



# AssuredSAN Pro 5000 Series Interface Customization Guide

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Adobe PostScript

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# About this guide

This guide introduces the Customization Tool Kit and describes the process for customizing elements of the WBI and CLI for AssuredSAN storage systems.

## Intended audience

This guide is intended for

- Storage system administrators.
- Configuration managers.
- Web GUI developers.

## Prerequisites

Prerequisites for using this product include knowledge of:

- Network administration.
- Storage system configuration.
- Image editing and creation.

## Related documentation

For information about	See
Enhancements, known issues, and late-breaking information not included in product documentation	Release Notes
Overview of product shipkit contents and setup tasks	Getting Started*
Regulatory compliance and safety and disposal information	AssuredSAN Product Regulatory Compliance and Safety*
Installing and using optional host-based software components (CAPI Proxy, VDS Provider, VSS Provider, SES Driver)	AssuredSAN Installing Optional Software for Microsoft Windows® Server
Using a rackmount bracket kit to install an enclosure into a rack	AssuredSAN Rackmount Bracket Kit Installation* or AssuredSAN 2-Post Rackmount Bracket Kit Installation*
Product hardware setup and related troubleshooting	AssuredSAN Pro 5000 Series Setup Guide
Obtaining and installing a license to use licensed features	AssuredSAN Pro 5000 Series Obtaining and Installing a License
Using the web interface to configure and manage the product	AssuredSAN Pro 5000 Series Storage Management Guide
Using the command-line interface (CLI) to configure and manage the product	AssuredSAN Pro 5000 Series CLI Reference Guide
Event codes and recommended actions	AssuredSAN Pro 5000 Series Event Descriptions Reference Guide
Identifying and installing or replacing field-replaceable units (FRUs)	AssuredSAN Pro 5000 Series FRU Installation and Replacement Guide

\* Printed document included in product shipkit.

For additional information, see Dot Hill's Customer Resource Center web site: <http://crc.dothill.com>.

For additional information about Perl installations and required modules see: <http://www.perl.org/>

# Document conventions and symbols

**Table 1** Document conventions


Convention	Element
<a href="#">Blue text</a>	Cross-reference links and e-mail addresses
<a href="#">Blue, underlined text</a>	Web site addresses
<b>Bold font</b>	<ul style="list-style-type: none"><li>• Key names</li><li>• Text typed into a GUI element, such as into a box</li><li>• GUI elements that are clicked or selected, such as menu and list items, buttons, and check boxes</li></ul>
<i>Italics font</i>	Text emphasis
Monospace font	<ul style="list-style-type: none"><li>• File and directory names</li><li>• System output</li><li>• Code</li><li>• Text typed at the command-line</li></ul>
<i>Monospace, italic font</i>	<ul style="list-style-type: none"><li>• Code variables</li><li>• Command-line variables</li></ul>
<b>Monospace, bold font</b>	Emphasis of file and directory names, system output, code, and text typed at the command line

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 **CAUTION:** Indicates that failure to follow directions could result in damage to equipment or data.


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 **IMPORTANT:** Provides clarifying information or specific instructions.

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 **NOTE:** Provides additional information.

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 **TIP:** Provides helpful hints and shortcuts.

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# 1 Getting Started

You can use the Customization Tool Kit (CTK) to alter the appearance of WBI screens and panels and the CLI for product, corporate, or marketing requirements.

With the CTK, you can:

- Replace default WBI files with customized files, created using a text or image editor.
- Review changes made to the WBI.
- Hide Dot-Hill-specific information in the CLI and WBI.

The CTK is a Perl-based script that places editable files in a `SandBox` directory for customization, places all necessary files (edited, unedited, and non-editable) in a staging directory for testing, and packages all necessary files for return to Dot Hill Systems for validation and deployment.

The CTK is not an editor. Third-party editing tools are required to make changes to text and image files; such tools are not included in the CTK installation. Installation and usage of those third party tools falls outside the scope of this document.

## Tools for customizing files

Two general types of files may be customized: text and image. Choose editing tools that adhere to the following criteria.

Text editing requirements:

- Save files leaving file type extensions in place
- Save files with the same type of line breaks as the original file; LF (Line Feed) versus CR-LF (Carriage Return Line Feed)
- Save files without transforming spaces (strip, trim, convert to tabs, and so forth)
- Save files without adding meta-tags (word processing applications are not recommended)
- Check for well-formedness (for mark-up files such as HTML)

Image editing requirements:

- Create, edit, and save Portable Network Graphics (.png) files with transparency intact
- Create, edit, and save Graphics Interchange Format (.gif) files with transparency intact
- Create, edit, and save Favicons

Use a web browser to preview the customization. Supported web browsers are:

- Microsoft Internet Explorer 9 or later
- Mozilla Firefox 10 or later

## Understanding automatic changes to the user interfaces

Several changes occur in both the WBI and CLI simply by installing a customization file. These changes hide references to "Dot Hill" or "AssuredSAN" and protect the OEM nature of Dot Hill's relationship with its partner.

- |                     |   |
|---------------------|---|
| WBI and CLI changes | <ul style="list-style-type: none"><li>• Enclosure model is hidden</li><li>• Enclosure vendor is hidden</li><li>• SCSI Product ID is hidden</li><li>• SCSI Vendor ID is hidden</li></ul>   |
| CLI only changes    | <ul style="list-style-type: none"><li>• Parameter <code>detail</code> added to the <code>show system</code> command displays SCSI Vendor ID and SCSI Product ID for auditing or confirmation purposes. This command is restricted to customized systems and does not appear in other documentation.</li></ul> |

These changes affect the system only after the customization file created in this process has been installed.

# Determining what level of customization is appropriate

Because so many aspects of the WBI can be customized, determine what level of customization is required in advance.


## Considering a tiered approach

A tiered approach allows you to separate the changes into easily managed, progressively more involved tasks as time or resources allow.

- Tier 1 - Change the sign-in (log-in) screen background, banner logo, favicon, and product and brand IDs. This can be used for quick re-branding, or in situations where extensive changes are not needed or fall outside the scope of allotted time or effort.
- Tier 2 - Change the above, and color scheme for backgrounds, text, borders, shadows, tabs, tables, and buttons. User interface icons (such as table pagination controls) can also be replaced to match the new color scheme.
- Tier 3 - Change the above, and images such as topic icons and health status icons.

Changing SCSI product and vendor IDs is an option, but should only be done after reviewing [Changing SCSI ID values](#) on page 8 and [Editing restrictions](#) on page 12, and fully understanding the affects this has on your system.

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 **IMPORTANT:** The *AssuredSAN Pro 5000 Series Storage Management Guide* describes the baseline colors denoting storage space. Changing the colors of storage space color codes does not impact functionality; however, you should note changes to those colors so users of that documentation are aware of the new values.

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## Changing SCSI ID values

The CTK allows you change the SCSI vendor ID and SCSI product ID. These values must be changed together, and only when you have officially assigned IDs. Unqualified IDs may invalidate certifications and cause incompatibilities with existing host software. Re-branding alone does not require recertification; however, changing the SCSI vendor or product IDs might.

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 **CAUTION:** Host access may fail if the SCSI vendor ID or SCSI product ID are changed to unqualified values. Do not change these values separately, or without officially assigned IDs.

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When changing the `scsi-vendor-id` and `scsi-product-id` values, ensure that you accurately enter the appropriate values and adhere to guidance provided in [Editing restrictions](#) on page 12. After customization, these values no longer appear by default in the WBI or CLI and are only displayed through the CLI via the `show system detail` command. These values do not appear in the WBI mock-up provided for testing purposes.

The customization script performs a rudimentary check of the `scsi-vendor-id` and `scsi-product-id` values. This check does not ensure the validity of the values, but merely checks for appropriate length. Max length for `scsi-vendor-id` is eight characters and `scsi-product-id` is 16 characters.

Because of potential adverse consequences, changing `scsi-vendor-id` and `scsi-product-id` values should be reserved for users who fully understand these values' functions and are prepared to troubleshoot issues arising from these changes.

Support for changing the SCSI vendor ID and SCSI product ID, software recertification and certification transfer fall outside the scope of this document.



## Preparing the Perl environment

For the CTK to function properly, you must:


- Install the CTK on the same system as the Perl executable
- Have permission to “run” the Perl executable
- Map the `.pl` extension to the Perl executable (Windows)

## Required installations

You must install:

- Perl 5.05
- `Win32::console::ANSI.pm` (for Windows systems only)
- `Image::Size.pm`
- `File::Copy::Recursive.pm`

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 **NOTE:** Procedures for installing Perl and associated packages fall outside the scope of this document as installation varies from platform to platform and enterprise to enterprise.

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## Using appropriate parameters

The CTK consists of one script that performs several functions. The CTK runs with parameters from a command prompt with the syntax `ctk.pl --parameter`, where:

- `ctk.pl` runs the script
- `parameter` determines the action taken by the script

Running `ctk.pl` without a parameter displays the CTK Help.

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 **NOTE:** This document does not include the command prompt or Perl invocation when describing the script or parameters as Perl functionality may differ from platform to platform. For example, `C:\ctk>perl ctk.pl --p` might be written as `ctk.pl --p`.

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Use one of parameters to direct script function. A parameter is specified using either the first letter or the full word. Parameters `--p` and `--prepare` are equivalent. In [Table 2](#), the full word option appears in brackets.

**Table 2** CTK Parameters and functions

Parameter	Function
<code>--b[undle]</code>	Packages the customization for delivery to Dot Hill Systems for validation.
<code>--c[ustomize]</code>	Builds a mock-up of the customized WBI for inspection and limited testing in the <code>Staging</code> directory. This option does not deploy the customization, nor is the WBI in the <code>Staging</code> area functional.
<code>--h[elp]</code>	Displays a quick summary of available parameters
<code>--l[oad]</code>	Places a previously bundled customization in the <code>SandBox</code> directory, then builds the <code>Staging</code> directory based on those customizations. This overwrites any customization that may exist in either directory.

**Table 2** CTK Parameters and functions

Parameter	Function
--p[repare]	Initializes the CTK by creating the <code>SandBox</code> and <code>Staging</code> directory. Copies editable files from the <code>Source</code> to the <code>SandBox</code> directory, and builds a version of the WBI in the <code>Staging</code> directory. Files that have been customized are not over-written with this option.
--p[repare] --f[orce]	Copies editable files from the <code>Source</code> to the <code>SandBox</code> directory, and builds a version of the WBI in the <code>Staging</code> directory. <code>Prepare</code> and <code>Force</code> together differ from <code>Prepare</code> alone in that files that have been customized are over-written.

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## 2 Using the Customization Tool Kit

To create a customization, perform the following steps:

1. Install the CTK by unzipping the file and running `ctk.pl --p`. For more information, see [Installing the Customization Tool Kit](#) on page 11.
2. Edit files in the `SandBox` directory. For more information, see [Customizing the interface](#) on page 11.

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△ **CAUTION:** Only edit files in the `SandBox`. Editing other files will result in an invalid customization.

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3. Build the customization by running `ctk.pl --c`.
4. Verify the customization by opening `Staging/index.html` in a web browser. For more information, see [Testing the customized interface](#) on page 12.
5. Repeat steps 2-4 as many times as necessary, until the customization is complete.
6. Package the customization for Dot Hill by running `ctk.pl --b`. For more information, see [Packaging the customized interface](#) on page 13.
7. Send the `CUSTOMIZATION.zip` file to your Dot Hill Systems Engineer.

### Installing the Customization Tool Kit

The CTK installation file, `CTK.zip`, contains the scripts and directories needed to customize the WBI.

To install:

1. Specify a location on the same system as the Perl executable and extract `CTK.zip` to that location. This creates the `ctk` directory.
2. In the `ctk` directory, open a command prompt.
3. Run `ctk.pl --p` to finish installation. The following directory structure is created:

```
ctk
  lib
  SandBox
  Source
  Staging
```

- The `lib` directory contains Perl scripts related to CTK functionality.
- The `SandBox` directory contains all customizable files.
- The `Source` directory contains the baseline WBI interface files.
- The `Staging` directory contains a viewable `index.html` file. This file will contain the customized WBI after running the customize option. The customized mock-up created in the `Staging` directory is for inspection and limited testing, and is neither deployed nor functional.

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△ **CAUTION:** Only edit files in the `SandBox`. Editing other files will result in an invalid customization. The `Staging` directory is volatile and changes made there are overwritten the next time `ctk.pl --c` is run.

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# Customizing the interface

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△ **CAUTION:** Failure to adhere to the [Editing restrictions](#) when customizing your interface may result in loss of previous edits or failure to build the customization.

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The customization process follows the iterative pattern of edit, build, test, repeat. The build step is required to assemble the customized and non-customized files in the `Staging` directory.

Only edit files in the `SandBox`. This location segregates files available for customization while protecting important files that should not be changed.

1. Determine which files need to be edited for this customization.
  - See [Determining what level of customization is appropriate](#) on page 8.
  - See [Tiered customizations](#) on page 15 for an overview of customizable files.
  - See [Customizable text files](#) on page 19 for details on customizable text files and their associated functionality.
  - See [Customizable graphics files](#) on page 23 for details on customizable graphics and their associated functionality.
2. Edit files as appropriate for the customization plan. Strictly adhere to [Editing restrictions](#).

## Editing restrictions

Observe these restrictions when customizing files.

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△ **CAUTION:** Failure to adhere to these restrictions may result in loss of data or failure to build the customization.

---

In general:

- Do not add unnecessary files to any `ctk` directory. Store temporary, work, or notes files in a directory outside of the `ctk` directory.
- Do not rename files. Files must keep the same name as the original.
- Maintain the same file type as the original. Simply changing a file extension is not adequate; files must be saved as that file type.

Graphics files:

- Graphics files can be customized using any editor that produces `.png` files.
- All customized graphics must maintain the original dimensions and file names.

In the `brandInfo.ini` file:

- Do not enter spaces before or after the `'='`
- Change the `vendor-name`, `product-id`, and `product-brand` as needed. These are not programmatic values and do not affect functionality. These values, also, accept multi-byte Unicode characters.
- Before changing the `scsi-vendor-id` and `scsi-product-id`, carefully review [Changing SCSI ID values](#) on page 8.

In other text files:

- Express colors in hexadecimal format. That is, enter blue as `'#0000FF'` rather than `'blue'`.
- Check mark-up files such as HTML files for well-formedness after editing.

## Testing the customized interface

In the `Staging` directory, open `index.html` in a web browser. This presents an operational mock-up of the WBI. For testing purposes, sign-in as `user manage`; no password is needed.

Because of the high level of customization available, the person doing the customization is best suited to determine what aspects of the WBI need to be tested.

During testing, consider:

- Correct spelling for textual changes.
- Color matches between panes.
- Color matches between states of items.
- Appropriate changes in button appearance during “over,” “down,” and “disabled” operation.
- Appropriate contrast between font and background colors.
- Appropriate messaging from Health, Status, and other communication icons.
- Desired appearance of WBI Help pages.

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 **IMPORTANT:** If the SCSI Product ID and SCSI Vendor ID have been changed, ensure the entered values are correct and qualified.

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Functionality cannot be customized. If errors occur, or if the presentation of information changes beyond what has been customized, functional errors may have been introduced during the customization process. For more information about correcting functional errors in the WBI that have been introduced during the customization process, see [Restoring the baseline WBI](#) on page 13.

To test the WBI:

1. Exit any browser window displaying the WBI.
2. Open a new browser window and clear the browser cache.

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 **IMPORTANT:** As browsers cache pages, skipping [step 1](#) and [step 2](#) may result in a previous version being displayed.

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3. In the `Staging` directory, click `index.html` to open the test WBI in a browser.
4. Verify customizations.
  - a. Verify customizations on the sign-in page.
  - b. Sign in (log in) as `user manage`; no password is needed.
  - c. Browse the topic and action panels to verify text and graphic customizations.

The CTK topic contains examples of common customizable elements for ease of validation. The topic does not appear in the actual interface.
  - d. Click the **Help** icon and verify text and graphic customizations.

## Restoring the baseline WBI

If you introduced errors during the customization process, or if the default presentation is preferred, run `ctk.pl --p --f` to overwrite all `SandBox` directory files with the original source code, remove all customizations, and restore the original interface in the `Staging` directory.

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 **CAUTION:** Returning to a baseline WBI eliminates all changes. Only perform this procedure to return to a baseline WBI interface, or to eliminate functional errors introduced during customization.

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CTK logic assumes that the `Source` directory has not changed. If errors have been introduced because of changes made in the `Source` directory, you must re-install the CTK. See [Installing the Customization Tool Kit](#) on page 11.


## Packaging the customized interface

Once you thoroughly test and are satisfied with the customized WBI:

1. Run `ctk.pl --b` to package the finished customization. This creates a `CUSTOMIZATION.zip` in the `ctk` directory.
2. Forward the `CUSTOMIZATION.zip` to your Dot Hill Systems Engineer.

Dot Hill Systems validates the customized WBI and is the final arbiter for implementation.

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 **IMPORTANT:** You are responsible for creating a valid customization.

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Once the customization has been verified, Dot Hill will provide a binary customization image (`.bin` file) that can be installed on your controllers. You are responsible for updating your controllers with the file.

3. SandBox

# A Tiered customizations

This appendix describes interface elements and associated files that you can customize. It follows the tiered approach suggested on [page 8](#).

**NOTE:** Logos and application names may change without notice as newer versions of the AssuredSAN storage system become available.

## Tier One customization

Figure 1 and Table 3 show commonly customized Tier One elements on the sign-in and main pages.

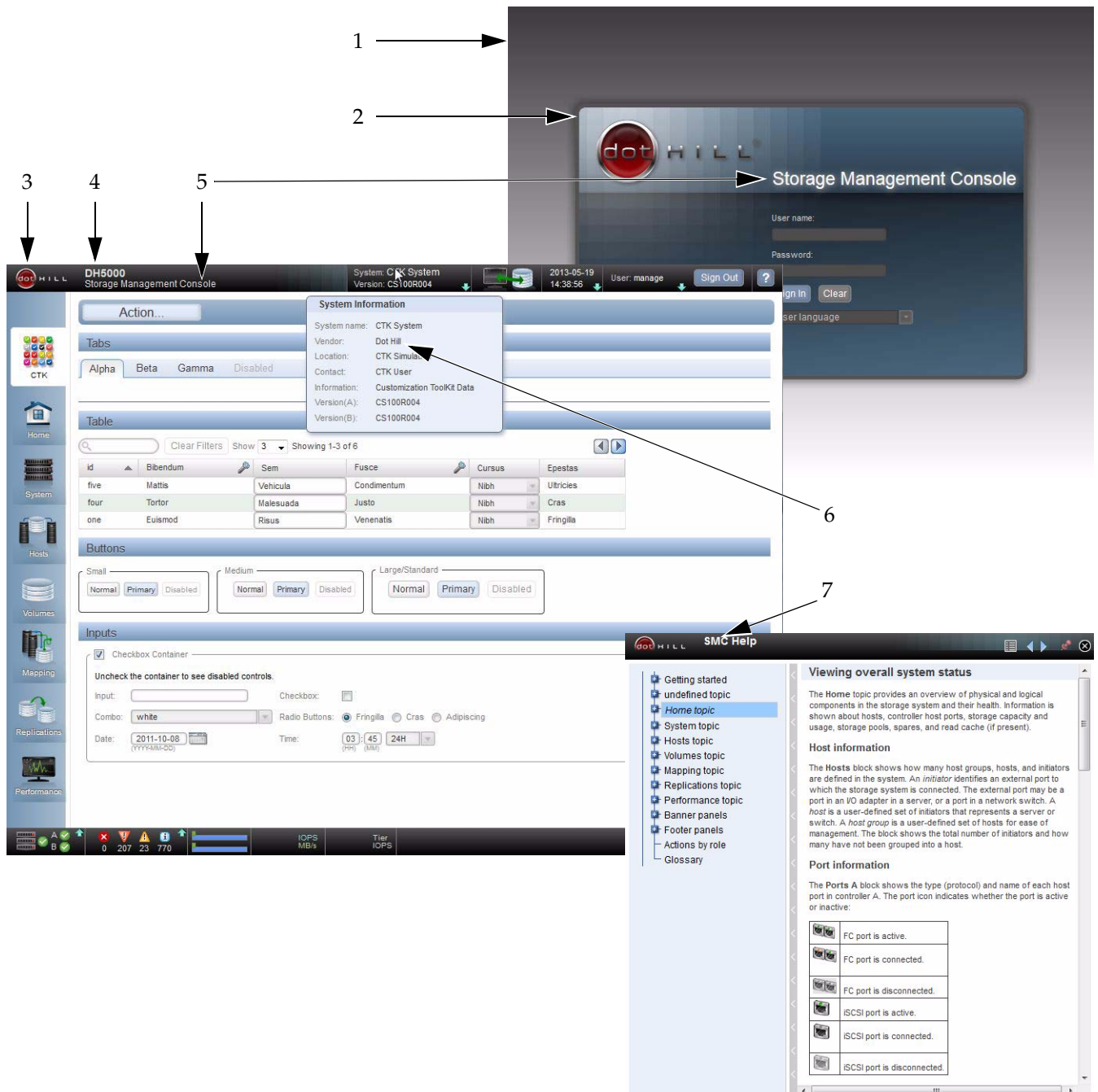


Figure 1 Tier One

**Table 3** Tier One callouts

<b>Callout</b>	<b>Description</b>	<b>Editable file and variable</b>
1	Sign-in background color	1-CSSValues.tag <i>loginPageGradientTop</i> <i>loginPageGradientTop</i>
2	Sign-in background	loginBG.png
3	Banner background	logo_pix.png
4	Product name	brandInfo.ini <i>product-id</i>
5	Application name	brandInfo.ini <i>applicationTitle</i>
6	Vendor name	brandInfo.ini <i>vendor-name</i>
7	Abbreviated application name in Help	brandInfo.ini <i>applicationTitleAbbrev</i>

Additionally, the product brand may be changed by editing *product-brand* in *brandInfo.ini*. This only displays in the CLI.



# Tier Two customization

Figure 2 and Table 4 show commonly customized Tier Two elements on the sign-in and main pages.

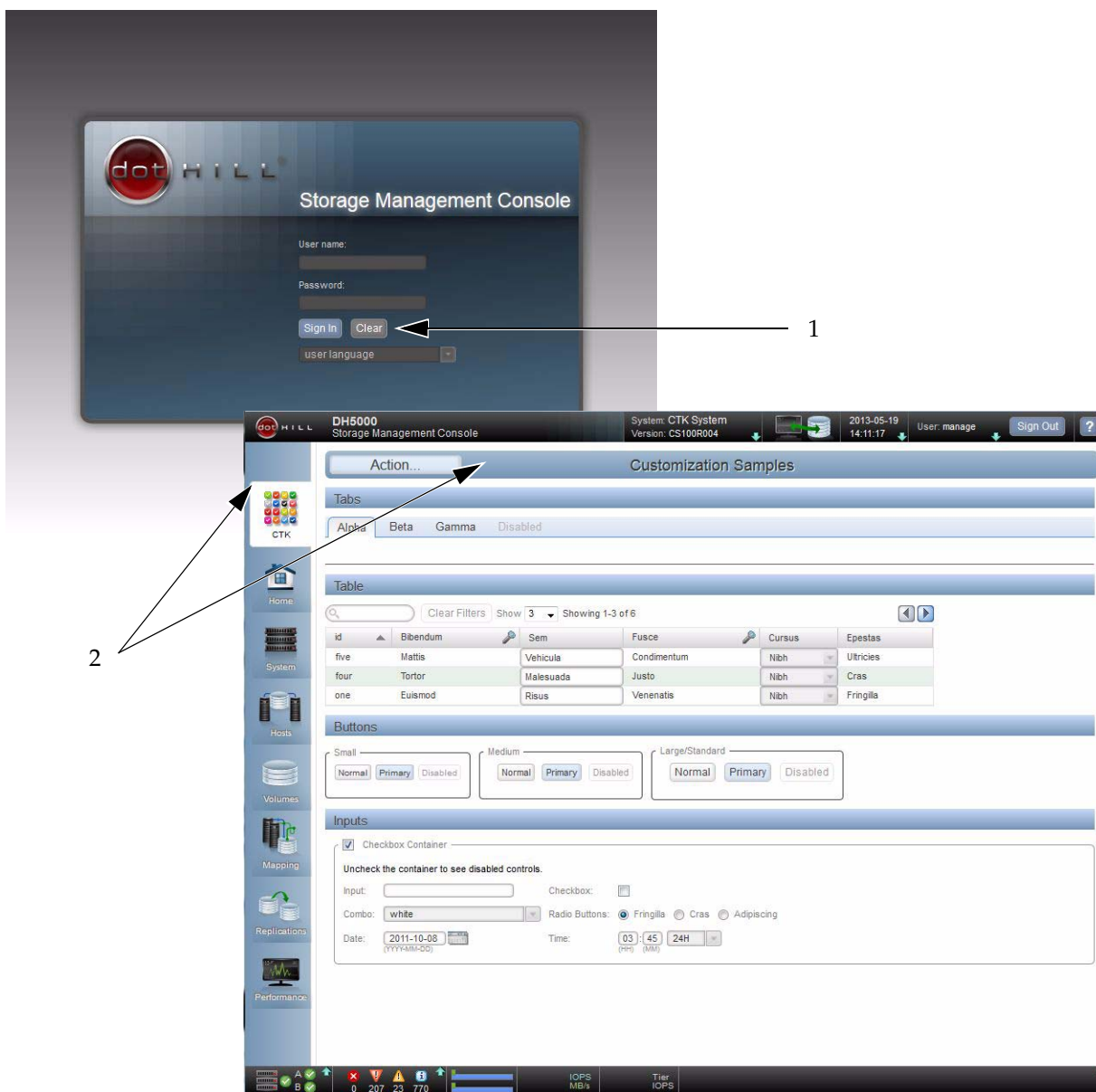


Figure 2 Tier Two

Table 4 Tier Two callouts

Callout	Description	Editable file and variable
1	Buttons	1-CSSValues.tag <i>Buttons</i> section
2	Pane banners	1-CSSValues.tag <i>General Topic Panel Settings</i> section

# Tier Three customization

Figure 3 and Table 5 show commonly customized Tier Three elements on the main pages.

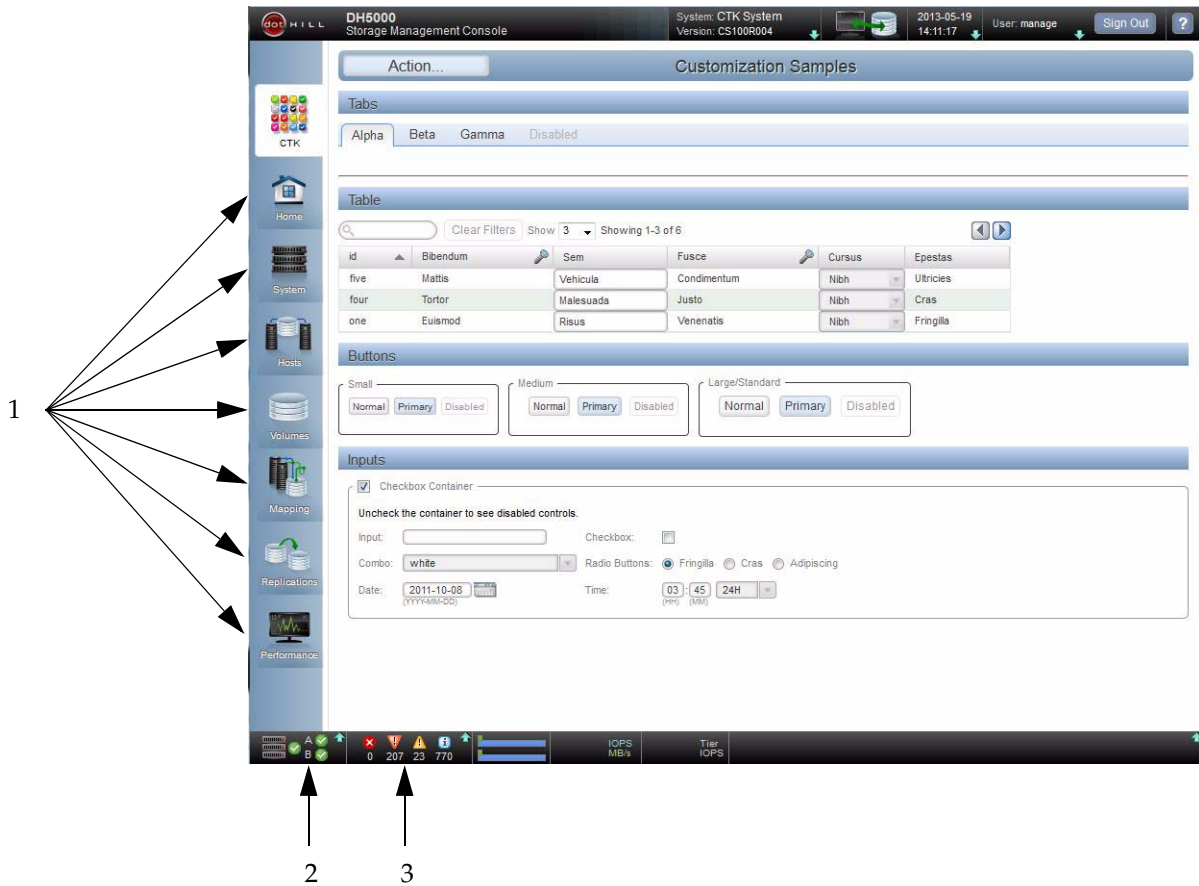



Figure 3 Tier Three

Table 5 Tier Three callouts

Callout	Description	Editable file
1	Topic icons	Files in the <code>topics</code> subdirectory
3	Health icons	Files in the <code>health</code> subdirectory
2	Event icons	Files in the <code>events</code> subdirectory

## B Customizable text files

This appendix lists text files you can customize.

 **NOTE:** Logos and application names may change without notice as newer versions of the AssuredSAN storage system become available.

### Customizing `brandInfo.ini`

These text files control display and connection information, and control colors used in the application.

**Table 6** Editable values in `brandInfo.ini`

Property	Value use	Visible in
<code>vendor-name</code>	Vendor name displayed in System Information	WBI <ul style="list-style-type: none"><li>System hover panel</li></ul> CLI <ul style="list-style-type: none"><li><code>show system</code></li></ul>
<code>product-id</code>	Product ID displayed in System Information	WBI <ul style="list-style-type: none"><li>Title bar</li></ul> CLI <ul style="list-style-type: none"><li><code>show system</code></li></ul>
<code>product-brand</code>	Product brand displayed in System Information	CLI <ul style="list-style-type: none"><li><code>show system</code></li></ul>
<code>scsi-product-id</code> <code>scsi-vendor-id</code>	SCSI IDs must be qualified. Host access may fail if the SCSI IDs are changed to an unqualified ID.  SCSI IDs are controlled by T10, a subcommittee of the InterNational Committee on Information Technology Standards (INCITS).	Hidden.  See <a href="#">Determining what level of customization is appropriate</a> on page 8 for more information.
<code>applicationTitle</code>	Title	WBI <ul style="list-style-type: none"><li>Sign-in page</li><li>Application banner (second line)</li></ul>
<code>applicationTitleAbbrev</code>	Abbreviated title displayed in application Help	WBI <ul style="list-style-type: none"><li>Help</li></ul>
<code>triallicensing</code>	Controls the availability of temporary licensing. Value must be set to <code>true</code> or <code>false</code> .	WBI

## Customizing 1\_CSSValues.tag

The text file `1_CSSValues.tag` allows you to customize the colors, gradients, borders, shadows, and fonts used throughout the interface. The following table describes each section in the file.

**Table 7** Editable values in `1_CSSValues.tag`

Section	Details
General Settings	<ul style="list-style-type: none"><li>• Used throughout the interface</li><li>• Controls:<ul style="list-style-type: none"><li>• Colors of non-specific text, application background, links, and rules</li></ul></li></ul>
Login Page	<ul style="list-style-type: none"><li>• Used on the sign-in page</li><li>• Controls:<ul style="list-style-type: none"><li>• Background gradient</li><li>• Application title font, color, shadow, and offset</li><li>• Sign-in control colors and offset</li></ul></li></ul>
Application Banner	<ul style="list-style-type: none"><li>• Used in the banner</li><li>• Controls colors</li></ul>
Application Footer	<ul style="list-style-type: none"><li>• Used in the footer</li><li>• Controls colors</li></ul>
General Topic Panel Settings	<ul style="list-style-type: none"><li>• Used in topic panels</li><li>• Controls:<ul style="list-style-type: none"><li>• Topic title and sub-title backgrounds, text colors, and shadows</li></ul></li></ul>
Home Topic	<ul style="list-style-type: none"><li>• Used on the Home topic panel</li><li>• Controls:<ul style="list-style-type: none"><li>• Component box colors, borders, and shapes</li><li>• Text colors</li></ul></li></ul>
Dialog Settings	<ul style="list-style-type: none"><li>• Used for dialog boxes throughout the interface</li><li>• Customize three sets of dialogs separately<ul style="list-style-type: none"><li>• Active dialogs</li><li>• Action dialogs</li><li>• Hover dialogs</li></ul></li><li>• Controls:<ul style="list-style-type: none"><li>• Colors of text, background, borders, and shadows</li><li>• Shapes of buttons and shadows</li></ul></li></ul>
Menus	<ul style="list-style-type: none"><li>• Used on menus throughout the interface</li><li>• Controls:<ul style="list-style-type: none"><li>• Colors of text, background, borders, and shadows</li><li>• Shapes of button and shadows</li></ul></li></ul>
Tabs	<ul style="list-style-type: none"><li>• Used on tabs throughout the interface</li><li>• Controls:<ul style="list-style-type: none"><li>• Colors of text, background, borders, and shadows</li><li>• Shapes of tabs, buttons, and shadows</li></ul></li></ul>
Wizards	<ul style="list-style-type: none"><li>• Used on wizards throughout the interface</li><li>• Controls colors of text, background, and borders</li></ul>

**Table 7** Editable values in `1_CSSValues.tag` (continued)

Section	Details
General Widget Settings	<ul style="list-style-type: none"> <li>• Used on widgets throughout the interface</li> <li>• Controls:               <ul style="list-style-type: none"> <li>• Color of text and borders</li> <li>• Shape of widget</li> </ul> </li> </ul>
Buttons	<ul style="list-style-type: none"> <li>• Used on buttons throughout the interface</li> <li>• Customize 'light' and 'dark' buttons               <ul style="list-style-type: none"> <li>• Buttons labeled 'light' are used in the main windows (because the default color of the window is light).</li> <li>• Buttons labeled 'dark' are used in pop-up windows (because the default color of the window is dark).</li> </ul> </li> <li>• Controls:               <ul style="list-style-type: none"> <li>• Shape of buttons and shadows</li> <li>• Color of text, borders, background, and shadows</li> </ul> </li> </ul>
Input Controls	<ul style="list-style-type: none"> <li>• Used on the input fields throughout the interface</li> <li>• Customize 'light' and 'dark' inputs               <ul style="list-style-type: none"> <li>• Inputs labeled 'light' are used in the main windows (because the default color of the window is light).</li> <li>• Inputs labeled 'dark' are used in pop-up windows (because the default color of the window is dark).</li> </ul> </li> <li>• Controls:               <ul style="list-style-type: none"> <li>• Shape of buttons, checkboxes, and shadows</li> <li>• Color of text, borders, background, and shadows</li> </ul> </li> </ul>
Text Widgets	<ul style="list-style-type: none"> <li>• Used on the text of widgets throughout the interface</li> <li>• Controls colors of text</li> </ul>
Data Tables	<ul style="list-style-type: none"> <li>• Used on tables throughout the interface</li> <li>• Customize 'light' and 'dark' tables               <ul style="list-style-type: none"> <li>• Tables labeled 'light' are used in the main windows (because the default color of the window is light).</li> <li>• Tables labeled 'dark' are used in pop-up windows (because the default color of the window is dark).</li> </ul> </li> <li>• Controls:               <ul style="list-style-type: none"> <li>• Colors of text, backgrounds, borders, and rows</li> <li>• Shape of shadows</li> </ul> </li> </ul>
DatePicker Widget	<ul style="list-style-type: none"> <li>• Used on the DatePicker widget</li> <li>• Controls colors of text, backgrounds, borders, and rows</li> </ul>
System Topic	<ul style="list-style-type: none"> <li>• Used on the System topic panel</li> <li>• Controls color of backgrounds, text, and borders</li> </ul>
Help Popup	<ul style="list-style-type: none"> <li>• Used on the help pop-up window</li> <li>• Customize tree items separately</li> <li>• Controls color of backgrounds, text, borders, and nodes</li> </ul>




## C Customizable graphics files

This appendix lists graphics you can customize by usage. Refer to the following for the location of each subdirectory.

- `images`. See [Table 8](#) on page 23 and [Table 9](#) on page 24
  - `bar`. See [Table 10](#) on page 24
  - `dialog`. See [Table 13](#) on page 26
  - `events`. See [Table 17](#) on page 30
  - `health`. See [Table 14](#) on page 26
  - `help`. See [Table 20](#) on page 35
  - `home`. See [Table 18](#) on page 31
  - `inputs`. See [Table 15](#) on page 27
  - `link`. See [Table 11](#) on page 24
  - `rack`. See [Table 19](#) on page 31
  - `tableinator`. See [Table 16](#) on page 28
  - `topics`. See [Table 12](#) on page 25
  - `tree`. See [Table 21](#) on page 36

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 **NOTE:** Logos and application names may change without notice as newer versions of the AssuredSAN storage system become available.

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### Sign-in page

The graphics in the main `images` directory are used on the sign-in page, with the exception of `logo_pix.png`, `progress_bar_small.gif`, and `calendar.png`, which are used throughout the interface. See [Table 9](#) on page 24 for information about these graphics.




**Table 8** `images`, sign-in page

Image	Description	File	Width	Height
	<i>Unused, do not edit</i>	<code>logo_small.png</code>	66	26
	Sign-in background (includes company logo) Position title and buttons using <code>tags</code>	<code>loginBG.png</code>	600	375

## Throughout








The graphics in the main `images` directory are used throughout the interface, with the exception of `logo_small.png` and `loginBG.png`, which are used on the sign-in page. See [Table 8](#) on page 23 for information about these graphics.

**Table 9** `images`, throughout

Image	Description	File	Width	Height
	Banner title background (includes company logo)	<code>logo_pix.png</code>	617	36
	Animated progress/working bar, small	<code>progress_bar_small.gif</code>	160	12
	Calendar input button	<code>calendar.png</code>	24	16



The graphics in the `images/bar` subdirectory are used in the interface's banner and footer.

**Table 10** `images/bar`

Image	Description	File	Width	Height
	Banner menu button	<code>bannerMenu.png</code>	11	11
	Banner menu button, active	<code>bannerMenu_active.png</code>	11	11
	Banner menu button, hover	<code>bannerMenu_hover.png</code>	11	11
	Footer menu button	<code>footerMenu.png</code>	11	11
	Footer menu button, active	<code>footerMenu_active.png</code>	11	11
	Footer menu button, hover	<code>footerMenu_hover.png</code>	11	11
	Footer system health, used in conjunction with the icons in <a href="#">Table 14</a> on page 26	<code>healthSystem.png</code>	24	24




The graphics in the `images/link` subdirectory are used to indicate the status of links between systems. They are displayed in the header.

**Table 11** `images/link`

Image	Description	File	Width	Height
	Link up	<code>connectedSysUp.png</code>	72	36
	Link connected, system up	<code>memorexSysUp.png</code>	72	36













**Table 11** images/link (continued)

Image	Description	File	Width	Height
	Link connected, system up, traffic on link	connectedSysUpTraffic.gif	72	36
	Link connected, system down	connectedSysDown.png	72	36
	Link disconnected	disconnected.png	72	36








The graphics in the `images/topics` subdirectory are used on the left side of the interface to select different panels.

**Table 12** images/topics

Image	Description	File	Width	Height
	Topic background	bg_topic.png	70	31
	Customization topic, not used in actual interface, <i>do not edit</i>	ctk.png	50	50
	Home topic	home.png	50	50
	Hosts topic	hosts.png	50	50
	Mapping topic	mapping.png	50	50
	Performance topic	performance.png	50	50
	Replications topic	replications.png	50	50
	System topic	system.png	50	50
	Test topic	test.png	50	50
	Volumes topic	volumes.png	50	50









The graphics in the `images/dialog` subdirectory are used in dialog boxes.

**Table 13** `images/dialog`





Image	Description	File	Width	Height
	Animated progress/working bar	<code>processing.gif</code>	160	12
	Action success	<code>success.png</code>	46	46
	Action failure	<code>failure.png</code>	46	46
	Informational message	<code>message.png</code>	46	46
	Confirm	<code>confim.png</code>	46	46
	Warning	<code>warning.png</code>	46	46
	Error	<code>error.png</code>	46	46

The graphics in the `images/health` subdirectory are used to indicate health of the system and its components.

**Table 14** `images/health`

Image	Description	File	Width	Height
	Bad, small	<code>bad15.png</code>	15	15
	Bad, medium	<code>bad21.png</code>	21	21
	Bad, large	<code>bad25.png</code>	25	25
	Degraded, small	<code>degraded15.png</code>	15	15
	Degraded, medium	<code>degraded21.png</code>	21	21
	Degraded, large	<code>degraded25.png</code>	25	25
	OK	<code>ok.png</code>	15	15
	Unknown, small	<code>unknown15.png</code>	15	15











**Table 14** images/health (continued)

Image	Description	File	Width	Height
	Unknown, medium	unknown21.png	21	21
	Unknown, large	unknown25.png	25	25
	Disabled	disabled15.png	15	15
	Missing	missing15.png	15	15

The graphics in the `images/inputs` subdirectory are used for drop-down menus. There are two subdirectories of icons:

- Icons in the `dark` subdirectory are used in pop-up windows. They are labeled 'dark' because the default color of the window is dark. This can be changed using `tags`.
- Icons in the `light` subdirectory are used in the main windows. They are labeled 'light' because the default color of the window is light. This can be changed using `tags`.






**Table 15** images/inputs

Image	Description	File	Width	Height
	Drop-down menu button, dark windows	dark/ComboButton.png	16	16
	Drop-down menu button, active, dark windows	dark/ComboButtonActive.png	16	16
	Drop-down menu button, disabled, dark windows	dark/ComboButtonDisabled.png	16	16
	Drop-down menu button, highlighted for keyboard input, dark windows	dark/ComboButtonFocus.png	16	16
	Drop-down menu button, hover, dark windows	dark/ComboButtonHover.png	16	16
	Drop-down menu button, light windows	light/ComboButton.png	16	16
	Drop-down menu button, active, light windows	light/ComboButtonActive.png	16	16
	Drop-down menu button, disabled, light windows	light/ComboButtonDisabled.png	16	16
	Drop-down menu button, highlighted for keyboard input, light windows	light/ComboButtonFocus.png	16	16
	Drop-down menu button, hover, light windows	light/ComboButtonHover.png	16	16



















The graphics in the `images/tableInator` subdirectory are used in tables. There are two subdirectories of icons:

- Icons in the `dark` subdirectory are used in pop-up windows. They are labeled 'dark' because the default color of the window is dark. This can be changed using `tags`.
- Icons in the `light` subdirectory are used in the main windows. They are labeled 'light' because the default color of the window is light. This can be changed using `tags`.









**Table 16** `images/tableInator`

Image	Description	File	Width	Height
	Back button, active, dark windows	<code>dark/back_active.png</code>	19	19
	Back button, disabled, dark windows	<code>dark/back_disabled.png</code>	19	19
	Back button, enabled, dark windows	<code>dark/back_enabled.png</code>	19	19
	Back button, highlighted for keyboard input, dark windows	<code>dark/back_focus.png</code>	19	19
	Back button, hover, dark windows	<code>dark/back_hover.png</code>	19	19
	Forward button, active, dark windows	<code>dark/forward_active.png</code>	19	19
	Forward button, disabled, dark windows	<code>dark/forward_disabled.png</code>	19	19
	Forward button, highlighted for keyboard input, dark windows	<code>dark/forward_focus.png</code>	19	19
	Forward button, hover, dark windows	<code>dark/forward_hover.png</code>	19	19
	Filter button, off, dark windows	<code>dark/filterOff.png</code>	16	16
	Filter button, off, active, dark windows	<code>dark/filterOff_active.png</code>	16	16
	Filter button, off, highlighted for keyboard input, dark windows	<code>dark/filterOff_focus.png</code>	16	16
	Filter button, off, hover, dark windows	<code>dark/filterOff_hover.png</code>	16	16
	Filter button, on, dark windows	<code>dark/filterOn.png</code>	16	16
	Filter button, on, active, dark windows	<code>dark/filterOn_active.png</code>	16	16
	Filter button, on, highlighted for keyboard input, dark windows	<code>dark/filterOn_focus.png</code>	16	16

**Table 16** images/tableInator (continued)





Image	Description	File	Width	Height
	Filter button, on, hover, dark windows	dark/filterOn_hover.png	16	16
	Search button, dark windows	dark/searchIcon.png	13	13
	Sort button, ascending, dark windows	dark/sortAsc.png	11	11
	Sort button, ascending, disabled, dark windows	dark/sortAsc_disabled.png	11	11
	Sort button, descending, dark windows	dark/sortDesc.png	11	11
	Sort button, descending, disabled, dark windows	dark/sortDesc_disabled.png	11	11
	Back button, active, light windows	light/back_active.png	19	19
	Back button, disabled, light windows	light/back_disabled.png	19	19
	Back button, enabled, light windows	light/back_enabled.png	19	19
	Back button, highlighted for keyboard input, light windows	light/back_focus.png	19	19
	Back button, hover, light windows	light/back_hover.png	19	19
	Forward button, active, light windows	light/forward_active.png	19	19
	Forward button, disabled, light windows	light/forward_disabled.png	19	19
	Forward button, highlighted for keyboard input, light windows	light/forward_focus.png	19	19
	Forward button, hover, light windows	light/forward_hover.png	19	19
	Filter button, off, light windows	light/filterOff.png	16	16
	Filter button, off, active, light windows	light/filterOff_active.png	16	16
	Filter button, off, highlighted for keyboard input, light windows	light/filterOff_focus.png	16	16

**Table 16** images/tableInator (continued)

Image	Description	File	Width	Height
	Filter button, off, hover, light windows	light/filterOff_hover.png	16	16
	Filter button, on, light windows	light/filterOn.png	16	16
	Filter button, on, active, light windows	light/filterOn_active.png	16	16
	Filter button, on, highlighted for keyboard input, light windows	light/filterOn_focus.png	16	16
	Filter button, on, hover, light windows	light/filterOn_hover.png	16	16
	Search button, light windows	light/searchIcon.png	13	13
	Sort button, ascending, light windows	light/sortAsc.png	19	19
	Sort button, ascending, disabled, light windows	light/sortAsc_disabled.png	19	19
	Sort button, descending, light windows	light/sortDesc.png	19	19
	Sort button, descending, disabled, light windows	light/sortDesc_disabled.png	19	19

The graphics in the `images/events` subdirectory are used to indicate the severity of events. They appear in the footer and the Event Log.

**Table 17** images/events












Image	Description	File	Width	Height
	Informational event	info.png	15	15
	Warning event	warning.png	15	15
	Error event	error.png	15	15
	Critical event	critical.png	15	15

# Panels

## Home panel

The graphics in the `images/home` subdirectory are used in the home window to indicate components on the system.



**Table 18** `images/home`

Image	Description	File	Width	Height
	Host	<code>host.png</code>	32	32
	Host group	<code>hostGroup.png</code>	32	32
	Initiator	<code>initiator.png</code>	32	32
	FC port, active	<code>portFC_active.png</code>	30	20
	FC port, connected	<code>portFC_connected.png</code>	30	20
	FC port, disconnected	<code>portFC_disconnected.png</code>	22	20
	iSCSI port, active	<code>portISCSI_active.png</code>	22	20
	iSCSI port, connected	<code>portISCSI_connected.png</code>	22	20
	iSCSI port, disconnected	<code>portISCSI_disconnected.png</code>	22	20
	SAS port	<code>portsAS.png</code>	36	14
	SAS port, active	<code>portsAS_active.png</code>	36	14





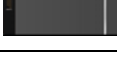
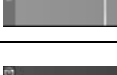
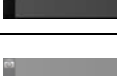
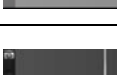






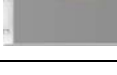
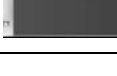


## System panel

The graphics in the `images/rack` subdirectory are used to illustrate an enclosure and its components. They appear in the System panel.

**Table 19** `images/rack`
















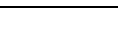


Image	Description	File	Width	Height
	Enclosure, D2x00	<code>d2x00_encl.png</code>	724	142
	Enclosure, D2x00, dim	<code>d2x00_encl_dim.png</code>	724	142

**Table 19** images/rack (continued)



















Image	Description	File	Width	Height
	Enclosure, front, D2x00	enclosure_front_d2x00.png	724	142
	Enclosure, front, D2x00, dim	enclosure_front_d2x00_dim.png	724	142
	Enclosure, front, DHS	enclosure_front_dhs.png	724	142
	Enclosure, front, DHS, dim	enclosure_front_dhs_dim.png	724	142
	Enclosure, front, DHS, 24-drive	enclosure_front_dhs24.png	724	142
	Enclosure, front, DHS, 24-drive, dim	enclosure_front_dhs24_dim.png	724	142
	Enclosure, front, HP	enclosure_front_hp.png	724	142
	Enclosure, front, HP, dim	enclosure_front_hp_dim.png	724	142
	Enclosure, front, HP, 24-drive	enclosure_front_hp24.png	724	142
	Enclosure, front, HP, 24-drive, dim	enclosure_front_hp24_dim.png	724	142
	Enclosure, front, MSA	enclosure_front_msa70.png	724	142
	Enclosure, front, MSA, dim	enclosure_front_msa70_dim.png	724	142
	Enclosure, rear	enclosure_rear_generic.png	724	142
	Enclosure, rear, dim	enclosure_rear_generic_dim.png	724	142
	Enclosure, rear, D2x00	enclosure_rear_d2x00.png	724	142
	Enclosure, rear, D2x00, dim	enclosure_rear_d2x00_dim.png	724	142
	Enclosure, rear, MSA	enclosure_rear_msa70.png	724	142
	Enclosure, rear, MSA, dim	enclosure_rear_msa70_dim.png	724	142











**Table 19** images/rack (continued)

Image	Description	File	Width	Height
	IOM	iom_generic.png	294	66
	IOM, dim	iom_generic_dim.png	294	66
	IOM, D2x00	d2x00_iom.png	267	54
	IOM, D2x00, dim	d2x00_iom_dim.png	267	54
	IOM, MSA	iom_msa70.png	121	117
	IOM, MSA, dim	iom_msa70_dim.png	121	117
	Disk LED, gif	diskLED.gif	7	7
	Disk LED, png	diskLED.png	7	7
	Disk LED, blue, gif	diskLEDBlu.gif	7	7
	Disk LED, blue, png	diskLEDBlu.png	7	7
	Disk LED, orange, gif	diskLEDOrg.gif	7	7
	Disk LED, orange, png	diskLEDOrg.png	7	7
	Drive, SFF, horizontal, DHS	drive_dhs_25_horz.png	130	26
	Drive, SFF, horizontal, DHS, dim	drive_dhs_25_horz_dim.png	130	26
	Drive, SFF, horizontal, HP	drive_hp_25_horz.png	130	26
	Drive, SFF, horizontal, HP, dim	drive_hp_25_horz_dim.png	130	26
	Drive, SFF, vertical, DHS	drive_dhs_25_vert.png	25	136
	Drive, SFF, vertical, DHS, dim	drive_dhs_25_vert_dim.png	25	136

**Table 19** images/rack (continued)

Image	Description	File	Width	Height
	Drive, SFF, vertical, HP	drive_hp_25_vert.png	25	136
	Drive, SFF, vertical, HP, dim	drive_hp_25_vert_dim.png	25	136
	Drive, LFF, horizontal, DHS	drive_dhs_35_horiz.png	162	42
	Drive, LFF, horizontal, DHS, dim	drive_dhs_35_horiz_dim.png	162	42
	Drive, LFF, horizontal, HP	drive_hp_35_horiz.png	162	42
	Drive, LFF, horizontal, HP, dim	drive_hp_35_horiz_dim.png	162	42
	FC port	fcport_generic.png	28	20
	FC port, dim	fcport_generic_dim.png	28	20
	iSCSI port	iscsiport_generic.png	22	20
	iSCSI port, dim	iscsiport_generic_dim.png	22	20
	Network port	netport_generic.png	22	20
	Network port, dim	netport_generic_dim.png	22	20
	SAS port	sasport_generic.png	36	14
	SAS port, dim	sasport_generic_dim.png	36	14
	SAS port	exp_sasport.png	36	14
	SAS port, dim	exp_sasport_dim.png	36	14
	SAS port, Neptune	exp_neptunesasport.png	40	18
	SAS port, Neptune, dim	exp_neptunesasport_dim.png	40	18



**Table 19** images/rack (continued)

Image	Description	File	Width	Height
	Fan, D2x00	d2x00_fan.png	97	97
	Fan, D2x00, dim	d2x00_fan_dim.png	97	97
	Fan, MSA	cooling_msa70.png	101	104
	Fan, MSA, dim	cooling_msa70_dim.png	101	104
	Power supply	ps_generic.png	186	134
	Power supply, dim	ps_generic_dim.png	186	134
	Power supply, D2x00	d2x00_ps.png	138	66
	Power supply, D2x00, dim	d2x00_ps_dim.png	138	66
	Power supply, MSA	ps_msa70.png	107	132
	Power supply, MSA, dim	ps_msa70_dim.png	107	132
	Pool A	poolA.png	19	19
	Pool B	poolB.png	19	19
	Pool spare	poolSpare.png	19	19










## Help window

The graphics in the `images/help` and the `images/tree` subdirectories are used in the pop-up help window.






**Table 20** images/help

Image	Description	File	Width	Height
	Help button, displays in the header	helpIcon.png	18	18
	Navigation button	helpNav.png	15	15



**Table 20** images/help (continued)

Image	Description	File	Width	Height
	Close	helpclose.png	15	15
	Pin	helppin-up.png	15	15
	Pinned	helppin-down.png	15	15
	Next button	helpnext.png	15	15
	Previous button	helpprev.png	15	15
	Left help divider	helpDividerLeft.gif	10	30
	Left help divider, hover	helpDividerLeftHover.gif	10	30
	Right help divider	helpDividerRight.gif	10	30
	Right help divider, hover	helpDividerRightHover.gif	10	30

**Table 21** images/tree

Image	Description	File	Width	Height
	Tree item	tree-item.png	16	22
	Collapse button	tv-collapsible.png	16	22
	Collapse button, last	tv-collapsible-last.png	16	22
	Expand button	tv-expandable.png	16	22
	Expand button, last	tv-expandable-last.png	16	22
	Item	tv-item.png	16	22

**Table 21** images/tree (continued)

<b>Image</b>	<b>Description</b>	<b>File</b>	<b>Width</b>	<b>Height</b>
	Item, last	tv-item-last.png	16	22
	Line	tv-vline.png	16	22

