Tab

Use the attributes on the Channel Protocol Engine tab to tune SGD channel processes. The SGD channel is used to detect information about the client. For example, to detect client drives or audio devices.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect for new Protocol Engines only. Existing Protocol Engines are not affected.

Packet Compression

Usage: Choose a compression setting option.

Description

Whether a Channel Protocol Engine uses data compression on a client connection.

Select On Slow Connection to enable the Channel Protocol Engine to compress data if the connection is slow.

Array Manager: Channel Protocol Engine Properties (Server-Specific) ⇒ Compression

Command Line

Command option: `--chpe-compression auto | always | never`

Usage: Specify a valid compression setting.

The following example enables data compression for slow client connections only.

```
--chpe-compression auto
```

Packet Compression Threshold

Usage: Type a compression threshold value, measured in bytes, in the field.

Description

The smallest size of network packet that a Channel Protocol Engine can compress.

Array Manager: Channel Protocol Engine Properties (Server-Specific) ⇒ Threshold

Command Line

Command option: `--chpe-compressionthreshold` *bytes*

Usage: Replace *bytes* with a compression threshold setting, in bytes.

In the following example, a minimum packet size of 256 bytes is specified. Network packets smaller than this value are not compressed.

```
--chpe-compressionthreshold 256
```

Exit Timeout

Usage: Type a number in the field.

Description

The length of time, in seconds, a Channel Protocol Engine process continues to run without any active connections.

Array Manager: Channel Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Exit After

Command Line

Command option: `--chpe-exitafter` *secs*

Usage: Replace *secs* with the time period, measured in seconds.

In the following example, the Protocol Engine exits after 60 seconds if there are no active connections.

```
--chpe-exitafter 60
```

Print Protocol Engine Tab

Use the attributes on the Print Protocol Engine tab to tune SGD printing processes.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect for new Protocol Engines only. Existing Protocol Engines are not affected.

Packet Compression

Usage: Choose a compression setting option.

Description

Whether a Print Protocol Engine uses data compression on a client connection.

Select On Slow Connection to enable the Print Protocol Engine to compress data if the connection is slow.

Array Manager: Print Protocol Engine Properties (Server-Specific) ⇒ Compression

Command Line

Command option: `--ppe-compression auto | always | never`

Usage: Specify a valid compression setting.

The following example enables data compression for slow client connections.

```
--ppe-compression auto
```

Packet Compression Threshold

Usage: Type a compression threshold value, measured in bytes, in the field.

Description

The smallest size of file that a Print Protocol Engine can compress.

Array Manager: Print Protocol Engine Properties (Server-Specific) ⇒ Threshold

Command Line

Command option: `--ppe-compressionthreshold` *bytes*

Usage: Replace *bytes* with a compression threshold setting, in bytes.

In the following example, a minimum file size of 4096 bytes is specified. Print files smaller than this value are not compressed.

```
--ppe-compression 4096
```

Exit Timeout

Usage: Type a number in the field.

Description

The length of time, in seconds, a Print Protocol Engine process continues to run without any active connections.

Array Manager: Print Protocol Engine Properties (Server-Specific) ⇒ Process Tuning ⇒ Exit After

Command Line

Command option: `--ppe-exitafter` *secs*

Usage: Replace *secs* with the time period, measured in seconds.

In the following example, the Protocol Engine exits after 240 seconds if there are no active connections.

```
--ppe-exitafter 240
```

Audio Protocol Engine Tab

Use the attributes on the Audio Protocol Engine tab to tune SGD audio processes.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect for new Protocol Engines only. Existing Protocol Engines are not affected.

Packet Compression

Usage: Choose a compression setting option.

Description

Whether an Audio Protocol Engine uses data compression on a client connection.

By default, compression is off. This is to avoid unnecessarily compressing audio data that might already be compressed.

Select On Slow Connection to enable the Audio Protocol Engine to compress data if the connection is slow.

Array Manager: Audio Protocol Engine Properties (Server-Specific) ⇒ Compression

Command Line

Command option: `--audiope-compression auto | always | never`

Usage: Specify a valid compression setting.

The following example enables data compression for slow client connections only.

```
--audiope-compression auto
```

Smart Card Protocol Engine Tab

Use the attributes on the Smart Card Protocol Engine tab to tune SGD smart card processes.

From the command line, use the `tarantella config list` command to list these settings, and the `tarantella config edit` command to edit these settings.

Changes to these attributes take effect for new Protocol Engines only. Existing Protocol Engines are not affected.

Packet Compression

Usage: Choose a compression setting option.

Description

Whether a Smart Card Protocol Engine uses data compression on a client connection.

Select On Slow Connection to enable the Smart Card Protocol Engine to compress data if the connection is slow.

Array Manager: Smart Card Protocol Engine Properties (Server-Specific) ⇒ Compression

Command Line

Command option: `--scardpe-compression auto | always | never`

Usage: Specify a valid compression setting.

The following example enables data compression for slow client connections.

```
--scardpe-compression auto
```

User Sessions Tab

The User Sessions tab enables you to view and manage user sessions for the SGD server. A user session represents a user that is connected to an SGD server.

User session information is shown in the User Session List table.

The User Session List Table

The User Session List table shows details of user sessions for the SGD server.

The number of user sessions is indicated in brackets at the top of the table.

The User Session List table includes the following information for each user session:

- **User Identity.** A unique identifier for the user.
- **User Profile.** A profile that defines configuration settings and the applications available to the user.
- **Secure Global Desktop Server.** The name of the SGD server hosting the user session.
- **Login Time.** When the user logged in to the SGD server.

Use the Search options to search the User Session List table. When searching for a User Identity or User Profile, you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name**" and returns any match of the search string.

To search for a Login Time, use a search string format of `yyyy/mm/dd hh:mm:ss`.

The number of results returned by a search is limited to 150, by default.

To show more details about a user session, select the check box for the user session in the User Session List table and click the View Details button.

To end a user session, select the check box for the user session in the User Session List table and click the End button.

To end all user sessions, click the Select Items Currently Displayed icon to select all user sessions and click the End button.

You can update the User Session List table by clicking the Reload button.

Command Line

From the command line, use the `tarantella webtopsession` command to list user session details, and end user sessions. See "The `tarantella webtopsession` command" on page 360.

Application Sessions Tab

The Application Sessions tab enables you to view and manage application sessions for the SGD server.

Application session information is shown in the Application Session List table.

The Application Session List Table

The Application Session List table shows details of application sessions for the SGD server.

The number of application sessions is indicated in brackets at the top of the table.

The Application Session List table includes the following information for each application session:

- **User Identity.** A unique identifier for the user.
- **User Profile.** A profile that defines configuration settings and the applications available to the user.

- **Secure Global Desktop Server.** The name of the SGD server hosting the application session.
- **Application Server.** The name of the application server hosting the application.
- **Application.** The name of the application.
- **Start Time.** When the application was started.
- **Status.** Current state of the application, for example, whether the application is running or suspended.

You can use the Search options to search the Application Session List table. When searching for a User Identity, User Profile, Application Server, or Application, you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name**" and returns any match of the search string.

To search for a Start Time, use a search string format of `yyyy/mm/dd hh:mm:ss`.

The number of results returned by a search is limited to 150, by default.

To show more details about an application session, select the check box for the application session in the Application Session List table and click the View Details button.

To end an application session, select the check box for the application session in the Application Session List table and click the End button.

To end all application sessions, click the Select Items Currently Displayed icon to select all application sessions and click the End button.

You can update the Application Session List table by clicking the Reload button.

Shadowing an application session enables you and the user to interact with the application simultaneously. To shadow an application session, select the check box for the application session in the Application Session List table and click the Shadow button.

Note – In some countries, it is illegal to shadow a user without their knowledge. It is your responsibility to comply with the law.

Shadowing is not supported for character applications or suspended applications. A warning message is shown if you attempt to shadow either of these applications.

Command Line

From the command line, use the `tarantella emulatorsession` command to list application session details, shadow application sessions, and end application sessions. See "The `tarantella emulatorsession` command" on page 233.

CHAPTER 3

Objects and Attributes

SGD represents users, resources and the structure of your organization as *objects* in a directory. Different types of object have different configuration settings, known as *attributes*.

The object types used by SGD and their attributes are described in this chapter. This chapter includes the following topics:

SGD Objects

The supported object types in SGD are as follows:

- 3270 Application Object
- 5250 Application Object
- Application Server Object
- Character Application Object
- Directory: Organization Object
- Directory: Organizational Unit Object
- Directory (Light): Active Directory Container Object
- Directory (Light): Domain Component Object
- Document Object
- Group Object
- User Profile Object
- Windows Application Object
- X Application Object

3270 Application Object

Use a 3270 application object to give a 3270 application to users.

SGD uses the third-party TeemTalk for Unix emulator for 3270 applications. See the TeemTalk for Unix User's Guide supplied with SGD for details.

To create a 3270 application object, use the Administration Console or the `tarantella object new_3270app` command.

In the Administration Console, the configuration settings for 3270 application objects are divided into a series of tabs.

The *General tab* contains the settings that control the name and the icon used when creating links for users. The attributes on the General tab are as follows:

- Name
- Comment
- Icon

The *Launch tab* contains the settings that control how the application is started and whether application sessions can be suspended and resumed. The attributes on the Launch tab are as follows:

- Arguments for Command
- Connection Method
- Connection Method: ssh Arguments
- Login Script
- Environment Variables
- Number of Sessions
- Application Resumability
- Application Resumability: Timeout
- Keep Launch Connection Open
- Session Termination
- Window Close Action

The *Presentation tab* contains the settings that control how the application displays to users. The attributes on the Presentation tab are as follows:

- Window Type
- Window Manager
- Window Size: Client's Maximum Size
- Window Size: Scale to Fit Window
- Window Size: Width

- Window Size: Height
- Window Color
- Window Color: Custom Color

The *Performance tab* contains the settings for optimizing the performance of the application. The attributes on the Performance tab are as follows:

- Command Compression
- Command Execution
- Delayed Updates
- Graphics Acceleration
- Interlaced Images
- Share Resources Between Similar Sessions

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Keyboard Map: Locked
- Euro Character
- Copy and Paste
- Copy and Paste: Application's Clipboard Security Level
- Middle Mouse Timeout
- Monitor Resolution

The *Third-Party Emulator tab* contains the settings for the third-party TeemTalk for Unix emulator. The attributes on the Third-Party Emulator tab are as follows:

- Server Address
- Server Port
- Connection Closed Action
- Window Size: Maximized
- Menu Bar
- 'File' and 'Settings' Menus
- Displayed Soft Buttons
- Foreground Color
- Background Color
- Keyboard Type

The *Assigned User Profiles tab* lists the user profile objects that can run the application. See Assigned User Profiles Tab.

The *Application Sessions tab* lists the running and suspended application sessions for the application. See Application Sessions Tab.

5250 Application Object

Use a 5250 application object to give a 5250 application to users.

SGD uses the third-party TeemTalk for Unix emulator for 5250 applications. See the TeemTalk for Unix User's Guide supplied with SGD for details.

To create a 5250 application object use the Administration Console or the `tarantella object new_5250app` command.

In the Administration Console, the configuration settings for 5250 application objects are divided into a series of tabs.

The *General tab* contains the settings that control the name and the icon used when creating links for users. The attributes on the General tab are as follows:

- Name
- Comment
- Icon

The *Launch tab* contains the settings that control how the application is started and whether application sessions can be suspended and resumed. The attributes on the Launch tab are as follows:

- Arguments for Command
- Connection Method
- Connection Method: ssh Arguments
- Login Script
- Environment Variables
- Number of Sessions
- Application Resumability
- Application Resumability: Timeout
- Keep Launch Connection Open
- Session Termination
- Window Close Action

The *Presentation tab* contains the settings that control how the application displays to users. The attributes on the Presentation tab are as follows:

- Window Type
- Window Manager
- Window Size: Client's Maximum Size
- Window Size: Scale to Fit Window
- Window Size: Width

- Window Size: Height
- Window Color
- Window Color: Custom Color

The *Performance tab* contains the settings for optimizing the performance of the application. The attributes on the Performance tab are as follows:

- Command Compression
- Command Execution
- Delayed Updates
- Graphics Acceleration
- Interlaced Images
- Share Resources Between Similar Sessions

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Keyboard Map: Locked
- Euro Character
- Copy and Paste
- Copy and Paste: Application's Clipboard Security Level
- Middle Mouse Timeout
- Monitor Resolution

The *Third-Party Emulator tab* contains the settings for the third-party TeemTalk for Unix emulator. The attributes on the Third-Party Emulator tab are as follows:

- Server Address
- Server Port
- Connection Closed Action
- Window Size: Maximized
- Menu Bar
- 'File' and 'Settings' Menus
- Displayed Soft Buttons
- Foreground Color
- Background Color
- Keyboard Type

The *Assigned User Profiles tab* lists the user profile objects that can run the application. See Assigned User Profiles Tab.

The *Application Sessions tab* lists the running and suspended application sessions for the application. See Application Sessions Tab.

Application Server Object

Use an application server object to represent an application server that is used to run applications through SGD.

Application server objects are used with application load balancing. If you assign two or more application server objects to an application object, SGD chooses which application server to use, based on the load across the application servers.

To create an application server object use the Administration Console or the `tarantella object new_host` command.

In the Administration Console, the configuration settings for application server objects are divided into a series of tabs.

The *General tab* contains the settings that control the designation and application authentication for the application server. The attributes on the General tab are as follows:

- Name
- Comment
- Address
- Application Start
- Domain Name
- Password Cache Usage
- Prompt Locale

The *Performance tab* contains the settings for optimizing the performance of applications. See Load Balancing Groups.

The *Hosted Applications tab* lists the applications hosted on the application server. See Hosted Applications Tab.

The *Application Sessions tab* lists the running and suspended application sessions for the application server. See Application Sessions Tab.

The *Passwords tab* lists the entries of the password cache for the application server. See Passwords Tab.

Character Application Object

Use a character application object to give a VT420, Wyse 60 or SCO Console character application to users.

Character application objects support VT420, Wyse 60 or SCO Console character applications. The Emulation Type attribute determines the type of application.

To create a character application object use the Administration Console or the `tarantella object new_charapp` command.

In the Administration Console, the configuration settings for character application objects are divided into a series of tabs.

The *General tab* contains the settings that control the name and the icon used when creating links for users. The attributes on the General tab are as follows:

- Name
- Comment
- Icon

The *Launch tab* contains the settings that control how the application is started and whether application sessions can be suspended and resumed. The attributes on the Launch tab are as follows:

- Application Command
- Arguments for Command
- Connection Method
- Connection Method: ssh Arguments
- Login Script
- Environment Variables
- Answerback Message
- Number of Sessions
- Application Resumability
- Application Resumability: Timeout
- Window Close Action

The *Presentation tab* contains the settings that control how the application displays to users. The attributes on the Presentation tab are as follows:

- Window Type
- Emulation Type
- Terminal Type
- Window Size: Client's Maximum Size
- Window Size: Width
- Window Size: Height
- Window Size: Columns
- Window Size: Lines
- Font Family
- Font Size: Fixed Font Size

- Font Size
- Border Style
- Cursor
- Attribute Map
- Color Map
- Scroll Style
- Status Line
- Line Wrapping

The *Performance tab* contains the settings for optimizing the performance of the application. The attributes on the Performance tab are as follows:

- Application Load Balancing
- Command Compression

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Keyboard Map
- Keyboard Codes Modification
- Numpad Codes Modification
- Cursor Key Codes Modification
- Escape Sequences
- Code Page

The *Hosting Application Servers tab* lists the application servers that are configured to host the application. See Hosting Application Servers Tab.

The *Assigned User Profiles tab* lists the user profile objects that can run the application. See Assigned User Profiles Tab.

The *Application Sessions tab* lists the running or suspended application sessions for the application. See Application Sessions Tab.

Directory: Organization Object

Use an organization object for things that apply to your organization as a whole.

Organization objects are always at the top of the organizational hierarchy.

Organization objects can contain OU or user profile objects.

To create an organization object use the Administration Console or the `tarantella object new_org` command.

In the Administration Console, the configuration settings for organization objects are divided into a series of tabs.

The *General tab* contains the settings that control the name of the organization. The attributes on the General tab are as follows:

- Name
- Comment

The *Printing tab* contains the settings for users printing from Windows applications that use the Microsoft Remote Desktop Protocol (RDP). The attributes on the Printing tab are as follows:

- Client Printing: Override
- Client Printing
- Universal PDF Printer
- Make Universal PDF Printer the Default
- Universal PDF Viewer
- Make Universal PDF Viewer the Default
- Postscript Printer Driver

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Client Profile Editing
- Copy and Paste
- Serial Port Mapping
- Client Drive Mapping

The *Security tab* contains settings that define the connections that are allowed between the client device and the SGD server. See Connections.

The *Assigned Applications tab* lists the applications which are available to users in the organization. See Assigned Applications Tab.

Directory: Organizational Unit Object

Use an organizational unit (OU) object to distinguish different departments, sites or teams in your organization.

An OU can be contained in an organization or a domain component object.

To create an OU object use the Administration Console or the `tarantella object new_orgunit` command.

In the Administration Console, the configuration settings for OU objects are divided into a series of tabs.

The *General tab* contains the settings that control the name of the OU. The attributes on the General tab are as follows:

- Name
- Comment

The *Printing tab* contains the settings for users printing from Windows applications. The attributes on the Printing tab are as follows:

- Client Printing: Override
- Client Printing
- Universal PDF Printer
- Make Universal PDF Printer the Default
- Universal PDF Viewer
- Make Universal PDF Viewer the Default
- Postscript Printer Driver

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Client Profile Editing
- Copy and Paste
- Serial Port Mapping
- Client Drive Mapping

The *Security tab* contains settings that define the connections that are allowed between the client device and the SGD server. See Connections.

The *Assigned Applications tab* lists the applications which are available to users in the organizational unit. See Assigned Applications Tab.

Directory (Light): Active Directory Container Object

Use an Active Directory container object to replicate your Microsoft Active Directory structure within the SGD organizational hierarchy.

Active Directory container objects are similar to OU objects, but do not include additional SGD-specific attributes or allow you to assign applications. This is why they are called Directory (light) objects.

An Active Directory container object can be contained in an Organization, an OU, or a Domain Component object.

To create an Active Directory container object use the Administration Console or the `tarantella object new_container` command.

In the Administration Console, the configuration settings for an Active Directory container object are divided into a series of tabs.

The General tab contains the settings that control the name of the Active Directory container. See Name.

Directory (Light): Domain Component Object

Use a domain component object to replicate a directory structure, usually a Microsoft Active Directory structure, within the SGD organizational hierarchy.

Domain component objects are similar to organization objects, but do not include additional SGD-specific attributes or allow you to assign applications. That is why they are called Directory (light) objects.

Domain component objects can only appear at the top of the organizational hierarchy, or within another domain component object.

Domain component objects can contain OU, domain component, Active Directory container, or user profile objects

To create a domain component object use the Administration Console or the `tarantella object new_dc` command.

In the Administration Console, the configuration settings for domain component objects are divided into a series of tabs.

The *General tab* contains the settings that control the name of the domain component. See Name.

Document Object

Use a document object to give a document to users.

A document object can refer to any URL. This can be any document on the web, including Sun StarOffice documents, or Adobe Acrobat files. A document can also refer to a web application.

It is the user's *client device* that actually fetches the URL and so firewall or other security measures might prevent a user from accessing a URL.

To create a document object use the Administration Console or the `tarantella object new_doc` command.

In the Administration Console, the configuration settings for document objects are divided into a series of tabs.

The *General tab* contains the settings that control the name and the icon used when creating links for users. The attributes on the General tab are as follows:

- Name
- Comment
- Icon

The *Launch tab* contains the the URL that is displayed when users click the link for the document. See URL.

The *Presentation tab* contains the settings that control how the document displays to users. See Window Type: New Browser Window.

The *Assigned User Profiles tab* lists the user objects that can access the document. See Assigned User Profiles Tab.

Group Object

Use a group object to associate groups of applications with a user profile, OU or organization, or to associate similar application servers for application load balancing.

Group objects are not the same as OUs. Applications and application servers can only belong to one OU, but can be a member of many different groups.

Members of a group can be moved or renamed without affecting group membership.

Group objects can be added to the following tabs for an object.

- **Assigned Applications tab.** Use this tab to assign a group of applications to a user profile, OU or organization object. The group members are shown recursively, but not the group itself. See Assigned Applications Tab.
- **Hosting Application Servers tab.** Use this tab to assign a group of application servers to an application object. The group members are used recursively for application server load balancing. See Hosting Application Servers Tab.

To create a group object use the Administration Console or the `tarantella object new_group` command.

In the Administration Console, the configuration settings for group objects are divided into a series of tabs.

The *General tab* contains the settings that control the name of the group. The attributes on the General tab are as follows:

- Name
- Comment

The *Members tab* is used to display and edit the members of the group object. See Members Tab.

The *Assigned User Profiles tab* lists the user profile objects that can run the applications in the group. See Assigned User Profiles Tab.

The *Hosted Applications tab* lists the applications hosted on the application servers in the group. See Hosted Applications Tab.

User Profile Object

Use a user profile object to represent a user in your organization, and give that user access to applications.

Depending on the authentication mechanisms used, users might be able to log in to SGD even if they do not have a user profile object.

To use inheritance, create user profile objects within OUs. This makes administration easier and more efficient (see Inherit Assigned Applications from Parent).

To create a user profile object use the Administration Console or the `tarantella object new_person` command.

In the Administration Console, the configuration settings for user profile objects are divided into a series of tabs.

The *General tab* contains user naming settings for user designation and authentication. The attributes on the General tab are as follows:

- Name
- Comment
- Surname
- Login
- Login: Multiple
- Login Name
- Email Address
- Domain Name

The *Printing tab* contains the settings for users printing from Windows applications. The attributes on the Printing tab are as follows:

- Client Printing: Override
- Client Printing
- Universal PDF Printer
- Make Universal PDF Printer the Default
- Universal PDF Viewer
- Make Universal PDF Viewer the Default
- Postscript Printer Driver

The *Performance tab* contains the settings that control the user's bandwidth limit. See Bandwidth Limit.

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Client Profile Editing
- Copy and Paste
- Keyboard Map
- Serial Port Mapping
- Client Drive Mapping

The *Security tab* contains settings that define the connections that are allowed between the client device and the SGD server. See Connections.

The *Assigned Applications tab* lists the applications which are available to the user. See Assigned Applications Tab.

The *Passwords tab* lists the entries in the password cache for the user. See Passwords Tab.

The *Tokens tab* lists the authentication tokens for the user. See Tokens Tab.

The *User Sessions tab* lists the active user sessions for the user. See User Sessions Tab.

The *Application Sessions tab* lists the running and suspended application sessions for the user. See Application Sessions Tab.

Windows Application Object

Use a Windows application object to give a Microsoft Windows graphical application to users.

To create a Windows application object use the Administration Console or the `tarantella object new_windowsapp` command.

In the Administration Console, the configuration settings for Windows application objects are divided into a series of tabs.

The *General tab* contains the settings that control the name and the icon used when creating links for users. The attributes on the General tab are as follows:

- Name
- Comment
- Icon

The *Launch tab* contains the settings that control how the application is started and whether application sessions can be suspended and resumed. The attributes on the Launch tab are as follows:

- Application Command
- Arguments for Command
- Windows Protocol
- Windows Protocol: Try Running From Client First
- Arguments for Protocol
- Domain Name
- Login Script
- Environment Variables
- Number of Sessions
- Application Resumability
- Application Resumability: Timeout
- Keep Launch Connection Open
- Session Termination
- Window Close Action

The *Presentation tab* contains the settings that control how the application displays to users. The attributes on the Presentation tab are as follows:

- Window Type
- Window Manager
- Window Size: Client's Maximum Size
- Window Size: Scale to Fit Window
- Window Size: Width
- Window Size: Height
- Color Depth

The *Performance tab* contains the settings for optimizing the performance of the application. The attributes on the Performance tab are as follows:

- Application Load Balancing
- Command Compression
- Command Execution
- Delayed Updates
- Graphics Acceleration
- Interlaced Images

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Keyboard Map: Locked
- Window Management Keys
- Euro Character
- Copy and Paste
- Copy and Paste: Application's Clipboard Security Level
- Middle Mouse Timeout
- Monitor Resolution

The *Hosting Application Servers tab* lists the application servers hosting the application. See Hosting Application Servers Tab.

The *Assigned User Profiles tab* lists the user profile objects that can run the application. See Assigned User Profiles Tab.

The *Application Sessions tab* lists the running and suspended application sessions for the application. See Application Sessions Tab.

X Application Object

Use an X application object to give an X11 graphical application to users.

To create an X application object use the Administration Console or the `tarantella object new_xapp` command.

In the Administration Console, the configuration settings for X application objects are divided into a series of tabs.

The *General tab* contains the settings that control the name and the icon used when creating links for users. The attributes on the General tab are as follows:

- Name
- Comment
- Icon

The *Launch tab* contains the settings that control how the application is started and whether application sessions can be suspended and resumed. The attributes on the Launch tab are as follows:

- Application Command
- Arguments for Command
- Connection Method
- Connection Method: ssh Arguments
- X Security Extension
- Login Script
- Environment Variables
- Number of Sessions
- Application Resumability
- Application Resumability: Timeout
- Keep Launch Connection Open
- Session Termination
- Window Close Action

The *Presentation tab* contains the settings that control how the application displays to users. The attributes on the Presentation tab are as follows:

- Window Type
- Window Manager
- Window Size: Client's Maximum Size
- Window Size: Scale to Fit Window
- Window Size: Width
- Window Size: Height
- Window Color
- Window Color: Custom Color
- Color Depth

The *Performance tab* contains the settings for optimizing the performance of the application. The attributes on the Performance tab are as follows:

- Application Load Balancing
- Command Compression
- Command Execution
- Delayed Updates
- Graphics Acceleration
- Interlaced Images

- Color Quality
- Share Resources Between Similar Sessions

The *Client Device tab* contains the settings that control how the user's client device interacts with the application. The attributes on the Client Device tab are as follows:

- Keyboard Map: Locked
- Window Management Keys
- Euro Character
- Copy and Paste
- Copy and Paste: Application's Clipboard Security Level
- Audio Redirection Library
- Mouse
- Middle Mouse Timeout
- Monitor Resolution

The *Hosting Application Servers tab* lists the application servers hosting the application. See Hosting Application Servers Tab.

The *Assigned User Profiles tab* lists the user profile objects that can run the application. See Assigned User Profiles Tab.

The *Application Sessions tab* lists the running and suspended application sessions for the application. See Application Sessions Tab.

Attributes Reference

This section describes the available attributes for the SGD objects.

For each attribute, usage information is given for the Administration Console. The corresponding command line is also described, where applicable.

Address

Usage: Type a Domain Name System (DNS) name, or Internet Protocol (IP) address, in the field.

Application server objects have this attribute.

Description

This attribute specifies the network address of the application server.

It is best to use the DNS name.

Object Manager: Address

Command Line

Command option: `--address` *address*

Usage: Replace *address* with a DNS name (preferred) or IP address.

The following example specifies the address of the application server as `naples.indigo-insurance.com`.

```
--address naples.indigo-insurance.com
```

Answerback Message

Usage: Type a text string in the field.

Character application objects have this attribute.

Description

Defines the message to return when an inquiry is sent from the application server to the emulator.

This attribute applies to VT420 and Wyse 60 character applications only.

Object Manager: Behavior ⇒ Answerback Message

Command Line

Command option: `--answermsg` *message*

Usage: Replace *message* with the text string to use.

The following example returns the text “My message” in response to an inquiry from the application server.

```
--answermsg "My message"
```

Application Command

Usage: Type the full path name of the application in the field.

The following objects have this attribute:

- Character application
- Windows application
- X application

Description

This attribute specifies the application that runs when users click the link for the application on the webtop or in the desktop Start or Launch menu.

The path name must be the same on all application servers that might run the application.

For any command-line arguments, use the Arguments for Command attribute.

With X applications, use the Window Manager attribute to start a window manager for the application.

With Windows applications, you can use a backslash (\) or a forward slash (/) between subdirectories. On the command line you might need to escape backslashes, for example, \\.

With Windows applications, leave the field blank to start a full Microsoft Windows session rather than a particular application.

On the command line, .

Object Manager: General ⇒ Application Command

Command Line

Command option: `--app` *pathname*

Usage: Replace *pathname* with the full path name of the application. Make sure that you quote any path names containing spaces

The following example specifies a UNIX X application.

```
--app /usr/local/bin/xfinance
```

The following example specifies a Windows application.

```
--app "c:/Program Files/Indigo Insurance/cash.exe"
```

Application Load Balancing

Usage: Select the Override Global Setting check box, and then select an option. To use the global setting defined in the Global Settings tab, deselect the Override Global Setting box.

The following objects have this attribute:

- Character application
- Windows application
- X application

Description

When the application is started, this setting determines the algorithm SGD uses to choose which application server runs the application. The server is selected from those defined on the application object's Hosting Application Servers Tab.

The default setting for this attribute is to use the setting defined on the Global Settings ⇒ Performance tab. You can override this by selecting the Override Global Setting check box and selecting an option.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Override Global Setting (deselected)	`default`	Use the default algorithm defined on the Global Settings ⇒ Performance tab.
Most Free Memory	`memory`	Choose the application server with the most free memory.
Least CPU Usage	`cpu`	Choose the application server with the most central processing unit (CPU) idle time.
Fewest Applications	`sessions`	Choose the application server that is running the fewest application sessions through SGD.

Note – To use the Least CPU Usage and Most Free Memory algorithms, you must install the SGD Enhancement Module on the application server.

Object Manager: General ⇒ Load Balancing Algorithm

Command Line

Command option: `--loadbal default | cpu | memory | sessions`

Usage: Specify a setting.

The following example uses the application server with the most free memory to run the application.

```
--loadbal memory
```

Application Resumability

Usage: Select an option.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute determines for how long a user is able to resume an application.

Administration Console	Command Line	Description
Never	`never`	The application can never be resumed. Use for applications that do not provide a mechanism for the user to exit. For example, a clock application.
During the User Session	`session`	The application keeps running and is resumable until the user logs out of SGD. If a user does not log out of SGD cleanly, for example, if they close their web browser or terminate the SGD Client without logging out, then applications that are user session resumable keep running for a time (see Application Resumability: Timeout). This is the default setting.
General	`always`	The application keeps running for a time (see Application Resumability: Timeout) after the user logs out of SGD, and can be resumed when they next log in. Use for applications that need to exit in a controlled way. For example, an email application that might need to remove lock files before it exits.

An *X application* configured with a Window Type setting of Local X Server is not resumable, whatever the value of the Application Resumability attribute.

A *Windows application* configured to run on the client device (see Windows Protocol: Try Running From Client First) is not resumable, whatever the value of the Application Resumability attribute.

Users can see if an application is resumable or not by pointing to its link on the webtop and looking at the popup window that is displayed.

The webtop has controls for suspending and resuming individual application sessions. If you are using the SGD Client in Integrated mode, applications that have a General resumability setting are automatically suspended when you log out. When you log in again, they are automatically resumed.

Object Manager: General ⇒ Resumable

Command Line

Command option: `--resumable never | session | always`

Usage: Specify one of the valid resumability settings.

In the following example, the application is never resumable.

```
--resumable never
```

In the following example, the application is resumable until the user logs out of SGD.

```
--resumable session
```

Application Resumability: Timeout

Usage: Type the number of minutes you want the application to be resumable for in the field.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute ensures that resources on the SGD server are used as efficiently as possible. It is used with the Application Resumability attribute to define when the SGD server ends a suspended application session.

Application Resumability Setting	Resumability Behavior
Never	Ignored.
During the User Session	If the SGD Client connection is lost, a timer starts. Once the timer reaches the value of this timeout, the SGD server ends the application session. If the user logs out of SGD, the application session ends. If an application is terminated because the SGD Client exits unexpectedly, the timeout is the timeout plus 20 minutes.
General	If the user disconnects from the SGD server in any way, including by logging out, or if the SGD Client connection is lost, a timer starts. Once the timer reaches the value of this timeout, the SGD server ends the application session. If an application is terminated because the SGD Client exits unexpectedly, the timeout is the timeout plus 20 minutes.

If you leave this setting blank, the default timeout for the Application Resumability setting is used. You can configure the default timeouts on the General Settings ⇒ Communication tab of the Administration Console.

Object Manager: Advanced ⇒ Resumable For

Command Line

Command option: `--resumetimeout` *mins*

Usage: Replace *mins* with the number of minutes for which you want the application to be resumable.

The following example configures the application to be resumable for at least 30 minutes. This timeout is appropriate for an application configured to be resumable During the User Session.

```
--resumetimeout 30
```

Application Sessions Tab

Usage: Use the buttons in the Application Sessions tab to view and manage application sessions.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application
- User profile
- Application server

Description

This tab lists the running and suspended application sessions for the selected object. An application session represents an application running on an application server on behalf of a user.

To show more details about an application session, select the check box for the application session in the Application Session List table and click the View Details button.

To end an application session, select the check box for the application session in the Application Session List table and click the End button.

To shadow an application session, select the check box for the application session in the Application Session List table and click the Shadow button. Suspended applications or character applications cannot be shadowed.

Note – In some countries, it is illegal to shadow a user without their knowledge. It is your responsibility to comply with the law.

The Reload button refreshes the Application Session List table.

You can use the Search options to search the Application Session List table. When searching for a User Identity, User Profile, Secure Global Desktop Server, or Application Server, you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name**" and returns any match of the search string.

To search for a Start Time, use a search string format of `yyyy/mm/dd hh:mm:ss`.

The number of results returned by a search is limited to 150, by default.

Object Manager: Sessions tab

Command Line

On the command line, use the `tarantella emulatorsession` commands to list, end, or shadow application sessions. See "The `tarantella emulatorsession` command" on page 233.

Command option: `tarantella emulatorsession list --person` *pobj*

Usage: Replace *pobj* with the full name of the user profile object.

The following example lists application sessions for the `Indigo Jones` user profile object.

```
tarantella emulatorsession list --person \
"o=Indigo Insurance/ou=IT/cn=Indigo Jones".
```

Application Start

Usage: Select or deselect the check box.

Application server objects have this attribute.

Description

This attribute specifies whether applications can run on this application server.

Selecting the check box allows applications to run. The check box is selected by default. An application is started on the application server only if both of the following are true:

- The application server object appears on the application object's Hosting Application Servers Tab.
- The application's load balancing algorithm chooses this application server.

Deselecting the check box means that no new applications can be started on the application server. Making an application server unavailable does not affect applications that are already running. If a user has a suspended application session on the application server and the application is set up to be always resumable, the user can resume their session.

You can use this attribute, for example, to make an application server temporarily unavailable while you carry out maintenance work. If the application server is the only server configured to run a particular application, then the application is not available to users.

Object Manager: Available to Run Applications

Command Line

Command option: `--available true | false`

Usage: Specify `true` or `false`.

The following example enables the application server object to run applications.

```
--available true
```

Arguments for Command

Usage: Type the command-line arguments for the application in the field.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies the command-line arguments to use when starting the application. The Application Command attribute specifies the application that runs, without arguments.

For X applications, *do not* include the `-display` argument. The display is set automatically for each user.

Object Manager: General ⇒ Arguments for Command

Command Line

Command option: `--args` *args*

Usage: Replace *args* with the command-line arguments for the application. Make sure you quote the arguments.

The following example runs the application with command-line arguments to set the background color to “plum4”.

```
--args "-bg plum4"
```

Arguments for Protocol

Usage: Type command-line arguments for the Windows Protocol in the field.

Windows application objects have this attribute.

Description

This attribute specifies the command-line arguments to use with the Windows Protocol.

The valid settings depend on the Windows Protocol.

Object Manager: Advanced ⇒ Protocol Arguments

Command Line

Command option: `--protoargs` *args*

Usage: Replace *args* with the command-line arguments for the Windows Protocol.

The following example sets the application's working directory to `c:\mydir`. This example applies to the Microsoft RDP protocol.

```
--protoargs "-dir c:\\mydir"
```

Assigned Applications Tab

Usage: To assign applications to a user profile, organization, or OU object, click the Add button in the Editable Assignments table.

To delete applications for a user profile, organization, or OU object, use the Delete button in the Editable Assignments table.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

The Assigned Applications tab lists the applications which are assigned to the selected user profile, organizational unit or organization.

This attribute defines a series of application links available to the user. Each link is stored as *a reference to the application object*, so the same application object can be assigned to many users. If an object is moved or renamed later, all references to it are automatically updated.

If a group of applications is added to an Assigned Applications tab, the group's members and not the group are assigned.

User profile objects and organizational unit objects can inherit applications from their parent in the organizational hierarchy (see Inherit Assigned Applications from Parent). To inherit applications assigned to the parent object, select the Inherit Assigned Applications from Parent check box in the Editable Assignments area.

Object Manager: Links tab

The following sections of the Assigned Applications tab are used to display, select and assign applications:

- Effective Applications table
- Editable Assignments table

Effective Applications Table

The Effective Applications table shows all the application objects that are assigned to the selected object. The Local Assignments section of the table lists applications that are selected from the local repository.

The Assignment Type column shows one of the following:

- **Direct.** The assignment was made using the Editable Assignments table.
- **Indirect.** The assignment is the result of another relationship, such as membership of a group, or inheritance from another object.
- **Multiple.** The assignment has multiple sources, both Direct and Indirect.

If an assignment type is Indirect or Multiple, clicking the See Details link displays information that enables you to trace the origin of the link.

Editable Assignments Table

You can use the Editable Assignments table to select applications from the local repository.

Click the Add button in the Editable Assignments table. The Add Application Assignment window is shown.

To select applications in the Add Application Assignment window, do either of the following:

- **Browse the Navigation Tree.** As you browse the tree, the Content Area is updated with applications.
- **Use the Search Applications field.** Use this field to search for applications. Type in the names of applications in the field. Note that you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name***" and returns any match of the search string. Results of the search are displayed in the Search Results table in the Content Area. The number of results returned by a search is limited to 150, by default.

Select the required applications from those listed in the Content Area. When you have finished selecting applications click the Add button.

The selected applications are displayed in the Effective Applications table of the Assigned Applications tab.

To delete applications from the Assigned Applications tab, use the Delete button in the Editable Assignments table.

Command Line

Command option: `--links` *object*

Usage: Replace *object* with the full name of the object. For example, `"o=applications/ou=Finance/cn=XClaim"`. Make sure that you quote any object names containing spaces.

The following example adds `Pers-o-dat` and `Slide-o-win` as links on a webtop.

```
--links "o=applications/cn=Pers-o-dat" \
        "o=applications/cn=Slide-o-win"
```

Assigned User Profiles Tab

Usage: To assign user profiles to an application, click the Add button in the Editable Assignments table. If you are using SGD with an LDAP directory, you can also use the LDAP Searches area of the Assigned User Profiles tab to search for users in your LDAP directory server.

The following objects have this attribute:

- Character application
- Document
- Group
- Windows application
- X application
- 3270 application
- 5250 application

Description

Use this tab to define the user profile objects that can run an application, or group of applications. The application, or group of applications, is *in addition* to any applications already defined for the user profile in its Assigned Applications tab.

User profile objects can be selected from the local repository. If you are using an LDAP directory, you can also select the following:

- Users in the LDAP directory
- Groups of users in the LDAP directory
- Users in the LDAP directory that match an LDAP search criteria

The following sections of the Assigned User Profiles tab are used to display, select and assign user profile objects:

- Effective User Profiles table
- Editable Assignments table
- LDAP Searches section

Object Manager: Seen By tab

Object Manager: Directory Services Integration ⇒ LDAP Groups

Object Manager: Directory Services Integration ⇒ LDAP Search

Object Manager: Directory Services Integration ⇒ LDAP Users

Effective User Profiles Table

The Effective User Profiles table shows all the user profile objects that are assigned to the application. The Local Assignments section of the table lists user profiles that are selected from the local repository. The LDAP Assignments section of the table lists users that are selected from an LDAP directory. You must click the Load LDAP Assignments link to populate this area of the table.

The Assignment Type column shows one of the following:

- **Direct.** The assignment was made using the Editable Assignments table.
- **Indirect.** The assignment is the result of another relationship, such as an LDAP search, membership of a group, or inheritance from another object.
- **Multiple.** The assignment has multiple sources, both Direct and Indirect.

If an assignment type is Indirect or Multiple, clicking the See Details link displays information that enables you to trace the origin of the link.

Editable Assignments Table

You can use the Editable Assignments table to select user profile objects from the local repository, and, if you are using LDAP authentication, users or groups in an LDAP directory.

Click the Add button in the Editable Assignments table. The Add User Assignment window is shown.

The Add User Assignment window can be used to select the following:

- User profiles from the local repository
- Users in an LDAP directory
- Groups in an LDAP directory

To use the local repository, select the Local option in the Repository list.

To use the local repository *and* your LDAP directory server, select the Local + LDAP option in the Repository list.

To select user profiles in the Add User Assignment window, do either of the following:

- **Browse the Navigation Tree.** As you browse the tree, the Content Area is updated with user profiles.
- **Use the Search User Profiles field.** Use this field to search the user profiles within the selected repositories. You can type in names of users and groups in your LDAP directory. Note that you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name**" and returns any match of the search string. Results of the search are displayed in the Search Results table in the Content Area. The number of results returned by a search is limited to 150, by default. The Matched Attribute field of the Search Results table indicates which LDAP attribute the search matched on.

Select the required user profiles from those listed in the Content Area. When you have finished selecting user profiles, click the Add button.

The selected user profiles are displayed in the Effective User Profiles table of the Assigned User Profiles tab.

To delete applications you have added to the Assigned User Profiles tab, use the Delete button in the Editable Assignments table.

LDAP Searches Section

The LDAP Searches section is used to define search criteria for locating users in an LDAP directory. You can use this feature to assign an application or group of applications to all users in an LDAP directory that match the search criteria.

The search criteria can be either of the following:

- An RFC2254-compliant LDAP search filter
- An RFC1959-compliant LDAP URL

For an RFC2254 search filter, enclose each search criteria in double quotes and brackets.

For an LDAP URL, use the format `ldap:///`*search-criteria*. If you include the host, port and return attribute specification in the URL they are ignored. This is because the LDAP directory server configured as part of SGD authentication is used.

The LDAP Search area includes two options:

- **Simple Search.** This option enables an area where you can "build" a simple LDAP search filter using the window controls. In the Filter Components table, select the attributes you want to match and define search criteria for them.
- **Advanced Search.** This option displays a field where you can type in an LDAP URL or search filter.

The Simple Search option is designed for creating LDAP search filters that are based on attributes such as `cn` and `uid`. The Advanced Search option enables you to create more complex LDAP search filters.

As you build a simple search, the LDAP filter string is shown in gray text in the Advanced Search area. If you then select the Advanced Search option, the LDAP filter string can be edited. This enables you to start with a simple search and then edit the search string manually to specify an advanced search.

You cannot revert to a simple search after specifying an advanced search which is incompatible with the capabilities of the simple search. You must delete the advanced search and re-enter the simple search.

To specify where in the LDAP directory to start searching from, click the Browse button next to the Search Root field. You can then use the Select Root for LDAP Search window to browse or search for a location in the LDAP directory. Selecting a new Search Root loads a new LDAP URL. The new URL is indicated next to the Browse button and in the Advanced Search box.

Select the Search Filter options to specify the attributes you want to match in your search. You can choose to match all of the attributes (Match All), any of the attributes (Match Any), or none of the attributes (Match None).

Click the Preview button to show the list of user profiles returned by the LDAP search.

To save the LDAP search definition, click the Save button.

Click the Load LDAP Assignments link in the Effective User Profiles tab. The user profiles from the LDAP search are displayed in the LDAP Assignments section of the Effective User Profiles table.

Command Line

On the command line, make sure that you quote any object names containing spaces.

LDAP Users

Command option: `--ldapusers` *user_dn*

Usage: Enter one or more distinguished names (DNs) of users in an LDAP directory.

The following example assigns the application or groups of applications to users with the UID “violet” in the Sales department and the UID “emmarald” in the Marketing department.

```
--ldapusers uid=violet,ou=Sales,dc=indigo-insurance,dc=com uid=
emmarald,ou=Marketing,dc=indigo-insurance,dc=com
```

LDAP Groups

Command option: `--ldapgroups` *group_dn*

Usage: Enter one or more DNs of groups in an LDAP directory.

If your organization uses nested groups (sub-groups), you might need to change the depth of the group search.

The following example assigns the application or groups of applications to users in the `managers` group in the Sales and Marketing departments.

```
--ldapgroups cn=managers,ou=Sales,dc=indigo-insurance,dc=com cn=
managers,ou=Marketing,dc=indigo-insurance,dc=com
```

LDAP Search

Command option: `--ldapsearch` *search_string*

Usage: Enter one or more LDAP search strings.

The following example assigns the application or groups of applications to any manager in the Sales department *and* anyone who has Violet Carson as their manager.

```
--ldapsearch "(&(job=manager)(dept=Sales))" \
"(manager=Violet Carson)"
```

The following example assigns the application or groups of applications to any manager in the Sales department of indigo-insurance.com.

```
--ldapsearch "ldap:///ou=Sales,dc=indigo-insurance,dc=com??sub?job=
manager"
```

Attribute Map

Usage: Type the full path name of the attribute map in the field.

Character application objects have this attribute.

Description

This attribute specifies the attribute map to use for the application. This maps attributes such as bold and underline to colors.

To use the default attribute map, leave the setting blank.

An example attribute map is installed in `/`*install-dir*`/etc/data/attrmap.txt`.

Object Manager: Advanced ⇒ Attribute Map

Command Line

Command option: `--attributemap` *attrmap*

Usage: Replace *attrmap* with the full path name of the attribute map to use.

The following example uses the named attribute map.

```
--attributemap /install-dir/etc/data/myattrmap.txt
```

Audio Redirection Library

Usage: Select or deselect the check box.

X application objects have this attribute.

Description

This attribute specifies whether the application enables the SGD audio redirection library.

Some X applications are hard-coded to use the `/dev/audio` or `/dev/dsp` devices for audio output. Enabling the audio redirection library causes the application to use the device specified by the `SGDAUDIODEV` environment variable instead.

Object Manager: Advanced ⇒ UNIX Audio – Enable LD_PRELOAD

Command Line

Command option: `--unixaudiopreload true | false`

Usage: Specify `true` or `false`.

The following example enables the audio redirection library for the application.

```
--unixaudiopreload true
```

Background Color

Usage: Type a valid color resource, such as `yellow`, in the field.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies the background color of the application's text window.

Color names are resolved to RGB values using the file named in the X Protocol Engine's RGB Database attribute.

Object Manager: 3270 ⇒ Background Color

Object Manager: 5250 ⇒ Background Color

Command Line

Command option: `--3270bg` *color*

Command option: `--bg` *color*

Usage: Replace *color* with a valid color resource, such as `yellow`.

In the following example, the background color of the 3270 application text window is set to the color plum4.

```
--3270bg plum4
```

In the following example, the background color of the 5250 application text window is set to the color plum4.

```
--bg plum4
```

Bandwidth Limit

Usage: Select the maximum bandwidth from the list.

User profile objects have this attribute.

Description

This attribute specifies the maximum bandwidth a user can use between the client device and the SGD server for X and Windows applications.

Select None to specify no limit. The user can then use as much of the available bandwidth as possible. This gives the best application usability for the speed of the network connection.

You do not need to change this unless you have particular bandwidth restrictions. For normal use, use None.

The table below shows the bandwidth settings in the Administration Console and the equivalent values to use on the command line:

Administration Console	Command Line
2400 bps	2400
4800 bps	4800
9600 bps	9600
14.4 Kbps	14400
19.2 Kbps	19200
28.8 Kbps	28800
33.6 Kbps	33600
38.8 Kbps	38800
57.6 Kbps	57600
64 Kbps	64000
128 Kbps	128000
256 Kbps	256000
512 Kbps	512000
768 Kbps	768000
1 Mbps	1000000
1.5 Mbps	1500000
10 Mbps	10000000
None	0

Object Manager: General ⇒ Bandwidth Limit

Command Line

Command option: `--bandwidth` *bandwidth*

Usage: Replace *bandwidth* with the maximum bandwidth, in bits per second.

The following example limits the user to a maximum bandwidth of 512 kilobits per second.

```
--bandwidth 51200
```

The following example enables the user to use as much of the available bandwidth as possible.

```
--bandwidth 0
```

Border Style

Usage: Select an option.

Character application objects have this attribute.

Description

This attribute determines whether the terminal window has a raised, indented or "flat" (normal) appearance.

Object Manager: Appearance ⇒ Border Style

Command Line

Command option: `--border normal | indented | raised`

Usage: Specify the border style you want.

In the following example, the terminal window has a raised appearance.

```
--border raised
```

Client Drive Mapping

Usage: Use the Client Drive Mapping table to create client drive mapping (CDM) specifications. Use the Add, Edit and Delete buttons to create, edit and remove CDM specifications. Order the specifications using the Move Up and Move Down buttons. Any CDM specifications you create are listed in the Mappings Defined Directly section of the Client Drive Mapping table.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

This attribute defines which drives on their Microsoft Windows client device a user can access from applications running on Microsoft Windows, UNIX, and Linux application servers, and which drive letters to use on the application server for those drives.

The Client Drive Mapping attribute is an *ordered list* of drive mapping specifications. Each specification includes the following:

- The client drive letter or type
- The access rights to grant to the client drive
- The drive letter to use on the application server to map to the client drive

---

Note – The first matching entry in the list is used, so make sure that the most specific settings (for example, A or B) appear before more general settings (for example, All Drives).

The following tables show the available options for each part of a drive mapping specification, and the corresponding value to use on the command line.

The following Client Drive options are available.

Administration Console	Command Line
All Drives	`alldrives`
Fixed Drives	`fixeddrives`
R/W Removable	`rw`

Administration Console	Command Line
R/O Removable	`ro`
Network Drives	`networkdrives`
A:, B: ... Z:	`a`, `b` ... `z`

The following Access Rights options are available.

Administration Console	Command Line
Read Only	`ro`
Read/Write	`rw`
None	`none`

The following Drive Letter options are available.

Administration Console	Command Line
Same as Client	`same`
A:, B: ... Z:	`a`, `b` ... `z`

Object Manager: Client Drive Mapping

Command Line

Command option: `--cdm` *drive_spec*

Usage: Replace *drive_spec* with a drive mapping specification of the form *clientdrive:access:driveletter*. For example, `a:rw:z`. Separate each *drive_spec* with the pipe character, (`|`).

For a user profile object, the following example means the user is given read-write access to drive A on their client device using drive Z on the application server, and also has read-write access to all network drives defined on their client device using the same drive letter used on the client.

```
--cdm 'a:rw:z|networkdrives:rw:same'
```

The user might have access to other drives, for example a fixed drive C, depending on the Client Drive Mapping attributes for the user profile object's ancestors in the organizational hierarchy.

Client Printing

Usage: Select an option.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

Controls which client printers users can print to when printing from Windows applications that use the Microsoft RDP Windows Protocol.

This attribute can only be edited using the Administration Console if Client Printing: Override is enabled for the object.

The setting for this attribute overrides either of the following:

- The setting for a parent object in the organizational hierarchy
- The default setting configured on the Global Settings ⇒ Printing tab of the Administration Console, if no parent object configuration exists

Changes to this attribute only take effect for new user sessions.

If you select No Printer, you can still use an SGD PDF printer.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
All Printers	2	Let users print to all client printers
Default Printer	1	Let users print to client's default printer
No Printer	0	No client printers are available

If users can only print to their default printer and they want to print to a different printer, they have to log out of SGD, change the default printer and then log in again.

Object Manager: Printing ⇒ Client Printers

Command Line

Command option: `--mapprinters 2|1|0`

Usage: Specify 2|1|0.

The following example enables users to print only to their default client printer.

```
--mapprinters 1
```

Client Printing: Override

Usage: For *user profile* objects or *organizational unit* objects, select the Override Parent's Settings check box. To use the setting defined for the parent object, deselect the Override Parent's Settings check box.

For *organization* objects, select the Override Global Settings check box. To use the default setting defined in the Global Settings ⇒ Client Device tab, deselect the Override Global Settings check box.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

Enables user-specific printing configuration. This configuration is used when printing from Windows applications that use the Microsoft RDP Windows Protocol.

If user-specific printing is enabled, the printing settings for this object override the following:

- The printing settings for a parent object in the organizational hierarchy.
- The default printing settings configured on the Global Settings ⇒ Printing tab of the Administration Console, if no parent object printing configuration exists.

Changes to this attribute only take effect for new user sessions.

Object Manager: Printing ⇒ User-Specific Printing Configuration

Command Line

Command option: `--userprintingconfig 1|0`

Usage: Specify `1` (true) or `0` (false).

The following example enables user-specific printing configuration.

```
--userprintingconfig true
```

Client Profile Editing

Usage: For *user profile* objects or *organizational unit* objects, select the Override Parent's Setting check box and then select or deselect the Enabled option. To use the setting defined for the parent object, deselect the Override Parent's Setting check box.

For *organization* objects, select the Override Global Setting check box and then select or deselect the Enabled option. To use the default setting defined in the Global Settings tab, deselect the Override Global Setting check box.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

This attribute controls whether or not users can create and edit profiles for use with the SGD Client.

Note – Profile editing must also be enabled on the Global Settings ⇒ Client Device tab of the Administration Console.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Override Parent's Setting (deselected)	2	**User profile objects or organizational unit objects**. Use the setting inherited from the parent object. This is the default setting.
Override Global Setting (deselected)	2	**Organization objects.** Use the global setting. This is the default setting.
Enabled (selected)	1	Enable client profile editing.
Enabled (deselected)	0	Disable client profile editing.

For user profile objects or organizational unit objects, deselect the Override Parent's Setting check box to inherit the setting of a parent object in the organizational hierarchy. This is used to enable or disable profile editing for many users without having to edit each user profile object.

For organization objects, deselect the Overrride Global Setting check box to use the default setting configured on the Global Settings ⇒ Client Device tab of the Administration Console.

SGD checks the user profile object for the user and then any parent object further up the organizational hierarchy to see whether profile editing is enabled or disabled. If all the objects selected are configured to use the parent's setting, then the default setting is used.

If profile editing is disabled for a user profile object in the System Objects organization, for example `o=Tarantella System Objects/cn=UNIX User Profile`, this affects *all* users who are assigned that profile.

By default, profile editing is enabled.

Object Manager: General ⇒ Profile Editing

Command Line

Command option: `--editprofile 2|1|0`

Usage: Specify 2|1|0.

The following example disables profile editing.

```
--editprofile 0
```

Code Page

Usage: Select an option.

Character application objects have this attribute.

Description

This attribute specifies the code page you want to use for the emulator. Different code pages are available for different types of character application.

Application Type	Code Pages Available
SCO Console	• 437 - International • 850 - Multilingual • 852 - Central Europe • 860 - Portuguese • 863 - Canadian-French • 865 - Danish-Norwegian
VT420	• 8859-1 - ISO Latin 1 • 8859-2 - ISO Latin 2
Wyse 60	• Multinational • Mazovia • CP852

Object Manager: Behavior ⇒ Code Page

Command Line

Command option: `--codepage 437 | 850 | 852 | 860 | 863 | 865 | 8859-1 | 8859-2 | Multinational | Mazovia | CP852`

Usage: Specify a valid setting for the type of character application.

The following example uses the ISO 8859-1 code page, appropriate for a VT420 application.

```
--codepage 8859-1
```

Color Depth

Usage: Select a setting from the list.

The following objects have this attribute:

- X application
- Windows application

Description

The color depth for the application. As the number of colors increases, more memory is required on the SGD server and on the client device, and more network bandwidth is used between them.

Object Manager: General ⇒ Color Depth

X Applications

The 16/8-bit, 24/8-bit, 8/16-bit, and 8/24-bit settings are only available to X applications.

The 16/8-bit, 24/8-bit, 8/16-bit, and 8/24-bit settings allow you to support X applications with multiple color depths. For example, if you need to run an 8-bit application in a 16-bit or 24-bit high color X application session (such as a CDE desktop), use either the 16/8-bit or the 24/8-bit setting.

Changing these settings can affect system performance as follows:

- Increases the amount of memory used on the SGD server compared to an application using a single color depth.

  The amount of extra memory used for each setting is as follows:

  - The 8/16 setting uses 200% more memory
  - The 8/24 setting uses 400% more memory
  - The 16/8 setting uses 50% more memory
  - The 24/8 setting uses 25% more memory
- Increases the amount of bandwidth used.
- Degrades performance over low bandwidth connections.

To reduce network bandwidth at greater color depths for X applications, change the Color Quality setting.

Windows Applications

For Windows applications, only applications running on a Microsoft Windows 2003 Server can be displayed using 16-bit or 24-bit color. By default, a Microsoft Windows 2003 Server displays applications using 16-bit color. If the color depth setting of a Windows application object is different from that of the application server, SGD automatically adjusts the color depth to match the server setting.

Command Line

Command option: `--depth 8 | 16 | 24 | 16/8 | 24/8 | 8/16 | 8/24`

Usage: Specify a valid setting.

The following example sets the color depth for the application to 16-bit color (thousands of colors).

```
--depth 16
```

Color Map

Usage: Type the full path name of the color map in the field.

Character application objects have this attribute.

Description

This attribute specifies the color map to use for the application. A color map maps logical colors such as Color_1, Color_2 and so on, to displayed colors.

To use the default color map, `/`*install-dir*`/etc/data/colormap.txt`, leave the setting blank.

Object Manager: Advanced ⇒ Color Map

Command Line

Command option: `--colormap` *colormap*

Usage: Replace *colormap* with the full path name of the color map to use.

The following example uses the named color map.

```
--colormap /usr/local/maps/mycolormap.txt
```

Color Quality

Usage: Select a setting from the list.

X application objects have this attribute.

Description

The effective color depth displayed on client devices. Reducing color quality reduces bandwidth usage, but also reduces the number of colors that can be displayed.

Note – If the Color Depth is set to 8-bit, this attribute is not available. If the Color Depth is set to 16-bit, only the 16-bit, 15-bit, 12-bit, 9-bit, and 6-bit settings are available.

The default setting Best at Applications Start fixes the color depth at the most appropriate setting according to network conditions at the time the user starts the application. The color depth does not change while the session is running.

Specify Adjust Dynamically to allow the quality level to change at any time during the session depending on network conditions. This setting works within the following ranges:

- **24 bit images –** 12 to 24-bit color
- **16 bit images –** 12 to 16-bit color

The following table shows the effect on color quality of using a numeric quality setting.

Color Quality Setting	Approximate Color Quality for 16-bit Applications	Approximate Color Quality for 24-bit Applications
24	-	100%
21	-	88%
18	-	75%
16	100%	67%
15	94%	63%
12	75%	50%
9	56%	38%
6	38%	25%

The physical color quality of the client device is not forced to match that of the X session. If a 24-bit color session is being displayed on an 8-bit client device, the client dithers the image locally so that the session can be displayed reasonably.

Object Manager: Adaptive Internet Protocol ⇒ Color Quality

Command Line

Command option: `--quality automatic|best|24|21|18|16|15|12|9|6`

Usage: Specify a valid setting.

The following example sets the color quality to 12-bit color. If the Color Depth is set to 24-bit, this reduces color quality to approximately 50% on client devices.

```
--quality 12
```

Command Compression

Usage: Select an option.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application
- Character application

Description

This attribute determines whether the Adaptive Internet Protocol (AIP) compresses commands for transmission.

Select Adjust Dynamically to allow compression to be turned on or off at any stage, according to the network conditions.

With some applications, compression incurs a greater overhead than transmitting commands uncompressed. Turn off compression for these applications.

Object Manager: Adaptive Internet Protocol ⇒ Command Compression

Command Line

Command option: `--compression automatic|on|off`

Usage: Specify a valid option.

The following example disables AIP command compression.

```
--compression off
```

Command Execution

Usage: Select an option.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute determines whether the Adaptive Internet Protocol (AIP) always executes commands in order, or optimizes commands for performance reasons.

Select Adjust Dynamically to allow the network conditions to determine the setting.

For some applications, for example those that use animation, the order that commands are executed is critical.

Object Manager: Adaptive Internet Protocol ⇒ Command Execution

Command Line

Command option: `--execution automatic|inorder|optimized`

Usage: Specify a valid option. When listing object attributes on the command line, the following applies:

- The `inorder` attribute value is displayed as `on`
- The `optimized` attribute value is displayed as `off`

The following example executes commands in the order they occur.

```
--execution inorder
```

Comment

Usage: Type a description of the object in the field.

The following objects have this attribute:

- Character application
- Document
- Group
- Application server
- Organization
- Organizational Unit
- User profile
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute describes the object. Use this as an optional comment field for administrator notes

Descriptions can include any characters you want.

Object Manager: General ⇒ Description

Command Line

Command option: `--description` *text*

Usage: Replace *text* with a description of the object. Ensure that you quote any descriptions containing spaces.

The following example describes the object. You might use this description with a document object, for example.

```
--description "The intranet for Indigo Insurance"
```

Connection Closed Action

Usage: Select a telnet close option.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies the course of action to be taken by the TeemTalk for Unix emulator when the telnet connection to the application server is closed.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Prompt User for Action	`0`	Prompt the user to choose to either reconnect, close the connection or exit the emulator.
Reconnect	2	Attempt to reconnect to the 3270 application server.
Close Connection	3	Close the connection.
Exit Emulator	1	Exit the TeemTalk for Unix emulator. The SGD application session is terminated.

Object Manager: 3270 ⇒ Close Telnet Action

Object Manager: 5250 ⇒ Close Telnet Action

Command Line

Command option: `--3270tn 0|1|2|3`

Command option: `--tn 0|1|2|3`

Usage: Specify one of the valid telnet close options.

The following example exits the emulator when the telnet connection to the 3270 application server is closed.

```
--3270tn 1
```

The following example exits the emulator when the telnet connection to the 5250 application server is closed.

```
--tn 1
```

Connection Method

Usage: Select a connection method option.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies the mechanism used by the SGD server to access the application server and start the application.

The default connection method is `telnet`.

For character applications, only the connection methods `telnet` and `ssh` are allowed.

Object Manager: General ⇒ Connection Method

Command Line

Command option: `--method rexec | telnet | ssh`

Usage: Specify one of the valid connection methods. Not all methods are available for all types of application.

The following example uses the `telnet` connection method to log in to an application server.

```
--method telnet
```

Connections

Usage: Create as many connection type specifications as you need, using the Connection Definitions table. Use the Add, Edit and Delete buttons to create, modify and delete connections. Order the connections using the Move Up and Move Down buttons.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

This attribute defines, for ranges of DNS names or IP addresses, the connections that are allowed between the client device and the SGD server.

Once a user is logged in to an SGD server, the DNS names and IP addresses of the client device and the SGD server are used to determine the type of connection. First, the Connections attribute for the user profile object is selected. If no matching entry exists, the parent organizational unit's Connections attribute is selected, and so on up the organizational hierarchy to the organization object.

If no matching entry for the organization object is found, the user is given the best available connection.

Processing of connection types is turned off by default, which enables users to log in more quickly. You can turn on processing of connection types on the Security tab in the Global Settings ⇒ Security tab of the Administration Console.

The Connections attribute is an *ordered list* of connection type specifications. Each specification names the following:

- The DNS name or IP address of a client device. Use the wildcards `?` and `*` to match more than one client device.
- The DNS name or IP address of an SGD server. Use the wildcards `?` and `*` to match more than one SGD server.
- The connection type.

In all cases, DNS names or IP addresses are considered *from the perspective of the SGD server* (they are peer DNS names and IP addresses). If your network is configured to use different names on each side of a firewall, you must use the names on the side of the SGD servers for this attribute.

The following connection types are available.

Administration Console	Command Line	Notes
Standard	`STD`	Always available.
Secure	`SSL`	Gives users a secure, SSL-based connection between their client device and the SGD server. Only available if SGD security services are enabled. If not, users configured to receive secure connections are given standard connections instead.

Note – If security services have been enabled on the SGD server, all connections are secure until the user logs in. Once the user is known, the connection can be downgraded.

Object Manager: Connections tab

Command Line

Command option: `--conntype` *type_spec*

Usage: Replace *type_spec* with a connection type specification of the form: *client*:*server*:*type*. For example, `192.168.5.*:*:STD`.

Separate each *type_spec* with the "pipe" character, "`|`".

The following example, for a user profile object, means the user is given a secure connection to all SGD servers if the client device has an IP address that starts 192.168.5, and a standard connection for all other client devices.

```
--conntype '192.168.5.*:*:SSL|*:*:STD'
```

For an organizational unit or an organization object, these connection type specifications are used only if no match is found for the client device and SGD server in the user profile object's Connections attribute.

Connection Method: ssh Arguments

Usage: Select the ssh Connection Method option and type the `ssh` command-line arguments in the field.

The following objects have this attribute:

- Character application
- X application
- 3270 application
- 5250 application

Description

The attribute enables you to specify the command-line arguments for the `ssh` client when the Connection Method for an application is `ssh`.

See the *Sun Secure Global Desktop Administration Guide* for information on installing and using `ssh` with SGD.

Object Manager: Advanced ⇒ SSH Arguments

Command Line

Command option: `--ssharguments` *args*

Usage: Replace *args* with the `ssh` command-line arguments.

The following example configures the `ssh` client to use the `-X` command-line option when using the application. This enables X11 forwarding.

```
--ssharguments "-X"
```

Copy and Paste

Usage: For *user profile* objects or *organizational unit* objects, select the Override Parent's Setting check box and then select or deselect the Enabled option. To use the setting defined for the parent object, deselect the Override Parent's Setting check box.

For *organization* objects, select the Override Global Setting check box and then select or deselect the Enabled option. To use the default setting defined in the Global Settings ⇒ Client Device tab, deselect the Override Global Setting check box.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

This attribute controls whether users can use copy and paste in Windows or X application sessions.

For user profile objects or organizational unit objects, deselect the Override Parent's Setting check box to inherit the setting of a parent object in the organizational hierarchy. This is used to enable or disable copy and paste for many users without having to edit each user profile object.

For organization objects, deselect the Overrride Global Setting check box to use the default setting configured on the Global Settings ⇒ Client Device tab of the Administration Console.

When a user starts an application, SGD checks the user profile object for the user and then any parent object further up the organizational hierarchy to see whether copy and paste is enabled or disabled. If all the objects selected are configured to use the parent's setting, then the default setting is used.

By default, copy and paste is allowed.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Override Parent's Setting (deselected)	`2`	**User profile objects or organizational unit objects**. Use the setting inherited from the parent object. This is the default setting.
Override Global Setting (deselected)	`2`	**Organization objects.** Use the global setting. This is the default setting.
Enabled (selected)	`1`	Enable copy and paste.
Enabled (deselected)	`0`	Disable copy and paste.

Changes to this attribute only take effect for new application sessions.

Object Manager: General ⇒ Clipboard Access

Command Line

Command option: `--clipboard 2|1|0`

Usage: Specify 2|1|0.

The following example disables copy and paste for a user's Windows or X application sessions.

```
--clipboard 0
```

Copy and Paste: Application's Clipboard Security Level

Usage: Type a number in the field.

The following objects have this attribute:

- Windows application
- X application

Description

This attribute is used to control user copy and paste operations in Windows or X application sessions.

Use this attribute to specify a security level. The security level can be any positive integer. The higher the number, the higher the security level.

You can only copy and paste data to an application if it has the same security level or higher as the source application (the application the data was copied from) .

SGD Clients also have a security level. You can only copy and paste data to applications running on the client device if the client has the same security level or higher as the source application. See "Client's Clipboard Security Level" on page 39.

On the command line, specify `-1` to disable copy and paste operations.

The default security level is 3.

Changes to this attribute only take effect for new application sessions.

Object Manager: General ⇒ Clipboard Security Level

Command Line

Command option: `--clipboardlevel` *level*

Usage: Replace *level* with the security level.

The following example sets the security level for an application to 5. You can only copy and paste data to this application if the source application or SGD Client has a security level of 5 or less.

```
--clipboardlevel 5
```

Cursor

Usage: Select a cursor style option.

Character application objects have this attribute.

Description

This attribute specifies how you want the cursor to appear within the application.

Object Manager: Appearance ⇒ Cursor

Command Line

Command option: `--cursor off | block | underline`

Usage: Specify the cursor style you want.

The following example uses an underline for the cursor.

```
--cursor underline
```

Cursor Key Codes Modification

Usage: Select or deselect the check box.

Character application objects have this attribute.

Description

This attribute specifies the behavior of the cursor keys. It determines whether they always generate cursor movement codes, or whether the application changes the codes generated by the cursor keys.

This attribute applies to VT420 character applications only.

Object Manager: Behavior ⇒ Cursor Keys

Command Line

Command option: `--cursorkeys application | cursor`

Usage: Specify the cursor key behavior you want.

In the following example, the cursor keys always generate cursor movement codes.

```
--cursorkeys cursor
```

Delayed Updates

Usage: Select or deselect the check box.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies whether delayed updates of the display are allowed. This accumulates changes and can improve performance.

If your application's display must always be exact, deselect the check box. To improve performance, turn off delayed updates for animation.

Object Manager: Adaptive Internet Protocol ⇒ Allow Delayed Updates

Command Line

Command option: `--delayed true|false`

Usage: Specify `true` or `false`.

The following example enables delayed updates of the application's display.

```
--delayed true
```

Displayed Soft Buttons

Usage: Select an option.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies how many levels of "soft buttons" are displayed.

Object Manager: 3270 ⇒ Soft Button Levels

Object Manager: 5250 ⇒ Soft Button Levels

Command Line

Command option: `--3270bl 0|1|2|3|4`

Command option: `--bl 0|1|2|3|4`

Usage: Specify a level between 0 and 4.

The following example sets the number of levels of "soft buttons" for a 3270 application to 2.

```
--3270bl 2
```

The following example sets the number of levels of "soft buttons" for a 5250 application to 2.

```
--bl 2
```

Domain Name

Usage: Type the domain to use for application server authentication in the field.

The following objects have this attribute:

- Application server
- Windows application
- User profile

Description

This attribute specifies the domain to use for the application server authentication process.

Note – This attribute plays no part in the SGD login.

Object Manager: General ⇒ Windows NT Domain

Command Line

Command option: `--ntdomain` *dom*

Usage: Replace *dom* with the domain to use for application server authentication.

The following example authenticates using the domain indigo.

```
--ntdomain indigo
```

Email Address

Usage: Type the user's email address in the field.

User profile objects have this attribute.

Description

This attribute specifies a user's email address, in the form: *name@domain*

When authenticating users, SGD might use this attribute for identifying the user.

Object Manager: General ⇒ Email Address

Command Line

Command option: `--email` *email*

Usage: Replace *email* with the user's email address.

The following example defines the email address of the user as `indigo@indigo-insurance.com`.

```
--email indigo@indigo-insurance.com
```

Emulation Type

Usage: Select an emulation type option.

Character application objects have this attribute.

Description

This attribute identifies the type of emulation required for the application: SCO Console, VT420 or Wyse 60. Set the correct Terminal Type for the selected Emulation Type.

Not all character application attributes apply to all emulation types. In the Administration Console, selecting an emulation type option enables and disables other attributes for the object.

Object Manager: General ⇒ Emulation Type

Command Line

Command option: `--emulator scoconsole | vt420 | wyse60`

Usage: Specify the correct emulation type.

The following example uses Wyse 60 terminal emulation for the application.

```
--emulator wyse60
```

Environment Variables

Usage: Type the environment variables in the field, one on each line. Press Return to add new entries.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies any environment variable settings needed to run the application. For example, you might need to set `LD_LIBRARY_PATH` to access shared libraries.

Quote any environment variable setting with a value containing spaces.

Do not set the `DISPLAY` variable. SGD sets the display automatically for each user.

Object Manager: Advanced ⇒ Environment Variables

Command Line

Command option: `--env` *setting*

Usage: Replace *setting* with an environment variable setting, of the form *VARIABLE=value*. To set more than one variable, use multiple `--env` arguments.

The following example runs the application with two environment variables set.

```
--env LD_LIBRARY_PATH=/usr/lib "MY_VARIABLE=603 1769"
```

Escape Sequences

Usage: Select an option.

Character application objects have this attribute.

Description

This attribute specifies how escape sequences are sent from the emulator to the application server. Escape sequences can be sent as 7-bit or 8-bit control codes.

This attribute applies to VT420 character applications only.

Object Manager: Behavior ⇒ Escape Sequences

Command Line

Command option: `--escape 7-bit | 8-bit`

Usage: Specify a valid setting.

The following example sends escape sequences using 8-bit control codes.

```
--escape 8-bit
```

Euro Character

Usage: Select a setting from the list.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies the keycode mapping required by the application to support the euro character. Most euro-compliant applications currently use iso8859-15. If in doubt, check your X application's documentation to see which method to use.

To use the euro character with SGD, the client device must be capable of entering the character.

To display the euro character, you must configure your application to use an iso8859-15 font. Add one of the following to the Arguments for Command attribute:

```
-fn 5x7euro
-fn 6x10euro
-fn 6x13euro
-fn 6x13boldeuro
-fn 7x13euro
-fn 7x13boldeuro
-fn 7x14euro
-fn 7x14boldeuro
-fn 8x13euro
-fn 8x13boldeuro
-fn 8x16euro
-fn 9x15euro
-fn 9x15boldeuro
-fn 10x20euro
-fn 12x24euro
```

This ensures that the application uses the iso8859-15 fonts supplied with SGD. You can use your own fonts if you wish. However, to display the euro character they must be iso8859-15 compliant.

The application server must also support the euro character.

Object Manager: Advanced ⇒ Euro Character

Command Line

Command option: `--euro unicode|iso8859-15`

Usage: Specify a valid option.

The following example enables iso8859-15 keycode mapping.

```
--euro iso8859-15
```

'File' and 'Settings' Menus

Usage: Select or deselect the check box.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies whether or not the File and Settings menu items are enabled. When disabled, only the window resize buttons are displayed in the menu bar.

Object Manager: 3270 ⇒ Enable File and Settings Menus

Object Manager: 5250 ⇒ Enable File and Settings Menus

Command Line

Command option: `--3270si true|false`

Command option: `--si true|false`

Usage: Specify `true` or `false`.

The following example enables the File and Settings menu items for a 3270 application.

```
--3270si true
```

The following example enables the File and Settings menu items for a 5250 application.

```
--si true
```

Font Family

Usage: Select a font family from the list.

Character application objects have this attribute.

Description

This attribute determines the font family used within the terminal window for the application.

Only Courier, Helvetica or Times Roman can be used. It is not possible to use any other font family.

Object Manager: Appearance ⇒ Font Family

Command Line

Command option: `--font courier | helvetica | timesroman`

Usage: Specify a valid font family.

The following example uses the Times Roman font in the application's terminal window.

```
--font timesroman
```

Font Size

Usage: Type a font size, in points, in the field.

Character application objects have this attribute.

Description

This attribute defines the font size in the terminal window, in the range 2-20 points.

Object Manager: Appearance ⇒ Font Size

Command Line

Command option: `--fontsize` *points*

Usage: Replace *points* with the font size in points.

The following example uses a 16-point font in the terminal window.

```
--fontsize 16
```

Font Size: Fixed Font Size

Usage: Select or deselect the Fixed Font Size check box.

Character application objects have this attribute.

Description

If this attribute is not selected, the emulator chooses a font size that fits the defined number of Window Size: Columns and Window Size: Lines into the Window Size: Width and Window Size: Height defined for the application. The application's Font Size setting is used as a minimum value.

If this attribute is selected, the Font Size defined is used, and scroll bars appear if necessary.

Note – If this attribute is selected, the Window Size: Client's Maximum Size attribute is ignored.

Object Manager: Appearance ⇒ Fixed Font Size

Command Line

Command option: `--fixedfont true|false`

Usage: Specify `true` or `false`.

The following example uses the font size specified by Font Size for the terminal window.

```
--fixedfont true
```

Foreground Color

Usage: Type a valid color resource, such as `yellow`, in the field.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies the color of the text in the application's text window.

Color names are resolved to RGB values using the file named in the X Protocol Engine's RGB Database attribute.

Object Manager: 3270 ⇒ Foreground Color

Object Manager: 5250 ⇒ Foreground Color

Command Line

Command option: `--3270fg` *color*

Command option: `--fg` *color*

Usage: Replace *color* with a valid color resource, such as `yellow`.

In the following example, the text in the 3270 application's text window is set to the color plum4.

```
--3270fg plum4
```

In the following example, the text in the 5250 application's text window is set to the color plum4.

```
--fg plum4
```

Graphics Acceleration

Usage: Select or deselect the check box.

The following objects have this attribute:

- Windows application
- X application

- 3270 application
- 5250 application

Description

This attribute specifies whether acceleration is allowed. Acceleration optimizes how graphics are rendered and improves performance at the expense of smoothness and exactness. For example, colors might not always be exact.

If your application's display must always be exact, deselect the check box.

Object Manager: Adaptive Internet Protocol ⇒ Use Graphics Acceleration

Command Line

Command option: `--accel true | false`

Usage: Specify `true` or `false`.

The following example enables graphics acceleration for the application's display.

```
--accel true
```

Hints

Usage: Type the hints in the field. Separate each hint with a semi-colon.

The following objects have this attribute:

- Character application
- Document
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute enables you to define one or more strings that can be used to control the publishing and display of objects on the webtop.

You can use any number of strings and the strings can be anything. Separate each hint with a semi-colon. Use a name=value naming convention for webtop hints.

This attribute is blank by default.

This attribute is for developers who are using the SGD web services to develop custom webtops.

Note – This attribute is not available in the Administration Console.

Object Manager: General ⇒ Webtop Hints

Command Line

Command option: `--hints` *hint*...

Usage: Replace *hint* with the webtop hint. Separate each hint with a semi-colon.

The following example sets a hint that might be used to specify the size of the webtop icon for the application.

```
--hints "preferredsize=16;"
```

Hosted Applications Tab

Usage: To assign applications to an application server object, click the Add button in the Editable Assignments table.

To delete applications for an application server object, use the Delete button in the Editable Assignments table.

Application server objects have this attribute.

Description

The Hosted Applications tab lists the applications which are hosted by the application server.

Object Manager: Seen By tab

The following sections of the Hosted Applications tab are used to display, select and assign applications:

- Effective Applications table

- Editable Assignments table

Effective Applications Table

The Effective Applications table shows all the application objects that are assigned to the selected object. The Local Assignments section of the table lists applications that are selected from the local repository.

The Assignment Type column shows one of the following:

- **Direct.** The assignment was made using the Editable Assignments table.
- **Indirect.** The assignment is the result of another relationship, such as membership of a group, or inheritance from another object.
- **Multiple.** The assignment has multiple sources, both Direct and Indirect.

If an assignment type is Indirect or Multiple, clicking the See Details link displays information that enables you to trace the origin of the link.

Editable Assignments Table

You can use the Editable Assignments table to select applications from the local repository.

Click the Add button in the Editable Assignments table. The Add Application Assignment window is shown.

To select applications in the Add Application Assignment window, do either of the following:

- **Browse the Navigation Tree.** As you browse the tree, the Content Area is updated with applications.
- **Use the Search Applications field.** Use this field to search for applications. Type in the names of applications in the field. Note that you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name**" and returns any match of the search string. Results of the search are displayed in the Search Results table in the Content Area. The number of results returned by a search is limited to 150, by default.

Select the required applications from those listed in the Content Area. When you have finished selecting applications click the Add button.

The selected applications are displayed in the Effective Applications table of the Hosted Applications tab.

To delete applications from the Hosted Applications tab, use the Delete button in the Editable Assignments table.

Command Line

There is no command-line equivalent for this attribute.

Hosting Application Servers Tab

Usage: To assign application servers to a character, Windows or X application object, click the Add button in the Editable Assignments table.
To delete application servers for a character, Windows or X application object, use the Delete button in the Editable Assignments table.

The following objects have this attribute:

- Character application
- Windows application
- X application

Description

This attribute defines the application servers that can run the application. The SGD server uses application server load balancing to determine which application server to use. Each application server is stored as *a reference to the object*, so a particular object can appear on many Hosting Application Server tabs. If an object is moved or renamed later, all references to it are automatically updated.

If a group is added to a Hosting Application Servers tab, the group's members and not the group are used for application server load balancing.

If you do not specify any application servers to run the application, the application can run on any SGD server in the array that supports that type of application.

Object Manager: Hosts tab

The following sections of the Hosting Application Servers tab are used to display, select and assign applications:

- Effective Application Servers table
- Editable Assignments table

Effective Application Servers Table

The Effective Application Servers table shows all the application server objects that are assigned to the selected object. The Local Assignments section of the table lists applications that are selected from the local repository.

The Assignment Type column shows one of the following:

- **Direct.** The assignment was made using the Editable Assignments table.
- **Indirect.** The assignment is the result of another relationship, such as membership of a group, or inheritance from another object.
- **Multiple.** The assignment has multiple sources, both Direct and Indirect.

If an assignment type is Indirect or Multiple, clicking the See Details link displays information that enables you to trace the origin of the link.

Editable Assignments Table

You can use the Editable Assignments table to select application servers from the local repository.

Click the Add button in the Editable Assignments table. The Add Application Server Assignment window is shown.

To select application servers in the Add Application Server Assignment window, do either of the following:

- **Browse the Navigation Tree.** As you browse the tree, the Content Area is updated with application servers.
- **Use the Search Application Servers field.** Use this field to search for application servers. Type in the names of application servers in the field. Note that you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name**" and returns any match of the search string. Results of the search are displayed in the Search Results table in the Content Area. The number of results returned by a search is limited to 150, by default.

Select the required application servers from those listed in the Content Area. When you have finished selecting application servers click the Add button.

The selected application servers are displayed in the Effective Application Servers table of the Hosting Application Servers tab.

To delete application servers from the Hosting Application Servers tab, use the Delete button in the Editable Assignments table.

Command Line

Command option: `--appserv` *object*

Usage: Replace *object* with the full name of an object, for example, `"o=appservers/ou=IT/cn=london"`. Make sure that you quote any object names containing spaces.

The following example adds `geneva` and `prague` as application servers for an application.

```
--appserv "o=appservers/ou=IT/cn=geneva" \
        "o=appservers/cn=prague"
```

Icon

Usage: Click the Edit button and select an icon option from the Select Application Icon list. Click OK to save the setting.

The following objects have this attribute:

- Character application
- Windows application
- X application
- Document
- 3270 application
- 5250 application

Description

This attribute specifies the icon that users see on their webtop, or their desktop Start menu or Launch menu.

Object Manager: General ⇒ Webtop Icon

Command Line

Command option: `--icon` *icon_name*

Usage: Replace *icon_name* with a file name, including the extension. For example, `spreadsheet.gif`.

The following example uses the `clock.gif` icon.

```
--icon clock.gif
```

Inherit Assigned Applications from Parent

Usage: Select or deselect the check box and click the Save button.

The following objects have this attribute:

- Organizational Unit
- User profile

Description

This attribute determines whether the assigned applications for the object also includes the assigned applications for the object's parent in the organizational hierarchy.

Depending on this attribute's setting in the parent object, the aggregation of webtop content can continue up the hierarchy to the organization object.

Object Manager: General ⇒ Inherit Parent's Webtop Content

Command Line

Command option: `--inherit true | false`

Usage: Specify `true` or `false`.

In the following example, the object inherits webtop content from the parent object.

```
--inherit true
```

Interlaced Images

Usage: Select an option.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute determines whether images are transmitted and displayed in a series of interlaced passes or in one pass from top to bottom.

Select Adjust Dynamically to allow interlacing to be turned on or off at any stage, according to the network conditions.

Use interlacing for graphics-intensive applications, particularly over low-bandwidth connections.

Object Manager: Adaptive Internet Protocol ⇒ Interlaced Images

Command Line

Command option: `--interlaced automatic|on|off`

Usage: Specify a valid setting.

The following example enables interlaced image transmission.

```
--interlaced on
```

Keep Launch Connection Open

Usage: Select or deselect the check box.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies whether to keep open the connection used to start the application, or to close the connection.

Usually, you deselect the check box.

Select the check box if users experience either of these symptoms:

- The application appears to start and then immediately exits
- The application has problems shutting down. In this case, also set the Session Termination attribute to Login Script Exit

Object Manager: Advanced ⇒ Keep Launch Connection Open

Command Line

Command option: `--keepopen true | false`

Usage: Specify `true` or `false`.

The following example closes the connection used to start the application.

```
--keepopen false
```

Keyboard Codes Modification

Usage: Select or deselect the check box.

Character application objects have this attribute.

Description

This attribute determines whether the application can change the codes generated by keys on the keyboard.

This attribute applies to Wyse 60 character applications only.

Object Manager: Behavior ⇒ Application Key Mode

Command Line

Command option: `--appkeymode true|false`

Usage: Specify `true` or `false`.

The following example disables key code changes for the application.

```
--appkeymode false
```

Keyboard Map

Usage: For *user profile* objects, select an option. For the Custom Value option, type the path name of a keyboard map file in the field. For *character applications*, type the path name of a keyboard map file in the field.

The following objects have this attribute:

- User profile

- Character application

Description

This attribute specifies the path name of a keyboard map file. You can use a full path name or a relative path name. Relative path names are relative to the */install-dir*`/etc/data/keymaps` directory.

Object Manager: General ⇒ Keyboard Map

User Profile Objects

The keyboard map file specified is used for all graphical applications started by this user.

To use a keyboard map based on the locale of the client device, select Client's Input Locale. The actual keymap used is determined using the */install-dir*`/etc/data/keymaps/xlocales.txt` file.

Note – You can use the * or ? wildcards in the `xlocales.txt` file to support a range of input locales. See the `xlocales.txt` file for details.

To use the X Protocol Engine settings defined for an SGD server to determine the keyboard map, select the X Protocol Engine Value option.

Alternatively, to always use a particular keyboard map for this user, type a file name.

Character Application Objects

The specified keyboard map file is used for this application.

Leave blank to use the default keyboard map for the application type. These are built-in to the emulators, but are equivalent to the keyboard maps in the files `ansikey.txt`, `vt420key.txt` and `w60key.txt`. These files are in the */install-dir*`/etc/data/keymaps` directory.

Command Line

Command option: `--keymap` *keymap*

Usage: For *user profile* objects, use either `default` or `client-locale` or replace *keymap* with the path name of a keyboard map file. For *character applications*, replace *keymap* with the path name of a keyboard map file.

The following example uses the named keymap, which is stored in */install-dir*`/etc/data/keymaps`.

```
--keymap mykeymap.txt
```

Keyboard Map: Locked

Usage: Select or deselect the check box.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies whether an application is prevented from changing the default keyboard mappings. Select the check box to ensure that the keyboard mappings cannot be changed.

Object Manager: Advanced ⇒ Lock Keymap

Command Line

Command option: `--lockkeymap true | false`

Usage: Specify `true` or `false`.

The following example prevents an application from changing keyboard mappings.

```
--lockkeymap true
```

Keyboard Type

Usage: Select a keyboard type option.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies the layout to use for mapping the keyboard to the terminal being emulated.

Object Manager: 3270 ⇒ Keyboard Type

Object Manager: 5250 ⇒ Keyboard Type

Command Line

Command option: `--3270kt pc|sun4|sun5|hp`

Command option: `--kt pc|sun4|sun5|hp`

Usage: Specify one of the valid keyboard types.

In the following example, the keyboard type for a 3270 application is set to pc.

```
--3270kt pc
```

In the following example, the keyboard type for a 5250 application is set to pc.

```
--kt pc
```

Line Wrapping

Usage: Select or deselect the check box.

Character application objects have this attribute.

Description

This attribute determines the behavior when a user types characters extending beyond the right edge of the terminal window.

Select the check box to wrap the characters onto the next line.

Deselect the check box to not display the characters. The characters are placed in the keyboard buffer.

Object Manager: Appearance ⇒ Wrap Long Lines

Command Line

Command option: `--autowrap true|false`

Usage: Specify `true` or `false`.

The following example wraps characters onto the next line in the terminal window.

```
--autowrap true
```

Load Balancing Groups

Usage: Type one or more load balancing groups for the application server in the field. Press the Return key after each load balancing group.

Application server objects have this attribute.

Description

This attribute specifies the load balancing group used for application load balancing.

You can use any string, for example “Scandinavia” or “US-East”. Application load balancing tries to choose an application server and SGD server with the same location, to minimize the “network distance” between them and maximize performance. The connection between the user’s client device and the SGD server uses the Adaptive Internet Protocol (AIP), which adapts to the network conditions.

Leave this attribute blank unless you use an array spanning a wide area network (WAN), or one that includes slow links, and you use the intelligent array routing load balancing groups feature. More than one string is allowed, but this slows application startup.

If used, set this attribute on all appropriate application server objects, and for all SGD servers in the array (using the Server Settings ⇒ General tab of the Administration Console).

Object Manager: Location

Command Line

Command option: `--location` *location*

Usage: Replace *location* with the location of the application server.

The following example locates the application server in Paris.

```
--location Paris
```

Login

Usage: Select or deselect the check box.

User profile objects have this attribute.

Description

This attribute specifies whether someone can log in using this user profile object.

Deselect the check box to deny a user access to SGD.

This attribute is always selected for profile objects in the System Objects organization. Users can always log in using the profile object, as long as the appropriate authentication mechanism is available (configured on the Global Settings ⇒ Secure Global Desktop Authentication tab of the Administration Console).

To deny access to all users who use a particular authentication mechanism, deselect the appropriate authentication repository using the Authentication Wizard on the Global Settings ⇒ Secure Global Desktop Authentication tab of the Administration Console.

To stop all users from logging in to a particular SGD server, deselect User Login for the server on the Server Settings ⇒ General tab of the Administration Console.

Object Manager: General ⇒ May Log In to Secure Global Desktop

Command Line

Command option: `--enabled true|false`

Usage: Specify `true` or `false`.

The following example enables the user profile object to log in to SGD.

```
--enabled true
```

Login: Multiple

Usage: Select or deselect the check box.

User profile objects have this attribute.

Description

This attribute specifies whether the user profile is used by a single user, or can be shared by multiple users in the form of a “guest” account.

The following table shows the similarities and differences between user profile objects with the attribute deselected and with the attribute selected.

Account is Not Shared	Account is Shared
Must be used by one user.	Can be used by more than one user.
Each user has their own application sessions.	Each user has their own application sessions.
Application sessions can continue between user sessions.	Application sessions end when a user logs out.
One set of password cache entries.	One set of password cache entries (which is shared between all users).
The user can save entries in the password cache.	Users cannot save entries in the password cache.
If the user is already logged in, logging in again from a different client device relocates the user session. The old user session ends.	Logging in again creates a new user session. No existing user sessions are affected.

Object Manager: General ⇒ Shared Between Users (Guest)

Command Line

Command option: `--shared true | false`

Usage: Specify `true` or `false`.

The following example enables the user profile object to be shared by multiple users in the form of a “guest” account.

```
--shared true
```

Login Name

Usage: Type the user’s login name in the field.

User profile objects have this attribute.

Description

This attribute specifies the login name of a user. This is typically their UNIX user name.

An authentication repository might use this attribute for identifying and authenticating users.

Object Manager: General ⇒ Username

Command Line

Command option: `--user` *username*

Usage: Replace *username* with the user's login name.

The following example defines the login name as `indigo`.

```
--user indigo
```

Login Script

Usage: Type the login script file name in the field.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies the login script that runs to start this application. Only change this setting if you are having problems starting an application.

To configure SGD to choose a login script automatically, leave the setting blank.

You can use a full path name or a relative path name. Relative path names are considered relative to the value of the Execution Protocol Engine's Login Script Directory attribute.

The current working directory of the login script is the directory containing the script. If the script sources another script using a relative path name, it is considered relative to this directory.

Object Manager: Advanced ⇒ Login Script

Command Line

Command option: `--login` *script*

Usage: Replace *script* with the file name of the login script to use.

The following example uses the custom login script `my_login.exp` to start the application.

```
--login my_login.exp
```

Make Universal PDF Printer the Default

Usage: Select or deselect the check box.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

Sets the SGD Universal PDF printer as the client's default printer when printing from Windows applications that use the Microsoft RDP Windows Protocol.

This attribute is only available if the Universal PDF Printer is enabled.

This attribute can only be edited using the Administration Console if Client Printing: Override is enabled for the object.

By default, the Universal PDF printer is not the default printer (`false` on the command line).

The setting for this attribute overrides either of the following:

- The setting for a parent object in the organizational hierarchy
- The default setting configured on Global Settings ⇒ Printing tab of the Administration Console, if no parent object configuration exists

Changes to this attribute only take effect for new user sessions.

Object Manager: Printing ⇒ Make PDF Printer the Default for Windows 2000/3

Command Line

Command option: `--pdfisdefault 1|0`

Usage: Specify `1` (true) or `0` (false).

The following example makes the Universal PDF printer the default printer when printing from a Windows application using RDP.

```
--pdfisdefault true
```

Make Universal PDF Viewer the Default

Usage: Select or deselect the check box.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

Sets the SGD Universal PDF Viewer printer as the client's default printer when printing from Windows applications that use the Microsoft RDP Windows Protocol.

By default, the Universal PDF Viewer printer is not the default printer (`false` on the command line).

This attribute is only available if the Universal PDF Viewer is enabled.

This attribute can only be edited using the Administration Console if Client Printing: Override is enabled for the object.

The setting for this attribute overrides either of the following:

- The setting for a parent object in the organizational hierarchy

- The default setting configured on the Global Settings ⇒ Printing tab of the Administration Console, if no parent object configuration exists

Changes to this attribute only take effect for new user sessions.

Object Manager: Printing ⇒ Make PDF File Printer the Default for Windows 2000/3

Command Line

Command option: `--pdfviewerisdefault 1|0`

Usage: Specify `1` (true) or `0` (false).

The following example makes the Universal PDF Viewer printer the default printer when printing from Windows applications using RDP.

```
--pdfviewerisdefault true
```

Members Tab

Usage: To add group members to a group object, click the Add button in the Editable Assignments table.

To delete group members from a group object, use the Delete button in the Editable Assignments table.

Group objects have this attribute:

Description

The Members tab shows the members of the selected group object. You can only create groups of applications or groups of application servers.

A group can have many members, including other groups. Each member is stored as *a reference to the object*, so a particular object can be a member of many groups. If an object is moved or renamed later, all references to it are automatically updated.

Object Manager: Members tab

The following sections of the Members tab are used to display, select and assign group members:

- Effective Members table
- Editable Members table

Effective Members Table

The Effective Members table shows all the objects that are assigned to the selected group object.

The Assignment Type column shows one of the following:

- **Direct.** The assignment was made using the Editable Assignments table.
- **Indirect.** The assignment is the result of another relationship, such as membership of a group, or inheritance from another object.
- **Multiple.** The assignment has multiple sources, both Direct and Indirect.

If an assignment type is Indirect or Multiple, clicking the See Details link displays information that enables you to trace the origin of the link.

Editable Members Table

You can use the Editable Members table to select group members from the local repository.

Click the Add button in the Editable Assignments table. The Add Application Member window, or Add Application Server Member window, is shown, depending on the whether you are editing a group of applications or a group of application servers.

To select group members in the Add Application Assignment or Add Application Server Member window, do either of the following:

- **Browse the Navigation Tree.** As you browse the tree, the Content Area is updated with applications.
- **Use the Search Applications or Search Application Servers field.** The name of this field varies, depending on whether you are editing a group of applications or a group of application servers. Use this field to search for group members. Type in the names of applications or application servers in the field. Note that you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name***" and returns any match of the search string. Results of the search are displayed in the Search Results table in the Content Area. The number of results returned by a search is limited to 150, by default.

Select the required group members from those listed in the Content Area. When you have finished selecting members click the Add button.

The selected group members are displayed in the Effective Members table of the Members tab.

To delete members from the Members tab, use the Delete button in the Editable Members table.

Command Line

Command option: `--member` *object*

Usage: Replace *object* with the full name of the object. For example,`"o=Indigo Insurance/ou=Finance/cn=XClaim"`. Make sure that you quote any object names containing spaces.

The following example names `Indigo Jones` and `Emma Rald` as members.

```
--member "o=Indigo Insurance/cn=Indigo Jones" \
         "o=Indigo Insurance/ou=Marketing/cn=Emma Rald"
```

Menu Bar

Usage: Select or deselect the check box.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies whether the application's menu bar is displayed or not.

Object Manager: 3270 ⇒ Enable Menu Bar

Object Manager: 5250 ⇒ Enable Menu Bar

Command Line

Command option: `--3270mb true|false`

Command option: `--mb true|false`

Usage: Specify `true` or `false`.

In the following example, the 3270 application's menu bar is enabled.

```
--3270mb true
```

In the following example, the 5250 application's menu bar is enabled.

```
--mb true
```

Middle Mouse Timeout

Usage: Type a timeout, in milliseconds, in the field.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute enables you to emulate the middle mouse button on a two-button mouse by clicking the left and right mouse buttons at the same time.

This setting is the maximum time that can elapse between pressing the left and the right mouse buttons for the action to be treated as a middle mouse button operation.

Object Manager: Advanced ⇒ Middle Mouse Timeout

Command Line

Command option: `--middlemouse` *ms*

Usage: Replace *ms* with a timeout in milliseconds.

In the following example, the left and right buttons must be pressed within 0.3 seconds for the operation to be considered as a middle mouse button operation.

```
--middlemouse 300
```

Monitor Resolution

Usage: Type a resolution, in dots per inch, in the field.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies the monitor resolution (in dots per inch) that SGD reports to X applications asking for this information. Some X applications need this value to determine what font size to use.

If you leave this attribute blank, the value specified in the X Protocol Engine's Monitor Resolution attribute is reported.

The default resolution might cause the X application to choose a font size larger than it normally uses. This can cause clipping problems, as the X application needs more screen space. If this happens, try reducing the resolution by typing a smaller value, for example, 75.

The X application might also use too large a font if the X Protocol Engine's Font Path attribute uses a different order than the console or X terminal.

Object Manager: Advanced ⇒ Monitor Resolution

Command Line

Command option: `--dpi` *dpi*

Usage: Replace *dpi* with a resolution in dots per inch.

The following example reports a resolution of 75dpi to X applications that need this information.

```
--dpi 75
```

Mouse

Usage: Select or deselect the Only 3-Button Mouse Supported check box.

X application objects have this attribute.

Description

This attribute enables you to specify whether the X application only supports a 3-button mouse.

Select the check box if the application only supports a 3-button mouse. The check box is cleared by default.

Object Manager: Advanced ⇒ Application Supports 3-Button Mouse Only

Command Line

Command option: `--force3button true|false`

Usage: Specify `true` or `false`.

In the following example, the application only supports a 3-button mouse.

```
--force3button true
```

Name

Usage: Type the name used for the object, for example, Indigo Jones.

The following objects have this attribute:

- Active Directory container
- Character application
- Document
- Domain component
- Group
- Application server
- User profile
- Windows application
- X application
- 3270 application
- 5250 application
- Organization
- Organizational Unit

Description

This attribute specifies the name of the object in the local repository.

The following naming conventions are used for SGD objects.

- 3270 application objects have a `cn=` naming attribute.
- 5250 application objects have a `cn=` naming attribute.
- Active Directory container objects have a `cn=` naming attribute.
- Application server objects have a `cn=` naming attribute.
- Character application objects have a `cn=` naming attribute.

- Document objects have a `cn=` naming attribute.
- Domain Component objects have a `dc=` naming attribute.
- Group objects have a `cn=` naming attribute.
- Organization objects have an `o=` naming attribute.
- OU objects have an `ou=` naming attribute.
- User profile objects can have a `cn=` (common name), a `uid=` (user identification), or a `mail=` (mail address) naming attribute.
- Windows application objects have a `cn=` naming attribute.
- X application objects have an `cn=` naming attribute.

In the Administration Console, names can include any characters, except the backslash character (\).

Object Manager: General ⇒ Name

Object Manager: Name tab

Command Line

Command option: `--name` *name*

Usage: Replace *name* with the full name of the object, for example, `"o=applications/ou=Finance/cn=XClaim"`.

Make sure that you quote any names containing spaces.

If you use a forward slash (/) in an object name, you must backslash protect (escape) it. For example, to create an object with the relative name `cn=a/b` beneath `o=organisation`, type `cn=a\/b`.
This creates an object `o=organisation/"cn=a/b"`.

The following example defines the name of the organization object as `Indigo Insurance`.

```
--name "o=Indigo Insurance"
```

The following example defines the name of the organizational unit object as `Finance`. The object belongs to the directory object, `Indigo Insurance`, which must already exist.

```
--name "o=Indigo Insurance/ou=Finance"
```

The following example defines the common name of a user profile object as `Indigo Jones`. The object belongs to the organization object, `Indigo Insurance`.

```
--name "o=Indigo Insurance/cn=Indigo Jones"
```

The following example defines the names of a domain component object as `indigo-insurance`.

```
--name "dc=com/dc=indigo-insurance"
```

Number of Sessions

Usage: Select or deselect the Limited check box. If the Limited check box is selected, type a number in the Max per User field.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute enables you to set the maximum number of instances of an application a user can run simultaneously. The default is 3.

The application's link on the webtop indicates how many instances of the application the user can run. The webtop also provides tools for suspending, resuming or ending each application instance.

Object Manager: General ⇒ Max Instances

Command Line

Command option: `--maxinstances 0|` *instances*

Usage: Specify 0 or replace *instances* with the number of instances.

The following example sets the maximum number of instances of the application to unlimited.

```
--maxinstances 0
```

Numpad Codes Modification

Usage: Select a keypad behavior option from the list.

Character application objects have this attribute.

Description

This attribute specifies the behavior of the numeric keypad, whether it always generates numbers or whether you want the application to change the codes generated by the keypad.

This attribute applies to VT420 character applications only.

Object Manager: Behavior ⇒ Keypad

Command Line

Command option: `--keypad numeric | application`

Usage: Specify the keypad behavior you want.

In the following example, the keypad always generates numbers.

```
--keypad numeric
```

Passwords Tab

Usage: Use the Password Tab to manage entries in the password cache.

The following objects have this attribute:

- Application server
- User profile

Description

The Passwords tab lists the password cache entries for the selected user profile or application server object.

Use the New button in the Password Cache table to create an entry in the password cache. Use the Edit button to edit an entry in the password cache, or the Delete buton to remove an entry from the password cache. Use the Reload button to refresh the Password Cache table.

Use the Search field to search for entries in the Password Cache table. Note that you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name***" and returns any match of the search string. The number of results returned by a search is limited to 150, by default.

The Caches ⇒ Passwords tab lists *all* password cache entries for the SGD array. You can use the Search field in this tab to find password cache entries for a particular user profile or application server.

Object Manager: Passwords tab

Command Line

On the command line, use the `tarantella passcache` commands to delete and examine entries in the password cache. See "The `tarantella passcache` command" on page 297.

Password Cache Usage

Usage: Select the Override Global Setting check box and then select or deselect the Secure Global Desktop Password Tried option. To use the default setting defined in the Global Settings ⇒ Application Authentication tab, deselect the Override Global Setting check box.

Application server objects have this attribute.

Description

This attribute specifies the policy for authenticating users on the application server, *if no password is already cached* for that server.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Secure Global Desktop Password Tried (selected)	`--auth trytta`	If the user's password for logging in to SGD is cached, the same password is used to try to log in to the application server. If the attempt fails, the user is prompted for a password. When listing object attributes on the command line, this attribute value is displayed as `true`.
Secure Global Desktop Password Tried (deselected)	`--auth nevertrytta`	The user's password for logging in to SGD is not used. The user is prompted to enter a username and password for the application server. When listing object attributes on the command line, this attribute value is displayed as `false`.
Override Global Setting (deselected)	`--auth default`	The Password Cache Usage setting determines whether to try the user's password or not. When listing object attributes on the command line, this attribute value is displayed by `default`.

A user's password for logging in to SGD can be stored in the password cache if an SGD server is also used as an application server, or if Password Cache is selected in the Secure Global Desktop Authentication Tab.

Object Manager: Authentication

Command Line

Command option: `--auth trytta|nevertrytta|default`

Usage: Specify one of the valid settings.

The following example tries the password the user typed to log in to SGD, if it is cached.

```
--auth trytta
```

Postscript Printer Driver

Usage: Type the name of the printer driver to use for PDF printing in the field.

The following objects have this attribute:

- Organization

- Organizational Unit
- User profile

Description

The name of the printer driver to use for PDF printing when printing from Windows applications that use the Microsoft RDP Windows Protocol.

This printer driver must be installed on every Windows application server used with SGD.

The printer driver must be a PostScript printer driver. The default is HP Color LaserJet 8500 PS.

The name you type must match the name of the printer driver installed on your Windows application servers *exactly*. Pay particular attention to the use of capitals and spaces. The */install-dir*`/etc/data/default.printerinfo.txt` file contains all the common printer driver names ordered by manufacturer. To avoid errors, copy and paste the driver name from this file.

This attribute is only available if Universal PDF Printer is enabled.

This attribute can only be edited using the Administration Console if Client Printing: Override is enabled for the object.

The setting for this attribute overrides either of the following:

- The setting for a parent object in the organizational hierarchy
- The default setting configured on the Global Settings ⇒ Printing tab of the Administration Console, if no parent object configuration exists

Changes to this attribute only take effect for new user sessions.

Object Manager: Printing ⇒ Driver Name

Command Line

Command option: `--pdfdriver` *driver_name*

Usage: Replace `driver_name` with the name of the printer driver to use for PDF printing. Use quotes on the command line if the name includes spaces.

The following example configures the HP LaserJet 8000 Series PS printer driver as the driver to use for PDF printing.

```
--pdfdriver "HP LaserJet 8000 Series PS"
```

Prompt Locale

Usage: Type a locale in the field.

Application server objects have this attribute.

Description

This attribute controls the language used in the login scripts when pattern matching the login data from an application server.

When using the login scripts supplied with SGD, the `vars.exp` script defines variables for matching system prompts. By default, English system prompts are supported. This script can be customized to support users in other locales.

A locale has two parts, a *language* and an optional *territory*, separated by an underscore.

The language part of a locale is specified using ISO 639 language codes, for example `en` for English or `ja` for Japanese.

The territory part of a locale is specified using ISO 3166 territory codes, for example `us` for the United States or `jp` for Japan.

By default, the locale is en_us.

Object Manager: Host Locale

Command Line

Command option: `--hostlocale` *ll_tt*

Usage: Replace *ll_tt* with a locale.

The following example sets the default language of the application server object to French. French prompts must be configured in the login scripts used with this application server.

```
--locale fr
```

Scroll Style

Usage: Select a scroll style option.

Character application objects have this attribute.

Description

This attribute specifies how the terminal window scrolls. The available options are line-by-line, several lines at once, or smoothly.

When listing object attributes on the command line, the following applies:

- The `line` attribute value is displayed as `normal`
- The `multiple` attribute value is displayed as `jump`

Object Manager: Appearance ⇒ Scroll Style

Command Line

Command option: `--scrollstyle line | multiple | smooth`

Usage: Specify the scroll style you want.

The following example scrolls the terminal window smoothly.

```
--scrollstyle smooth
```

Serial Port Mapping

Usage: For *user profile* objects or *organizational unit* objects, select the Override Parent's Setting check box and then select or deselect the Enabled option. To use the setting defined for the parent object, deselect the Override Parent's Setting check box.

For *organization* objects, select the Override Global Setting check box and then select or deselect the Enabled option. To use the setting defined in the Global Settings tab, deselect the Override Global Setting check box.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

This attribute controls whether users can access the serial ports on a client device from a Windows application running on a Microsoft Windows Server 2003 application server.

By default, a user profile object or organizational unit object inherits the setting of its parent object in the organizational hierarchy. This is used to enable or disable access to serial ports for many users without having to edit each user profile object. To override this, select the Override Parent's Setting check box and change the setting.

By default, organization objects use the global setting configured on the Global Settings ⇒ Client Device tab of the Administration Console. To override this, select the Override Global Setting check box and change the setting.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Override Parent's Setting (deselected)	`2`	**User profile objects or organizational unit objects**. Use the setting inherited from the parent object. This is the default setting.
Override Global Setting (deselected)	`2`	**Organization objects.** Use the global setting. This is the default setting.
Enabled (selected)	`1`	Enable access to serial ports.
Enabled (deselected)	`0`	Disable access to serial ports.

When a user starts a Windows application, SGD checks the user profile object for the user and then any parent object further up the organizational hierarchy to see whether access to serial ports is enabled or disabled. If all the objects selected are configured to use the parent's setting, then the default setting is used.

By default, access to serial ports is enabled.

Object Manager: General ⇒ Serial Port Mapping

Command Line

Command option: `--serialport 2|1|0`

Usage: Specify 2|1|0.

The following example disables access to serial ports.

```
--serialport 0
```

Server Address

Usage: Type DNS name or IP address of the application server in the field.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

This attribute names the 3270 (mainframe) or AS/400 application server that runs the application.

Use a DNS name rather than an IP address, if it is known.

Object Manager: 3270 ⇒ 3270 Host

Object Manager: 5250 ⇒ AS/400 Host

Command Line

Command option: `--hostname` *host*

Usage: Replace *host* with the DNS name or IP address of the 3270 (mainframe) or AS/400 application server.

The following example runs the application on the application server warsaw.indigo-insurance.com.

```
--hostname warsaw.indigo-insurance.com
```

Server Port

Usage: Type the TCP port number used to connect to the application server in the field.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

This attribute specifies the TCP port used by the emulator to exchange data with the 3270 (mainframe) application server or AS/400 application server.

By default, TCP port 23 is used.

Object Manager: 3270 ⇒ Port Number

Object Manager: 5250 ⇒ Port Number

Command Line

Command option: `--portnumber` *tcp*

Usage: Replace *tcp* with the TCP port number used to connect to the application server.

The following example connects on TCP port 4567 to the application server.

```
--portnumber 4567
```

Session Termination

Usage: Select a setting from the list.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute determines when an application session ends.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Last Client Exit	`lastclient`	The SGD server keeps track of the number of X clients running within the session, and ends the session when this reaches zero.
Window Manager Exit	`windowmanager`	The SGD server ends the session when the Window Manager exits, no matter how many X clients are running.
Only Window Manager Remaining	`windowmanageralone`	The SGD server ends the session when the only remaining X client is the Window Manager. Some Window Managers (such as OpenLook) run X clients in the background, which means that this condition is never met. If you encounter this problem, use the No Visible Windows setting.
Login Script Exit	`loginscript`	The SGD server ends the session when the login script completes. Use this setting with Keep Launch Connection Open if an application has problems shutting down.
No Visible Windows	`nowindows`	The SGD server ends the session when no windows are visible. This is useful for window managers (such as OpenLook) that run X clients in the background.
Login Script Exit or No Visible Windows	`loginscriptnowindows`	The SGD server ends the session when either the login script completes or no windows are visible. Use this setting for applications that have a General Application Resumability setting and that use X clients, as this forces a session to close if an application server is rebooted or disconnected from the network. Use this setting with Keep Launch Connection Open if an application has problems shutting down.

Object Manager: General ⇒ Session Ends When

Command Line

Command option: `--endswhen lastclient | windowmanager | windowmanageralone | loginscript | nowindows | loginscriptnowindows`

Usage: Specify a valid setting.

The following example ends the application session when no windows are visible.

```
--endswhen nowindows
```

Share Resources Between Similar Sessions

Usage: Select or deselect the check box.

The following objects have this attribute:

- X application
- 3270 application
- 5250 application

Description

This attribute specifies whether application sessions for applications configured with a Window Type setting of Client Window Management try to share resources. Sharing sessions reduces the memory overhead on both the SGD server and the client device.

Resources are shared between applications with the same settings for the following attributes:

- Window Color: Custom Color
- Window Color
- Interlaced Images
- Graphics Acceleration
- Delayed Updates
- Middle Mouse Timeout
- Monitor Resolution

Object Manager: Advanced ⇒ Share Resources Between Similar Sessions

Command Line

Command option: `--share true | false`

Usage: Specify `true` or `false`.

The following example enables resource sharing for similar sessions.

```
--share true
```

Status Line

Usage: Select a type of status line from the list.

Character application objects have this attribute.

Description

This attribute specifies the type of status line to show for the application.

Application Type	Types of Status Line Available
VT420	• None • Cursor Position and Print Mode • Messages from the Host
Wyse 60	• None • Standard • Extended
SCO Console	• *Not Applicable*

When listing object attributes on the command line, the attribute value `hostmessages` is displayed as `host writable`.

Object Manager: Appearance ⇒ Status Line

Command Line

Command option: `--statusline none | indicator | hostmessages | standard | extended`

Usage: Specify the type of status line you want. Not all settings are valid for all types of character application.

The following example does not display a status line.

```
--statusline none
```

Surname

Usage: Type the user's surname in the field.

User profile objects have this attribute.

Description

This attribute specifies the surname (family name) of the user.

Names can include any characters you want.

Object Manager: General ⇒ Surname

Command Line

Command option: `--surname` *name*

Usage: Replace *name* with the surname of the user. Make sure that you quote any names containing spaces.

The following example defines the surname of the user as `Jones`.

```
--surname Jones
```

Terminal Type

Usage: Select a terminal type option or select the Custom option and type in the field.

Character application objects have this attribute.

Description

This attribute specifies the terminal type required for the application, which you set appropriately for the Emulation Type.

Object Manager: General ⇒ Terminal Type

Command Line

Command option: `--termtype` *type*

Usage: Replace *type* with a terminal type, for example, `ansi`.

The following example uses the `ansi` terminal type.

```
--termtype ansi
```

The following example uses the `wyse60` terminal type.

```
--termtype wyse60
```

Tokens Tab

Usage: In the Token Cache table, use the Delete button to delete an entry from the token cache. Use the Reload button to refresh the Token Cache table.

User profile objects have this attribute.

Description

The Tokens tab is used to manage tokens used for the authentication token authentication mechanism. This authentication mechanism is used when the SGD client is in Integrated mode.

The Tokens tab shows the token cache entries for the selected user profile object. Use the Delete button to delete a token from the token cache. Use the Reload button to refresh the Token Cache table.

The Caches ⇒ Tokens tab lists *all* token cache entries for the SGD array. Use the Delete button to delete an entry from the token cache. Use the Reload button to refresh the Token Cache table. You can use the Search User Identity field in this tab to find token cache entries for a particular user.

Use the Search field to search for entries in the Token Cache table. Note that you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name***" and returns any match of the search string. The number of results returned by a search is limited to 150, by default.

Object Manager: Tokens tab

Command Line

On the command line, use the `tarantella tokencache` commands to delete and examine entries in the token cache. See "The `tarantella tokencache` command" on page 345.

Use the `tarantella tokencache list` command to display entries in the token cache.

Command option: `tarantella tokencache list`

The following example lists all entries in the token cache.

```
tarantella tokencache list
```

Universal PDF Printer

Usage: Select or deselect the check box.

The following objects have this attribute:

- Organization
- Organizational Unit
- User profile

Description

This attribute enables users to print using the SGD Universal PDF printer when printing from Windows applications that use the Microsoft RDP Windows Protocol.

This attribute can only be edited using the Administration Console if Client Printing: Override is enabled for the object.

The setting for this attribute overrides either of the following:

- The setting for a parent object in the organizational hierarchy
- The default setting configured on the Global Settings ⇒ Printing tab of the Administration Console, if no parent object configuration exists

Changes to this attribute only take effect for new user sessions.

Object Manager: Printing ⇒ Let Users Print to a PDF Printer

Command Line

Command option: `--pdfenabled 1|0`

Usage: Specify `1` (true) or `0` (false).

The following example enables users to print using the Universal PDF printer.

```
--pdfenabled 1
```

Universal PDF Viewer

Usage: Select or deselect the check box.

The following objects have this attribute:

- Organization

- Organizational Unit
- User profile

Description

This attribute enables users to print using the SGD Universal PDF Viewer printer when printing from Windows applications that use the Microsoft RDP Windows Protocol.

This attribute can only be edited using the Administration Console if Client Printing: Override is enabled for the object.

The setting for this attribute overrides either of the following:

- The setting for a parent object in the organizational hierarchy
- The default setting configured on the Global Settings ⇒ Printing tab of the Administration Console, if no parent object configuration exists

Changes to this attribute only take effect for new user sessions.

Object Manager: Printing ⇒ Let Users Print to a PDF Local File

Command Line

Command option: `--pdfviewerenabled 1|0`

Usage: Specify `1` (true) or `0` (false).

The following example enables users to print using the Universal PDF Viewer printer.

```
--pdfviewerenabled true
```

URL

Usage: Type a URL in the field.

Document objects have this attribute.

Description

The URL associated with the object. This is displayed when users click the link on their webtop or in their desktop Start or Launch menu

You can use absolute or relative URLs. Relative URLs are considered relative to the SGD document root (usually */install-dir*/var/docroot).

Object Manager: General ⇒ URL

Command Line

Command option: `--url` *url*

Usage: Replace *url* with a URL. Make sure that you quote any values containing spaces or other characters that might be interpreted by your shell.

The following example makes the object display the Indigo Insurance home page when clicked.

```
--url http://www.indigo-insurance.com
```

The following example displays the specified URL, considered relative to the SGD document root.

```
--url ../my_docs/index.html
```

User Sessions Tab

Usage: Use the buttons in the User Sessions tab to view and manage user sessions.

User profile objects have this attribute.

Description

This tab lists the active user sessions for the selected user profile object. A user session represents a user who is connected to an SGD server.

Use the View Details button in the User Session List table to show more details for the selected user session. Use the End button to end the selected user session. The Reload button refreshes the User Session List table.

Use the Search options to search the User Session List table. When searching for a User Identity or Secure Global Desktop Server, you can use the "*" wildcard in your search string. Typing a search string of *name* is equivalent to searching for "**name**" and returns any match of the search string.

To search for a Login Time, use a search string format of `yyyy/mm/dd hh:mm:ss`.

The number of results returned by a search is limited to 150, by default.

Object Manager: Sessions tab

Command Line

On the command line, use the `tarantella webtopsession` commands to list and end user sessions. See "The `tarantella webtopsession` command" on page 360.

Use the `tarantella webtopsession list` command to show user session details for a specified user profile object.

Command option: `tarantella webtopsession list --person` *pobj*

Usage: Replace *pobj* with the full name of the user profile object.

The following example lists user sessions for the `Indigo Jones` user profile object.

```
tarantella webtopsession list \
"o=Indigo Insurance/ou=IT/cn=Indigo Jones".
```

Window Close Action

Usage: Select a setting from the list.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute determines what happens if the user closes the main application window using the Window Manager decoration. This attribute only applies for applications that are configured with a Window Type setting of Client Window Management or Independent Window.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Description
Notify Application	`notifyapp`	The application is notified of a close action in the normal way. If the application ignores the request, SGD kills it. When listing object attributes on the command line, this attribute value is displayed as `notifyclient`. This setting only applies to X applications that are configured with a Window Type setting of Client Window Management.
Kill Application	`killapp`	SGD kills the application. This is similar to using the program `xkill` to exit the application. Use this setting only if your users are having difficulty closing an application. When listing object attributes on the command line, this attribute value is displayed as `killclient`. This setting only applies to X applications that are configured with a Window Type setting of Client Window Management.
Suspend Application Session	`suspendsession`	If the application object is resumable (see Application Resumability), the application's application session is suspended. If the application object is not resumable, the application session ends. Use this setting only if the application provides its own mechanism for the user to exit. If you are using the SGD Client in Integrated mode, there are no controls for resuming a suspended application. Users have to log out and log in again to resume their applications, or display a webtop.
End Application Session	`endsession`	SGD ends the application session. This is the default setting for Windows and character applications configured with a Window Type setting of Independent Window.

Note – An application session can contain several main application windows, for example, a CDE session with several applications running. If this attribute is set to either Suspend Application Session or End Application Session, then closing any of the applications results in the entire session being suspended or ended.

Object Manager: Advanced ⇒ Window Close Action

Command Line

Command option: `--windowclose notifyapp | killapp | suspendsession | endsession`

Usage: Specify a valid setting.

In the following example, closing the application's main window suspends the application session, as long as the application object is resumable.

```
--windowclose suspendsession
```

Window Color

Usage: Select an option. For the Custom Color option, type a color in the field.

The following objects have this attribute:

- X application
- 3270 application
- 5250 application

Description

This attribute determines the appearance of the root window.

Select Default Colors to show the standard X "root weave" pattern. To use your own color, select Custom Color and specify a Window Color: Custom Color attribute.

When listing object attributes on the command line, the `custom` attribute value is displayed as `color`.

Object Manager: Appearance ⇒ Root Window

Command Line

Command option: `--roottype default|custom`

Usage: Specify a valid setting.

The following example uses a custom color, which is specified using `--rootcolor`, for the root window.

```
--roottype custom
```

Window Color: Custom Color

Usage: Used when the Custom Color option is selected for the Window Color attribute. Type a valid color resource, such as `yellow`, in the field.

The following objects have this attribute:

- X application
- 3270 application
- 5250 application

Description

This attribute determines the color of the root window.

Color names are resolved to RGB values using the file named in the X Protocol Engine's RGB Database attribute.

Object Manager: Appearance ⇒ Color

Command Line

Command option: `--rootcolor` *color*

Usage: Replace *color* with a valid color resource, such as `yellow`.

In the following example, the root window uses the color plum4.

```
--rootcolor plum4
```

Window Management Keys

Usage: Select or deselect the check box.

The following objects have this attribute:

- Windows application
- X application

Description

Keyboard shortcuts that deal with window management can either be sent to the remote session or acted on locally. This setting is only effective for applications having a Window Type setting of Kiosk mode.

To exit kiosk mode when this attribute is enabled, use the key sequence Alt+Ctrl+Shift+Space. This minimizes the kiosk session on the local desktop.

Object Manager: No equivalent

Command Line

Command option: `--remotewindowkeys 1 | 0`

Usage: Specify `1` (true) or `0` (false). The default setting is `0`.

The following example sends window management keys to the remote session.

```
--remotewindowkeys 1
```

Window Manager

Usage: Type the full path name of the Window Manager in the field. Press Return to add new entries.

The following objects have this attribute:

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute specifies the Window Manager to use for the application. You can also use this to name any other applications to run alongside the main application.

You can name as many Window Manager applications as you want.

A Window Manager is not needed for X applications configured with a Window Type setting of Client Window Management, or for Windows applications that use the Microsoft RDP Windows Protocol.

Object Manager: Advanced ⇒ Window Manager

Command Line

Command option: `--winmgr` *command*

Usage: Replace *command* with a full path name. Separate each path name with a space.

The following example runs the application using the twm Window Manager.

```
--winmgr /usr/local/bin/twm
```

Window Size: Client's Maximum Size

Usage: Select or deselect the check box.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute affects the initial size of the application.

Select the check box to ensure that the application fills the user's screen when it starts.

The application appears with window decoration. To cause an application to fill the screen completely, without window decoration, set the application object's Window Type attribute to Kiosk.

Deselect the check box to size the application according to the object's Window Size: Width and Window Size: Height attributes.

Unless Window Size: Scale to Fit Window is selected, the application size does not change during the lifetime of the application session. If the user starts an application on one client device, then resumes the same application on a client device with a different screen resolution, the application does not resize to fit the screen.

Note – If this attribute is selected and the application is a character application, the Font Size: Fixed Font Size attribute *must* be deselected.

Object Manager: General ⇒ Client's Maximum Size

Command Line

Command option: `--maximize true | false`

Usage: Specify `true` or `false`.

The following example displays the application at maximum size on the client device.

```
--maximize true
```

Window Size: Columns

Usage: Type the number of columns for the application's terminal window in the field.

Character application objects have this attribute:

Description

This attribute defines the number of columns in the terminal window, in the range 5–132.

Object Manager: General ⇒ Columns

Command Line

Command option: `--cols` *cols*

Usage: Replace *cols* with the number of columns in the terminal window.

The following example uses an 80-column window for the application.

```
--cols 80
```

Window Size: Height

Usage: Type the height of the application, in pixels, in the field.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute defines the height of the application, in pixels. The minimum height is 10 pixels, the maximum 65535 pixels.

Object Manager: General ⇒ Height

Command Line

Command option: `--height` *pixels*

Usage: Replace *pixels* with the height of the application, in pixels. You must specify the height, even if this attribute is not required, for example because the application is configured with a Window Type setting of Client Window Management, or to display at the Window Size: Client's Maximum Size.

The following example uses a 600-pixel high window to display the application.

```
--height 600
```

Window Size: Lines

Usage: Type the number of lines for the application's terminal window in the field.

Character application objects have this attribute:

Description

This attribute defines the number of lines in the terminal window, in the range 5-100.

Object Manager: General ⇒ Lines

Command Line

Command option: `--lines` *lines*

Usage: Replace *lines* with the number of lines in the terminal window.

The following example uses a 25-line window for the application.

```
--lines 25
```

Window Size: Maximized

Usage: Select or deselect the Maximized check box.

The following objects have this attribute:

- 3270 application
- 5250 application

Description

Specifies whether the emulator window is maximized.

These commands cause the window to be displayed at the maximum size possible when the TeemTalk for Unix emulator is loaded, while retaining the default number of lines and columns and including all window elements (such as the title bar and soft buttons) if enabled.

Object Manager: 3270 ⇒ Maximize the Emulator Window

Object Manager: 5250 ⇒ Maximize the Emulator Window

Command Line

Command option: `--3270ma true|false`

Command option: `--ma true|false`

Usage: Specify `true` or `false`.

In the following example, the emulator window for a 3270 application is maximized.

```
--3270ma true
```

In the following example, the emulator window for a 5250 application is maximized.

```
--ma true
```

Window Size: Scale to Fit Window

Usage: Select or deselect the Scale to Fit Window check box.

The following objects have this attribute:

- 3270 application
- 5250 application
- Windows application
- X application

Description

This attribute specifies that the application is scaled to fit the window in which it is displayed.

This attribute is only available if the application has a Window Type attribute setting of Independent Window or Kiosk.

If this attribute is selected, the application is always scaled to fit the window in which it is displayed. If you resize the window, SGD rescales the application to fit the new window size and scroll bars never display.

You can toggle between a scaled and an unscaled application by pressing the Scroll Lock key.

Object Manager: General ⇒ Scale to Fit Window

Command Line

Command option: `--scalable true | false`

Usage: Specify `true` or `false`.

The following example scales the application to fit the window.

```
--scalable true
```

Window Size: Width

Usage: Type the width of the application, in pixels, in the field.

The following objects have this attribute:

- Character application

- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute defines the width of the application, in pixels. The minimum width is 10 pixels, the maximum 65535 pixels.

Object Manager: General ⇒ Width

Command Line

Command option: `--width` *pixels*

Usage: Replace *pixels* with the width of the application, in pixels. You must specify the width, even if this attribute is not required, for example because the application is configured with a Window Type setting of Client Window Management or to display at the Window Size: Client's Maximum Size.

The following example uses a 300-pixel wide window to display the application.

```
--width 300
```

Window Type

Usage: Select a setting from the list.

The following objects have this attribute:

- Character application
- Windows application
- X application
- 3270 application
- 5250 application

Description

This attribute determines how the application is displayed to the user.

Some settings affect other attributes. For example, in the Administration Console, choosing Client Window Management disables the attributes for configuring the application's size. You can specify these attributes on the command line, but they have no effect.

The Administration Console options and their command line equivalents are shown in the following table.

Administration Console	Command Line	Applies To	Description
Client Window Management	`clientwm`	X applications	The application's windows behave in the same way as those of applications running on the client device. For example, the windows can be resized, moved, minimized and maximized using the client's normal window management controls. The object's Window Close Action attribute determines what happens when the user closes the application's last or main window. When listing object attributes on the command line, this attribute value is displayed as `multiplewindows`. Use for applications with many top-level resizable windows.
Independent Window	`independent`	All application types	The application appears in a new window, without any web browser toolbars or menus. This window can be resized, but this does not resize the application: the window includes scrollbars. The object's Window Size: Width and Window Size: Height attributes determine the size of the application. Closing the window ends or suspends the application session, depending on the object's Window Close Action attribute. A dialog is shown when the window is closed, asking you to confirm closure of the application. When listing object attributes on the command line, this attribute value is displayed as `awtwindow`.
Kiosk	`kiosk`	Character, X and Windows applications	The application appears full-screen, with no window decoration. Users cannot resize or move the window. Use for full-screen desktop sessions.

Administration Console	Command Line	Applies To	Description
Local X Server	`localx`	X and Windows applications	The application is displayed using an X server installed on the client device, if one is available. Otherwise, an independent window is used. Applications configured with this setting are *not resumable* (even if an independent window is used). The client device X server's host access control must grant access to the application server. See your X server's documentation for information about host access control.
Seamless Window	`seamless`	Windows applications	The application's windows behave like an application running on a Windows application server. If an application is started in a seamless window, you can toggle between a seamless and independent window by pressing the Scroll Lock key. When listing object attributes on the command line, this attribute value is displayed as `seamlesswindows`. Do not use for full-screen desktop sessions. Use a kiosk or independent window instead.

Object Manager: General ⇒ Display Using

Command Line

Command option: `--displayusing webtop | clientwm | newbrowser | independent | kiosk | localx | seamless`

Usage: Specify one of the valid settings. Not all settings are available for all types of application.

The following example displays the application as a full-screen desktop session.

```
--displayusing kiosk
```

The following example displays the application in an independent window.

```
--displayusing independent
```

Window Type: New Browser Window

Usage: Select or deselect the check box.

Document objects have this attribute.

Description

For users logged in to SGD using a web browser, if this attribute is selected the URL specified for the object is displayed in a new browser window. If this attribute is not selected, the URL is displayed on the webtop.

Object Manager: General ⇒ Open in New Browser Window

Command Line

Command option: `--newbrowser true | false`

Usage: Specify `true` or `false`.

The following example displays the document in a new browser window.

```
--newbrowser true
```

Windows Protocol

Usage: Select the Try Running from Application Server check box and then select a protocol option.

Windows application objects have this attribute.

Description

This attribute identifies the protocol used to connect to the server hosting the Windows application.

Administration Console	Command Line
Microsoft RDP	`wts`
Citrix ICA	`winframe`

Use Microsoft RDP to run an application using Microsoft Terminal Services.

Deselect the Try Running from Application Server check box, which selects the Windows Protocol: Try Running From Client First check box, if you only want to run a Windows application installed on the client device.

Use the Arguments for Protocol attribute for any command-line options that apply to the defined Windows Protocol.

Object Manager: General ⇒ Windows Protocol

Command Line

Command option: `--winproto wts | winframe | none`

Usage: Specify a valid setting.

The following example connects to a Microsoft Windows server using the Microsoft RDP protocol.

```
--winproto wts
```

Windows Protocol: Try Running From Client First

Usage: Select or deselect the Try Running from Client First check box.

Windows application objects have this attribute.

Description

This attribute specifies whether to try starting the application from the user's client device.

If this attribute is selected and the application is not installed on the client device, the Windows Protocol setting is used. If this attribute is selected the application is not resumable, even if the Windows Protocol is used.

Object Manager: General ⇒ Try Running From Client First

Command Line

Command option: `--trylocal true | false`

Usage: Specify `true` or `false`.

The following example tries to start the application locally.

```
--trylocal true
```

X Security Extension

Usage: Select or deselect the check box.

X application objects have this attribute.

Description

Whether to enable the X Security Extension for the application.

The X Security Extension divides X clients (hosts) into trusted and untrusted clients. Untrusted clients cannot interact with windows and resources owned by trusted clients.

If you need to run an X application from an application server that might not be secure, enable the X Security Extension and run the application in untrusted mode. This restricts the operations that the X application can perform in the X server and protects the display.

To run an application in untrusted mode, do the following:

1. Configure the X application to use ssh as the Connection Method.
2. Configure `ssh` to allow X11 forwarding.

The X Security Extension only works with versions of `ssh` that support the `-Y` option.

Object Manager: Advanced ⇒ Enable X Security Extension

Command Line

Command option: `--securityextension true | false`

Usage: Specify `true` or `false`.

The following example enables the X Security Extension for the application.

```
--securityextension true
```

CHAPTER 4

Commands

SGD includes a built-in command set for controlling and configuring SGD. This chapter describes the available SGD commands and includes usage examples for each of the commands.

This chapter includes the following topics:

The `tarantella` command

You can control SGD from the command line using the */install-dir*`/bin/tarantella` command.

Syntax

`tarantella` *option* `[` *option-specific-arguments* `]`

Naming Objects on the Command Line

Many of the SGD commands require you to name the objects that they configure. In many cases, you can name objects from different parts of the datastore, such as the local repository or an LDAP directory server.

How you name an object on the command line varies, depending on which part of the SGD datastore the object is from.

For example, an object in the local repository might have this name:

```
.../_ens/o=Indigo Insurance/ou=Marketing/cn=Cust-o-Dat
```

For objects in the local repository, the `.../_ens` part of the name is optional. You can also type the following:

```
o=Indigo Insurance/ou=Marketing/cn=Cust-o-Dat
```

An object stored on an LDAP directory server might have this name:

```
.../_service/sco/tta/ldapcache/cn=Cust-o-Dat,ou=Marketing,o=
Indigo Insurance
```

A server on the network might have this name:

```
.../_dns/verona.indigo-insurance.com
```

Description

Do not try to control the SGD server by running binaries directly, or by using `kill`. Using the `tarantella` command is the only supported way of controlling the SGD server.

The options for this command enable you to control the SGD server in different ways, or produce information about the SGD server. The `tarantella` command can be used in your own shell scripts to help automate your administration of SGD.

If the SGD server is running, most `tarantella` options can be run by root or *any user* in the `ttaserv` group. The `ttaserv` group does not have to be the user's primary or effective group. See the table below for details of which users can use the command options.

If the SGD server is stopped, only root can use the `tarantella` command.

The following table shows the available options for this command.

Option	Description	Can Be Run By	More Information
`archive`	Archives the SGD server's log files.	root	"The `tarantella archive` command" on page 223
`array`	Creates and manages arrays of SGD servers.	SGD Administrators	"The `tarantella array` command" on page 224
`cache`	Manages the cache of LDAP data.	SGD Administrators	"The `tarantella cache` command" on page 228
`config`	Edits global and server-specific configuration.	root or ttaserv group	"The `tarantella config` command" on page 230
`emulatorsession`	Lists and controls application sessions.	root or ttaserv group	"The `tarantella emulatorsession` command" on page 233
`help`	Shows a list of SGD commands.	root or ttaserv group	"The `tarantella help` command" on page 240
`license`	Adds, lists and removes SGD license keys.	root or ttaserv group	"The `tarantella license` command" on page 240
`object`	Manipulates objects in the organizational hierarchy.	root or ttaserv group	"The `tarantella object` command" on page 247
`passcache`	Manipulates the password cache.	root or ttaserv group	"The `tarantella passcache` command" on page 297

Option	Description	Can Be Run By	More Information
`print`	Controls SGD printing services.	root or ttaserv group	"The `tarantella print` command" on page 304
`query`	Examines the SGD server's log files.	root	"The `tarantella query` command" on page 313
`restart`	Restarts SGD services.	root	"The `tarantella restart` command" on page 320
`role`	Gives people specific roles, and gives them webtop links specific to that role.	root or ttaserv group	"The `tarantella role` command" on page 321
`security`	Controls security services, manages certificates.	root	"The `tarantella security` command" on page 328
`setup`	Changes Setup options, restores original objects.	root	"The `tarantella setup` command" on page 341
`start`	Starts SGD services.	root	"The `tarantella start` command" on page 341
`start_cdm`	Starts client drive mapping services.	root	"The `tarantella start cdm` command" on page 342
`status`	Shows the current status of SGD servers in the array.	root or ttaserv group	"The `tarantella status` command" on page 343
`stop`	Stops SGD services.	root	"The `tarantella stop` command" on page 344
`stop_cdm`	Stops client drive mapping services.	root	"The `tarantella stop cdm` command" on page 345
`tokencache`	Manipulates the token cache.	root or ttaserv group	"The `tarantella tokencache` command" on page 345
`tscal`	Manages Microsoft Windows Terminal Services Client Access Licenses (CALs) for non-Windows clients.	root or ttaserv group	"The `tarantella tscal` command" on page 348
`uninstall`	Uninstalls SGD.	root	"The `tarantella uninstall` command" on page 352
`version`	Displays versions of installed SGD packages.	root or ttaserv group	"The `tarantella version` command" on page 353
`webserver`	Controls the SGD Web Server.	root	"The `tarantella webserver` command" on page 354
`webtopsession`	Lists and controls user sessions.	root or ttaserv group	"The `tarantella webtopsession` command" on page 360

Note – All commands include a `--help` option. You can use `tarantella` *command* `--help` to get help on a specific command.

Examples

The following example stops and then restarts the SGD server, without displaying any messages.

```
tarantella restart --quiet
```

The following example adds a link for the Write-o-Win application to the webtops of members of the Global Administrators role.

```
tarantella role add_link --role global \
  --link "o=applications/cn=Write-o-Win"
```

The `tarantella archive` command

Archives the SGD server's log files.

Syntax

```
tarantella archive
```

Description

Archiving the logs compresses the files and moves them to a numbered subdirectory of the */install-dir*`/log` directory. A file `summary.txt` in this directory contains the results of performing the `tarantella query` command at the time of the archive.

Examples

The following example archives the SGD server's log files.

```
tarantella archive
```

The `tarantella array` command

This command enables SGD Administrators to set up and dismantle arrays of SGD servers.

The command can be run on any SGD server in the array.

Syntax

```
tarantella array join | detach | make_primary | list
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`join`	Adds a server to an array.	"`tarantella array join`" on page 226
`detach`	Removes secondary servers from an array.	"`tarantella array detach`" on page 225
`make_primary`	Makes a secondary server the primary server for the array that it is currently a member of.	"`tarantella array make_primary`" on page 227
`list`	Lists the members of the array, identifying the primary server.	"`tarantella array list`" on page 227

Note – All commands include a `--help` option. You can use `tarantella array` *command* `--help` to get help on a specific command.

Examples

The following example adds the server boston to the array with primary server newyork.

```
tarantella array join \
  --primary newyork.indigo-insurance.com \
  --secondary boston.indigo-insurance.com
```

The following example makes the secondary server boston the primary server in the array. The previous primary server becomes a secondary server.

```
tarantella array make_primary \
  --secondary boston.indigo-insurance.com
```

tarantella array detach

Removes a secondary server from the array of SGD servers it belongs to.

Syntax

```
tarantella array detach --secondary serv
```

Description

The following table shows the available options for this command.

Option	Description
`--secondary`	Specifies the peer DNS name of a secondary server to remove. The server name must be the name of a secondary server in the same array. You can only remove one server at a time.

To remove the primary server from an array, first use `tarantella array make_primary` to make another server the primary server and then detach the old primary server.

When you remove a server from an array, it loses its license keys.

Note – After running this command, it is advisable to wait until SGD has copied the changes to all SGD servers in the array before running any further `tarantella array` commands. This is complete when the `tarantella status` command returns the same result for each SGD server in the array.

If you are using secure intra-array communication, the secondary server generates its own Certificate Authority (CA) certificate and its own server peer certificate when it is detached.

Examples

The following example removes the secondary server boston from the array.

```
tarantella array detach --secondary boston.indigo-insurance.com
```

tarantella array join

Adds a server to an array of SGD servers, either as a primary or a secondary server.

Syntax

```
tarantella array join [ --primary pserv ]
                      [ --secondary sserv ]
```

Description

The following table shows the available options for this command.

Option	Description
`--primary`	Specifies the peer DNS name of the primary server in the array. Defaults to the server where the command is run.
`--secondary`	Specifies the peer DNS name of the server to add. The secondary server must be the only member of an array (a "standalone" server). Defaults to the server where the command is run. You can only add one secondary server at a time.

Note – After running this command, it is advisable to wait until SGD has copied the changes to all SGD servers in the array before running any further `tarantella array` commands. This is complete when the `tarantella status` command returns the same result for each SGD server in the array.

If the server you add has been load balancing application servers using Advanced Load Management, use the `tarantella restart --warm` command to do a warm restart of the new server after it has joined the array. If the array to which the new server is joined is using Advanced Load Management, do a warm restart of the whole array after the new server has joined.

If you are using secure intra-array communication, you are prompted to accept the CA certificate of either the primary server or the secondary server, depending on where you ran the command.

Examples

The following example adds the server boston to the array with newyork as its primary server.

```
tarantella array join \
  --primary newyork.indigo-insurance.com \
  --secondary boston.indigo-insurance.com
```

The following example adds the server where the command is run to the array with newyork as its primary server.

```
tarantella array join \
  --primary newyork.indigo-insurance.com
```

tarantella array list

Lists each member of the array of SGD servers, identifying the primary server.

Note – You must be root to run this command.

Syntax

```
tarantella array list
```

Examples

The following example lists all SGD servers in the array.

```
tarantella array list
```

tarantella array make_primary

Makes a secondary server the primary server for the array that it is currently a member of. The previous primary server becomes a secondary server.

Syntax

```
tarantella array make_primary --secondary serv
```

Description

The following table shows the available options for this command.

Subcommand	Description
`--secondary`	Specifies the peer DNS name of the secondary server to be made the primary server.

Note – After running this command, it is advisable to wait until SGD has copied the changes to all SGD servers in the array before running any further `tarantella array` commands. This is complete when the `tarantella status` command returns the same result for each SGD server in the array.

If you are using secure intra-array communication, the new primary becomes the certificate authority for the array and issues new server peer certificates to all SGD servers in the array.

Examples

The following example makes the secondary server boston the primary server in the array.

```
tarantella array make_primary \
  --secondary boston.indigo-insurance.com
```

The `tarantella cache` command

Flushes the cache of data obtained from an LDAP directory server.

Syntax

```
tarantella cache --flush
ldapgroups|ldapconn|ldapconn-lookups|krb5config|all
```

Description

This command flushes the cache of data obtained from an LDAP directory server. This data is only obtained if you are using the following:

- LDAP authentication
- Active Directory authentication
- Directory Services Integration

The following table shows the values you can use with the `--flush` option.

Value	Description
ldapgroups	Flushes the cache of all LDAP group data. Used for Directory Services Integration.
ldapconn	Flushes the cache of all the IP address, domain and attribute data.
ldapconn-lookups	Flushes the cache of all LDAP search data. Used for Directory Services Integration.
krb5config	Refreshes the current Kerberos configuration settings with the original Kerberos configuration of the SGD server. Can be used to reconfigure Kerberos settings without restarting the SGD server. Used for Active Directory authentication only.
all	Flushes all LDAP data.

Note – This command only flushes the cache on the SGD server where the command is run.

Examples

The following example flushes the cache of all LDAP data.

```
tarantella cache --flush all
```

The `tarantella config` command

The `tarantella config` command lists and configures global settings, and also server-specific settings for any SGD server in the array.

Syntax

```
tarantella config list | edit
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`list`	Lists global and server-specific attributes and their current values.	"`tarantella config list`" on page 232
`edit`	Edits global and server-specific attributes.	"`tarantella config edit`" on page 231

Note – All commands include a `--help` option. You can use `tarantella config` *subcommand* `--help` to get help on a specific command.

Examples

The following example lists server-specific attributes from the server newyork.indigo-insurance.com.

```
tarantella config list --server newyork.indigo-insurance.com
```

The following example sets the `cpe-maxsessions` attribute to 10 for the server where the command is run.

```
tarantella config edit --cpe-maxsessions 10
```

tarantella config edit

Edits global and server-specific attributes.

Syntax

```
tarantella config edit { { --setting value... }...
                         [ --array | --server serv... ]
                       } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
--setting value...	Names an attribute you want to edit, and its new value or values.
`--array`	When configuring a server-specific attribute, applies the change to all SGD servers in the array.
`--server`	When configuring a server-specific attribute, applies the change to each named *serv* in the array. Use a peer DNS name or IP address for each server.
`--file`	Specifies a file containing a batch of commands to edit attributes.

If neither `--array` nor `--server` is specified, the command sets server-specific attributes for the SGD server where the command is run.

Use `tarantella config list` to see a list of *setting*s you can change.

For detailed information on *global* attributes, see Chapter 1.

For detailed information on *server-specific* attributes, see Chapter 2.

Examples

The following example sets the `cpe-exitafter` attribute to 50 on SGD servers newyork.indigo-insurance.com and boston.indigo-insurance.com.

```
tarantella config edit \
  --cpe-exitafter 50 \
  --server newyork.indigo-insurance.com \
           boston.indigo-insurance.com
```

The following example sets the `cpe-maxsessions` attribute to 10 for the server where the command is run.

```
tarantella config edit \
  --cpe-maxsessions 10
```

tarantella config list

Lists global and server-specific attributes and their current values.

Syntax

```
tarantella config list { [ --setting... ]
                         [ --server serv ]
                       } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
--setting	Names an attribute you want to list the value of. If no *--setting* is specified, all global and server-specific attributes are listed.
`--server`	Lists server-specific attributes for the specified SGD server in the array (use a peer DNS name or IP address). If omitted, lists server-specific attributes for the SGD server where the command is run.
`--file`	Specifies a file containing a batch of commands to list attributes.

For detailed information on *global* attributes, see Chapter 1.

For detailed information on *server-specific* attributes, see Chapter 2.

Examples

The following example lists global attributes, and server-specific attributes for the server newyork.indigo-insurance.com.

```
tarantella config list --server newyork.indigo-insurance.com
```

The following example lists the value of the `array-port-unencrypted` attribute.

```
tarantella config list --array-port-unencrypted
```

The `tarantella emulatorsession` command

This command enables SGD Administrators to list and manipulate application sessions.

Syntax

```
tarantella emulatorsession list | info | shadow | suspend | end
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`list`	Lists application sessions.	"`tarantella emulatorsession list`" on page 234
`info`	Displays detailed information about application sessions.	"`tarantella emulatorsession info`" on page 235
`shadow`	Shadows an application session.	"`tarantella emulatorsession shadow`" on page 236
`suspend`	Suspends application sessions.	"`tarantella emulatorsession suspend`" on page 238
`end`	Ends application sessions.	"`tarantella emulatorsession end`" on page 239

Note – All commands include a `--help` option. You can use `tarantella emulatorsession` *subcommand* `--help` to get help on a specific command.

Examples

The following example lists Emma Rald's application sessions.

```
tarantella emulatorsession list \
  --person "o=Indigo Insurance/cn=Emma Rald"
```

The following example shadows the application session with the specified session ID.

```
tarantella emulatorsession shadow \
  "paris.indigo-insurance.com:965127448604:...%2f_ens%2fo=Indigo
Insurance%2fcn=Emma Rald"
```

tarantella emulatorsession list

Lists application sessions matching the criteria specified. Information shown includes session IDs, which are used with other `tarantella emulatorsession` commands.

An example session ID is `paris.indigo-insurance.com:965127448604:...%2f_ens%2fo=Indigo Insurance%2fcn=Emma Rald`.

Session IDs can contain spaces, so make sure you quote them.

Syntax

```
tarantella emulatorsession list
                     [--person pobj]
                     [--application appobj]
                     [--appserver hobj]
                     [--server serv]
                     [--format text|count|xml]
```

Description

The following table shows the available options for this command.

Option	Description
`--person`	Lists application sessions matching the person specified. Use the name for the user profile.
`--application`	Lists application sessions matching the application specified. Use the name for the application.
`--appserver`	Lists application sessions matching the application server specified. Use the name for the application server.
`--server`	Lists application sessions hosted by the SGD server specified. Use the name or a peer DNS name for the server.
`--full`	Includes the current IP address of the client and the status of the application session in the output. It takes longer to display this information.
`--format`	Specifies the output format (default setting is text). Use `count` to display only the number of matching sessions.

If `--person`, `--application`, `--appserver` and `--server` are all omitted, all application sessions are listed.

Examples

The following example lists Emma Rald's application sessions.

```
tarantella emulatorsession list \
  --person "o=Indigo Insurance/cn=Emma Rald"
```

The following example lists all application sessions hosted by the SGD server boston.indigo-insurance.com. This is the server on which the Protocol Engines run.

```
tarantella emulatorsession list \
  --server boston.indigo-insurance.com
```

tarantella emulatorsession info

Displays detailed information about application sessions.

Syntax

```
tarantella emulatorsession info [ --sessid sessid... ]
                                [ --peid peid...
                                [--format text|xml|quiet]
```

Description

The following table shows the available options for this command.

Option	Description
`--sessid`	Displays detailed information on application sessions matching the session IDs listed. Use `tarantella emulatorsession list` to find out session IDs.
`--peid`	Displays detailed information on application sessions matching the Protocol Engine process IDs listed. Valid process IDs are as follows: • A number, such as `3456`, representing the process ID on the application server where the command is run • A combination of peer DNS name and process ID, for example `boston.indigo-insurance.com:3456`, representing the process ID on the SGD server named.
`--format`	Specifies the output format (the default setting is text). With `--format quiet`, no messages are displayed.

The exit code indicates the number of session IDs and process IDs named that do not exist.

Examples

The following example displays detailed information on application sessions matching the Protocol Engine process IDs “3456” and “4567” on the application server where the command is run.

```
tarantella emulatorsession info --peid 3456 4567
```

tarantella emulatorsession shadow

Shadows an application session, enabling you and the user to interact with the application simultaneously. Only SGD Administrators can shadow application sessions. You can only shadow Windows and X applications. Suspended applications cannot be shadowed.

Syntax

```
tarantella emulatorsession shadow sessid
                                  [--read-only]
                                  [--silent]
                                  [--format text|quiet]
```

Description

The following table shows the available options for this command.

Option	Description
sessid	Shadows the application session with the specified session ID. Use `tarantella emulatorsession list` to find out session IDs.
`--read-only`	Enables an Administrator to shadow a session without being able to interact with the application.
`--silent`	Enables an Administrator to shadow a session and interact with the application. The user is *not notified* that an Administrator wants to shadow their session and they cannot refuse permission. If this is used with `--read-only`, the user does not know they are being shadowed and the Administrator cannot interact with the application. **Note -** In some countries, it is illegal to shadow a user without their knowledge. It is your responsibility to comply with the law.
`--format`	Specifies the output format (the default setting is text). With `--format quiet`, no messages are displayed.

Note – You can also shadow a session from the General Settings ⇒ Application Sessions tab of the Administration Console. You select the session from either the user profile object or the application object. However, using the Administration Console does not enable you to shadow a session in read-only mode or silent mode.

If `--silent` is not used, the user is notified that an Administrator wants to shadow their session and they can refuse permission. The user is also notified when shadowing ends.

The exit code is 0 for success, 1 if the session does not exist, 2 if the session is not shadowable, or 3 if the session is suspended.

Examples

The following example shadows the application session with the specified session ID.

```
tarantella emulatorsession shadow \
  "paris.indigo-insurance.com:965127448604:...%2f_ens%2fo=Indigo
Insurance%2fcn=Emma Rald"
```

The following example shadows the application session with the specified session ID without the user knowing that they are being shadowed. The Administrator is unable to interact with the application.

```
tarantella emulatorsession shadow \
  "paris.indigo-insurance.com:965127448604:...%2f_ens%2fo=Indigo
Insurance%2fcn=Emma Rald" \
--read-only --silent
```

tarantella emulatorsession suspend

Suspends application sessions.

Syntax

```
tarantella emulatorsession suspend sessid...
                                  [--format text|quiet]
```

Description

The following table shows available options for this command.

Option	Description
sessid...	Suspends the application sessions with the specified session IDs. Use `tarantella emulatorsession list` to find out session IDs.
`--format`	Specifies the output format (the default setting is `text`). With `--format quiet`, no messages are displayed.

The exit code is 0 for success, 1 if some sessions do not exist, 2 if some sessions are already suspended, or 3 if there is a mixture of nonexistent and suspended sessions.

Examples

The following example suspends the application session with the specified session ID.

```
tarantella emulatorsession suspend \
  "paris.indigo-insurance.com:965127448604:...%2f_ens%2fo=Indigo
Insurance%2fcn=Emma Rald"
```

tarantella emulatorsession end

Ends application sessions. The applications exit immediately, which might result in loss of data for users.

Syntax

```
tarantella emulatorsession end sessid...
                               [--format text|quiet]
```

Description

The following table shows the available options for this command.

Option	Description
sessid...	Specifies the session IDs of the application sessions to end. Use `tarantella emulatorsession list` to find out session IDs.
`--format`	Specifies the output format (the default setting is text). With `--format quiet`, no messages are displayed.

The exit code of the command is 0 if all sessions were successfully ended, or 1 if some session IDs did not exist.

Examples

The following example ends the specified application session.

```
tarantella emulatorsession end \
  "paris.indigo-insurance.com:965127448604:...%2f_ens%2fo=Indigo
Insurance%2fcn=Emma Rald"
```

The `tarantella help` command

Shows a list of the SGD commands.

Syntax

```
tarantella help
```

Description

Shows the list of SGD commands.

To get help on a particular command, use `tarantella` *command* `--help`.

Examples

The following example shows the list of SGD commands.

```
tarantella help
```

The `tarantella license` command

This command adds and removes SGD license keys, and displays license information.

Syntax

```
tarantella license add | remove | list | status | query | info
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`add`	Adds license keys for the array.	"`tarantella license add`" on page 241
`remove`	Removes license keys from the array.	"`tarantella license remove`" on page 245
`list`	Lists license keys currently installed.	"`tarantella license list`" on page 243
`status`	Displays current licensing status.	"`tarantella license status`" on page 246
`query`	Displays information on license usage across the array, including infringements.	"`tarantella license query`" on page 243
`info`	Generates signed license key information.	"`tarantella license info`" on page 242

Note – All commands include a `--help` option. You can use `tarantella license` *command* `--help` to get help on a specific command.

Examples

The following example displays currently installed license keys for the array.

```
tarantella license list
```

The following example adds the license key `XXXXX-XXXXX-XXXXX-XXXXX-XXXXX`. This is not a valid SGD license key.

```
tarantella license add XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
```

`tarantella license add`

Adds license keys to the SGD array.

Syntax

`tarantella license add` *key*`...`

Description

The following table shows the available options for this command.

Option	Description
key...	Valid SGD license keys.These are of the form `AAAAA-AAAAA-AAAAA-AAAAA-AAAAA` (five blocks of five case-insensitive characters in the range A-Z, with blocks separated by hyphens).

Examples

The following example adds the license key `XXXXX-XXXXX-XXXXX-XXXXX-XXXXX`. This is not a valid SGD license key.

```
tarantella license add XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
```

tarantella license info

Generates signed license key information.

Syntax

```
tarantella license info
```

Description

The output from this command contains the following:

- A list of your license keys
- Information about your array
- The date and time
- The version of SGD
- A digital signature

Note – If you copy the output, make sure you include the BEGIN and END lines.

You must run this command on the primary SGD server.

Examples

The following example generates signed license key information.

```
tarantella license info
```

tarantella license list

Lists the license keys currently installed for the array

Syntax

```
tarantella license list
```

Description

For details about license keys and licenses, see the *Sun Secure Global Desktop Administration Guide*.

For summary information, use `tarantella license status`.

Examples

The following example displays currently installed license keys for the array.

```
tarantella license list
```

tarantella license query

Displays information on license usage across the array, including license infringements.

Syntax

```
tarantella license query [ --now
                         | --history [--format text|csv|xml]
                         | --maxusers [--format text|xml] ]
```

Description

To avoid inconsistencies arising from the replication of data across the array, you must run this command on the primary server in the array.

Note – This command only shows the license usage for the software components that are licensed on a per-user basis.

SGD maintains a history of license usage for 30 samples. A sample is created every day, whenever the server is restarted (warm or cold), and whenever your license keys change (licenses added or removed).

The following table shows the available options for this command.

Option	Description
`--now`	Displays information on the current license usage across the array. This is the default if no arguments are specified.
`--history`	Displays recent historical information on license usage across the array. The license usage information is broken down by sample and software component. For each component, the command displays the following: • The number of licenses used. • The number of licenses available. • The maximum number of users using a component during the sample period (the peak). Use `--format` to specify the output format (by default, this is text).
`--maxusers`	Use this option to display the number and the names of users who were consuming a license when license usage peaked in the history (30 samples) kept by SGD. A user consumes licenses if one of the following applies: • They are logged in to SGD. • They have a suspended application session. • They are within the lease period for a named-user license. **Note -** Anonymous or guest users are only listed once. The output distinguishes between standard and secure connections. Use `--format` to specify the output format (by default, this is text).

Information on recent license infringements is also shown whenever an SGD Administrator logs in to SGD.

Examples

The following example displays information on the current license usage across the array.

```
$ tarantella license query --now
License usage at: Tue Feb 20 12:42:21 GMT 2007
Type                In use / Total
Base                9      / 100
UNIX                9      / 100
Mainframe           0      / 100
Windows             5      / 100
AS/400              0      / 100
```

The following example displays recent historical information on license usage across the array.

```
$ tarantella license query --history
2007/02/14 15:45:07:
 - Base       in use:     5 / 100         peak: 15
 - UNIX       in use:     5 / 100         peak: 15
 - Mainframe  in use:     0 / 100         peak: 0
 - Windows    in use:     3 / 100         peak: 12
 - AS/400     in use:     0 / 100         peak: 0
2007/02/15 13:25:53:
 - Base       in use:     9 / 100         peak: 16
 - UNIX       in use:     9 / 100         peak: 16
 - Mainframe  in use:     0 / 100         peak: 0
 - Windows    in use:     5 / 100         peak: 13
 - AS/400     in use:     0 / 100          peak: 0
```

The following example displays the numbers and names of users who were logged in when license usage last peaked.

```
$ tarantella license query --maxusers
Maximum number of users logged in: 3
o=Indigo Insurance/ou=IT/cn=Bill Orange
o=Indigo Insurance/ou=IT/cn=Ginger Butcher
o=Indigo Insurance/ou=IT/cn=Rusty Spanner
```

tarantella license remove

Removes license keys from the SGD array.

Syntax

```
tarantella license remove key...
```

Description

If you remove all the license keys, SGD reverts to evaluation mode or expired evaluation mode, depending on how recently you installed SGD. You cannot log in to an SGD server when it is in expired evaluation mode. To license a server when it is in expired evaluation mode, you must either add a valid license key (using `tarantella license add`) or join the server to an array that is already fully licensed.

The following table shows the available options for this command.

Option	Description
key...	The license keys to remove.

Examples

The following example removes the license key `XXXXX-XXXXX-XXXXX-XXXXX-XXXXX`. This is not a valid SGD license key.

```
tarantella license remove XXXXX-XXXXX-XXXXX-XXXXX-XXXXX
```

tarantella license status

Displays a summary of the current licensing status for the array.

Syntax

```
tarantella license status
```

Description

This command shows the following information.

- The SGD product you are licensed to use.
- The current license mode of the array. This is either of the following:

- **Evaluation mode**. The end date of the evaluation period is displayed in brackets.
- **Fully licensed.**

- A breakdown by license type of what is licensed. For details about license types, see the *Sun Secure Global Desktop Administration Guide*.

Examples

The following example displays a summary of the current licensing status for the array.

```
tarantella license status
```

The `tarantella object` command

The `tarantella object` command enables you to create, list, edit and delete objects in the organizational hierarchy. You can also add and remove webtop links, configure application server load balancing for each application, and add and remove group members.

Syntax

```
tarantella object add_host | add_link | add_member | delete | edit |
list_attributes | list_contents | new_3270app | new_5250app |
new_charapp | new_container | new_dc | new_doc | new_group |
new_host | new_org | new_orgunit | new_person | new_windowsapp |
new_xapp | remove_host | remove_link | remove_member | rename | script
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`add_host`	Adds application servers to the list of those that can run an application.	"`tarantella object add_host`" on page 249
`add_link`	Adds links to webtops.	"`tarantella object add_link`" on page 250
`add_member`	Adds members to a group.	"`tarantella object add_member`" on page 251
`delete`	Permanently deletes objects from the organizational hierarchy.	"`tarantella object delete`" on page 252
`edit`	Edits attributes for an object.	"`tarantella object edit`" on page 253
`list_attributes`	Lists attributes of an object.	"`tarantella object list_attributes`" on page 254
`list_contents`	Lists the contents of an OU or an organization.	"`tarantella object list_contents`" on page 256
`new_3270app`	Creates 3270 application objects.	"`tarantella object new_3270app`" on page 256
`new_5250app`	Creates 5250 application objects.	"`tarantella object new_5250app`" on page 260
`new_charapp`	Creates character application objects.	"`tarantella object new_charapp`" on page 264
`new_container`	Creates Active Directory container objects.	"`tarantella object new_container`" on page 268
`new_dc`	Creates domain component objects.	"`tarantella object new_dc`" on page 269
`new_doc`	Creates document objects.	"`tarantella object new_doc`" on page 270
`new_group`	Creates group objects.	"`tarantella object new_group`" on page 272
`new_host`	Creates application server objects.	"`tarantella object new_host`" on page 273
new_org	Creates organization objects.	"`tarantella object new_org`" on page 275
`new_orgunit`	Creates organizational unit objects.	"`tarantella object new_orgunit`" on page 277

Subcommand	Description	More Information
new_person	Creates user profile objects.	"tarantella object new_person" on page 280
new_windowsapp	Creates Windows application objects.	"tarantella object new_windowsapp" on page 283
new_xapp	Creates X application objects.	"tarantella object new_xapp" on page 287
remove_host	Removes application servers from those that can run an application.	"tarantella object remove_host" on page 291
remove_link	Removes links from webtops.	"tarantella object remove_link" on page 292
remove_member	Removes members from groups.	"tarantella object remove_member" on page 293
rename	Renames or moves an object.	"tarantella object rename" on page 294
script	Runs a batch script of object commands.	"tarantella object script" on page 295

Note – All commands include a `--help` option. You can use `tarantella object` *subcommand* `--help` to get help on a specific command.

Examples

The following example lists the objects that belong to the organizational unit Sales.

```
tarantella object list_contents --name \
"o=Indigo Insurance/ou=Sales"
```

tarantella object add_host

Adds application servers to the list of those that can run an application, for application server load balancing.

Syntax

```
tarantella object add_host { --name obj...
                             --host hobj...
                           } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	The names of application objects you want to configure load balancing for.
`--host`	The names of application server objects you want to add to the load balancing pool.
`--file`	A file containing a batch of commands to configure application server load balancing.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example adds the application server rome to the load balancing pool for the application Slide-o-Win.

```
tarantella object add_host \
  --name "o=applications/cn=Slide-o-Win" \
  --host "o=appservers/ou=Sales/cn=rome"
```

The following example adds the group WinHosts to the load balancing pool for the applications Write-o-Win and Slide-o-Win. Load balancing is performed across all the application servers in WinHosts.

```
tarantella object add_host \
  --name "o=applications/cn=Write-o-Win" \
         "o=applications/cn=Slide-o-Win" \
  --host "o=applications/cn=WinHosts"
```

tarantella object add_link

Adds links to webtops.

Syntax

```
tarantella object add_link { --name obj...
                             --link lobj...
                           } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	The names of objects you want to add webtop links for.
`--link`	The names of objects you want to add to the webtop.
`--file`	A file containing a batch of commands to add links to webtops.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example adds the Write-o-Win application to Violet Carson's webtop.

```
tarantella object add_link \
  --name "o=Indigo Insurance/ou=Sales/cn=Violet Carson" \
  --link "o=applications/cn=Write-o-Win"
```

The following example adds the group Applications to the webtops of the organizational units Sales and Marketing. Everyone who inherits webtop content from one of these OUs (for example, they belong to that OU and Inherit Assigned Applications from Parent is selected for their user profile object) sees all the applications in the group on their webtop.

```
tarantella object add_link \
  --name "o=Indigo Insurance/ou=Sales" \
         "o=Indigo Insurance/ou=Marketing" \
  --link "o=applications/cn=Applications"
```

tarantella object add_member

Adds objects to groups.

Syntax

```
tarantella object add_member { --name obj...
                               --member mobj...
                             } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the names of group objects you want to add members for.
`--member`	Specifies the names of objects you want to add to the groups.
`--file`	Specifies a file containing a batch of commands to add group members.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example adds the Write-o-Win application to the group Applications.

```
tarantella object add_member \
  --name "o=applications/cn=Applications" \
  --member "o=applications/cn=Write-o-Win"
```

The following example adds the three application server objects rome, brussels and berlin to the group WinHosts. This group can be added to an application's Hosting Application Servers Tab (from the command line use `tarantella object add_host`) to perform load balancing between the application servers.

```
tarantella object add_member \
  --name "o=appservers/cn=WinHosts" \
  --member "o=appservers/ou=Sales/cn=rome" \
           "o=appservers/cn=brussels" \
           "o=appservers/ou=Marketing/cn=berlin"
```

tarantella object delete

Permanently deletes objects from the organizational hierarchy.

Syntax

```
tarantella object delete { --name obj [--children] } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the name of the object you want to delete.
`--children`	When deleting organizational units, Active Directory containers or domain components, confirms that you want to delete the object and all objects that belong to it, recursively. As a safeguard, it is impossible to delete an organizational unit, Active Directory container or domain component without specifying `--children`.
`--file`	Specifies a file containing a batch of commands to delete objects.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example removes the user profile object for Violet Carson.

```
tarantella object delete \
  --name "o=Indigo Insurance/ou=Sales/cn=Violet Carson"
```

The following example deletes the organizational unit Sales.

```
tarantella object delete \
  --name "o=Indigo Insurance/ou=Sales" \
  --children
```

tarantella object edit

Edits the attributes of an object in the organizational hierarchy.

Syntax

```
tarantella object edit {
  --name obj
 {--attribute [value]}...
} | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the name of the object you want to edit the attributes of.
`{--attribute [value]}...`	Specifies the attribute names you want to edit, and their new values. The valid *attribute*s depend on the type of object. See the `tarantella object new_object_type` documentation for the appropriate list. For example, when editing attributes for an application object you can specify `--displayusing` to edit the Window Type attribute. If you omit *value* for an attribute, it is deleted from the object.
`--file`	Specifies a file containing a batch of commands to edit attributes.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example changes the Inherit Assigned Applications from Parent attribute for the organizational unit Sales.

```
tarantella object edit \
  --name "o=Indigo Insurance/ou=Sales" \
  --inherit false
```

tarantella object list_attributes

Lists the attributes of an object in the organizational hierarchy.

Syntax

```
tarantella object list_attributes {
 --name obj
[--attribute...]
} | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the name of the object you want to list the attributes of.
`{--attribute [value]}...`	Specifies the attribute names you want to list. The valid *attribute*s depend on the type of object. See the `tarantella object new_object_type` documentation for the appropriate list. For example, when listing attributes for an application object you can specify `--displayusing` to edit the Window Type attribute.
`--file`	Specifies a file containing a batch of commands to list attributes.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example lists all attributes for the Sales organizational unit.

```
tarantella object list_attributes \
  --name "o=Indigo Insurance/ou=Sales"
```

The following example lists the Email Address and Login attributes for the user profile object for Rusty Spanner.

```
tarantella object list_attributes \
  --name "o=Indigo Insurance/ou=IT/cn=Rusty Spanner" \
  --email --enabled
```

tarantella object list_contents

Lists the objects that belong to a particular object in the organizational hierarchy.

Syntax

```
tarantella object list_contents { --name obj }| --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the name of the object you want to list the contents of.
`--file`	Specifies a file containing a batch of commands to list object contents.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example lists all the objects within the organizational unit Sales.

```
tarantella object list_contents \
  --name "o=Indigo Insurance/ou=Sales"
```

tarantella object new_3270app

Creates one or more 3270 application objects. See “3270 Application Object” on page 90.

Syntax

```
tarantella object new_3270app {
  --name obj
  --width pixels
  --height pixels
[ --description text ]
[ --args args ]
[ --method rexec|telnet|ssh ]
[ --resumable never|session|always ]
[ --endswhen lastclient|windowmanager|windowmanageralone|nowindows|
loginscript|loginscriptnowindows ]
[ --maxinstances 0|instances ]
[ --displayusing webtop|clientwm|newbrowser|independent|kiosk|
localx ]
[ --maximize true|false ]
[ --scalable true|false ]
[ --icon icon_name ]
[ --hints hint...]
[ --hostname host ]
[ --portnumber tcp ]
[ --3270tnclose 0|1|2|3 ]
[ --3270kt pc|sun4|sun5|hp ]
[ --3270bl 0|1|2|3|4 ]
[ --3270ma true|false ]
[ --3270mb true|false ]
[ --3270si true|false ]
[ --3270fg color ]
[ --3270bg color ]
[ --roottype default|custom ]
[ --rootcolor color ]
[ --compression automatic|on|off ]
[ --execution automatic|inorder|optimized ]
[ --interlaced automatic|on|off ]
[ --accel true|false ]
[ --delayed true|false ]
[ --ldapusers user_dn... ]
[ --ldapgroups group_dn... ]
[ --ldapsearch search_string... ]
[ --env setting... ]
[ --login script ]
[ --winmgr command... ]
[ --resumetimeout mins ]
[ --middlemouse ms ]
[ --windowclose notifyapp|killapp|suspendsession|endsession ]
[ --euro unicode|iso8859-15 ]
[ --dpi monitordpi ]
[ --keepopen true|false ]
[ --lockkeymap true|false ]
```

```
[ --share true|false ]
[ --ssharguments args ]
 } | --file file
```

Description

SGD uses the third-party TeemTalk for Unix emulator for 3270 applications. See the TeemTalk for Unix User's Guide supplied with SGD for details.

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The common name of the object in the SGD datastore.	"Name" on page 182
`--width`	The width of the application, in pixels.	"Window Size: Width" on page 211
`--height`	The height of the application, in pixels.	"Window Size: Height" on page 208
`--description`	A text description of the object.	"Comment" on page 140
`--args`	The command-line arguments to use when starting the application.	"Arguments for Command" on page 115
`--method`	The mechanism used by the SGD server to access the application server and start the application.	"Connection Method" on page 142
`--resumable`	Resumability behavior for the application.	"Application Resumability" on page 110
`--endswhen`	When the application session ends.	"Session Termination" on page 193
`--maxinstances`	The maximum number of instances of the application a user can run simultaneously.	"Number of Sessions" on page 184
`--displayusing`	How the application is displayed to the user.	"Window Type" on page 212
`--maximize`	The initial size of the application.	"Window Size: Client's Maximum Size" on page 207
`--scalable`	Scale the application to fit the window in which it is displayed.	"Window Size: Scale to Fit Window" on page 211
`--icon`	Webtop icon for the application.	"Icon" on page 164
`--hints`	String containing additional name-value data for the application.	"Hints" on page 159
`--hostname`	The 3270 host that runs the application.	"Server Address" on page 192
`--portnumber`	The TCP port number used to connect to the 3270 host.	"Server Port" on page 192
`--3270tnclose`	Behavior when telnet connection to the 3270 host is closed.	"Connection Closed Action" on page 141

Option	Description	More Information
`--3270kt`	Layout to use for mapping the keyboard to the terminal being emulated.	"Keyboard Type" on page 169
`--3270bl`	Number of "soft button" levels to display.	"Displayed Soft Buttons" on page 150
`--3270ma`	Maximizes the emulator window.	"Window Size: Maximized" on page 210
`--3270mb`	Enables the application's menu bar.	"Menu Bar" on page 179
`--3270si`	Enables the File and Settings menu items.	"'File' and 'Settings' Menus" on page 155
`--3270fg`	Text color in the application's text window.	"Foreground Color" on page 158
`--3270bg`	Background color of the application's text window.	"Background Color" on page 125
`--roottype`	Appearance of the root window.	"Window Color" on page 204
`--rootcolor`	Color of the root window.	"Window Color: Custom Color" on page 205
`--compression`	Whether the AIP compresses commands for transmission.	"Command Compression" on page 138
`--execution`	Whether the AIP always executes commands in order, or optimizes commands for performance reasons.	"Command Execution" on page 139
`--interlaced`	Enables interlaced image transmission.	"Interlaced Images" on page 165
`--accel`	Enables graphics acceleration for the application's display.	"Graphics Acceleration" on page 158
`--delayed`	Enables delayed updates of the application's display.	"Delayed Updates" on page 149
`--ldapusers`	Assigns the application to the specified LDAP users.	"Assigned User Profiles Tab" on page 119
`--ldapgroups`	Assigns the application to the specified LDAP groups.	"Assigned User Profiles Tab" on page 119
`--ldapsearch`	Assigns the application to the users that match the LDAP search criteria.	"Assigned User Profiles Tab" on page 119
`--env`	Environment variable settings needed to run the application.	"Environment Variables" on page 152
`--login`	The login script used to start the application.	"Login Script" on page 174
`--winmgr`	The Window Manager to use for the application.	"Window Manager" on page 206
`--resumetimeout`	Number of minutes the application is resumable for.	"Application Resumability: Timeout" on page 112
`--middlemouse`	Timeout for emulating a middle mouse button click using a two-button mouse.	"Middle Mouse Timeout" on page 180

Option	Description	More Information
`--windowclose`	Effect on application session of closing the main application window.	"Window Close Action" on page 202
`--euro`	Keycode mapping required by the application to support the euro character.	"Euro Character" on page 154
`--dpi`	Monitor resolution that SGD reports to X applications.	"Monitor Resolution" on page 180
`--keepopen`	Keep open the connection used to start the application.	"Keep Launch Connection Open" on page 166
`--lockkeymap`	Prevents applications from changing keyboard mappings.	"Keyboard Map: Locked" on page 169
`--share`	Enables resource sharing for similar application sessions.	"Share Resources Between Similar Sessions" on page 195
`--ssharguments`	Command-line arguments for the `ssh` client.	"Connection Method: ssh Arguments" on page 144
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new 3270 application object for the application 3270cat. The emulator connects to the 3270 host warsaw.indigo-insurance.com.

```
tarantella object new_3270app \
  --name "o=applications/ou=Finance/cn=3270cat" \
  --width 1000  --height 800 \
  --app /3270cat \
  --hostname warsaw.indigo-insurance.com
```

tarantella object new_5250app

Creates one or more 5250 application objects (see "5250 Application Object" on page 92).

Syntax

```
tarantella object new_5250app {
  --name obj
  --width pixels
  --height pixels
[ --description text ]
[ --args args ]
[ --method telnet|ssh ]
[ --resumable never|session|always ]
[ --endswhen lastclient|windowmanager|windowmanageralone|nowindows|
loginscript|loginscriptnowindows ]
[ --maxinstances 0|instances ]
[ --displayusing webtop|newbrowser|independent]
[ --maximize true|false ]
[ --scalable true|false ]
[ --icon icon_name ]
[ --hints hint...]
[ --hostname host ]
[ --portnumber tcp ]
[ --tnclose 0|1|2|3 ]
[ --kt pc|sun4|sun5|hp ]
[ --bl 0|1|2|3|4 ]
[ --ma true|false ]
[ --mb true|false ]
[ --si true|false ]
[ --fg color ]
[ --bg color ]
[ --roottype default|custom ]
[ --rootcolor color ]
[ --compression automatic|on|off ]
[ --execution automatic|inorder|optimized ]
[ --interlaced automatic|on|off ]
[ --accel true|false ]
[ --delayed true|false ]
[ --ldapusers user_dn... ]
[ --ldapgroups group_dn... ]
[ --ldapsearch search_string... ]
[ --env setting... ]
[ --login script ]
[ --winmgr command... ]
[ --resumetimeout mins ]
[ --middlemouse ms ]
[ --windowclose notifyapp|killapp|suspendsession|endsession ]
[ --euro unicode|iso8859-15 ]
[ --dpi monitordpi ]
[ --keepopen true|false ]
[ --lockkeymap true|false ]
```

```
[ --share true|false ]
[ --ssharguments args ]
 } | --file file
```

Description

SGD uses the third-party TeemTalk for Unix emulator for 5250 applications. See the TeemTalk for Unix User's Guide supplied with SGD for details.

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The common name of the object in the SGD datastore.	"Name" on page 182
`--width`	The width of the application, in pixels.	"Window Size: Width" on page 211
`--height`	The height of the application, in pixels.	"Window Size: Height" on page 208
`--description`	A text description of the object.	"Comment" on page 140
`--args`	The command-line arguments to use when starting the application.	"Arguments for Command" on page 115
`--method`	The mechanism used by the SGD server to access the application server and start the application.	"Connection Method" on page 142
`--resumable`	Resumability behavior for the application.	"Application Resumability" on page 110
`--endswhen`	When the application session ends.	"Session Termination" on page 193
`--maxinstances`	The maximum number of instances of the application a user can run simultaneously.	"Number of Sessions" on page 184
`--displayusing`	How the application is displayed to the user.	"Window Type" on page 212
`--maximize`	The initial size of the application.	"Window Size: Client's Maximum Size" on page 207
`--scalable`	Scale the application to fit the window in which it is displayed.	"Window Size: Scale to Fit Window" on page 211
`--icon`	Webtop icon for the application.	"Icon" on page 164
`--hints`	String containing additional name-value data for the application.	"Hints" on page 159
`--hostname`	The AS/400 host that runs the application.	"Server Address" on page 192
`--portnumber`	The TCP port number used to connect to the AS/400 host.	"Server Port" on page 192
`--tnclose`	Behavior when telnet connection to the AS/400 host is closed.	"Connection Closed Action" on page 141

Option	Description	More Information
`--kt`	Layout to use for mapping the keyboard to the terminal being emulated.	"Keyboard Type" on page 169
`--bl`	Number of "soft button" levels to display.	"Displayed Soft Buttons" on page 150
`--ma`	Maximizes the emulator window.	"Window Size: Maximized" on page 210
`--mb`	Enables the application's menu bar.	"Menu Bar" on page 179
`--si`	Enables the File and Settings menu items.	"'File' and 'Settings' Menus" on page 155
`--fg`	Text color in the application's text window.	"Foreground Color" on page 158
`--bg`	Background color of the application's text window.	"Background Color" on page 125
`--roottype`	Appearance of the root window.	"Window Color" on page 204
`--rootcolor`	Color of the root window.	"Window Color: Custom Color" on page 205
`--compression`	Whether theAIP compresses commands for transmission.	"Command Compression" on page 138
`--execution`	Whether the AIP always executes commands in order, or optimizes commands for performance reasons.	"Command Execution" on page 139
`--interlaced`	Enables interlaced image transmission.	"Interlaced Images" on page 165
`--accel`	Enables graphics acceleration for the application's display.	"Graphics Acceleration" on page 158
`--delayed`	Enables delayed updates of the application's display.	"Delayed Updates" on page 149
`--ldapusers`	Assigns the application to the specified LDAP users.	"Assigned User Profiles Tab" on page 119
`--ldapgroups`	Assigns the application to the specified LDAP groups.	"Assigned User Profiles Tab" on page 119
`--ldapsearch`	Assigns the application to the users that match the LDAP search criteria.	"Assigned User Profiles Tab" on page 119
`--env`	Environment variable settings needed to run the application.	"Environment Variables" on page 152
`--login`	The login script used to start the application.	"Login Script" on page 174
`--winmgr`	The Window Manager to use for the application.	"Window Manager" on page 206
`--resumetimeout`	Number of minutes the application is resumable for.	"Application Resumability: Timeout" on page 112
`--middlemouse`	Timeout for emulating a middle mouse button click using a two-button mouse.	"Middle Mouse Timeout" on page 180

Option	Description	More Information
`--windowclose`	Effect on application session of closing the main application window.	"Window Close Action" on page 202
`--euro`	Keycode mapping required by the application to support the euro character.	"Euro Character" on page 154
`--dpi`	Monitor resolution that SGD reports to X applications.	"Monitor Resolution" on page 180
`--keepopen`	Keep open the connection used to start the application.	"Keep Launch Connection Open" on page 166
`--lockkeymap`	Prevents applications from changing keyboard mappings.	"Keyboard Map: Locked" on page 169
`--share`	Enables resource sharing for similar application sessions.	"Share Resources Between Similar Sessions" on page 195
`--ssharguments`	Command-line arguments for the `ssh` client.	"Connection Method: ssh Arguments" on page 144
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new 5250 application object for the application 5250cat. The emulator runs on the application server prague, and connects to the AS/400 host warsaw.indigo-insurance.com.

```
tarantella object new_5250app \
  --name "o=applications/ou=Finance/cn=5250cat" \
  --width 400  --height 300 \
  --app /5250cat \
  --appserv "o=appservers/cn=Prague" \
  --hostname warsaw.indigo-insurance.com
```

tarantella object new_charapp

Creates one or more character application objects (see "Character Application Object" on page 94).

Syntax

```
tarantella object new_charapp {
   --name obj
   --emulator scocon|vt420|wyse60
   --termtype type
   --width pixels
   --height pixels
 [ --description text ]
 [ --app pathname ]
 [ --args args ]
 [ --appserv obj... ]
 [ --method telnet|ssh ]
 [ --resumable never|session|always ]
 [ --maxinstances 0|instances ]
 [ --displayusing webtop|newbrowser|independent|kiosk ]
 [ --maximize true|false ]
 [ --cols cols ]
 [ --lines lines ]
 [ --icon icon_name ]
 [ --hints hint...]
 [ --font courier|helvetica|timesroman ]
 [ --fontsize points ]
 [ --fixedfont true|false ]
 [ --autowrap true|false ]
 [ --cursor off|block|underline ]
 [ --statusline none|indicator|hostmessages|standard|extended ]
 [ --scrollstyle line|multiple|smooth ]
 [ --border normal|indented|raised ]
 [ --answermsg message ]
 [ --appkeymode true|false ]
 [ --keypad numeric|application ]
 [ --cursorkeys application|cursor ]
 [ --escape 7-bit|8-bit ]
 [ --codepage 437|850|852|860|863|865|8859-1|8859-2|Multinational|
Mazovia|CP852 ]
 [ --ldapusers user_dn... ]
 [ --ldapgroups group_dn... ]
 [ --ldapsearch search_string... ]
 [ --loadbal default|cpu|memory|sessions ]
 [ --compression automatic|on|off ]
 [ --env setting... ]
 [ --login script ]
 [ --keymap keymap ]
 [ --attributemap attrmap ]
 [ --colormap colormap ]
 [ --resumetimeout mins ]
```

```
[ --windowclose suspendsession|endsession ]
[ --ssharguments args ]
} | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The common name of the object in the SGD datastore.	"Name" on page 182
`--emulator`	The type of emulation required for the application.	"Emulation Type" on page 152
`--termtype`	The terminal type required for the application.	"Terminal Type" on page 197
`--width`	The width of the application, in pixels.	"Window Size: Width" on page 211
`--height`	The height of the application, in pixels.	"Window Size: Height" on page 208
`--description`	A text description of the object.	"Comment" on page 140
`--app`	Full path name of the application.	"Application Command" on page 108
`--args`	The command-line arguments to use when starting the application.	"Arguments for Command" on page 115
`--appserv`	The application servers that can run the application.	"Hosting Application Servers Tab" on page 162
`--method`	The mechanism used by the SGD server to access the application server and start the application.	"Connection Method" on page 142
`--resumable`	Resumability behavior for the application.	"Application Resumability" on page 110
`--maxinstances`	The maximum number of instances of the application a user can run simultaneously.	"Number of Sessions" on page 184
`--displayusing`	How the application is displayed to the user.	"Window Type" on page 212
`--maximize`	The initial size of the application.	"Window Size: Client's Maximum Size" on page 207
`--cols`	The number of columns in the terminal window.	"Window Size: Columns" on page 208
`--lines`	The number of lines in the terminal window.	"Window Size: Lines" on page 209
`--icon`	Webtop icon for the application.	"Icon" on page 164
`--hints`	String containing additional name-value data for the application.	"Hints" on page 159

Option	Description	More Information
`--font`	Determines the font family used within the terminal window for the application	"Font Family" on page 156
`--fontsize`	Defines the font size in the terminal window.	"Font Size" on page 156
`--fixedfont`	Uses the font size specified by `--fontsize` for the terminal window.	"Font Size: Fixed Font Size" on page 157
`--autowrap`	Determines the behavior when a user types characters extending beyond the right edge of the terminal window.	"Line Wrapping" on page 170
`--cursor`	Cursor style used for the application.	"Cursor" on page 148
`--statusline`	Specifies the type of status line.	"Status Line" on page 196
`--scrollstyle`	The scroll behavior of the terminal window.	"Scroll Style" on page 189
`--border`	The border style for the terminal window.	"Border Style" on page 127
`--answermsg`	Defines the message to return when an inquiry is sent from the application server to the emulator.	"Answerback Message" on page 107
`--appkeymode`	Determines whether the application can change the codes generated by keys on the keyboard.	"Keyboard Codes Modification" on page 167
`--keypad`	Specifies the behavior of the cursor keys.	"Numpad Codes Modification" on page 185
`--cursorkeys`	Specifies the behavior of the cursor keys.	"Cursor Key Codes Modification" on page 148
`--escape`	Specifies how escape sequences are sent from the emulator to the application server.	"Escape Sequences" on page 153
`--codepage`	The code page to use for the emulator.	"Code Page" on page 134
`--ldapusers`	Assigns the application to the specified LDAP users.	"Assigned User Profiles Tab" on page 119
`--ldapgroups`	Assigns the application to the specified LDAP groups.	"Assigned User Profiles Tab" on page 119
`--ldapsearch`	Assigns the application to the users that match the LDAP search criteria.	"Assigned User Profiles Tab" on page 119
`--loadbal`	Load balancing algorithm to use.	"Application Load Balancing" on page 109
`--compression`	Whether the Adaptive Internet Protocol (AIP) compresses commands for transmission.	"Command Compression" on page 138
`--env`	Environment variable settings needed to run the application.	"Environment Variables" on page 152

Option	Description	More Information
`--login`	The login script used to start the application.	"Login Script" on page 174
`--keymap`	Path name of a keyboard map file.	"Keyboard Map" on page 167
`--attributemap`	The attribute map to use for the application.	"Attribute Map" on page 123
`--colormap`	The color map to use for the application.	"Color Map" on page 136
`--resumetimeout`	Number of minutes the application is resumable for.	"Application Resumability: Timeout" on page 112
`--windowclose`	Effect on application session of closing the main application window.	"Window Close Action" on page 202
`--ssharguments`	Command-line arguments for the `ssh` client.	"Connection Method: ssh Arguments" on page 144
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a character application object for the application Pers-o-dat. The application can be run on the application servers prague and london. Application server load balancing decides which application server to use.

```
tarantella object new_charapp \
  --name "o=applications/cn=Pers-o-dat" \
  --emulator vt420 \
  --termtype vt220 \
  --width 400 \
  --height 300 \
  --app /bin/persodat \
  --appserv "o=appservers/cn=prague" \
            "o=appservers/ou=IT/cn=london"
```

tarantella object new_container

Creates one or more Active Directory container objects (see "Directory (Light): Active Directory Container Object" on page 98).

Syntax

```
tarantella object new_container { --name obj } | --file file
```

Description

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new Active Directory container object with name `Users`, within the indigo-insurance.com domain components.

```
tarantella object new_container \
  --name "dc=com/dc=indigo-insurance/cn=Users"
```

The following example creates two Active Directory container objects using a batch script defined as a "here-document". You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_container --file - <<EOF
  --name "dc=com/dc=indigo-insurance/cn=Users"
  --name "dc=com/dc=indigo-insurance/cn=Applications"
EOF
```

tarantella object new_dc

Creates one or more domain component objects (see "Directory (Light): Domain Component Object" on page 99).

Syntax

```
tarantella object new_dc { --name obj } | --file file
```

Description

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new domain component object with name `com`, at the top level of the organizational hierarchy.

```
tarantella object new_dc \
  --name "dc=com"
```

The following example creates two domain component objects using a batch script defined as a "here-document". You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_orgunit --file - <<EOF
  --name "dc=com"
  --name "dc=com/dc=indigo-insurance"
EOF
```

tarantella object new_doc

Creates one or more document objects (see "Document Object" on page 99).

Syntax

```
tarantella object new_doc {
   --name obj
   --url url
 [ --description text ]
 [ --newbrowser true|false ]
 [ --icon icon_name ]
 [ --hints hint...]
 [ --ldapusers user_dn... ]
 [ --ldapgroups group_dn... ]
 [ --ldapsearch search_string... ]
 } | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The name of the document object.	"Name" on page 182
`--url`	URL displayed when document object link is clicked.	"URL" on page 200
`--description`	A text description of the object.	"Comment" on page 140
`--newbrowser`	Displays the document in a new browser window.	"Window Type: New Browser Window" on page 214
`--icon`	Webtop icon for the application.	"Icon" on page 164
`--hints`	String containing additional name-value data for the application.	"Hints" on page 159
`--ldapusers`	Assigns the application to the specified LDAP users.	"Assigned User Profiles Tab" on page 119
`--ldapgroups`	Assigns the application to the specified LDAP groups.	"Assigned User Profiles Tab" on page 119
`--ldapsearch`	Assigns the application to the users that match the LDAP search criteria.	"Assigned User Profiles Tab" on page 119
`--file`	A file containing a batch of commands to configure application server load balancing.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new document object with common name `PhoneList`, belonging to the organizational unit `applications`.

```
tarantella object new_doc \
  --name "o=Indigo Insurance/ou=Finance/ou=Administration/cn=Phone
List" \
  --url http://newyork.indigo-insurance.com \
  --newbrowser false
```

The following example creates two document objects using a batch script defined as a "here-document". You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_doc --file - <<EOF
  --name "o=applications/ou=Finance/ou=Administration/cn=Phone List"
   --url http://newyork.indigo-insurance.com \
   --newbrowser false
   --name "o=applications/cn=Indigo Insurance web site" \
   --url http://www.indigo-insurance.com \
   --newbrowser true
EOF
```

tarantella object new_group

Creates one or more group objects (see "Group Object" on page 100).

Syntax

```
tarantella object new_group {
    --name obj
  [ --description text ]
  [ --member obj... ]
  [ --ldapusers user_dn... ]
  [ --ldapgroups group_dn... ]
  [ --ldapsearch search_string... ]
  } | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The name of the group object.	"Name" on page 182
`--description`	A text description of the object.	"Comment" on page 140
`--member`	Member of the group object.	"Members Tab" on page 177
`--ldapusers`	Assigns the application to the specified LDAP users.	"Assigned User Profiles Tab" on page 119
`--ldapgroups`	Assigns the application to the specified LDAP groups.	"Assigned User Profiles Tab" on page 119
`--ldapsearch`	Assigns the application to the users that match the LDAP search criteria.	"Assigned User Profiles Tab" on page 119
`--file`	A file containing a batch of commands to configure application server load balancing.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new group object with common name `WinHosts`, belonging to the organization object `appservers`. The group's members are the application server objects for the application servers rome, brussels and berlin.

```
tarantella object new_group \
  --name "o=appservers/cn=WinHosts" \
  --member "o=appservers/ou=Sales/cn=rome" \
           "o=appservers/cn=brussels" \
           "o=appservers/ou=Marketing/cn=berlin"
```

The following example creates three group objects using a batch script defined as a "here-document". The groups have no members (use `tarantella object add_member` to add members later from the command line). You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_group --file - <<EOF
  --name "o=appservers/cn=WinHosts"
  --name "o=appservers/cn=UNIXHosts"
  --name "o=applications/cn=Applications"
EOF
```

tarantella object new_host

Creates one or more application server objects (see "Application Server Object" on page 94).

Syntax

```
tarantella object new_host {
   --name obj
   --address address
 [ --description text ]
 [ --ntdomain dom ]
 [ --available true|false ]
 [ --auth trytta|nevertrytta|default ]
 [ --location location ]
 [ --hostlocale ll_tt ]
 } | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The names of objects you want to add webtop links for.	"Name" on page 182
`--address`	Network address of the application server.	"Address" on page 106
`--description`	A text description of the object.	"Comment" on page 140
`--ntdomain`	The Windows domain used for application server authentication.	"Domain Name" on page 150
`--available`	Specifies whether applications can run on this application server.	"Application Start" on page 114
`--auth`	Specifies the policy for authenticating users on the application server, *if no password is already cached* for that server.	"Password Cache Usage" on page 186
`--location`	String describing the location of the application server. Used for load balancing.	"Load Balancing Groups" on page 171
`--hostlocale`	Default language setting for the application server.	"Prompt Locale" on page 189
`--file`	A file containing a batch of commands to add links to webtops.	

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example creates a new application server object with common name `paris`, belonging to the organizational unit object `Finance` (which must already exist).

```
tarantella object new_host \
  --name "o=appservers/ou=Finance/cn=paris" \
  --address paris.indigo-insurance.com \
  --auth default \
  --location Europe-north
```

The following example creates three application server objects using a batch script defined as a “here-document”. You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_host --file - <<EOF
  --name "o=appservers/ou=Finance/cn=paris" \
  --address paris.indigo-insurance.com
  --name "o=appservers/cn=brussels" \
  --address brussels.indigo-insurance.com
  --name "o=appservers/ou=IT/cn=london" \
  --address london.indigo-insurance.com
EOF
```

tarantella object new_org

Syntax

Creates one or more organization (O) objects (see “Directory: Organization Object” on page 96).

```
tarantella object new_org {
   --name obj
 [ --description text ]
 [ --conntype type_spec... ]
 [ --cdm drive_spec... ]
 [ --userprintingconfig true|false ]
 [ --mapprinters 2|1|0 ]
 [ --pdfenabled 1|0 ]
 [ --pdfviewerenabled 1|0 ]
 [ --pdfdriver driver_name ]
 [ --pdfisdefault 1|0 ]
 [ --pdfviewerisdefault 1|0 ]
 [ --links obj... ]
 [ --editprofile 2|1|0 ]
 [ --clipboard 2|1|0 ]
 [ --serialport 2|1|0 ]
 } | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The name of the organization object in the SGD datastore.	"Name" on page 182
`--description`	A text description of the object.	"Comment" on page 140
`--conntype`	The connections that are allowed between the client device and the SGD server.	"Connections" on page 143
`--cdm`	The drives on a Microsoft Windows client device that can be accessed from applications running on application servers.	"Client Drive Mapping" on page 128
`--userprintingconfig`	Enables user-specific printing configuration.	"Client Printing: Override" on page 131
`--mapprinters`	The client printers users can print to when printing from Windows applications.	"Client Printing" on page 130
`--pdfenabled`	Enables users to print using the SGD "Universal PDF Printer" printer when printing from Windows applications.	"Universal PDF Printer" on page 199
`--pdfviewerenabled`	Enables users to print using the SGD "Universal PDF Viewer" printer when printing from Windows applications.	"Universal PDF Viewer" on page 199
`--pdfdriver`	The printer driver to use for SGD PDF printing when printing from Windows applications.	"Postscript Printer Driver" on page 187
`--pdfisdefault`	The SGD "Universal PDF Printer" printer as the client's default printer when printing from Windows applications.	"Make Universal PDF Printer the Default" on page 175
`--pdfviewerisdefault`	The SGD "Universal PDF Viewer" printer as the client's default printer when printing from Windows applications.	"Make Universal PDF Viewer the Default" on page 176
`--links`	Defines the content of a webtop.	"Assigned Applications Tab" on page 117
`--editprofile`	Whether users can create and edit profiles for use with the SGD Client.	"Client Profile Editing" on page 132

Option	Description	More Information
`--clipboard`	Whether users can use copy and paste in Windows or X application application sessions.	"Copy and Paste" on page 145
`--serialport`	Whether users can access the serial ports on a client device from a Windows application running on a Microsoft Windows Server 2003 application server.	"Serial Port Mapping" on page 190
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new organization object with name `Indigo Insurance`. Connections for all users in the organization are secure (SSL-based) unless the OU or user profile objects are configured to give a different type of connection.

```
tarantella object new_org \
  --name "o=Indigo Insurance" \
  --conntype '*:*:SSL'
```

The following example creates two organization objects using a batch script defined as a "here-document". You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_org --file - <<EOF
  --name "o=Indigo Insurance"
  --name "o=Indigo Insurance Services"
EOF
```

tarantella object new_orgunit

Creates one or more organizational unit (OU) objects (see "Directory: Organizational Unit Object" on page 97).

Syntax

```
tarantella object new_orgunit {
   --name obj
 [ --description text ]
 [ --inherit true|false ]
 [ --conntype type_spec... ]
 [ --cdm drive_spec... ]
 [ --userprintingconfig 1|0 ]
 [ --mapprinters 2|1|0 ]
 [ --pdfenabled 1|0 ]
 [ --pdfviewerenabled 1|0 ]
 [ --pdfdriver driver_name ]
 [ --pdfisdefault 1|0 ]
 [ --pdfviewerisdefault 1|0 ]
 [ --links obj... ]
 [ --editprofile 2|1|0 ]
 [ --clipboard 2|1|0 ]
 [ --serialport 2|1|0 ]
 } | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The name of the organizational unit object in the SGD datastore.	"Name" on page 182
`--description`	A text description of the object.	"Comment" on page 140
`--inherit`	Whether the webtop content for the object also includes the webtop content for the object's parent.	"Inherit Assigned Applications from Parent" on page 164
`--conntype`	The connections that are allowed between the client device and the SGD server.	"Connections" on page 143
`--cdm`	The drives on a Microsoft Windows client device that can be accessed from applications running on application servers.	"Client Drive Mapping" on page 128
`--userprintingconfig`	Enables user-specific printing configuration.	"Client Printing: Override" on page 131
`--mapprinters`	The client printers users can print to when printing from Windows applications.	"Client Printing" on page 130

Option	Description	More Information
`--pdfenabled`	Enables users to print using the SGD "Universal PDF Printer" printer when printing from Windows applications.	"Universal PDF Printer" on page 199
`--pdfviewerenabled`	Enables users to print using the SGD "Universal PDF Viewer" printer when printing from Windows applications.	"Universal PDF Viewer" on page 199
`--pdfdriver`	The printer driver to use for SGD PDF printing when printing from Windows applications.	"Postscript Printer Driver" on page 187
`--pdfisdefault`	Sets the SGD "Universal PDF Printer" printer as the client's default printer when printing from Windows applications.	"Make Universal PDF Printer the Default" on page 175
`--pdfviewerisdefault`	Sets the SGD "Universal PDF Viewer" printer as the client's default printer when printing from Windows applications.	"Make Universal PDF Viewer the Default" on page 176
`--links`	Defines the content of a webtop.	"Assigned Applications Tab" on page 117
`--editprofile`	Whether users can create and edit profiles for use with the Sun Secure Global Desktop Client.	"Client Profile Editing" on page 132
`--clipboard`	Whether users can use copy and paste in Windows or X application application sessions.	"Copy and Paste" on page 145
`--serialport`	Whether users can access the serial ports on a client device from a Windows application running on a Microsoft Windows Server 2003 application server.	"Serial Port Mapping" on page 190
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new OU object with the name `IT`, belonging to the organization object `Indigo Insurance` (which must already exist). This OU inherits webtop content from its parent (the organization object). Connections for all users in the OU are secure (SSL-based) unless their user profile objects are configured to give a different type of connection.

```
tarantella object new_orgunit \
  --name "o=Indigo Insurance/ou=IT" \
  --inherit true \
  --conntype '*:*:SSL'
```

The following example creates three OU objects using a batch script defined as a "here-document". The OU `Administration` belongs to the OU `Finance`, just created. You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_orgunit --file - <<EOF
  --name "o=Indigo Insurance/ou=IT"
  --name "o=Indigo Insurance/ou=Finance"
  --name "o=Indigo Insurance/ou=Finance/ou=Administration"
EOF
```

tarantella object new_person

Creates one or more user profile objects (see "User Profile Object" on page 101).

Syntax

```
tarantella object new_person {
   --name obj
   --surname surname
 [ --description text ]
 [ --user user ]
 [ --email name@domain ]
 [ --ntdomain dom ]
 [ --inherit true|false ]
 [ --shared true|false ]
 [ --enabled true|false ]
 [ --conntype type_spec... ]
 [ --cdm drive_spec... ]
 [ --keymap keymap ]
 [ --bandwidth limit ]
 [ --links obj... ]
 [ --userprintingconfig 1|0 ]
 [ --mapprinters 2|1|0 ]
 [ --pdfenabled 1|0 ]
 [ --pdfviewerenabled 1|0 ]
 [ --pdfdriver driver_name ]
 [ --pdfisdefault 1|0 ]
 [ --pdfviewerisdefault 1|0 ]
 [ --editprofile 2|1|0 ]
```

```
[ --clipboard 2|1|0 ]
[ --serialport 2|1|0 ]
} | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The common name of the object in the SGD datastore.	"Name" on page 182
`--surname`	The surname (family name) for the user profile.	"Surname" on page 196
`--description`	A text description of the object.	"Comment" on page 140
`--user`	The user name for the user profile. This is typically their UNIX user name.	"Login Name" on page 173
`--email`	The email address for the user profile.	"Email Address" on page 151
`--ntdomain`	The Windows domain used for application server authentication.	"Domain Name" on page 150
`--inherit`	Whether the webtop content for the object also includes the webtop content for the object's parent.	"Inherit Assigned Applications from Parent" on page 164
`--shared`	Whether the user profile object is used by a single user, or can be shared by multiple users in the form of a "guest" account.	"Login: Multiple" on page 172
`--enabled`	Whether someone can log in using this user profile object.	"Login" on page 172
`--conntype`	Defines the connections that are allowed between the client device and the SGD server.	"Connections" on page 143
`--cdm`	The drives on a Microsoft Windows client device that users can access from applications.	"Client Drive Mapping" on page 128
`--keymap`	The path name of a keyboard map file.	"Keyboard Map" on page 167
`--bandwidth`	The maximum bandwidth this person can use for applications.	"Bandwidth Limit" on page 125
`--links`	Defines the content of a webtop.	"Assigned Applications Tab" on page 117
`--userprintingconfig`	Enables user-specific printing configuration.	"Client Printing: Override" on page 131
`--mapprinters`	The client printers users can print to when printing from Windows applications.	"Client Printing" on page 130

Option	Description	More Information
`--pdfenabled`	Enables users to print using the SGD "Universal PDF Printer" printer when printing from Windows applications.	"Universal PDF Printer" on page 199
`--pdfviewerenabled`	Enables users to print using the SGD "Universal PDF Viewer" printer when printing from Windows applications.	"Universal PDF Viewer" on page 199
`--pdfdriver`	The printer driver to use for SGD PDF printing when printing from Windows applications.	"Postscript Printer Driver" on page 187
`--pdfisdefault`	Sets the SGD "Universal PDF Printer" printer as the client's default printer when printing from Windows applications.	"Make Universal PDF Printer the Default" on page 175
`--pdfviewerisdefault`	Sets the SGD "Universal PDF Viewer" printer as the client's default printer when printing from Windows applications.	"Make Universal PDF Viewer the Default" on page 176
`--editprofile`	Whether users can create and edit profiles for use with the SGD Client.	"Client Profile Editing" on page 132
`--clipboard`	Whether users can use copy and paste in application application sessions.	"Copy and Paste" on page 145
`--serialport`	Whether users can access the serial ports on a client device from a Windows application running on a Microsoft Windows Server 2003 application server.	"Serial Port Mapping" on page 190
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new user profile object for Indigo Jones. Indigo inherits webtop content from the organization object, and is given a secure (SSL-based) connection.

```
tarantella object new_person \
  --name "o=Indigo Insurance/cn=Indigo Jones" \
  --surname Jones \
  --user indigo \
  --email indigo@indigo-insurance.com \
  --inherit true \
  --conntype '*:*:SSL'
```

The following example creates three user profile objects using a batch script defined as a “here-document”. You can alternatively store the batch script in a file, and reference it using `--file` *filename*.

```
tarantella object new_person --file - <<EOF
  --name "o=Indigo Insurance/cn=Indigo Jones" --surname Jones
  --name "o=Indigo Insurance/ou=IT/cn=Bill Orange" --surname Orange
  --name "o=Indigo Insurance/ou=Finance/cn=Mulan Rouge" --surname Rouge
EOF
```

tarantella object new_windowsapp

Creates one or more Windows application objects (see “Windows Application Object” on page 102).

Syntax

```
tarantella object new_windowsapp {
   --name obj
   --width pixels
   --height pixels
 [ --description text ]
 [ --winproto wts|winframe|none ]
 [ --trylocal true|false ]
 [ --ntdomain dom ]
 [ --app pathname ]
 [ --args args ]
 [ --appserv obj... ]
 [ --method rexec|telnet|ssh ]
 [ --resumable never|session|always ]
 [ --endswhen lastclient|windowmanager|windowmanageralone|nowindows|
 loginscript|loginscriptnowindows ]
 [ --maxinstances 0|instances ]
 [ --displayusing webtop|newbrowser|independent|kiosk|localx|
 seamless ]
 [ --maximize true|false ]
 [ --scalable true|false ]
 [ --depth 8|16|24 ]
 [ --icon icon_name ]
 [ --hints hint...]
 [ --clipboardlevel level ]
 [ --roottype default|custom ]
 [ --rootcolor color ]
 [ --compression automatic|on|off ]
 [ --execution automatic|inorder|optimized ]
```

```
[ --interlaced automatic|on|off ]
[ --accel true|false ]
[ --delayed true|false ]
[ --ldapusers user_dn... ]
[ --ldapgroups group_dn... ]
[ --ldapsearch search_string... ]
[ --loadbal default|cpu|memory|sessions ]
[ --env setting... ]
[ --login script ]
[ --winmgr command... ]
[ --protoargs args ]
[ --resumetimeout mins ]
[ --middlemouse ms ]
[ --windowclose suspendsession|endsession ]
[ --euro unicode|iso8859-15 ]
[ --dpi monitordpi ]
[ --keepopen true|false ]
[ --lockkeymap true|false ]
[ --remotewindowkeys true|false ]
} | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The common name of the object in the SGD datastore.	"Name" on page 182
`--width`	The width of the application, in pixels.	"Window Size: Width" on page 211
`--height`	The height of the application, in pixels.	"Window Size: Height" on page 208
`--description`	A text description of the object.	"Comment" on page 140
`--winproto`	The protocol used to connect to the server hosting the application.	"Windows Protocol" on page 215
`--trylocal`	Try starting the application from the user's client device.	"Windows Protocol: Try Running From Client First" on page 216
`--ntdomain`	The Windows NT domain to use for the application server authentication process.	"Domain Name" on page 150
`--app`	Full path name of the application.	"Application Command" on page 108
`--args`	The command-line arguments to use when starting the application.	"Arguments for Command" on page 115

Option	Description	More Information
`--appserv`	The application servers that can run the application.	"Hosting Application Servers Tab" on page 162
`--method`	The mechanism used by the SGD server to access the application server and start the application.	"Connection Method" on page 142
`--resumable`	Resumability behavior for the application.	"Application Resumability" on page 110
`--endswhen`	When the application session ends.	"Session Termination" on page 193
`--maxinstances`	The maximum number of instances of the application a user can run simultaneously.	"Number of Sessions" on page 184
`--displayusing`	How the application is displayed to the user.	"Window Type" on page 212
`--maximize`	The initial size of the application.	"Window Size: Client's Maximum Size" on page 207
`--scalable`	Scale the application to fit the window in which it is displayed.	"Window Size: Scale to Fit Window" on page 211
`--depth`	Color depth for the application.	"Color Depth" on page 135
`--icon`	Webtop icon for the application.	"Icon" on page 164
`--hints`	String containing additional name-value data for the application.	"Hints" on page 159
`--clipboardlevel`	Clipboard security level for the application.	"Copy and Paste: Application's Clipboard Security Level" on page 147
`--roottype`	Appearance of the root window.	"Window Color" on page 204
`--rootcolor`	Color of the root window.	"Window Color: Custom Color" on page 205
`--compression`	Whether the Adaptive Internet Protocol (AIP) compresses commands for transmission.	"Command Compression" on page 138
`--execution`	Whether the Adaptive Internet Protocol (AIP) always executes commands in order, or optimizes commands for performance reasons.	"Command Execution" on page 139
`--interlaced`	Enables interlaced image transmission.	"Interlaced Images" on page 165
`--accel`	Enables graphics acceleration for the application's display.	"Graphics Acceleration" on page 158
`--delayed`	Enables delayed updates of the application's display.	"Delayed Updates" on page 149
`--ldapusers`	Assigns the application to the specified LDAP users.	"Assigned User Profiles Tab" on page 119

Option	Description	More Information
`--ldapgroups`	Assigns the application to the specified LDAP groups.	"Assigned User Profiles Tab" on page 119
`--ldapsearch`	Assigns the application to the users that match the LDAP search criteria.	"Assigned User Profiles Tab" on page 119
`--loadbal`	Load balancing algorithm to use.	"Application Load Balancing" on page 109
`--env`	Environment variable settings needed to run the application.	"Environment Variables" on page 152
`-login`	The login script used to start the application.	"Login Script" on page 174
`--winmgr`	The Window Manager to use for the application.	"Window Manager" on page 206
`--protoargs`	Command-line arguments used for the Windows Protocol (`--winproto`).	"Arguments for Protocol" on page 116
`--resumetimeout`	Number of minutes the application is resumable for.	"Application Resumability: Timeout" on page 112
`--middlemouse`	Timeout for emulating a middle mouse button click using a two-button mouse.	"Middle Mouse Timeout" on page 180
`--windowclose`	Effect on application session of closing the main application window.	"Window Close Action" on page 202
`--euro`	Keycode mapping required by the application to support the euro character.	"Euro Character" on page 154
`--dpi`	Monitor resolution that SGD reports to X applications.	"Monitor Resolution" on page 180
`--keepopen`	Keep open the connection used to start the application.	"Keep Launch Connection Open" on page 166
`--lockkeymap`	Prevents applications from changing keyboard mappings.	"Keyboard Map: Locked" on page 169
`--remotewindowkeys`	Sends window management key strokes to the remote session.	"Window Management Keys" on page 205
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new Windows application object for the application Write-o-Win. The application runs on the application server rome.

```
tarantella object new_windowsapp \
  --name "o=applications/cn=Write-o-Win" \
  --width 1000  --height 800 \
  --app c:\\programs\\apps\\write.exe \
  --appserv "o=appservers/ou=Sales/cn=rome"
```

tarantella object new_xapp

Creates one or more X application objects (see "X Application Object" on page 104).

Syntax

```
tarantella object new_xapp {
   --name obj
   --width pixels
   --height pixels
 [ --description text ]
 [ --app pathname ]
 [ --args args ]
 [ --appserv obj... ]
 [ --method rexec|telnet|ssh ]
 [ --resumable never|session|always ]
 [ --endswhen lastclient|windowmanager|windowmanageralone|nowindows|
loginscript|loginscriptnowindows ]
 [ --maxinstances 0|instances ]
 [ --displayusing webtop|clientwm|newbrowser|independent|kiosk|
localx ]
 [ --maximize true|false ]
 [ --scalable true|false ]
 [ --depth 8|16|24|16/8|24/8|8/16|8/24 ]
 [ --icon icon_name ]
 [ --hints hint...]
 [ --clipboardlevel level ]
 [ --roottype default|custom ]
 [ --rootcolor color ]
 [ --compression automatic|on|off ]
 [ --execution automatic|inorder|optimized ]
 [ --quality automatic|best|24|21|18|16|15|12|9|6 ]
 [ --interlaced automatic|on|off ]
 [ --accel true|false ]
```

```
[ --delayed true|false ]
[ --ldapusers user_dn... ]
[ --ldapgroups group_dn... ]
[ --ldapsearch search_string... ]
[ --loadbal default|cpu|memory|sessions ]
[ --env setting... ]
[ --login script ]
[ --winmgr command... ]
[ --resumetimeout mins ]
[ --middlemouse ms ]
[ --force3button true|false ]
[ --windowclose notifyapp|killapp|suspendsession|endsession ]
[ --euro unicode|iso8859-15 ]
[ --dpi monitordpi ]
[ --keepopen true|false ]
[ --lockkeymap true|false ]
[ --share true|false ]
[ --securityextension true|false ]
[ --ssharguments args ]
[ --unixaudiopreload true|false ]
[ --remotewindowkeys true|false ]
} | --file file
```

Description

The following table shows the available options for this command.

Option	Description	More Information
`--name`	The common name of the object in the SGD datastore.	"Name" on page 182
`--width`	The width of the application, in pixels.	"Window Size: Width" on page 211
`--height`	The height of the application, in pixels.	"Window Size: Height" on page 208
`--description`	A text description of the object.	"Comment" on page 140
`--app`	Full path name of the application.	"Application Command" on page 108
`--args`	The command-line arguments to use when starting the application.	"Arguments for Command" on page 115
`--appserv`	The application servers that can run the application.	"Hosting Application Servers Tab" on page 162
`--method`	The mechanism used by the SGD server to access the application server and start the application.	"Connection Method" on page 142

Option	Description	More Information
`--resumable`	Resumability behavior for the application.	"Application Resumability" on page 110
`--endswhen`	When the application session ends.	"Session Termination" on page 193
`--maxinstances`	The maximum number of instances of the application a user can run simultaneously.	"Number of Sessions" on page 184
`--displayusing`	How the application is displayed to the user.	"Window Type" on page 212
`--maximize`	The initial size of the application.	"Window Size: Client's Maximum Size" on page 207
`--scalable`	Scale the application to fit the window in which it is displayed.	"Window Size: Scale to Fit Window" on page 211
`--depth`	Color depth for the application.	"Color Depth" on page 135
`--icon`	Webtop icon for the application.	"Icon" on page 164
`--hints`	String containing additional name-value data for the application.	"Hints" on page 159
`--clipboardlevel`	Clipboard security level for the application.	"Copy and Paste: Application's Clipboard Security Level" on page 147
`--roottype`	Appearance of the root window.	"Window Color" on page 204
`--rootcolor`	Color of the root window.	"Window Color: Custom Color" on page 205
`--compression`	Whether the Adaptive Internet Protocol (AIP) compresses commands for transmission.	"Command Compression" on page 138
`--execution`	Whether the Adaptive Internet Protocol (AIP) always executes commands in order, or optimizes commands for performance reasons.	"Command Execution" on page 139
`--quality`	The effective color depth displayed on client devices.	"Color Quality" on page 137
`--interlaced`	Enables interlaced image transmission.	"Interlaced Images" on page 165
`--accel`	Enables graphics acceleration for the application's display.	"Graphics Acceleration" on page 158
`--delayed`	Enables delayed updates of the application's display.	"Delayed Updates" on page 149
`--ldapusers`	Assigns the application to the specified LDAP users.	"Assigned User Profiles Tab" on page 119
`--ldapgroups`	Assigns the application to the specified LDAP groups.	"Assigned User Profiles Tab" on page 119

Option	Description	More Information
`--ldapsearch`	Assigns the application to the users that match the LDAP search criteria.	"Assigned User Profiles Tab" on page 119
`--loadbal`	Load balancing algorithm to use.	"Application Load Balancing" on page 109
`--env`	Environment variable settings needed to run the application.	"Environment Variables" on page 152
`--login`	The login script used to start the application.	"Login Script" on page 174
`--winmgr`	The Window Manager to use for the application.	"Window Manager" on page 206
`--resumetimeout`	Number of minutes the application is resumable for.	"Application Resumability: Timeout" on page 112
`--middlemouse`	Timeout for emulating a middle mouse button click using a two-button mouse.	"Middle Mouse Timeout" on page 180
`--force3button`	Specifies that the application only supports a 3-button mouse.	"Mouse" on page 181
`--windowclose`	Effect on application session of closing the main application window.	"Window Close Action" on page 202
`--euro`	Keycode mapping required by the application to support the euro character.	"Euro Character" on page 154
`--dpi`	Monitor resolution that SGD reports to X applications.	"Monitor Resolution" on page 180
`--keepopen`	Keep open the connection used to start the application.	"Keep Launch Connection Open" on page 166
`--lockkeymap`	Prevents applications from changing keyboard mappings.	"Keyboard Map: Locked" on page 169
`--share`	Enables resource sharing for similar application sessions.	"Share Resources Between Similar Sessions" on page 195
`--securityextension`	Enables the X Security Extension for the application.	"X Security Extension" on page 217
`--ssharguments`	Command-line arguments for the `ssh` client.	"Connection Method: ssh Arguments" on page 144
`--unixaudiopreload`	Enables the SGD audio redirection library.	"Audio Redirection Library" on page 124
`--remotewindowkeys`	Sends window management key strokes to the remote session.	"Window Management Keys" on page 205
`--file`	Batch file used to create multiple objects within the organizational hierarchy.	

To batch-create multiple objects, use the `--file` option. Use the other options to create a single object.

Examples

The following example creates a new X application object for the application XFinance. The application can be run on the application servers paris, bonn or lisbon. Application server load balancing decides which one to use.

```
tarantella object new_xapp \
  --name "o=applications/ou=Finance/cn=XFinance" \
  --width 1000  --height 800 \
  --app /usr/local/bin/xfinance \
  --appserv "o=appservers/ou=Finance/cn=paris" \
            "o=appservers/ou=Finance/cn=bonn" \
            "o=appservers/cn=lisbon"
```

tarantella object remove_host

Removes application servers from the list of those that can run an application, for application server load balancing.

Syntax

```
tarantella object remove_host { --name obj...
                                --host hobj...
                              } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the names of application objects you want to configure load balancing for.
`--host`	Specifies the names of application server objects you want to remove from the load balancing pool.
`--file`	Specifies a file containing a batch of commands to configure application server load balancing.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example removes the application server rome from the load balancing pool for the application Slide-o-Win.

```
tarantella object remove_host \
  --name "o=applications/cn=Slide-o-Win" \
  --host "o=appservers/ou=Sales/cn=rome"
```

The following example removes the group WinHosts from the load balancing pool for the applications Write-o-Win and Slide-o-Win. Load balancing is no longer performed across all the application severs in WinHosts.

```
tarantella object remove_host \
  --name "o=applications/cn=Write-o-Win" \
         "o=applications/cn=Slide-o-Win" \
  --host "o=appservers/cn=WinHosts"
```

tarantella object remove_link

Removes links from webtops.

Syntax

```
tarantella object remove_link { --name obj...
                                --link lobj...
                              } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the names of objects you want to remove webtop links for.
`--link`	Specifies the names of objects you want to remove from the webtop.
`--file`	Specifies a file containing a batch of commands to remove links from webtops.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example removes the Write-o-Win application from Violet Carson's webtop.

```
tarantella object remove_link \
  --name "o=Indigo Insurance/ou=Sales/cn=Violet Carson" \
  --link "o=applications/cn=Write-o-Win"
```

The following example removes the group Applications from the webtops of the organizational units Sales and Marketing. Everyone who inherits webtop content from one of these OUs (for example, they belong to that OU and Inherit Assigned Applications from Parent is selected for their user profile object) no longer sees all the applications in the group on their webtop. However, they might still see an application if it is inherited from elsewhere.

```
tarantella object remove_link \
  --name "o=Indigo Insurance/ou=Sales" \
         "o=Indigo Insurance/ou=Marketing" \
  --link "o=applications/cn=Applications"
```

tarantella object remove_member

Removes objects from groups.

Syntax

```
tarantella object remove_member { --name obj...
                                  --member mobj...
                                } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the names of group objects you want to remove members from.
`--member`	Specifies the names of objects you want to remove from the groups.
`--file`	Specifies a file containing a batch of commands to remove group members.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example removes the Write-o-Win application from the group Applications.

```
tarantella object remove_member \
  --name "o=applications/cn=Applications" \
  --member "o=applications/cn=Write-o-Win"
```

The following example removes the three application server objects rome, brussels and berlin from the group WinHosts.

```
tarantella object remove_member \
  --name "o=appservers/cn=WinHosts" \
  --member "o=appservers/ou=Sales/cn=rome" \
           "o=appservers/cn=brussels" \
           "o=appservers/ou=Marketing/cn=berlin"
```

tarantella object rename

Renames or moves an object in the organizational hierarchy.

Syntax

```
tarantella object rename {   --name obj...
                             --newname newobj...
                           } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--name`	Specifies the name of the object you want to rename or move.
`--newname`	Specifies the new name of the object.
`--file`	Specifies a file containing a batch of commands to rename or move objects.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example renames the user profile object for Elizabeth Blue to Liz Blue.

```
tarantella object rename \
  --name "o=Indigo Insurance/ou=Sales/cn=Elizabeth Blue" \
  --newname "o=Indigo Insurance/ou=Sales/cn=Liz Blue"
```

The following example moves Ginger Butcher between the organizational units IT and Sales.

```
tarantella object rename \
  --name "o=Indigo Insurance/ou=IT/cn=Ginger Butcher" \
  --newname "o=Indigo Insurance/ou=Sales/cn=Ginger Butcher"
```

tarantella object script

Runs a batch script of `tarantella object` commands, or enables commands to be run interactively.

Syntax

```
tarantella object script
```

Description

The batch script consists of standard `tarantella object` commands, one per line, *without* the `tarantella object` prefix. For example, use `edit` rather than `tarantella object edit`.

The batch script can use a back slash (\) to break commands across multiple lines. Lines beginning with a hash (#) are treated as comments and ignored.

If you need to include quotes (") or a backslash (\) character in any of the values for the commands, you must backslash protect them. For example, to use "c:\ Program Files" as a value for the `--args` option, type the following:

```
--args "\"c:\\Program Files\""
```

The command reads from standard input. For example, you can use a “here-document” to run a batch script:

```
$ tarantella object script <<EOF
commands
EOF
```

If standard input is empty, you can run `tarantella object` commands interactively.

Examples

The following example adds the group Applications to the organizational units Sales and Marketing, and sets the Sales OU’s Inherit Assigned Applications from Parent attribute to false.

```
tarantella object script <<EOF
add_link \
  --name "o=Indigo Insurance/ou=Sales" \
         "o=Indigo Insurance/ou=Marketing" \
  --link "o=Indigo Insurance/cn=Applications"
edit \
  --name "o=Indigo Insurance/ou=Sales" \
  --inherit false
EOF
```

The `tarantella passcache` command

This command manipulates the application server password cache. SGD Administrators can create, modify, delete and examine entries.

Syntax

```
tarantella passcache new | edit | list | delete
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`new`	Creates entries in the password cache.	"`tarantella passcache new`" on page 303
`edit`	Modifies existing entries in the password cache.	"`tarantella passcache edit`" on page 300
`list`	Lists the contents of the password cache.	"`tarantella passcache list`" on page 301
`delete`	Deletes entries from the password cache.	"`tarantella passcache delete`" on page 298

Note – All commands include a `--help` option. You can use `tarantella passcache` *command* `--help` to get help on a specific command.

Examples

The following example creates a password cache entry for the SGD user Indigo Jones, on the application server represented by the application server object prague.

```
tarantella passcache new \
  --person "o=Indigo Insurance/cn=Indigo Jones" \
  --resource "o=Indigo Insurance/cn=prague" \
  --resuser indigo \
  --respass rainbow
```

The following example lists entries in the password cache for the SGD user Indigo Jones.

```
tarantella passcache list \
  --person "o=Indigo Insurance/cn=Indigo Jones"
```

tarantella passcache delete

Deletes entries in the application server password cache.

Note – You can also use this command to delete the decision to always use a smart card to authenticate to an application server.

Syntax

```
tarantella passcache delete { [ --person pobj | --anon | --ldap ]
                              [ --resource resource ]
                            } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--person`	Specifies the name of the user profile object to delete the password cache entry for.
`--anon`	Removes the password cache entry for all anonymous users.

Option	Description
`--ldap`	Deletes the password cache entry for LDAP integration. This special entry is only used with LDAP authentication. This is the user name and password for the LDAP directory server that you enter on the Global Settings ⇒ SGD Authentication tab of the Administration Console. Use a full user name such as `cn=Bill Orange,cn=Users,dc=indigo-insurance,dc=com`. If you specify `--ldap`, the `--resource` option is ignored.
`--resource`	Specifies the application server or Microsoft Windows domain the password cache entry applies to. For the resource, use the name. This can be one of the following: • An application server object, for example "o=appservers/cn=paris". • A DNS name, for example ".../_dns/paris.indigo-insurance.com". • A Windows domain, for example ".../_wns/indigo.dom". • ".../_array" to mean the array. This is used when caching the password used to log in to SGD (see Password Cache Usage).
`--file`	Specifies a file containing password cache entries to delete.

If neither `--person`, `--anon` nor `--ldap` is specified, all password cache entries for the specified resource are deleted.

If `--resource` is not specified, all the password cache entries for the person (or anonymous user) are deleted.

Note – Make sure you quote any object names containing spaces, for example, "o=Indigo Insurance".

Examples

The following example deletes all password cache entries for the user Indigo Jones.

```
tarantella passcache delete \
  --person "o=Indigo Insurance/cn=Indigo Jones"
```

The following example deletes all password cache entries for anonymous users on the application server prague.indigo-insurance.com.

```
tarantella passcache delete \
  --anon \
  --resource .../_dns/prague.indigo-insurance.com
```

tarantella passcache edit

Edits entries in the application server password cache.

Syntax

```
tarantella passcache edit {
{ --person pobj | --anon | --ldap }
  --resource resource
  --resuser resuser
[ --respass respass ]
} | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--person`	Specifies the name of the user profile object to edit the password cache entry for.
`--anon`	Edits a password cache entry for anonymous users.
`--ldap`	Edits the password cache entry for LDAP integration. This special entry is only used with LDAP authentication. This is the user name and password for the LDAP directory server that you enter on the Global Settings ⇒ SGD Authentication tab of the Administration Console. Use a full user name such as `cn=Bill Orange,cn=Users,dc=indigo-insurance,dc=com`. If you specify `--ldap`, the `--resource` option is ignored.
`--resource`	Specifies the application server or Microsoft Windows domain the password cache entry applies to. For the resource, use the name. This can be one of the following: • A application server object, for example "o=appservers/cn=paris". • A DNS name, for example ".../_dns/paris.indigo-insurance.com". • A Windows domain, for example ".../_wns/indigo.dom". • ".../_array" to mean the array. This is used when caching the password used to log in to SGD (see Password Cache Usage).
`--resuser`	Identifies the user name appropriate to the resource. Set this to the text the user types in the authentication box for this resource.
`--respass`	Specifies the password associated with `--resuser`. If you omit this option, you are prompted for the password.
`--file`	Specifies a file containing password cache entries to edit.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example edits the password cache entry for the SGD user Indigo Jones, on the application server represented by the application server object prague.

```
tarantella passcache edit \
  --person "o=Indigo Insurance/cn=Indigo Jones" \
  --resource "o=appservers/cn=prague" \
  --resuser indigo \
  --respass rainbow
```

The following example edits the password cache entry for anonymous users on the application server paris.indigo-insurance.com.

```
tarantella passcache edit \
  --anon \
  --resource .../_dns/paris.indigo-insurance.com
```

tarantella passcache list

Lists entries in the application server password cache.

Syntax

```
tarantella passcache list { [ --person pobj | --anon | --ldap ]
                            [ --resource resource ]
                            [ --resuser resuser ]
                            [ --format text | xml ]
                          } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--person`	Specifies the name of the user profile object to list the password cache entry for.
`--anon`	Lists password cache entries for anonymous users.
`--ldap`	Lists the password cache entry for LDAP integration. This special entry is only used with LDAP authentication. This is the user name and password for the LDAP directory server that you enter on the Global Settings ⇒ SGD Authentication tab of the Administration Console. Use a full user name such as `cn=Bill Orange,cn=Users,dc=indigo-insurance,dc=com`. If you specify `--ldap`, the `--resource` option is ignored.
`--resource`	Lists password cache entries for an application server or Microsoft Windows domain. For the resource, use the name. This can be one of the following: • A application server object, for example "o=appservers/cn=paris". • A DNS name, for example ".../_dns/paris.indigo-insurance.com". • A Windows domain, for example ".../_wns/indigo.dom". • ".../_array" to mean the array. This is used when caching the password used to log in to SGD (see Password Cache Usage).
`--resuser`	Lists password cache entries for a particular application server user name.
`--format`	Specifies the output format (default setting is text).
`--file`	Specifies a file containing password cache entries to list.

If you omit all arguments, or just specify `--format`, all entries in the password cache are displayed.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example lists entries in the password cache for the SGD user Indigo Jones.

```
tarantella passcache list \
  --person "o=Indigo Insurance/cn=Indigo Jones"
```

The following example lists all entries in the password cache.

```
tarantella passcache list
```

tarantella passcache new

Syntax

```
tarantella passcache new {
{ --person pobj | --anon | --ldap }
--resource resource
--resuser resuser
[ --respass respass ]
} | --file file
```

Description

Adds entries to the application server password cache.

The following table shows available options for this command.

Option	Description
`--person`	Specifies the name of the user profile object to create a password cache entry for.
`--anon`	Creates a password cache entry for anonymous users.
`--ldap`	Creates a password cache entry for LDAP integration. This special entry is only used with the LDAP authorisation. This is the user name and password for the LDAP directory server that you enter on the Global Settings ⇒ SGD Authentication tab of the Administration Console. Use a full user name such as `cn=Bill Orange,cn=Users,dc=indigo-insurance,dc=com`. If you specify `--ldap`, the `--resource` option is ignored.
`--resource`	Specifies the application server or Microsoft Windows domain the password cache entry applies to. For the resource, use the name. This can be one of the following: • A application server object, for example "o=appservers/cn=paris". • A DNS name, for example ".../_dns/paris.indigo-insurance.com". • A Windows domain, for example ".../_wns/indigo.dom". • ".../_array" to mean the array. This is used when caching the password used to log in to SGD (see Password Cache Usage).

Option	Description
`--resuser`	Identifies the user name appropriate to the resource. Set this to the text the user types in the authentication box for this resource.
`--respass`	Specifies the password associated with `--resuser`. If you omit this option, you are prompted for the password.
`--file`	Specifies a file containing entries to add to the password cache.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example creates a password cache entry for the SGD user Indigo Jones, on the application server represented by the application server object prague.

```
tarantella passcache new \
  --person "o=Indigo Insurance/cn=Indigo Jones" \
  --resource "o=appservers/cn=prague" \
  --resuser indigo \
  --respass rainbow
```

The following example creates a password cache entry for anonymous users on the application server paris.indigo-insurance.com, prompting for the password.

```
tarantella passcache new \
  --anon \
  --resuser \
  --resource .../_dns/paris.indigo-insurance.com
```

The `tarantella print` command

This command enables you to administer SGD printing services across the array.

Syntax

```
tarantella print start | stop | status | pause | resume | list | cancel
| move
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`cancel`	Cancels print jobs.	"tarantella print cancel" on page 305
`list`	Lists print jobs.	"tarantella print list" on page 306
`move`	Moves queued print jobs from one SGD server to another.	"tarantella print move" on page 308
`pause`	Pauses printing temporarily.	"tarantella print pause" on page 309
`resume`	Resumes printing.	"tarantella print resume" on page 310
`start`	Starts printing services for the array.	"tarantella print start" on page 311
`status`	Displays information about printing services.	"tarantella print status" on page 311
`stop`	Stops printing services for the array.	"tarantella print stop" on page 312

Note – All commands include a `--help` option. You can use `tarantella print` *command* `--help` to get help on a specific command.

Examples

The following example starts SGD printing services for the array.

```
tarantella print start
```

The following example lists all print jobs for Bill Orange.

```
tarantella print list --person "o=Indigo Insurance/ou=IT/cn=Bill
Orange"
```

tarantella print cancel

Cancels SGD print jobs that are currently spooled.

You can run this command on any SGD server in the array.

Syntax

```
tarantella print cancel { --all
                        | --jobid id...
                        | --person pobj... [--server serv]
                        | --server serv }
```

Description

The folowing table shows the available options for this command.

Option	Description
`--all`	Cancels all print jobs spooled across the array.
`--jobid`	Cancels jobs with the specified job IDs.
`--person`	Cancels jobs belonging to each specified user profile, which must be the name. If this is used without `--server`, SGD cancels all print jobs for each specifed user profile.
`--server`	Cancels jobs on each SGD server listed. Use the peer DNS name for each server. If this is used with `--person`, SGD only cancels the print jobs for each specified user profile on each specified server.

Examples

The following example cancels print jobs for Bill Orange.

```
tarantella print cancel --person "o=Indigo Insurance/ou=IT/cn=Bill
Orange"
```

The following example cancels all print jobs on the SGD server detroit.

```
tarantella print cancel --server "detroit.indigo-insurance.com"
```

tarantella print list

Lists print jobs currently spooled.

You can run this command on any SGD server in the array.

Syntax

```
tarantella print list { --jobid id... | [ --person pobj... ]
[ --server serv... ]
}
[ --format text|brief ]
```

Description

The following table shows the available options for this command.

Option	Description
`--jobid`	Lists jobs with the specified job IDs.
`--person`	Lists jobs belonging to each specified person, which must be the name.
`--server`	Lists jobs for each specified SGD server. Use the peer DNS name for each server. If this is used with the `--person` option, SGD only lists the spooled print jobs for the specified user profile on that server.
`--format`	Specifies the output format. The "text" format displays a block of text for each print job, showing each print job attribute (for example, the job ID and job owner) on a new line. A blank line separates each job. This is the default. The "brief" format shows print job attributes on one line.

If you omit `--jobid`, and `--person` or `--server` are used, all print jobs across the array are listed.

Examples

The following example lists print jobs for Bill Orange, in "text" format.

```
tarantella print list --person "o=Indigo Insurance/ou=IT/cn=Bill
Orange"
```

The following example lists print jobs in "text" format for Bill Orange and Rusty Spanner on the SGD servers detroit and chicago.

```
tarantella print list \
--person "o=Indigo Insurance/ou=IT/cn=Bill Orange" \
"o=Indigo Insurance/ou=IT/cn=Rusty Spanner" \
--server "detroit.indigo-insurance.com" \
"chicago.indigo-insurance.com"
```

tarantella print move

Moves queued print jobs from one SGD server to another.

If an SGD server is temporarily unavailable, you can use this command to move the print jobs that are "stranded" on that server.

Note – This command only moves the print jobs that are currently in the SGD print queue (*/install-dir*/var/print/queue).

Syntax

```
tarantella print move --server serv
                      [ --printer printer_name ]
                      [ --cups {y | n |auto} ]
                      [ --preserve ]
```

Description

The following table shows the available options for this command.

Option	Description
--cups	Indicates that the SGD server you are moving print jobs from uses the Common UNIX Printing System (CUPS). If you do not use this option, a default of auto is assumed and this means SGD tries to detect whether CUPS is being used. If CUPS is incorrectly detected, use this option to tell SGD whether CUPS is being used (y) or not (n).
--preserve	Forces SGD to copy rather than move the print jobs to the target SGD server. The original print jobs are kept in the SGD print queue. **Note -** If SGD printing services are restarted on the original SGD server and the print jobs have not been deleted, they are printed.
--printer	The name of the printer on the SGD server where you are moving the print jobs. If you leave out this argument, a default of tta_printer is used.
--server	The fully qualified peer DNS name of the SGD server where you are moving the print jobs.

Examples

The following example moves print jobs from the SGD server where the command is run to the printer called tta_boston on the SGD server boston.indigo-insurance.com.

```
tarantella print move --server boston.indigo-insurance.com --printer
tta_boston
```

tarantella print pause

You can run this command on any SGD server in the array.

Pauses SGD printing services. New print jobs continue to spool, but do not print until printing is resumed using `tarantella print resume`.

If `--server` is not used, this command pauses printing services across the array.

Note – Pausing printing services on individual SGD servers in the array can cause problems for users. Whenever you pause printing services, do so for the whole array.

Syntax

```
tarantella print pause [ --server serv... ]
```

Description

The following table shows the available options for this command.

Option	Description
`--server`	Pauses printing services on each SGD server listed. Use the peer DNS name for each server.

Examples

The following example pauses printing services across the array.

```
tarantella print pause
```

The following example pauses printing services on the SGD servers detroit and chicago.

```
tarantella print pause --server "detroit.indigo-insurance.com"
"chicago.indigo-insurance.com"
```

tarantella print resume

Resumes SGD printing services, previously suspended with `tarantella print pause`. Any spooled jobs begin to print.

If `--server` is not used, this command resumes printing services across the array.

You can run this command on any SGD server in the array.

Note – Resuming printing services on individual SGD servers in the array can cause problems for users. Whenever you resume printing services, do so for the whole array.

Syntax

```
tarantella print resume [ --server serv... ]
```

Description

The following table shows the available options for this command.

Option	Description
`--server`	Resumes printing services on each SGD server listed. Use the peer DNS name for each server.

Examples

The following example resumes printing services across the array.

```
tarantella print resume
```

The following example resumes printing services on the SGD servers detroit and chicago.

```
tarantella print resume --server "detroit.indigo-insurance.com"
"chicago.indigo-insurance.com"
```

tarantella print start

Starts SGD printing services. If `--server` is not used, this command starts printing services across the array.

You can run this command on any SGD server in the array.

Note – Starting printing services on individual SGD servers in the array can cause problems for users. Whenever you start printing services, do so for the whole array.

Syntax

```
tarantella print start [ --server serv... ]
```

Description

The following table shows the available options for this command.

Option	Description
`--server`	Starts printing services on each SGD server listed. Use the peer DNS name for each server.

Examples

The following example starts printing services across the array.

```
tarantella print start
```

The following example starts printing services on the SGD server detroit.

```
tarantella print start --server "detroit.indigo-insurance.com"
```

tarantella print status

Displays information about SGD printing services, including the following:

- Whether printing services are available, not available, or paused.
- The number of print jobs spooled.

You can run this command on any SGD server in the array.

Syntax

```
tarantella print status [ --summary | --server serv | --namemapping ]
```

Description

The following table shows the available options for this command.

Option	Description
`--summary`	Shows information for the array.
`--server`	Shows information for the SGD server listed. Use the peer DNS name for the server.
`--namemapping`	Lists all the current name mappings used for printing. The print name mapping table ensures that users can print from an application and then exit the application, without losing the print job. These name mappings expire in time. You can set the expiry timeout on the Security tab of the Global Settings tab in the Administration Console.

Examples

The following example displays information about SGD printing services for the array.

```
tarantella print status --summary
```

tarantella print stop

Stops SGD printing services. Print jobs are not accepted and do not spool.

If `--server` is not used, this command stops printing services across the array.

You can run this command on any SGD server in the array.

Note – Stopping printing services on individual SGD servers in the array can cause problems for users. Whenever you stop printing services, do so for the whole array.

Syntax

```
tarantella print stop  [ --server serv... ][ --purge ]
```

Description

The following table shows the available options for this command.

Option	Description
`--purge`	Removes all pending print jobs. If you omit this, print jobs that are currently spooled are printed.
`--server`	Stops printing services on each SGD server listed. Use the peer DNS name for each server

Examples

The following example stops printing services across the array, removing all pending print jobs.

```
tarantella print stop --purge
```

The following example stops printing services on the SGD server detroit.

```
tarantella print stop --server "detroit.indigo-insurance.com"
```

The `tarantella query` command

Examines the server's log files.

Syntax

```
tarantella query audit | billing | errlog | uptime
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`audit`	Displays log entries matching some criteria.	"`tarantella query audit`" on page 314
`billing`	Queries billing log files.	"`tarantella query billing`" on page 317
`errlog`	Displays the error log of SGD components.	"`tarantella query errlog`" on page 318
`uptime`	Displays how long an SGD server has been available for.	"`tarantella query uptime`" on page 319

Note – All commands include a `--help` option. You can use `tarantella query` *command* `--help` to get help on a specific command.

Examples

The following example displays all error logs.

```
tarantella query errlog
```

The following example displays how long the SGD server newyork.indigo-insurance.com has been available.

```
tarantella query uptime --server newyork.indigo-insurance.com
```

`tarantella query audit`

Displays all log entries matching some criteria.

Syntax

```
tarantella query audit {
  --app app |
  --person person |
  --host host |
  --filter filter }
[ --server arrayhost ]
[ --format text|csv|xml ]
```

Description

The following table shows the available options for this command.

Option	Description
`--app`	Displays log entries referring to a specific application. Use the object name for the application.
`--person`	Displays log entries referring to a specific person. Use the object name for the person.
`--host`	Displays log entries referring to a specific SGD server. Use the object name or a peer DNS name for the server.
`--filter`	An RFC2254-compliant LDAP search filter to find matching entries to display. Enclose the filter in quotes. You can use the "=", "~=", "<=" and ">=" matching rules in the filter.
`--server`	Only show log entries from the specified SGD server (use a peer DNS name). If you omit this option, log entries across the entire array are displayed.
`--format`	Specifies the output format (the default setting is text). If you select the text format, SGD formats the log output so that it is easy to read on screen but it does not show every detail logged. Using the csv format shows every detail logged but it is only suitable for outputting to a file.

Note – The output that you see depends on the Log Filter settings for the array. To produce log entries for processing by this command, make sure the Log Filter attribute on the Monitoring tab of the General Settings tab in the Administration Console includes at least one filter that outputs to a `.jsl` file.

Using a Filter

The attributes you use in the filter are the log fields used in the `.jsl` log files. The following table lists the commonly used attributes.

Field Name	Description
`log-category`	The logging component/sub-component/severity setting used in the log filters. For example, to find entries for a server/printing/* log filter, you can use a "(log-category=*printing*)" filter
`log-date`	The system date and time when the event took place. The format is `yyyy/MM/dd HH:mm:ss.SSS`.
`log-ip-address`	The IP address of a client or server associated with an event.
`log-keyword`	The keyword for auditable events.

Field Name	Description
log-localhost	The peer DNS name of the SGD server where the event took place.
log-pid	The process ID of the event.
log-security-type	The type of security used on a connection, std or ssl.
log-systime	The system time in milliseconds (UTC time) when the event took place.
log-tfn-name	The name of an object associated with an event. For example, starting an application session can record the name of the user, the application and the SGD server.

Note – A complete list of all the log fields is available in the */install-dir*/var/serverresources/schema/log.at.conf schema file.

Examples

The following example displays all log entries for the UNIX user indigo that were logged on the SGD server boston.indigo-insurance.com.

```
tarantella query audit \
  --person .../_user/indigo \
  --server boston.indigo-insurance.com
```

The following example outputs all log entries that refer to the Write-o-Win application, in comma-separated values (CSV) format.

```
tarantella query audit \
  --app "o=applications/cn=Write-o-win" \
  --format csv
```

The following example outputs all log errors that occurred on or after 23 October 2003 for the Write-o-Win application, in human-readable text format.

```
tarantella query audit \
  --filter "(&(log-category=*error*)(log-tfn-name=o=applications/cn=
Write-o-win) \
(log-date>=2003/10/23 00:00:00.0))" \
  --format text
```

tarantella query billing

Outputs billing information for the array, or for a subset of the array, over a time period. Information is displayed on screen in CSV format.

Syntax

```
tarantella query billing
                 { --full | --sessions | --summary }
                   --start date
                   --days days
                   --end date
                 [ --servers arrayhost... ]
```

Description

The following table shows the available options for this command.

Option	Description
`--full`	Displays detailed information for all user sessions and application sessions.
`--sessions`	Displays information for all application sessions.
`--summary`	Displays a short summary of billing information and an application session summary.
`--start`	Specifies the start of the billing period. The format is `YYYY/MM/DD`, for example, "2000/05/01".
`--days`	Specifies the number of days from the date specified by `--start` to display billing information.
`--end`	Specifies the end of the billing period. The format is `YYYY/MM/DD`, for example, “2000/05/02”. The end date is *exclusive*. This means, for example, that `--start 2001/01/19 --end 2001/01/23` is the same as `--start 2001/01/19 --days 4`. Both examples query data covering the 19th, 20th, 21st and 22nd.
`--servers`	Only reports billing information from the named SGD servers (use peer DNS names). If you omit `--servers`, billing information across the array is reported.

The billing files are written at midnight *local time* each day.

You must run this command on the primary server in the array.

Note – You must enable billing services (see Billing Service) and restart all SGD servers in the array before any data is logged.

Examples

The following example displays billing information for the entire array, for the 30 days from May 1, 2000.

```
tarantella query billing \
  --full \
  --start "2000/05/01" \
  --days 30
```

The following example displays a short summary of billing information for the servers prague and paris, for the 30 days from January 1 2000.

```
tarantella query billing \
  --summary \
  --start "2000/01/01" \
  --days 30 \
  --servers prague.indigo-insurance.com \
            paris.indigo-insurance.com
```

The following example displays billing information for all application sessions for the entire array for the period January 19 2001 to January 22 2001 and outputs the results to a file called `Sessions.csv`.

```
tarantella query billing \
  --sessions \
  --start "2000/01/19" \
  --end "2000/01/23" \
  > sessions.csv
```

tarantella query errlog

Displays the error logs of SGD components.

Syntax

```
tarantella query errlog
                [ all|xpe|tpe|print|jserver|pemanager|proxy|wm ]
                [ --server arrayhost ]
```

Description

The following table shows the available options for this command.

Option	Description
`all | xpe | tpe | print | jserver | pemanager | proxy | wm`	Specifies the component error log to display. Use all (the default) to display all error logs.
`--server`	Displays error logs from the named SGD server (use a peer DNS name). If you omit this option, error logs from all SGD servers in the array are displayed.

Note – To display error log information from the JServer component, make sure the Log Filter attribute on the Global Settings ⇒ Monitoring tab of the Administration Console includes at least one filter that outputs to an `error.log` file. The attribute does include this, by default.

Examples

The following example displays all error logs.

```
tarantella query errlog
```

The following example displays the X Protocol Engine error log on the SGD server newyork.indigo-insurance.com.

```
tarantella query errlog xpe --server newyork.indigo-insurance.com
```

tarantella query uptime

Displays how long SGD servers have been available for.

Syntax

```
tarantella query uptime [ --server arrayhost ]
```

Description

The following table shows the available options for this command.

Option	Description
`--server`	Display information for the specified SGD server (use a peer DNS name). If you omit this option, information for all SGD servers in the array is displayed.

Examples

The following example displays how long all SGD servers in the array have been available for.

```
tarantella query uptime
```

The `tarantella restart` command

Stops and then restarts SGD services on the SGD server, prompting if users are currently connected.

Syntax

```
tarantella restart [ --warm | --force | --kill ] [ --quiet ]
```

Description

This command does not restart the SGD Web Server or SGD web services. Use the `tarantella webserver restart` command to restart these services.

The following table shows the available options for this command.

Option	Description
`--quiet`	Does not prompt. Stops SGD services even if users are connected.
`--warm`	Tries a "warm restart" of the SGD server. This restarts the JServer component without affecting other components. This has no effect on user sessions or application sessions. Only use this option if no users can log in to SGD or launch applications and no specific reason is found.
`--force`	Tries harder to stop SGD services.
`--kill`	Kills the process IDs used by SGD services. Only use this option if you are having difficulty stopping the SGD server by other means.

Stopping SGD services causes all application sessions (including suspended application sessions) to be terminated.

Examples

The following example stops and then restarts SGD services without displaying a confirmation message if users are currently connected.

```
tarantella restart --quiet
```

The `tarantella role` command

You use this command to give users specific roles, and to give them webtop links that apply to that role.

Syntax

```
tarantella role add_link | add_member | list | list_links |
list_members | remove_link | remove_member
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`add_link`	Adds links to the webtops of occupants of particular roles.	"`tarantella role add_link`" on page 322
`add_member`	Adds occupants to particular roles.	"`tarantella role add_member`" on page 323
`list`	Lists and describes all available roles.	"`tarantella role list`" on page 324
`list_links`	Lists the webtop links for occupants of particular roles.	"`tarantella role list_links`" on page 325
`list_members`	Lists the occupants of particular roles.	"`tarantella role list_members`" on page 326
`remove_link`	Removes links from the webtops of users occupying particular roles.	"`tarantella role remove_link`" on page 326
`remove_member`	Removes occupants from particular roles.	"`tarantella role remove_member`" on page 327

Note – All commands include a `--help` option. You can use `tarantella role` *subcommand* `--help` to get help on a specific command.

Examples

The following example lists all available roles.

```
tarantella role list
```

The following example adds a link for the application Indigo Time to the webtops of users occupying the Global Administrators role.

```
tarantella role add_link \
  --role global \
  --link "o=applications/cn=Indigo Time"
```

tarantella role add_link

Adds links to the webtops of users occupying particular roles.

Syntax

```
tarantella role add_link {
                          --role rolename
                          --link lobj...
                           } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--role`	Specifies the name of a role, for example `global`. Use `tarantella role list` to find out the available roles.
`--link`	Specifies the names of objects to add to the webtops of users occupying the role, for example, `o=applications/cn=Indigo Time`.
`--file`	Specifies a file containing a batch of commands to add links to webtops of users with a particular role.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example adds a link for the application Indigo Time to the webtops of users occupying the Global Administrators role.

```
tarantella role add_link \
  --role global \
  --link "o=applications/cn=Indigo Time"
```

tarantella role add_member

Adds occupants to particular roles.

Syntax

```
tarantella role add_member {
                      --role rolename
                      --member mobj...
                  } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--role`	Specifies the name of a role, for example `global`. Use `tarantella role list` to find out the available roles.
`--member`	Specifies the names of user profile objects or profile objects for the users you want to occupy the role.
`--file`	Specifies a file containing a batch of commands to add occupants to particular roles.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example adds Sid Cerise to the Global Administrators role.

```
tarantella role add_member \
  --role global \
  --member "o=Indigo Insurance/ou=Finance/cn=Sid Cerise"
```

tarantella role list

Lists and describes all available roles, including the name of the role object applicable to each role.

Syntax

```
tarantella role list
```

Description

Use the short name (for example, “global”) with other `tarantella role` commands.

Examples

The following example lists all available roles.

```
tarantella role list
```

tarantella role list_links

Lists the webtop links for occupants of particular roles. The name for each link is shown.

Syntax

`tarantella role list_links --role` *rolename* | `--file` *file*

Description

The following table shows the available options for this command.

Option	Description
`--role`	Specifies the name of a role, for example `global`. Use `tarantella role list` to find out the available roles.
`--file`	Specifies a file containing a batch of commands to list the webtop links for role occupants.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example lists the names of all webtop links for occupants of the Global Administrators role.

```
tarantella role list_links --role global
```

tarantella role list_members

Lists the occupants of particular roles. The name for each member is shown.

Syntax

```
tarantella role list_members --role rolename | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--role`	Specifies the name of a role, for example `global`. Use `tarantella role list` to find out the available roles.
`--file`	Specifies a file containing a batch of commands to list the occupants of a particular role.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example lists the names of all occupants of the Global Administrators role.

```
tarantella role list_members --role global
```

tarantella role remove_link

Removes links from the webtops of users occupying particular roles.

Syntax

```
tarantella role remove_link {
                      --role rolename
                      --link lobj...
                  } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--role`	Specifies the name of a role, for example `global`. Use `tarantella role list` to find out the available roles.
`--link`	Specifies the names of objects to remove from the webtops of users occupying the role. For example, `o=applications/cn=Indigo Time`.
`--file`	Specifies a file containing a batch of commands to remove links from the webtops of users with a particular role.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example removes a link for the Write-o-Win application from the webtops of members of the Global Administrators role.

```
tarantella role remove_link \
  --role global \
  --link "o=applications/cn=Write-o-Win"
```

tarantella role remove_member

Removes occupants from particular roles.

Syntax

```
tarantella role remove_member {
                      --role rolename
                      --member mobj...
                  } | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--role`	Specifies the name of a role, for example `global`. Use `tarantella role list` to find out the available roles.
`--member`	Specifies the names of objects for the users you do not want to occupy the role.
`--file`	Specifies a file containing a batch of commands to remove occupants from a particular role.

Note – Make sure you quote any object names containing spaces, for example "o= Indigo Insurance".

Examples

The following example removes Sid Cerise from the Global Administrators role.

```
tarantella role remove_member \
  --role global \
  --member "o=Indigo Insurance/ou=Finance/cn=Sid Cerise"
```

The `tarantella security` command

Controls SGD security services and manages X.509 certificates.

Syntax

```
tarantella security certinfo | certrequest | certuse | customca |
decryptkey | fingerprint | peerca | start | stop
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`certinfo`	Displays information about an X.509 certificate or Certificate Signing Request (CSR), and optionally checks whether a specified private key matches the public key contained in a particular certificate.	"`tarantella security certinfo`" on page 330
`certrequest`	Creates a CSR (and a corresponding key pair) which you use to obtain an X.509 certificate for use with SGD security services.	"`tarantella security certrequest`" on page 332
`certuse`	Installs an X.509 certificate (or specifies the location of an installed certificate) for use with SGD security services.	"`tarantella security certuse`" on page 334
`customca`	Installs a root certificate for a custom Certificate Authority (CA) for use with SGD security services.	"`tarantella security customca`" on page 336
`decryptkey`	Decrypts an encrypted private key so that you can use it with SGD.	"`tarantella security decryptkey`" on page 337
`fingerprint`	Displays the fingerprint of the X.509 certificate installed on this SGD server.	"`tarantella security fingerprint`" on page 338
`peerca`	Shows, imports or exports the primary server's CA certificate used for secure intra-array communication.	"`tarantella security peerca`" on page 338
`start`	Enables secure (SSL) connections. Users who require secure connections are given them.	"`tarantella security start`" on page 339
`stop`	Disables secure (SSL) connections. Users configured for secure connections are given standard connections instead.	"`tarantella security stop`" on page 340

Note – All commands include a `--help` option. You can use `tarantella security` *subcommand* `--help` to get help on a specific command.

Examples

The following example displays information about the CSR in `/tmp/boston.csr`.

```
tarantella security certinfo \
  --csrfile /tmp/boston.csr
```

The following example decrypts the key `/opt/keys/key1`, which is stored in Definite Encoding Rules (DER) format, placing the decrypted key in `/opt/keys/key2`.

```
tarantella security decryptkey \
  --enckey /opt/keys/key1 \
  --deckey /opt/keys/key2 \
  --format DER
```

tarantella security certinfo

Displays information about an installed X.509 certificate (`--certfile`) or a Certificate Signing Request (`--csrfile`).

Syntax

```
tarantella security certinfo  [ --certfile certfile [ --keyfile keyfile ] ]
                              [ --checkkey ] [ --full ]
tarantella security certinfo --csrfile csrfile [ --full ]
```

Description

This command can also check whether a specified private key matches the public key (that is, the public key can decrypt text encrypted with the private key) in a particular certificate.

Use the first form of this command without specifying a *certfile* and *keyfile* to check keys and certificates you have already installed using the `tarantella security certuse` command.

The following table shows the available options for this command.

Option	Description
`--certfile`	Specifies the location of a file containing an X.509 certificate. The command displays information about this certificate, including the following: • Information about the server and your organization. • Alternative DNS names for the server. • Credentials of the CA that validated the certificate. • Dates for which the certificate is valid. You must specify the full path to the certificate file.
`--keyfile`	Specifies the location of a private key. You must specify the full path to the key file.
`--checkkey`	Checks whether a particular private key matches the public key contained in the X.509 certificate specified in the certificate file. • If you specify both `--certfile` and `--keyfile`, the command checks that the specified private key in the key file matches the public key in the certificate file. • If you only specify `--certfile`, the command assumes that the certificate file contains both a certificate and a private key, and checks that that private key matches the public key in the certificate. • If you omit both `--certfile` and `--keyfile`, the command checks the certificate and private key installed in the `/`*install-dir*`/var/tsp` directory.
`--csrfile`	Specifies the location of a file containing a CSR. The command displays information about this CSR, including the following: • The DNS name (or chosen common name) of the server the CSR is for. • Alternative DNS names for the server. • Your organization's name and location. You must specify the full path to the CSR file.
`--full`	Displays more detailed information about the specified certificate or CSR, for example, the contents of the public keys they contain.

Examples

The following example displays detailed information about the certificate in `/opt/certs/newyork.cert`.

```
tarantella security certinfo \
  --certfile /opt/certs/newyork.cert \
  --full
```

The following example displays information about the certificate in `/opt/certs/boston.cert`, and checks that the private key `/opt/keys/boston.key` matches the public key contained in that certificate.

```
tarantella security certinfo \
  --certfile /opt/certs/boston.cert \
  --keyfile /opt/keys/boston.key \
  --checkkey
```

The following example displays information about the CSR in `/tmp/boston.csr`.

```
tarantella security certinfo \
  --csrfile /tmp/boston.csr
```

tarantella security certrequest

Generates a CSR, and a public and private key pair.

Syntax

```
tarantella security certrequest --country country
                                --state state
                                --orgname org
                              [ --ouname ou ]
                              [ --email email ]
                              [ --locality locality ]
                              [ --keylength length ]
```

Description

You send the generated CSR to a supported CA to obtain a certificate for use with SGD security services.

Note the following:

- If your CA lets you change the hostname stored in the certificate, make sure the certificate contains a fully qualified DNS name (for example, boston.indigo-insurance.com, not boston).
- If the SGD server has multiple DNS names, for example, it is known by different names inside and outside a firewall, you can specify the additional DNS names as *subject alternative names* for the certificate. This enables you to associate more than one DNS name with the certificate.

- Make a copy of the private key and CSR generated by this command and keep them in a safe, secure location, for example, on a floppy disk in a safe. Key information is stored in the */install-dir*`/var/tsp` directory. *If your private key is lost or damaged, you will be unable to use any certificate you obtain using the CSR.*
- This command generates a new key pair each time you run it. If you generate a CSR with this command and use it to obtain a certificate, running this command again means you cannot use the old certificate.

You can use the `tarantella security certinfo` command to display information about certificates and CSRs.

If you do not specify `--ouname`, `--email` or `--locality` SGD simply omits that information from the CSR. There are no default values.

The options that can be used for this command are as follows.

Option	Description
`--country`	Specifies the country where your organization is located. Use ISO 3166 country codes. For example, use US for the United States or DE for Germany.
`--state`	Specifies the state or province where your organization is located. Do not use abbreviations here. For example, use Massachusetts rather than Mass. or MA.
`--orgname`	Specifies the official, legal name of your organization.
`--ouname`	Specifies the name of a subdivision (organizational unit) within your organization, if required. If you do not need to specify an OU, you can use this setting to specify a less formal organization name.
`--email`	Specifies your business email address. This address is used for correspondence between you and the CA you send the CSR to.
`--locality`	Specifies the city or principality where your organization is located, if needed.
`--keylength`	Specifies the length of the key pair. The default is 1024. Use 512-bit or 1024-bit keys.

Note – Make sure you quote any value containing spaces, for example,`"Indigo Insurance"`.

Examples

The following example generates a CSR for Indigo Insurance, located in Massachusetts, with contact Bill Orange.

```
tarantella security certrequest \
  --country US \
  --state MA \
  --orgname "Indigo Insurance" \
  --email "orange@indigo-insurance.com"
```

tarantella security certuse

Installs an X.509 certificate (or specifies the location of a previously installed certificate) to be used by SGD security services.

Syntax

```
tarantella security certuse
tarantella security certuse --certfile cfile [ --keyfile kfile ]
```

Description

Certificates must be Base 64-encoded PEM-format, with a header line including "BEGIN CERTIFICATE", as used by OpenSSL.

If no arguments are specified, this command reads the certificate from standard input and installs it in */install-dir*`/var/tsp`.

After installing an X.509 certificate, you must restart SGD using the `tarantella restart` command.

The following table shows the available options for this command.

Option	Description
`--certfile`	Specifies the location of a file containing the certificate. If no `--keyfile` argument is specified, SGD assumes that the certificate file contains both the certificate and the corresponding private key. You can use this option as follows: • To tell SGD about a certificate you have already installed for use with another product (such as a web server). In this case, SGD *makes symbolic links to (not copies of)* the certificate file (and key file, if specified). • To install a certificate received from a CA after generating a CSR using `tarantella security certrequest`. In this case, SGD installs the certificate in */install-dir*`/var/tsp` for use with SGD security services. You must specify the full path to the certifiate file.
`--keyfile`	Specifies the location of a file containing the private key required to decrypt the certificate specified by `--certfile`. Use this option to tell SGD about a private key you have already installed. If you used the `tarantella security certrequest` command to generate a CSR and obtain a certificate, you do not need to use this option. You must specify the full path to the key file.

Examples

The following table shows some example scenarios and the corresponding options to use for the `tarantella security certuse` command.

Scenario	Command
You used `tarantella security certrequest` to generate a CSR, which you sent to a CA. The CA returned a certificate to you, which you saved in a temporary file `/tmp/cert`.	`tarantella security certuse < /tmp/cert`
You already have a certificate (you did not use `tarantella security certrequest`). The certificate is installed in `/opt/certs/cert` and the key needed to decode it is installed in `/opt/keys/key`.	`tarantella security certuse --certfile /opt/certs/cert --keyfile /opt/keys/key`
You already have a certificate (you did not use `tarantella security certrequest`). A single file `/opt/certs/cert` contains both the certificate and the key needed to decode it.	`tarantella security certuse --certfile /opt/certs/cert`

tarantella security customca

Installs or removes a root certificate for a custom CA for use with SGD security services.

Syntax

```
tarantella security customca
tarantella security customca --rootfile carootfile | --remove
```

Description

Certificates must be Base 64-encoded PEM-format, with a header line including "BEGIN CERTIFICATE", as used by OpenSSL.

If no arguments are specified, this command reads the root certificate from standard input.

The following table shows the available options for this command.

Option	Description
`--rootfile`	Specifies the location of a file containing the CA's root certificate. Details are copied to */install-dir*`/var/tsp` for use by SGD security services. You must specify the full path to the root certificate file.
`--remove`	Removes any custom CA's root certificate currently installed for use with SGD security services.

Examples

The following example installs a CA's root certificate from the file`/tmp/rootcert`, which you can then delete.

```
tarantella security customca \
  --rootfile /tmp/rootcert
```

tarantella security decryptkey

Decrypts an encrypted private key so that you can use it with SGD. This enables you to use an X.509 certificate that you are already using with another product (a web server, for example) rather than obtaining a separate certificate for use exclusively with SGD.

Syntax

```
tarantella security decryptkey --enckey enckeyfile
                               --deckey deckeyfile
                             [ --format PEM|DER ]
```

Description

The following table shows the available options for this command.

Option	Description
`--enckey`	Specifies the location of the encrypted private key that you want to decrypt. Only keys encrypted by a product that uses SSLeay or OpenSSL certificate libraries can be decrypted. You must specify the full path to the encrypted private key file.
`--deckey`	Specifies a file where the decrypted key is stored. **Note -** For security reasons, it is very important to restrict access to private keys, especially when stored in an unencrypted form. Access to private keys by unauthorized users can result in a serious security breach. Store private keys accordingly. You must specify the full path to the decrypted key file.
`--format`	Specifies the format the encrypted key is stored in. Defaults to PEM.

Note – You can only decrypt private keys that were originally encrypted by a product that uses SSLeay or OpenSSL certificate libraries.

See the `tarantella security certuse` command for information about how to share certificates in this way.

Examples

The following example decrypts the key `/opt/keys/key1` (which is stored in DER format), placing the decrypted key in `/opt/keys/key2`.

```
tarantella security decryptkey \
  --enckey /opt/keys/key1 \
  --deckey /opt/keys/key2 \
  --format DER
```

tarantella security fingerprint

Displays the fingerprint of the X.509 certificate installed on the SGD server.

Syntax

```
tarantella security fingerprint
```

Description

Use this command to obtain the fingerprint and distribute it to users so that can be sure that the SGD server they are connecting to is a trusted server. See the *Sun Secure Global Desktop Administration Guide* for details.

Examples

The following example displays the fingerprint of the X.509 certificate installed on the SGD server.

```
tarantella security fingerprint
```

tarantella security peerca

Shows, imports or exports the primary server's CA certificate used for secure intra-array communication.

Syntax

```
tarantella security peerca [ --show | --import hostname | --export ]
```

Description

The following table shows the available options for this command.

Option	Description
`--show`	Displays the primary server's CA certificate for the array.
`--import`	Import the CA certificate from the specified server.
`--export`	Export the CA certificate from this server.

Examples

The following example shows the primary server's CA certificate for the array.

```
tarantella security peerca --show
```

tarantella security start

Enables secure (SSL-based) connections for all or part of an array. SGD gives secure connections to those users configured to require them.

Syntax

```
tarantella security start [ --array | --server serv... ]
```

Description

To enable secure connections to a particular SGD server you must already have installed an X.509 certificate for that server.

The following table shows the available options for this command.

Option	Description
`--array`	Enables secure connections on all servers in the array that have a suitable X.509 certificate. **Note -** Only use this option if you have already installed an X.509 certificate on every server in the array.
`--server`	Enables secure connections for the specified servers. Each server name is the peer DNS name of an SGD server in the array.

If you omit both options, secure connections are enabled for the SGD server where the command is run.

Examples

The following example enables secure connections across the array.

```
tarantella security start --array
```

tarantella security stop

Disables secure (SSL-based) connections for all or part of an array. Users configured to require secure connections are given standard connections instead, if available.

Syntax

```
tarantella security stop [ --array | --server serv... ][ --keep ]
```

Description

The following table shows the available options for this command.

Option	Description
`--array`	Disables secure connections on all servers in the array.
`--server`	Disables secure connections for the specified servers. Each server name is the peer DNS name of an SGD server in the array.
`--keep`	Specifies that any existing secure connections are preserved. If omitted, all secure connections are closed.

If you omit both arguments, secure connections are disabled for the SGD server where the command is run.

Examples

The following example disables security across the array, but preserves any existing secure connections.

```
tarantella security stop --array --keep
```

The `tarantella setup` command

Enables you to change Setup options. Follow the instructions on your screen.

Syntax

```
tarantella setup
```

Description

You can turn weekly archiving on or off. If archiving is on, you can schedule the time when the log is created.

You can also choose to recreate the default objects and webtop links originally created at installation time. This does not remove any objects you have created, but it does replace any objects with the same names as the originals.

Examples

The following example enables you to change Setup options.

```
tarantella setup
```

The `tarantella start` command

Starts SGD services on the SGD server.

Syntax

```
tarantella start
```

Description

Starts SGD services on the SGD server, including SGD printing services.

This command does not start the SGD Web Server or SGD web services. Use the `tarantella webserver start` command to start these services.

Examples

The following example starts SGD services.

```
tarantella start
```

The `tarantella start cdm` command

Starts CDM services.

Syntax

```
tarantella start cdm
```

Description

Starts client drive mapping services on the SGD server where the command is run.

Examples

The following example starts client drive mapping services on the SGD server.

```
tarantella start cdm
```

The `tarantella status` command

Reports SGD server information.

Syntax

```
tarantella status [ --summary | --byserver | --server serv | --ping
[serv] ]
                  [ --format text|xml ] [ --verbose ]
```

Description

Reports SGD server information, including array details, the number of user sessions and application sessions running or suspended across the array, and how those sessions are distributed.

The following table shows the available options for this command.

Option	Description
`--summary`	Summarizes the global information for the array. This is the default setting.
`--byserver`	Displays detailed information for each server in the array.
`--server`	Displays detailed information for the specified server (type in a peer DNS name).
`--format`	Specifies the output format. The default setting is text.
`--ping`	Performs a quick health check of all SGD servers in the array or a single specified SGD server.
`--verbose`	Displays the server health check and lists servers being contacted, before generating the command output.

Examples

The following example summarizes information about sessions across the array.

```
tarantella status
```

The following example reports detailed status information for the SGD server boston.indigo-insurance.com.

```
tarantella status --server boston.indigo-insurance.com
```

The `tarantella stop` command

Stops SGD services on the SGD server.

Syntax

```
tarantella stop [ --force | --kill ] [ --quiet ]
```

Description

Stops SGD services on the SGD server, prompting if users are currently connected. This includes SGD printing services.

This command does not stop the SGD Web Server or SGD web services. Use the `tarantella webserver stop` command to stop these services.

The following table shows the available options for this command.

Option	Description
`--quiet`	Does not prompt. Stops SGD services even if users are connected.
`--force`	Tries harder to stop SGD services.
`--kill`	Kills the process IDs used by SGD services.Only use this option if you are having difficulty stopping the SGD server by other means.

Note – Never use the UNIX `kill` command to stop SGD services.

Stopping SGD services causes all application sessions (including suspended application sessions) to be terminated.

Examples

The following example stops SGD services without displaying a confirmation message if users are currently connected.

```
tarantella stop --quiet
```

The `tarantella stop cdm` command

Stops client drive mapping (CDM) services.

Syntax

```
tarantella stop cdm
```

Description

Stops client drive mapping services on the SGD server where the command is run.

Examples

The following example stops client drive mapping services on the SGD server.

```
tarantella stop cdm
```

The `tarantella tokencache` command

This command manipulates the token cache used for logging in with an authentication token. SGD Administrators can list and delete entries in the token cache.

Syntax

```
tarantella tokencache delete | list
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`delete`	Deletes entries from the token cache.	"`tarantella tokencache delete`" on page 346
`list`	Lists the contents of the token cache.	"`tarantella tokencache list`" on page 347

Note – All commands include a `--help` option. You can use `tarantella tokencache` *command* `--help` to get help on a specific command.

Examples

The following example deletes all entries in the token cache.

```
tarantella tokencache delete --all
```

The following example lists all entries in the token cache and the time the tokens were created.

```
tarantella tokencache list --creationtime
```

`tarantella tokencache delete`

Deletes entries in the token cache. The token cache is used for logging in with an authentication token.

Syntax

```
tarantella tokencache delete {
                     [ --username username | --all ]
                     [ --format text | xml ] }
                     | --file file
```

Description

The following table shows the available options for this command.

Option	Description
`--username`	Specifies the name of the entry to be deleted.
`--all`	Deletes all entries in the cache.
`--format`	Output format (the default setting is text).
`--file`	Specifies a batch file to process. The file contains one line per set of settings, each line using the above options. Use `--file -` to read from `stdin`.

Examples

The following example deletes all entries in the token cache.

```
tarantella tokencache delete --all
```

tarantella tokencache list

Lists the contents of the token cache. The token cache is used for logging in with an authentication token.

Syntax

```
tarantella tokencache list [ --creationtime ] [ --format text | xml ]
```

Description

The following table shows the available options for this command.

Option	Description
`--creationtime`	Lists the time each token in the cache was created.
`--format`	Specifies the output format (default setting is text).

Examples

The following example lists all entries in the token cache and the time the tokens were created.

```
tarantella tokencache list --creationtime
```

The `tarantella tscal` command

Use the `tarantella tscal` command to manage Microsoft Windows Terminal Services Client Access Licenses (CALs) for non-Windows clients.

Syntax

```
tarantella tscal free | list | return
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`free`	Frees a Terminal Services CAL for use by another non-Windows client.	"`tarantella tscal free`" on page 349
`list`	Lists the Terminal Services CALs currently reserved for non-Windows clients.	"`tarantella tscal list`" on page 350
`return`	Returns Terminal Services CALs to the Windows license server.	"`tarantella tscal return`" on page 351

Note – All commands include the `--help` option. You can use `tarantella tscal` *subcommand* `--help` to get help on a specific command.

Examples

The following example lists the Terminal Services CALs currently reserved for non-Windows clients.

```
tarantella tscal list
```

tarantella tscal free

Use the `tarantella tscal free` command to free a Microsoft Windows Terminal Services CAL so that it can be used by another non-Windows client.

Syntax

```
tarantella tscal free [ --inuseby user | --calid id ]
```

Description

You can only free a CAL if the user has no application sessions that use Windows Terminal Services.

Note – Freed CALs are not returned to the Windows license server.

Normally, you do not need to run this command, as SGD automatically frees a CAL as soon as a user exits their last Windows application. However, if an SGD server is removed from an array or it loses contact with the array, it might still be listed as using CALs. In this situation, you can run this command to free a CAL.

If you do not use any arguments, the command frees all CALs that have no application sessions that use Windows Terminal Services.

If you run this command on a secondary server in a SGD array and the primary server is unavailable, the CAL information might not be completely accurate. This is because the primary server is responsible for updating all SGD servers in the array with changes to CAL information. The command warns you if the primary is unavailable.

The following table shows the available options for this command.

Option	Description
`--inuseby`	Free only the CALs for a particular user where the user is either of the following: • The name of a user. • A wild card filter. The * character is the only character you can use in a wild card filter. It represents a string of any length containing any characters. So, an `--inuseby "*green*"` argument frees only the unused CALs for users whose name contains the string “green”.
`--calid`	The ID of the CAL you want to free. Use the `tarantella tscal list` command to obtain the ID of the CAL you wish to free.

Examples

The following example frees the CALs for Elizabeth Blue.

```
tarantella tscal free --inuseby "o=Indigo Insurance/ou=Sales/cn=
Elizabeth Blue"
```

tarantella tscal list

Use the `tarantella tscal list` command to list the Microsoft Windows Terminal Services CALs currently reserved for use by non-Windows clients.

Syntax

```
tarantella tscal list [ --inuseby user | --inuse | --free ]
                      [ --type name ]
                      [ --format text|xml ]
```

Description

If you do not use any arguments, the command lists all CALs and shows whether or not they are in use.

If you run this command on a secondary server in an SGD array and the primary server is unavailable, the list might not be completely accurate. This is because the primary server is responsible for updating all SGD servers in the array with changes to CAL information. The command warns you if the primary is unavailable.

The following table shows the available options for this command.

Option	Description
`--inuseby`	List only the CALs being used by a particular user where the user is either of the following: • The name of a user. • A wild card filter. You can use the `tarantella emulatorsession list` command to determine the name of a user. The * character is the only character you can use in a wild card filter. It represents a string of any length containing any characters. So, an `--inuseby "*green*"` argument lists only the CALs for users whose name contains the string “green”.
`--inuse`	List only the CALs that are currently in use.
`--free`	List only the CALs that are currently not in use.
`--type`	List only the CALs that can connect to a particular type of Terminal Services server. This is either `WinNT4-TS-CAL` or `Win200x-TS-CAL`. **Note -** The name is not case sensitive.
`--format`	Specifies the output format (default setting is text).

Examples

The following example lists the CALs for non-Windows clients that are currently not in use.

```
tarantella tscal list --free
```

tarantella tscal return

Use the `tarantella tscal return` command to return all free Microsoft Windows Terminal Services CALs to the Windows license server.

Syntax

```
tarantella tscal return --free
```

Description

Note – The Windows license server might not reissue the returned CALs until approximately 90 days have elapsed since they were last in use.

Use the `tarantella tscal free` command to free a CAL so that it can be returned.

Normally, you do not need to run this command, as SGD automatically returns a CAL if it has not been used for 90 days. However, if an SGD server is removed from an array, you can use this command to manually return the CALs.

The following table shows the available options for this command.

Option	Description
`--free`	Returns all free CALs to the Windows license server.

Examples

The following example returns all free CALs to the Windows license server.

```
tarantella tscal return --free
```

The `tarantella uninstall` command

Uninstalls SGD or the specified SGD packages.

Syntax

```
tarantella uninstall { [ package... ] [ --purge ] | --list  }
```

Description

Removes SGD or parts of it from your system, or lists the installed SGD packages.

The following table shows the available options for this command.

Option	Description
package...	Specifies individual packages to uninstall. If no packages are specified, the command uninstalls all SGD packages. SGD currently installs as a single package.
`--purge`	If all SGD packages are removed, this option also removes all configuration information related to your organization. If `--purge` is omitted, configuration information is left intact.
`--list`	Lists all SGD packages currently installed.

Examples

The following example completely uninstalls SGD, removing all configuration information.

```
tarantella uninstall --purge
```

The `tarantella version` command

Reports the version numbers of installed SGD components.

Syntax

```
tarantella version
```

Description

Displays the version numbers of SGD components installed on the SGD server, together with information about the SGD server.

Information about installed SGD components is also available on the webtop. Click the ? button, in the lower-left corner of the webtop.

Examples

The following example displays the version numbers of installed SGD components.

```
tarantella version
```

The `tarantella webserver` command

Use the `tarantella webserver` command to control the SGD Web Server.

Syntax

```
tarantella webserver start | stop | restart | add_trusted_user |
delete_trusted_user | list_trusted_users
```

Description

This command has no effect on the SGD server.

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`start`	Starts the SGD Web Server.	"`tarantella webserver start`" on page 357
`stop`	Stops the SGD Web Server.	"`tarantella webserver stop`" on page 358
`restart`	Restarts the SGD Web Server.	"`tarantella webserver restart`" on page 359

Subcommand	Description	More Information
`add_trusted_user`	Adds the user name and password of a user that is to be trusted by the third-party authentication mechanism.	"`tarantella webserver add_trusted_user`" on page 355
`delete_trusted_user`	Deletes the user name and password of a user that is to be trusted by the third-party authentication mechanism.	"`tarantella webserver delete_trusted_user`" on page 356
`list_trusted_users`	Lists the user names of the users that are to be trusted by the third-party authentication mechanism.	"`tarantella webserver list_trusted_users`" on page 356

Note – All commands include the `--help` option. You can use `tarantella webserver` *subcommand* `--help` to get help on a specific command.

Examples

The following example starts the SGD Web Server.

```
tarantella webserver start
```

`tarantella webserver add_trusted_user`

Adds the user name and password of a user that is to be trusted for third-party authentication.

Syntax

```
tarantella webserver add_trusted_user username
```

Description

After you enter the *username*, SGD prompts you to enter the password. The password must be at least six characters long.

You must restart the SGD Web Server (using `tarantella webserver restart`) to activate the new user.

You cannot use this command to change the password of a trusted user. You must delete the trusted user first, using `tarantella webserver delete_trusted_user`.

This command adds the user name to the "database" of Tomcat users in */install-dir*`/webserver/tomcat/`*version*`/conf/tomcat-users.xml` and creates an SHA digest of the password. The user is also assigned the "SGDExternalAuth" role. This role is required to access the SGD external authentication web service.

Examples

The following example adds L3nNy_G0db3r as a trusted user.

```
tarantella webserver add_trusted_user L3nNy_G0db3r
```

tarantella webserver delete_trusted_user

Deletes the user name and password of a user that is to be trusted for third-party authentication.

Syntax

```
tarantella webserver delete_trusted_user username
```

Description

You must restart the SGD Web Server, using `tarantella webserver restart`, to deactivate the user.

This command removes the user name from the "database" of Tomcat users in */install-dir*`/webserver/tomcat/`*version*`/conf/tomcat-users.xml`.

Examples

The following example deletes L3nNy_G0db3r as a trusted user.

```
tarantella webserver delete_trusted_user L3nNy_G0db3r
```

tarantella webserver list_trusted_users

Lists the user names of the users that are to be trusted for third-party authentication.

Syntax

```
tarantella webserver list_trusted_users
```

Description

Each user name is separated by a comma. The command also shows whether or not the third-party authentication is currently enabled.

This command lists the user names in the "database" of Tomcat users in */install-dir*`/webserver/tomcat/`*version*`/conf/tomcat-users.xml`.

Examples

The following example lists trusted users.

```
tarantella webserver list_trusted_users
```

tarantella webserver start

Use the `tarantella webserver start` command to start the SGD Web Server and Java Servlet/JavaServer Pages services on the SGD server.

Syntax

```
tarantella webserver start [ --http ] [ --ssl ] [ --servlet ]
```

Description

If you do not use any arguments, the command starts both the SGD Web Server and Java Servlet/JavaServer Pages services.

The following table shows the available options for this command.

Option	Description
`--http`	Starts the SGD Web Server without starting Java Servlet/JavaServer Pages services.
`--servlet`	Starts Java Servlet/JavaServer Pages services without starting the SGD Web Server.
`--ssl`	Starts the SGD Web Server with SSL enabled.

Note – If you start both the SGD Web Server and Java Servlet/JavaServer Pages services using separate subsequent commands, you must start the Java Servlet/JavaServer Pages services first.

Examples

The following example starts the SGD Web Server and SGD web services.

```
tarantella webserver start
```

tarantella webserver stop

Use the `tarantella webserver stop` command to stop the SGD Web Server and Java Servlet/JavaServer Pages services on the SGD server

Syntax

```
tarantella webserver stop [ --http ] [ --servlet ]
```

Description

If you do not use any arguments, the command stops both the SGD Web Server and Java Servlet/JavaServer Pages services.

The following table shows the available options for this command.

Option	Description
`--http`	Stops the SGD Web Server without stopping Java Servlet/JavaServer Pages services.
`--servlet`	Stops Java Servlet/JavaServer Pages services without stopping the SGD Web Server.

Examples

The following example stops the SGD Web Server and SGD web services.

```
tarantella webserver stop
```

tarantella webserver restart

Use the `tarantella webserver restart` command to restart the SGD Web Server.

Syntax

```
tarantella webserver restart [ --http ] [ --ssl ] [ --servlet ]
```

Description

If you do not use any arguments, the command restarts both the SGD Web Server and Java Servlet/JavaServer Pages services.

Option	Description
`--http`	Retarts the SGD Web Server without starting Java Servlet/JavaServer Pages services.
`--servlet`	Restarts Java Servlet/JavaServer Pages services without starting the SGD Web Server.
`--ssl`	Retarts the SGD Web Server with SSL enabled.

Note – If you restart both the SGD Web Server and Java Servlet/JavaServer Pages services using separate subsequent commands, you must restart the Java Servlet/JavaServer Pages services first.

Examples

The following example restarts the SGD Web Server and Java Servlet/JavaServer Pages services.

```
tarantella webserver restart
```

The `tarantella webtopsession` command

This command enables SGD Administrators to list and end user sessions.

Syntax

```
tarantella webtopsession list | logout
```

Description

The following table shows the available subcommands for this command.

Subcommand	Description	More Information
`list`	Lists user sessions matching the person or server specified.	"`tarantella webtopsession list`" on page 361
`logout`	Logs users out of their webtop.	"`tarantella webtopsession logout`" on page 362

Note – All commands include a `--help` option. You can use `tarantella webtopsession` *subcommand* `--help` to get help on a specific command.

Examples

The following example displays details of all user sessions maintained by the SGD server detroit.

```
tarantella webtopsession list \
   --server "o=Indigo Insurance/cn=detroit"
```

The following example logs out Emma Rald from her webtop.

```
tarantella webtopsession logout \
  --person "o=Indigo Insurance/ou=Marketing/cn=Emma Rald"
```

tarantella webtopsession list

Lists user sessions matching the person or server specified.

Syntax

```
tarantella webtopsession list [ --person pobj | --server serv ]
                              [ --format text|count|xml ]
```

Description

For each session, the following details are displayed:

- **Print state.** Shows whether the user has paused printing or not.
- **Client.** The IP address of the client.
- **Logged in at.** The timestamp when the user logged in.
- **User.** The name of the user.
- **Logged in to.** The SGD server hosting the user session.
- **Connection type.** Whether the connection is a standard or a secure connection.

You can list user session details using the following Administration Console tabs:

- Sessions tab
- Secure Global Desktop Servers ⇒ User Sessions tab
- User Sessions tab for a user profile object

The following table shows the available options for this command.

Option	Description
`--person`	Displays details of user sessions matching the person specified. Use the name of the user profile object.
`--server`	Displays details of user sessions matching the SGD server specified. Use the name or a peer DNS name of the SGD server object.
`--format`	Specifies the output format (the default setting is text). Use `count` to display only the number of matching sessions.

If neither a person nor server is specified, the command lists all user sessions across the array.

Guest users and anonymous users have unique names, even though they can share the same profile in the System Objects organization. To name a guest or anonymous user, use the unique name and not the name of the profile object, for example, `.../_dns/newyork.indigo-insurance.com/_anon/1`.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example displays details of all user sessions maintained by the SGD server detroit.

```
tarantella webtopsession list \
  --server "o=Indigo Insurance/cn=detroit"
```

The following example displays all user sessions across the array.

```
tarantella webtopsession list
```

tarantella webtopsession logout

Ends the user session for each person specified. This has the effect of logging them out of their webtop.

Syntax

```
tarantella webtopsession logout --person pobj...
                                [--format text|quiet]
```

Description

The following table shows the available options for this command.

Option	Description
`--person`	Ends the user session of the specified person. Use the name of the user profile object.
`--format`	Specifies the output format (the default setting is text). With `--format quiet`, no messages are displayed and the exit code indicates the number of sessions logged out.

You can end user sessions using the following Administration Console tabs:

- Sessions tab
- Secure Global Desktop Servers ⇒ User Sessions tab
- User Sessions tab for a user profile object

Guest users and anonymous users have unique names, even though they can share the same profile in the System Objects organization. To name a guest or anonymous user, use the unique name and not the name of the profile object.
For example,`.../_dns/newyork.indigo-insurance.com/_anon/1`.

Note – Make sure you quote any object names containing spaces, for example, "o= Indigo Insurance".

Examples

The following example logs out Emma Rald from her webtop.

```
tarantella webtopsession logout \
  --person "o=Indigo Insurance/ou=Marketing/cn=Emma Rald"
```

The following example ends an anonymous user's user session.

```
tarantella webtopsession logout \
  --person .../_dns/newyork.indigo-insurance.com/_anon/1
```

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