**User Interface Specification**

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# Introduction

## Purpose and Scope

The purpose of this document is to define the look, feel and behavior of the user interface for the Vent Test System (VTS)

## References

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| --- |
| Controlled Documents |
|  |
|  |

## Definitions of Terms

|  |  |
| --- | --- |
|  |  |
|  |  |

## Representativeness of Images

The images used throughout this document are low fidelity wireframes intended to represent general layout and are included to serve as a visual reference only. The images are not intended to serve as requirements; just a general indication of the design direction.

# Overview

*Describe system behavior… non-blocking, asynchronous request/response interface with business logic layer*

# Screen Flow Overview

The following diagram shows a state machine that describes the workflow and screen progression of the application user interface. These states are not necessarily representative of individual screen presentations. The underlying business logic infrastructure is expected to manage the request / response to the Remote Service Agent.



# User Interface Frame Layout

The user interface will utilize a common design layout. Each section has a consistent purpose (independent of operational mode) but the actions or elements display in a section is dependent on the current mode of the UI.



## Command Bar

The command bar contains short cuts to actions which affect the operational mode of the user interface. Examples of this include log out, device type selection and options to select the current operational mode. The operational mode (view log, view release notes, software update) will only be active when the data to support this mode is cached locally and available to the application.

## Device Information

The frame contains information describing the device to which the application is current connected. This information includes a picture of the device, its model number, serial number and current hardware / firmware / software versions. There is also a notification window that will display when a newer / other versions of software are available for this device.

## Main Display

The main display area will be used to display the information associated with the different operational modes.

## Program Status

The program status bar has three sections. One section will display the device connected status. Another section will display any current operations between the application and the device (i.e., retrieving device logs). The final section will display any current operations between the application and the server’s agent (e.g., retrieving new software update).

# Storyboards

The following sections provide a low fidelity layout of the screens and the functionality associated with each screen.

## Login Screen

The login screen is the first screen to be displayed upon application launch.



|  |  |  |
| --- | --- | --- |
|  | Item | Notes |
| 1 | User Name | Text field |
| 2 | Password | Obfuscated text field |
| 3 | Log On Button | Button is active until pressed. When pressed it causes an authentication request to be sent to the agent and activates the Cancel button |
| 4 | Cancel Button | When pressed, it causes a cancel authentication command to be sent to the agent and reactivates the log on button. |

## Splash Screen

The splash screen is displayed for two seconds after a successful log in. After two seconds, the application will automatically transition to the next screen.



## Home Screen, Disconnected State

This is the main application screen in the disconnected state. While in this state the user can select a device to connect to and will received instructions on how to connect to the device.



|  |  |  |
| --- | --- | --- |
|  | Item | Notes |
| 1 | Device Model Selection | Drop down list containing the list of support devices. Selecting a device will cause the device status frame and the connection instructions to be changed to reflect the information for the selected device. |
| 2 | Log Out Button | The log out button (and the application termination button) will cause a confirmation pop-up to be displayed. Upon positive confirmation, the application will terminate. |
| 3 | Connect Button | Sends a command to the agent to connect to the device.   * The device communication status line will be updated to indicate that it is trying to connect to the device. * The Connect button will become the Disconnect button. * Selecting the Disconnect button will cancel the connection request. |
| 4 | Device Status Information | Display a picture of the device but the device status and software update panels are greyed out. |
| 5 | Connection Instructions | TBD |
| 6 | Connection Status text field | This will show “Disconnected” |

## Home Screen, Connected State



|  |  |  |
| --- | --- | --- |
|  | Item | Notes |
| 1 | Log Out Button | The log out button (and the application termination button) will cause a confirmation pop-up to be displayed. Upon positive confirmation, the application will terminate. |
| 2 | Software Update Button | These three buttons act in a similar fashion to radio buttons. Only one may be selected at a time. A button is only active if the information which supports it is cached on the local agent. |
| 3 | Release Notes Button |
| 4 | View Log Button |
| 5 | Disconnect Button | Sends a command to the agent to disconnect from the device. Causes the application to transition to the disconnected state. |
| 6 | Device Image | Displays an image of the connected device |
| 7 | Device Information | This panel contains information specific to the connected device (model number, serial number, software version) |
| 8 | Software Update Notification | This panel provides an indication of whether or not there is a newer version of software for the device available and cached on the local agent. |
| 9 | Status Bar | The status bar will show the connected state of the device and the state of requests to the device and server for information. |

### View Log



|  |  |  |
| --- | --- | --- |
|  | Item | Notes |
| 1 | Log Selection | This is a drop down used to select which device log (from the list of available logs) is to be displayed |
| 2 | Save to File Button | Selecting this button causes a “Save File” dialog to appear with the option to save the log in ASCII or binary format. |
| 3 | Post Button | Selecting this button causes the agent to initiate a transaction to transfer the log file to the Covidien server |
| 4 | Filter Display Button | Selecting this button causes a pop-up to be displayed with options of which event types to be displayed |
| 5 | Log Display Area | Displays the log events in a table format, one event per row |

### View Release Notes



The release notes will be displayed in a scrollable text window in the main display area. This would ideally be a plug-in PDF reader.

### Software Update

This screen is designed with the assumption that a user may wish to upgrade a device to a specific version of software (including rolling a device back to a previous version). Once a flash process begins, interrupting it would leave the device in an indeterminate state, therefore while flashing a device no other user actions will be permitted.



|  |  |  |
| --- | --- | --- |
|  | Item | Notes |
| 1 | Current Software Version | This text field displays the revision of the software currently on the device |
| 2 | Software Version Selection | This drop down list contains the software versions available for the device (and cached on the local agent). Selecting a software package will activate the flash button. |
| 3 | Flash Button | Selecting this button will issue a command to begin a software upgrade/flash process between the agent and device.  This will also cause a pop-up to be displayed which will prevent any further user action until the flash process completes. |