

## Appendix D: General Device Interface Certification Procedure

### 1. (Local Mode Only)

#### D.1 Scope

This test plan verifies all of the general screen-based portions of the automated tracking station graphical user interface (GUI) software. This test plan addresses only the local modes, therefore the GUI is to be tested in only the following control modes: Local Edit and Local Control/Monitor.

#### D.2 Environment

- Pentium processor or better
- Minimum 16 megabytes RAM
- Windows NT 4.0
- Hardware device to be tested

#### D.3 Resources

The following files need to reside in the same directory:

- Application executable (*DeviceSomething.exe*)
- Initialization file defined by APP\_INIT\_FILE in *DeviceSomething.h* (*DeviceSomething.ini*)
- Device configuration file defined by APP\_CONFIG\_FILE in *DeviceSomething.h* (*DeviceSomething.something*)
- Default device configuration file defined by APP\_DEFAULT\_FILE in *DeviceSomething.h* (*DeviceSomethingDefault.something*)
- Informational file defined by APP\_UPDATE\_FILE in *DeviceSomething.h* (*DeviceSomething.txt*)
- File defined by DEVICE\_HARDWARE\_SPECS\_FILE in *DeviceSomething.h* (*SomethingHardwareSpecs.txt*)
- Device status update file **WcDevDeviceMakeModel.status**
- Application help file (*DeviceSomething.hlp*)

The following files are also required:

- Support dynamic link libraries (*DeviceMakeModel.dll*)
- Applicable MFC dll's (i.e. **mfc42u.dll**), MSVC dll's (i.e. **msvcrt40.dll**)

#### D.4 Assumptions

- The tester is knowledgeable in the basics of Windows program operation including features such as pull-down menus, toolbars, and “drag and drop”.
- The GUI has been installed on the test computer.
- The device to be tested has been setup and correctly connected to the computer.

## **D.5 Procedures**

All menu items and toolbars will be tested in each applicable mode. Response of the device in Local/Control and Remote Control modes will be verified to the extent possible for the particular device. Any data calculations made, as part of the data entry, will be validated.

A checklist will be provided for every item of each mode to facilitate testing. Check the box for each item that passes. If any item fails, add a comment to the Comments Table at the end of this document. The comment should cross reference the item number that failed and give details about why the item failed the test.

The tester may also add any other comments to the comments table. If the comments pertain to a particular item then cross reference with the item number.

## Checklist

A check box precedes each of the following procedures. This check box is to be checked if and only if the test passes; i.e. the statement is true.

### D.6.1.0 Local Edit

- 1.1.0** The application initializes by double clicking on appropriate icon without any errors. No command line arguments expected.
- 1.2.0** The following menu options are available before a file is open: **File**, **View** and **Help**.
  - 1.2.1** The following **File** pull-down menu options are available: **New**, **Open**, **Print Setup** and **Exit**.
    - 1.2.1.1** Choose **Print Setup**. Visually inspect print options in the standard *Microsoft Print Setup* window.
      - 1.2.1.1.1** Click on **Cancel**.
  - 1.2.2** The following **View** pull-down menu options are available: **Toolbar** and **Status Bar**.
    - 1.2.2.1** Choose **Toolbar** (which is checked). Hides toolbar:



Toolbar

- 1.2.2.1.1** Choose **Toolbar** again. Displays toolbar.
  - 1.2.2.2** Choose **Status Bar** (which is checked). Hides status bar:  

- 1.2.2.2.1** Choose **Status Bar** again. Displays status bar.
- 1.2.3** The following **Help** pull-down menu options are available: **Contents**, **Using Help**, **About...** and **Device Hardware Specifications**.
  - 1.2.3.1** Choose **Contents**. Opens device specific on-line help file.
    - 1.2.3.1.1** Choose **Exit** from the **File** menu or standard *Microsoft* close (**X**) button in the upper right-hand corner of the *Help* window.
  - 1.2.3.2** Choose **Using Help**. Opens general *Microsoft* on-line help file.
    - 1.2.3.2.1** Click on **Cancel** or standard *Microsoft* close (**X**) button in the upper right-hand corner of the *Help Topics: Windows Help* window.
  - 1.2.3.3** Choose **About**. Displays window containing application icon, application name, version number and last modification date.



#### Device Specifications tool button

1.4.0 Open a new file without error by choosing the following menu option:

- ❑ 1.4.1 **New** – A set of windows displays containing default parameters for the device.
  - ❑ 1.4.1.1 When the standard *Microsoft* close (**X**) button in upper right-hand corner of each of these windows is clicked, the window does not close, but is minimized.
  - ❑ 1.4.1.2 For each window closed in the above step, restore it to the open state by double-clicking on the title bar or clicking on the first of three buttons on the right-hand side of the title bar of the minimized window.
  - ❑ 1.4.1.3 Move a few windows by right-clicking on the title bar of the window holding the mouse down and dragging it. Do not restore window position.
  - ❑ 1.4.1.4 Resize a few windows by positioning the cursor over an edge of the window, right-clicking on the mouse, holding it down and dragging it. Do not restore window size.
- ❑ The following **File** options are now among those available after a file is open: **Print** and **Print Preview**.
  - ❑ 1.4.2 Choose **Print Preview**. Displays current GUI parameters/settings in a standard text viewer.
    - ❑ 1.4.2.1 Click on **Close**.
  - ❑ 1.4.3 Choose **Print**. Displays the standard *Microsoft Print* window, which allows user to make print choices.
    - ❑ 1.4.3.1 Click on **OK**. Prints parameters currently displayed in GUI.
- ❑ 1.5.0 The following **Window** menu options are available after a file is open: **Cascade**, **Tile**, **Arrange Icons**, Window #1 (i.e. **Settings**), Window #2, #3, etc. (i.e. **Control**, **Status**). The number of “Windows” should coincide with the number of windows open not including the main window of the application itself.

**Note:** Minimize the “bottom” window for the next two steps.

- ❑ 1.5.1 Choose **Cascade** – Arranges windows not minimized in cascading pattern within GUI.
- ❑ 1.5.2 Choose **Tile** – Arranges windows not minimized in tiled pattern within GUI.

**Note:** Minimize another window for the next step. Move the minimized windows to different locations by right-clicking on the title bars, holding the mouse down and dragging each.

- ❑ 1.5.3 Choose **Arrange Icons** – Arranges windows minimized on bottom of GUI.

**Note:** Open all minimized windows and choose **Cascade**.

- ❑ 1.5.4 Choose Window #1 (i.e. **Settings**), if applicable: \_\_\_\_\_ (write window name) – Brings window #1 to foreground or “on top” of others.

- ❑ **1.5.5** Choose Window #2 (i.e. **Control**), if applicable: \_\_\_\_\_ (write window name) – Brings window #2 to foreground or “on top” of others.
- ❑ **1.5.6** Choose Window #3 (i.e. **Status**), if applicable: \_\_\_\_\_ (write window name) – Brings window #3 to foreground or “on top” of others.
- ❑ **1.5.7** Choose Window #4, if applicable: \_\_\_\_\_ (write window name) – Brings window #4 to foreground or “on top” of others.
- ❑ **1.5.8** Choose Window #5, if applicable: \_\_\_\_\_ (write window name) – Brings window #5 to foreground or “on top” of others.
- ❑ **1.5.9** Choose Window #6, if applicable: \_\_\_\_\_ (write window name) – Brings window #6 to foreground or “on top” of others.
- ❑ **1.5.10** Choose Window #7, if applicable: \_\_\_\_\_ (write window name) – Brings window #7 to foreground or “on top” of others.

**1.6.0** Specific controls – For *specific* functionality that should be provided in a particular GUI, see the requirements document for the specific device being controlled. In some cases, controls are dependent on other controls; i.e. controls may not be enabled until another control is chosen. Again, see the requirements document. The following are the *possible* controls available, and *in general*, should operate in the following manner by clicking the mouse on them:

**Note:** You may need to maximize each window and/or the main application window or use the scroll bar(s) in order to view all of the controls. Choose the second (middle) button in the right -hand side of the title bar of the window.

- ❑ **1.6.1 Apply Now** (if applicable) – In the **Settings, Control** or similar window(s) this pushbutton is disabled/grayed.



**Disabled Apply Now button**

- ❑ **1.6.1a Load New** (if applicable) – In the **Control** or similar window(s) this pushbutton is disabled/grayed.



**Disabled Load New Button**

- ❑ **1.6.2 Reset** (if applicable) – In the **Settings, Control** or similar window(s) this pushbutton is disabled/grayed.



**Disabled Reset button**

- ❑ **1.6.3 Switch** (if applicable) – In the **Settings, Control** or similar window(s) this button is disabled/grayed:



**Disabled Switch**

- ❑ **1.6.4** Edit box (if applicable) – In the **Settings, Control** or similar window(s) this control is enabled unless it is dependent on another selection.



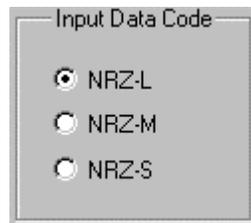
**Edit box**

- ❑ **1.6.4.1** Spin (Up/down) control (if applicable) – Used with some edit boxes, this control is enabled with its associated edit box.



**Spin control**

- ❑ **1.6.4.1.1** When the up-arrow portion of the spin control is clicked the parameter in the associated edit box increments. To change the digit incrementing, highlight the digit and click the left mouse button.
  - ❑ **1.6.4.1.2** When the down-arrow portion of the spin control is clicked the parameter in the associated edit box decrements. To change the digit decrementing, highlight the digit and click the left mouse button.
- ❑ **1.6.5.** Radio buttons (if applicable) – In the **Settings, Control** or similar window(s) these controls are enabled unless it is dependent on another selection.



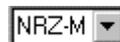
**Radio button group**

- ❑ **1.6.5.1** When a radio button is selected/clicked, the other radio buttons in that group are de-selected.
- ❑ **1.6.6** Check box (if applicable) – In the **Settings, Control** or similar window(s) this control is enabled unless it is dependent on another selection.



**Check box**

- ❑ **1.6.7** Combo box (if applicable) – In the **Settings, Control** or similar window(s) this control is enabled unless it is dependent on another selection.



**Combo box**

- ❑ **1.6.7.1** Click on down-arrow and the combo box should open with a selectable list:



### Open Combo box

**Note:** In general, the user should not be able to type data into a combo box.

- ❑ **1.6.8 Keyboard control** – Use the **Tab** key to change control selection in the **Settings, Control** or similar window(s). Selections should change in a general top -to-bottom, left-to-right pattern.
- ❑ **1.6.9 Status** (if applicable) – In the **Status** window(s) parameters do not update/change.
- ❑ **1.6.10 Status light** (if applicable) – In the **Status, Control** or similar window(s) this bitmap is gray:



Disabled Status Light

- ❑ **1.7.0** The following tool buttons are among those available after a file is open: **Print, Print Preview, Cascade, Tile, Window #1** (i.e. **Settings**), **Window #2, #3, etc.** (i.e. **Control, Status**).



Tool buttons

- ❑ **1.7.1** Each tool button has an appropriate Tool Tip displayed when cursor is positioned over button: **Print Preview, Print, Cascade, Tile, Window #1** (i.e. **Settings**), **Window #2, #3, etc.** (i.e. **Control, Status**)
- ❑ **1.7.2** Click on **Print Preview** – Displays current GUI parameters/settings in a standard text viewer.



Print Preview tool button

- ❑ **1.7.2.1** Click on **Close**.
- ❑ **1.7.3** Click on **Print** – Displays standard *Microsoft Print* window, which allows user to make print choices.



Print tool button

- ❑ **1.7.3.1** Click on **Cancel**.

**Note:** Minimize one window and move and resize a few of the open windows for the next steps.

- ❑ **1.7.4** Click on **Cascade** – Arranges windows not minimized in cascading pattern within GUI.



Cascade tool button

- ❑ **1.7.5** Click on **Tile** – Arranges windows not minimized in tiled pattern within GUI.



Tile tool button

**Note:** Open all minimized windows and choose **Cascade** for the next steps.

- 1.7.6** Click on Window #1 (i.e. **Settings**), if applicable: \_\_\_\_\_ (write window name) – Brings window #1 to foreground or “on top” of others.



**Settings tool button**

- 1.7.7** Click on Window #2 (i.e. **Control**), if applicable: \_\_\_\_\_ (write window name) – Brings window #2 to foreground or “on top” of others.



**Control tool button**

- 1.7.8** Click on Window #3 (i.e. **Status**), if applicable: \_\_\_\_\_ (write window name) – Brings window #3 to foreground or “on top” of others.



**Status tool button**

- 1.7.9** Click on Window #4, if applicable: \_\_\_\_\_ (write window name) – Brings window #4 to foreground or “on top” of others.
- 1.7.10** Click on Window #5, if applicable: \_\_\_\_\_ (write window name) – Brings window #5 to foreground or “on top” of others.
- 1.7.11** Click on Window #6, if applicable: \_\_\_\_\_ (write window name) – Brings window #6 to foreground or “on top” of others.
- 1.7.12** Click on Window #7, if applicable: \_\_\_\_\_ (write window name) – Brings window #7 to foreground or “on top” of others.
- 1.8.0** The following **File** options are among those available after a file is open: **Save** and **Save As**.

- 1.8.1 Save** – Make a change to one of the parameters in the **Settings** (or similar) window and make a note of that change below. Choose **Save**. User will be prompted to save file to a new name in a **SaveAs** dialog box since the file was opened as **New**.

Parameter: \_\_\_\_\_ Changed to: \_\_\_\_\_

- 1.8.1.1** Click on **Cancel**.
- 1.8.2** Choose **Save As** – Save a new local configuration file by entering “**Test**” in dialog displayed. The file extension (i.e. \*. *bsz*) will automatically be added to the name of the file.
  - 1.8.2.1** Click on **Save**.
  - 1.8.2.2** If message asks to overwrite an existing file, answer **Yes**.
- 1.9.0** The following **File** option is now among those available after a file is open: **Close**.
  - 1.9.1** Choose **Close** – Closes open file. User may be asked to save open or new file (see above).

- ❑ **1.10.0** The following **File** option is now among those available: **Open**.
  - ❑ **1.10.1** Choose **Open** – Opens local configuration file. Choose “**Test.xxx**” (i.e. Test.bsz) from window. You may have to scroll until the file is visible. The same set of windows displays as when a new file was open in step **1.4.1 (New)**.
    - ❑ **1.10.1.1** Check parameter changed in step **1.8.1 (Save)** and make sure it is what was saved.

- ❑ **1.11.0** The following tool buttons are now among those available: **Save** and **Save As**.
  - ❑ **1.11.1 Save** – Make a change to another parameter (different from step **1.8.1**) in **Settings** (or similar) window and make a note of that change.

Parameter: \_\_\_\_\_ Changed to: \_\_\_\_\_

- ❑ **1.11.1.1** Click on **Save** tool button to save file.



**Save tool button**

- ❑ **1.11.1.1.1** If message asks to overwrite an existing file, answer **Yes**.

- ❑ **1.11.2** Click on **Open** tool button.



**Open tool button**

- ❑ **1.11.3** Repeat step **1.10.1.1**.

- ❑ **1.12.0** The following tool button is now among those available: **Close**.



**Close tool button**

- ❑ **1.12.1** Click on **Close** – Closes open file. User may be asked to save open or new file (see step **1.8.2.1**).

- ❑ **1.12.1.1** If message asks to overwrite an existing file, answer **Yes**.

- ❑ **1.13.0** The following menu option is available: **Exit**.

- ❑ **1.13.1** Choose **Exit** – Terminates application. User may be asked to save open or new file (see step **1.8.2.1**), answer **No**.

**Note:** At this point, the GUI has been completely checked in Local Edit.

## **D.7.2.0 Local Control/Monitor**

**Note:** Before proceeding with this section, locate the device being controlled by the GUI and make sure it is on.

- ❑ **2.1.0** The application initializes by double clicking on appropriate icon without any errors. (The command line arguments are already provided in the icon's properties.)
- ❑ **2.2.0** The following menu options are available: **File, View, Window, and Help.**
  - ❑ **2.2.1** The following **File** pull-down menu options are among those available: **Print Preview, Print, Print Setup** and **Exit.**
    - ❑ **2.2.1.1 Print Preview** – Displays parameters currently in GUI in a text viewer.
      - ❑ **2.2.1.1.1** Click on **Close.**
    - ❑ **2.2.1.2 Print Setup** – Visually inspect print options in the standard *Microsoft Print Setup* window.
      - ❑ **2.2.1.2.1** Click on **Cancel.**
    - ❑ **2.2.1.3 Print** – Displays the standard *Microsoft Print* window, which allows user to make print choices.
      - ❑ **2.2.1.3.1** Click on **OK** – Prints parameters currently displayed in GUI.
  - ❑ **2.2.2** The following **View** pull-down menu options are available: **Toolbar** and **Status Bar.**
    - ❑ **2.2.2.1 Toolbar** – Choose **Toolbar** (which is checked). Hides toolbar.



**Toolbar**

- ❑ **2.2.2.1.1** Choose **Toolbar** again. Displays toolbar.
- ❑ **2.2.2.2 Status Bar** – Choose **StatusBar** (which is checked). Hides status bar.



**Status Bar**

- ❑ **2.2.2.2.1** Choose **StatusBar** again. Displays status bar.
- ❑ **2.2.3** A set of windows is displayed containing parameters from the device. This can be verified by checking the front panel of the device with those in the GUI.
  - ❑ **2.2.3.1** When the standard *Microsoft* close (**X**) button in upper right-hand corner of each of these windows is clicked, the window does not close, but is minimized.
  - ❑ **2.2.3.2** For each window closed in the above step, restore it to the open state by double-clicking on the title bar or clicking on the first of three buttons on the right-hand side of the title bar of the minimized window.
  - ❑ **2.2.3.3** Move a few windows by right-clicking on the title bar of the window holding the mouse down and dragging it. Do not restore window position.

- **2.2.3.4** Resize a few windows by positioning the cursor over an edge of the window, right-clicking on the mouse, holding it down and dragging it. Do not restore window size.
- **2.2.4** The following **Window** pull-down menu options are available: **Cascade, Tile, Arrange Icons, Window #1** (i.e. **Settings**), **Window #2, #3, etc.** (i.e. **Control, Status**)

**Note:** Minimize the “bottom” window for the next two steps.

- **2.2.4.1 Cascade** – Arranges windows not minimized in cascading pattern within GUI.
      - **2.2.4.2 Tile** – Arranges windows not minimized in tiled pattern within GUI.

**Note:** Minimize another window for the next step. Move the minimized windows to different locations by right-clicking on the title bars, holding the mouse down and dragging each.

- **2.2.4.3 Arrange Icons** – Arranges windows minimized on bottom of GUI.

**Note:** Open all minimized windows and choose **Cascade** for the next steps.

- **2.2.4.4** Window #1 (i.e. **Settings**), if applicable: \_\_\_\_\_ (write window name) – Brings window #1 to foreground or “on top” of others.
        - **2.2.4.5** Window #2 (i.e. **Control**), if applicable: \_\_\_\_\_ (write window name) – Brings window #2 to foreground or “on top” of others.
        - **2.2.4.6** Window #3 (i.e. **Status**), if applicable: \_\_\_\_\_ (write window name) – Brings window #3 to foreground or “on top” of others.
        - **2.2.4.7** Window #4, if applicable: \_\_\_\_\_ (write window name) – Brings window #4 to foreground or “on top” of others.
        - **2.2.4.8** Window #5, if applicable: \_\_\_\_\_ (write window name) – Brings window #5 to foreground or “on top” of others.
        - **2.2.4.9** Window #6, if applicable: \_\_\_\_\_ (write window name) – Brings window #6 to foreground or “on top” of others.
        - **2.2.4.10** Window #7, if applicable: \_\_\_\_\_ (write window name) – Brings window #7 to foreground or “on top” of others.
- **2.2.5** The following **Help** pull-down menu options are available: **Contents, Using Help, About...** and **Device Specifications**.
  - **2.2.5.1 Contents** – Opens device specific on-line help file.
    - **2.2.5.1.1 Exit** from the **File** menu or standard *Microsoft* close (**X**) button in the upper right-hand corner of the *Help* window
  - **2.2.5.2 Using Help** – Opens general on-line help file .
    - **2.2.5.2.1** Click on **Cancel** or standard *Microsoft* close (**X**) button in the upper right-hand corner of the *Help Topics: Windows Help* window.

- ❑ **2.2.5.3 About** – Displays informational dialog box containing application icon, application name, version number and last modification date.
  - ❑ **2.2.5.3.1 What's New** – Displays informational text file in *Notepad*. Text file should describe application and its recent modifications.
    - ❑ **2.2.5.3.1.1 Exit** from the **File** menu or standard *Microsoft* close (X) button in the upper right-hand corner of the *Notepad* window.
- ❑ **2.2.5.4 Device Hardware Specifications** – Displays informational text file in *Notepad*.
  - ❑ **2.2.5.4.1 Exit** from the **File** menu or standard *Microsoft* close (X) button in the upper right-hand corner of the *Notepad* window.
- ❑ **2.3.0** The following tool buttons are among those available: **Print Preview, Print, Cascade, Tile, Window #1** (i.e. **Settings**), **Window #2, #3, etc.** (i.e. **Control, Status**), **Device Specifications**. The last button below is an example and there will be only one for each GUI. The number represents which device is being controlled.



Tool buttons

- ❑ **2.3.1** Each tool button has an appropriate Tool Tip displayed when cursor is positioned over button: **Print Preview, Print, Cascade, Tile, Window #1** (i.e. **Settings**), **Window #2, #3, etc.** (i.e. **Control, Status**)
- ❑ **2.3.2 Print Preview** – Displays open file in a text viewer as currently displayed in graphical user interface (GUI).



Print Preview tool button

- ❑ **2.3.2.1** Click on **Close**.
- ❑ **2.3.3 Print** – Prints open file by making choices in displayed a dialog.



Print tool button

- ❑ **2.3.3.1** Click on **Cancel**.

**Note:** Minimize one window and move and resize a few of the open windows for the next steps.

- ❑ **2.3.4 Cascade** – Arranges windows not minimized in cascading pattern within GUI.



Cascade tool button

- ❑ **2.3.5 Tile** – Arranges windows not minimized in tiled pattern within GUI.



Tile tool button

**Note:** Open all minimized windows and choose **Cascade** for the next steps.

- ❑ **2.3.6** Window #1 (i.e. **Settings**), if applicable: \_\_\_\_\_ (write window name) – Brings window #1 to foreground or “on top” of others.



**Settings tool button**

- ❑ **2.3.7** Window #2 (i.e. **Control**), if applicable: \_\_\_\_\_ (write window name) – Brings window #2 to foreground or “on top” of others.



**Control tool button**

- ❑ **2.3.8** Window #3 (i.e. **Status**), if applicable: \_\_\_\_\_ (write window name) – Brings window #3 to foreground or “on top” of others.



**Status tool button**

- ❑ **2.3.9** Window #4, if applicable: \_\_\_\_\_ (write window name) – Brings window #4 to foreground or “on top” of others.

- ❑ **2.3.10** Window #5, if applicable: \_\_\_\_\_ (write window name) – Brings window #5 to foreground or “on top” of others.

- ❑ **2.3.11** Window #6, if applicable: \_\_\_\_\_ (write window name) – Brings window #6 to foreground or “on top” of others.

- ❑ **2.3.12** Window #7, if applicable: \_\_\_\_\_ (write window name) – Brings window #7 to foreground or “on top” of others.

- ❑ **2.3.13 Device Specifications** – Displays informational text file in a text viewer. (The button below is an example.)



**Device Specifications tool button**

**2.4.0** Specific controls – For specific functionality that should be provided in a particular GUI, see the requirements document for the specific device being controlled. In some cases, controls are dependent on other controls; i.e. controls may not be enabled until another control is chosen. Again, see the requirements document. The following are the *possible* controls available, and *in general*, should operate in the following manner by clicking the mouse on them:

**Note:** Make sure the status bar is displayed (see steps **2.2.2.2** and **2.2.2.1**).

- ❑ **2.4.1 Apply Now** (if applicable) – In the **Settings**, **Control** or similar window(s) this pushbutton is enabled.



**Enabled Apply Now button**

- ❑ **2.4.1.1** Click on **Apply Now** (if applicable) – A busy cursor appears on the screen and the status bar will indicate that changes to parameters in the **Settings** (or similar) window are being sent to device.

- ❑ **2.4.1a Load New** (if applicable) – In the **Settings, Control** or similar window(s) this pushbutton is enabled.



Enabled Load New button

- ❑ **2.4.2 Reset** (if applicable) – In the **Settings, Control** or similar window(s) this pushbutton is enabled.



Enabled Reset button

- ❑ **2.4.2.1** Click on **Reset** (if applicable) – A busy cursor appears on the screen and the status bar will indicate that a reset command is being sent to device.
- ❑ **2.4.3 Switch** (if applicable) – In the **Settings, Control** or similar window(s) this switch is enabled (i.e. not grayed out and may be **Off**).



Enabled Switch

- ❑ **2.4.3.1** Click switch (if applicable) – It changes from up (**On**) to down (**Off**) or vice-versa. In some instances, a busy cursor appears on the screen and the status bar will indicate that an on/off command is being sent to device.
- ❑ **2.4.4 Edit box** (if applicable) – In the **Settings, Control** or similar window(s) this control is enabled unless it is dependent on another selection.



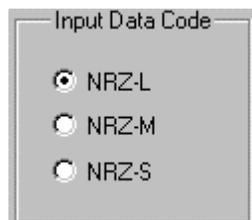
Edit box

- ❑ **2.4.4.1 Spin (Up/down) control** (if applicable) – Used with some edit boxes, this control is enabled with its associated edit box.



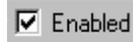
Spin control

- ❑ **2.4.4.1.1** When the up-arrow portion of the spin control is clicked the parameter in the associated edit box increments. To change the digit incrementing, highlight the digit and click the left mouse button.
- ❑ **2.4.4.1.2** When the down-arrow portion of the spin control is clicked the parameter in the associated edit box decrements. To change the digit decrementing, highlight the digit and click the left mouse button.
- ❑ **2.4.5. Radio buttons** (if applicable) – In the **Settings, Control** or similar window(s) these controls are enabled unless it is dependent on another selection.



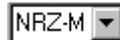
#### Radio button group

- ❑ **2.4.5.1** When a radio button is selected/clicked, the other radio buttons in that group are de-selected.
- ❑ **2.4.6** Check boxes (if applicable) – In the **Settings, Control** or similar window(s) this control is enabled unless it is dependent on another selection.



#### Check box

- ❑ **2.4.7** Combo box (if applicable) – In the **Settings, Control** or similar window(s) this control is enabled unless it is dependent on another selection.



#### Combo box

- ❑ **2.4.7.1** Click on down-arrow and the combo box should open with a selectable list. The user should not be able to enter data in the box:



#### Open Combo box

**Note:** In general, the user should not be able to type data into a combo box.

- ❑ **2.4.8** Keyboard control – Use the **Tab** key to change control selection in the **Settings, Control** or similar window(s). Selections should change in a general top-to-bottom, left-to-right pattern.
- ❑ **2.4.9** **Status** window(s) parameters may update/change periodically. If not now, resize the **Status** window so that all the parameters are visible. Then resize the **Settings, Control** or similar window(s) and change a parameter that is also displayed in the **Status** window. Click the **Apply Now** button and it should change in the **Status** window.
- ❑ **2.4.10** Status light (if applicable) – In the **Status, Control** or similar window(s) this is green or red:



#### Status Lights

- ❑ **2.5.0** The following **File** option is among those available: **Save**
  - ❑ **2.5.1** **Save** – Make a change to one of the parameters in the **Settings** (or similar) window. Choose **Save**. User will be prompted to save file to a new name in a **SaveAs** dialog box.
    - ❑ **2.5.1.1** Click on **Cancel**.
- ❑ **2.6.0** The following **File** option is among those available: **Close**.
  - ❑ **2.6.1** **Close** – Closes open file and, in this mode, also terminates application. User may be asked to save file (see above).
- ❑ **2.7.0** Repeat step **2.1.0**.

- **2.8.0** The following tool button is among those available: **Save As**.
- **2.8.1 Save As** – Make a change to one of the parameters in the **Settings** (or similar) window and make a note of that change.
- **2.8.2** Click on **Save As** tool button.



**Save As tool button**

Parameter: \_\_\_\_\_ Changed to: \_\_\_\_\_

- **2.8.2.1** Enter “**Test**” for file name in window and click **Save**.
- **2.8.1.1** If message asks to overwrite an existing file, answer **Yes**.
- **2.9.0** The following **File** option is among those available: **Exit**.
- **2.9.1** Choose **Exit** – Terminates application. User may be asked to save file (see above).
- **2.10.0** Check if parameter was actually saved. Repeat step **1.1.0 (Local Edit)**.
- **2.10.1** Repeat step **1.10.1 (Open a saved file.)**.
- **2.10.2** Check parameter changed in step **2.8.1 (Save As)** and make sure it is what was saved.
- **2.11.1 Exit** application. Repeat step **2.9.1**.

**Note:** The GUI has now been completely checked in Local Control. This concludes the procedure.