



SmaRT Connect

Configuration Tool for Base Units

User Guide

DN: G003.1-SmaRT_Connect-I


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Notes and Definitions

Association

SmaRT Method of configuration using a series of specific remote unit button presses to establish a communication link between a SmaRT Handheld and a SmaRT Base Unit.

DSSS

Direct Sequence Spread Spectrum; an advanced wireless communication technology.

Disassociation

Dissolution of all established communication links between handhelds and a base unit.

FET

Field Effect Transistor: Type of transistor that relies on an electric field to control the conductivity of the device.

IP65

IEC (International Electrotechnical Commission) rating that classifies the level of protection provided by an enclosure.

IP (international protection)

6 (dust tight)

5 (water jetted from any direction on the enclosure shall have no harmful effects)

PTO

Push to Operate: Command broadcast only while a button is depressed. Once the button is released, the command ends.

PTO-906

Remote handheld unit that can control a six output base unit.

SmaRT 90N Remote Control System

SmaRT system consisting of one SmaRT Base Unit and from one to eight SmaRT remote control units. The system operates in the 900MHz range and has N (some defined) number of outputs.

For instance, a SmaRT 906 Remote Control System operates in the 900MHz range, and a maximum of six outputs can be controlled by the remote.

Line of Sight (aka Direct-Line-of-Sight)

Type of communication between transceivers, or a transmitter and a receiver, where the pathway between the two units must be clear of obstacles.

TX

Transmit

RX

Receive

1.0 Program Installation SmaRTConnect_install.exe

1. Locate the installation program SmartConnect_install.exe. The program can be run from a network directory (folder), or if you prefer you can copy **SmartConnect_install.exe** to your local PC or Laptop.
2. Invoke the program (double-click). You are asked to agree to the EULA. Click the **I Agree** button shown in Figure 1.

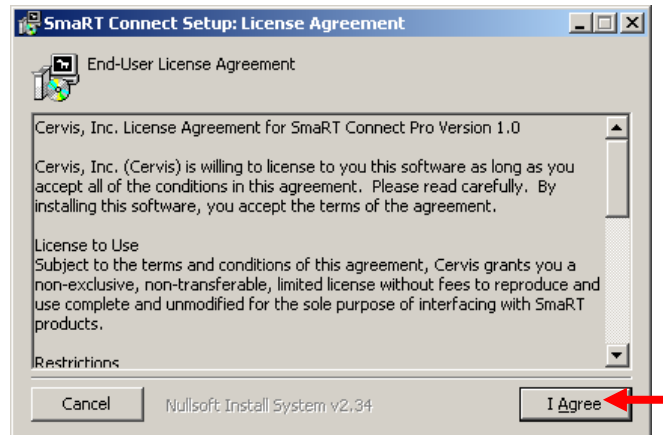


Figure 1

3. Click the **Install** button shown in Figure 2. The program default location is shown below in the *Destination Folder* field. (You can click the **Browse...** button and choose a different directory in which to locate the program if you do not want the default location.) Click the **Install** button. A *Completed* dialog almost instantaneously displays as shown. Click the **Close** button on the *Completed* dialog box.

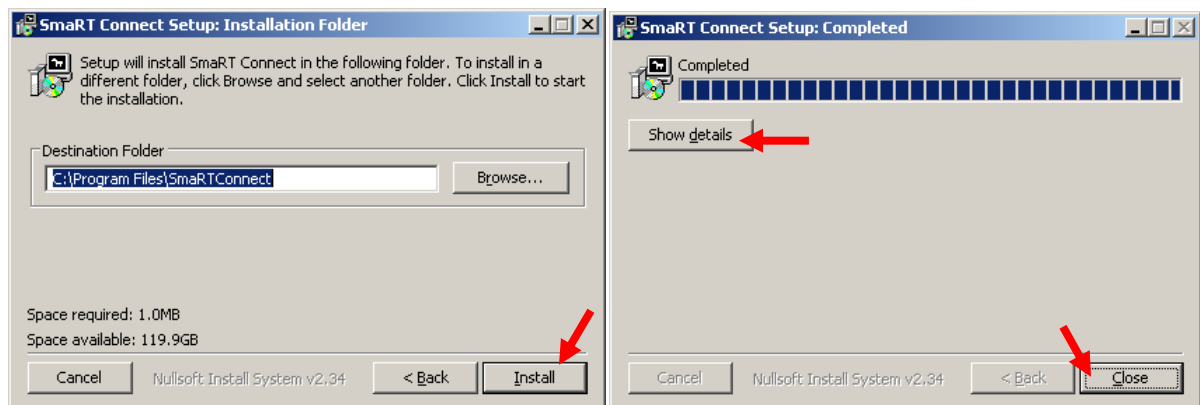
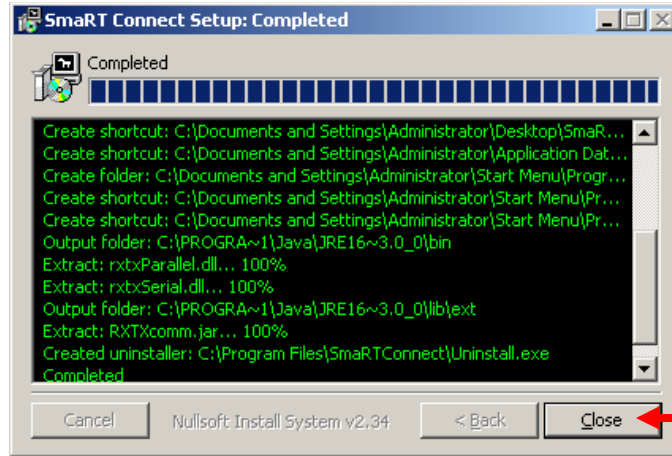


Figure 2

Note: You can click the *Show details* button in Figure 2 if desired. The following dialog box displays showing the installation details. Click the *Close* button when done.



A SmaRT Connect shortcut is placed on your Desktop and one is placed in your Quick Launch (if active).

4. Double-click the desktop SmaRT Connect shortcut to invoke the program. The following splash screen is briefly displayed followed shortly thereafter by the program window also shown in Figure 3 below:

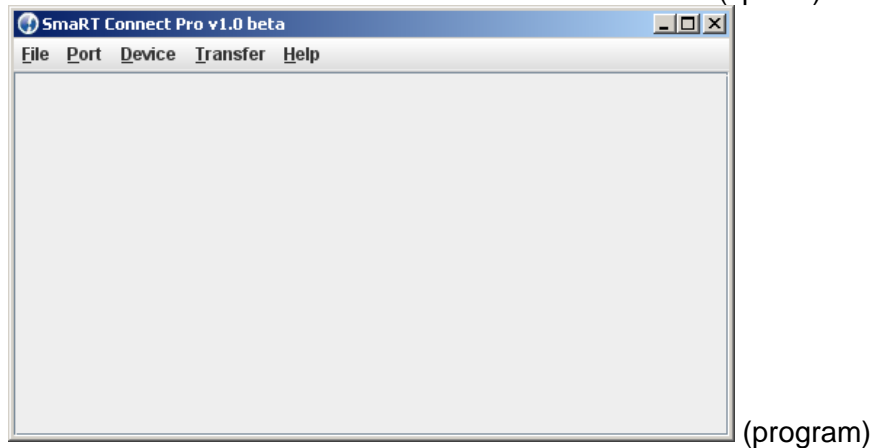


Figure 3

2.0 COM Port Selection

Note: You must have an external USB → DB9 converter.

Note: You may want to check which COM ports are currently in use prior to connecting your communication cable and powered Base Unit. You can then connect the BU communication cable and check to see which COM port is added to determine which should be used with the configuration tool in case multiple port options are presented to you when the Port menu (Step 6) is opened.

1. From the **Start Menu** right-click My Computer; the menu in Figure 4 displays.

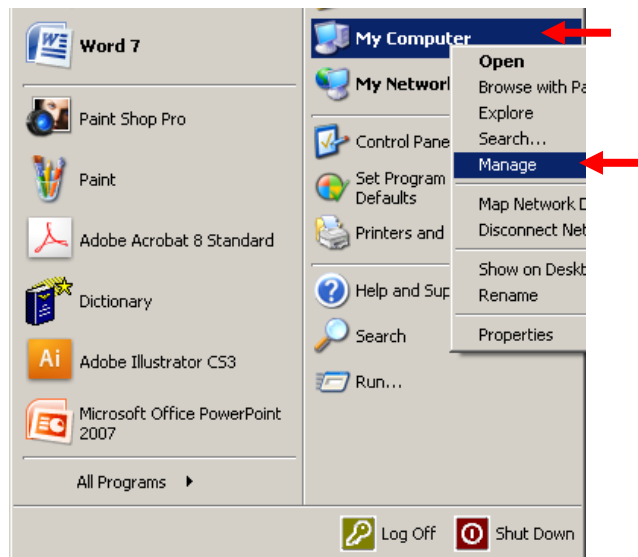


Figure 4

2. Click **Manage**. The **Computer Management** screen shown in Figure 5 displays.

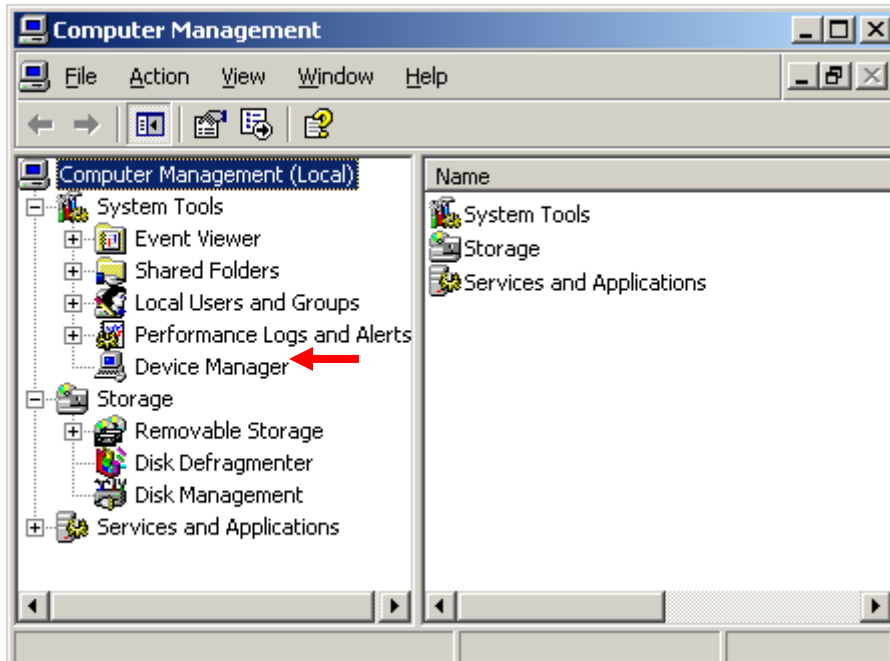


Figure 5

3. Click **Device Manager**. A Computer Management screen similar to that in Figure 6 displays. Click the plus sign in front of Ports. In this case, COM1 is the only port shown.

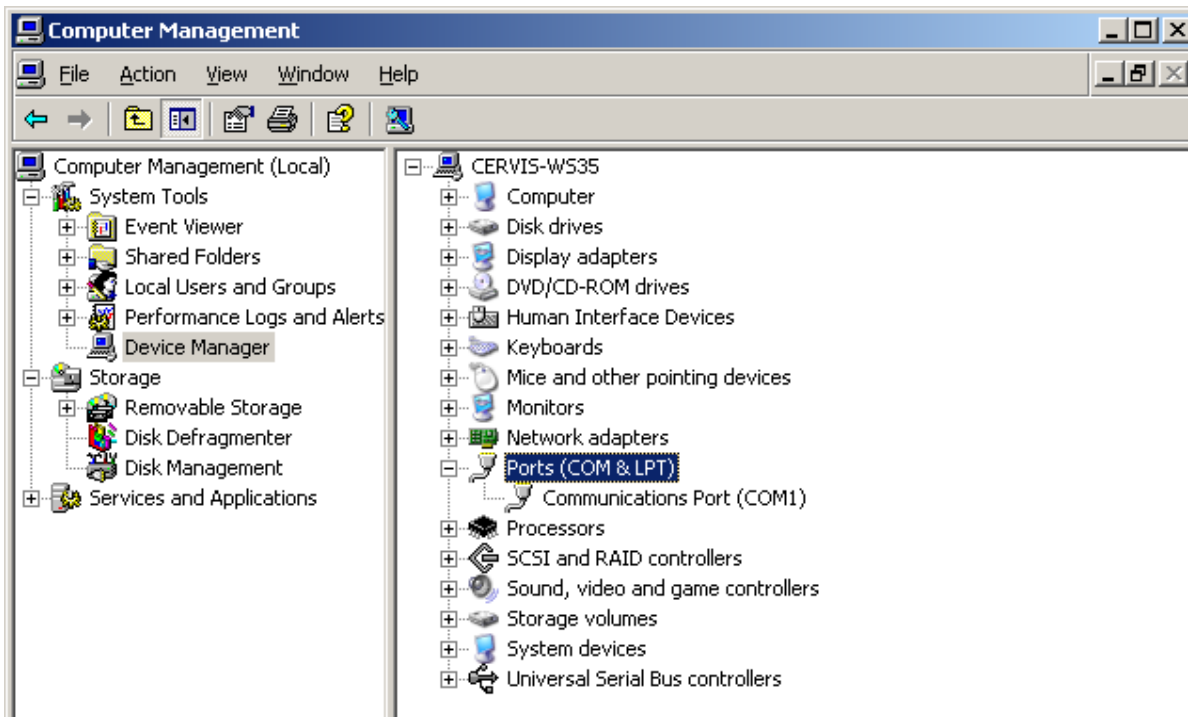


Figure 6

4. Power up the base unit and plug the cable into the computer.

5. Double-click the SmaRT Connect shortcut. The **Main console window** displays as shown in Figure 7.

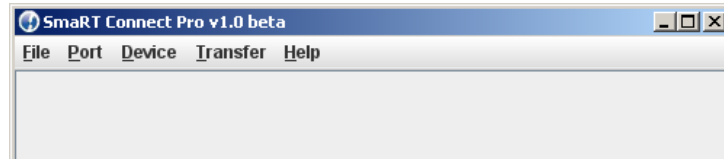


Figure 7

6. Click on the Port Menu. The display changes as shown in Figure 8. Notice in this case only one port option is presented. Click on the option that suits your needs. The screen displays your choice as shown in Figure 9.

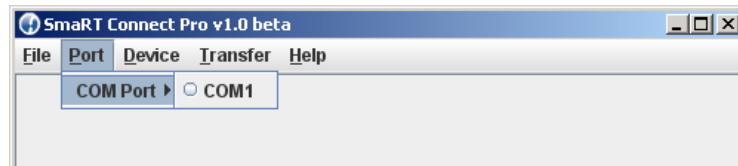


Figure 8

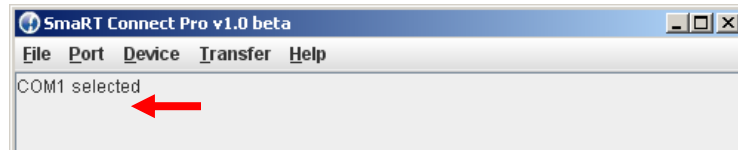


Figure 9

3.0 Select File

1. Click the File **Menu** → **Select application file**. The Select File dialog box shown in Figure 10 displays. The configuration file will be located in some yet to be determined default file location, and that location will be displayed in the second line of the Smart Connect screen beneath the Port information (Figure 9, red arrow).

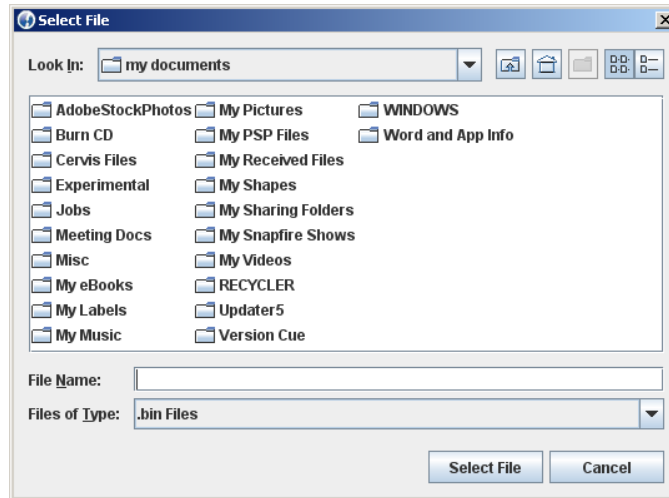


Figure 10

2. After selecting the file, click **Transfer** → **Send file...**. This attempts to send the file through the selected COM port to the base unit displaying the screens shown in Figure 11, one at a time. Notice that the information on the screen work space updates. When the Message pop-up appears, click the **OK** button.

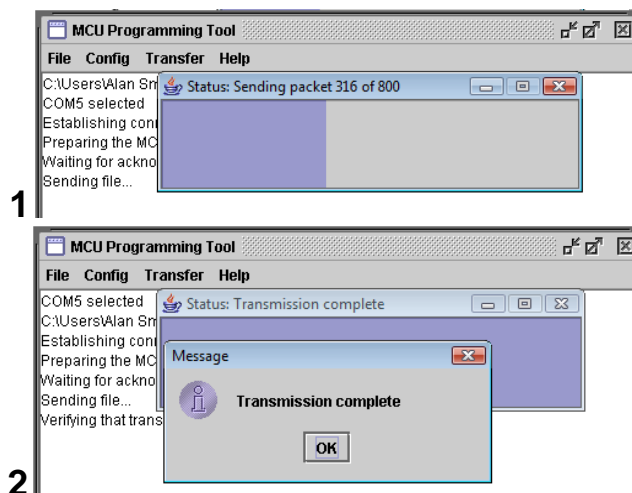


Figure 11

4.0 Set Parameters

1. Click the **Device Menu** and select the base unit type from the drop-down menu as shown in Figure 12. BU-906F is chosen for this example. The Parameters dialog box opens (Figure 13).

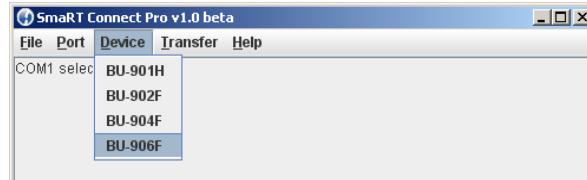


Figure 12

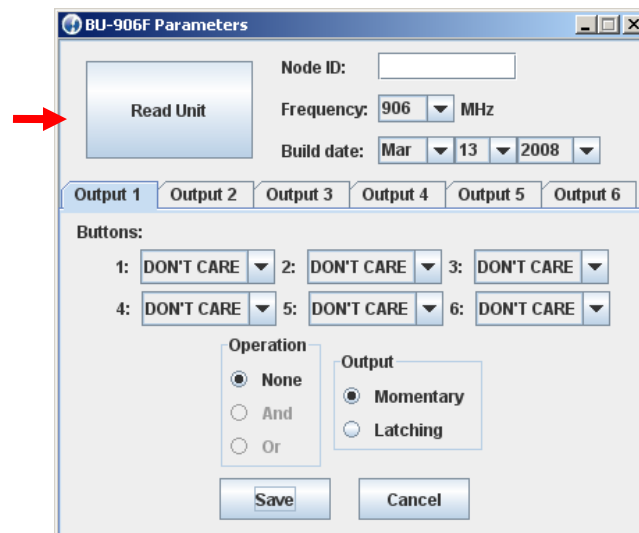


Figure 13

Notice that there are six output tabs in the dialog box – Output 1 through Output 6 – as the BU-906F is a six output base unit. These outputs are individually set, but all in the same way as described below.

2. Click the **Read Unit** button (Figure 13). This populates the **Node ID**, **Frequency**, and **Build date** fields. Changes to the Frequency and Build date fields can be made using the drop-down menus. The initial values pulled from the base unit are the default values for a new unit, or the stored values for a previously configured unit.
3. Set the handheld function Buttons relative to the output. Bear in mind that you are only setting values for a particular output. In our example, we are using Output 1. Button options listed in the drop-down are: **DON'T CARE** (the default); **ACTIVE**; and **INACTIVE**.

The Operation section does not become usable unless a second button is activated. The selected operator (**And** or **Or**) is used for all buttons.

4. Set the **Output** as either **Momentary** or **Latching**.
5. Click each Output Tab and repeat **Step 3** and **Step 4**.

6. Click **Save**. If you click Cancel, the operation is aborted and any changes made for each Output Tab are lost.
7. Click the **File** menu and then click **Save workspace as...** This opens the dialog box shown in Figure 14 with which you can decide what to call the configuration file and where to store the file. The saved file will have a an **xml** file extension. Enter the filename in the File Name field. Click the **Save** button. Cancel aborts the process.

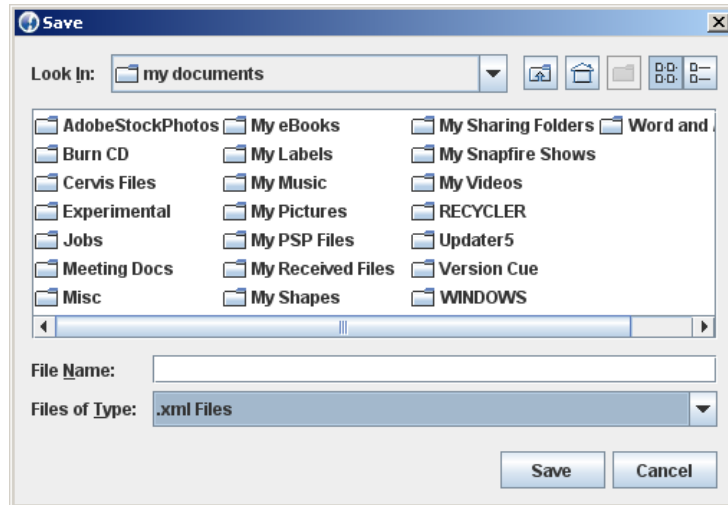


Figure 14

5.0 Transfer Menu

The **Transfer Menu** contains: **Check version...**; **Send file...**; **Send parameters...**; and **Read parameters...**

5.1 Send parameters...

1. After saving the workspace, click **Transfer Menu** → **Send parameters...** This action attempts to send the parameters you set up and saved in your workspace to the base unit to which you are connected.

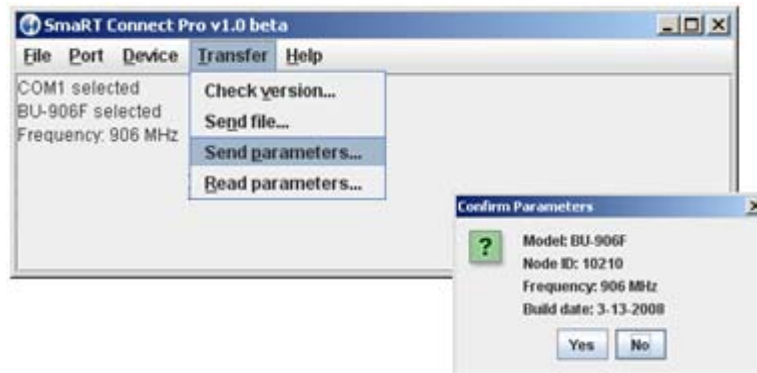


Figure 15

2. Figure 15 shows the **Confirm Parameters** dialog box. If the information shown is correct, click the **Yes** button. (Clicking the **No** button cancels the operation and returns you to the program window.) The program screen reads that the program is **Establishing connection**, and when established displays **Complete** as shown in the first line in Figure 16. The operation takes only a few seconds. When successfully finished, the program screen is updated confirming that the parameters update was successful as shown in Figure 16 below.

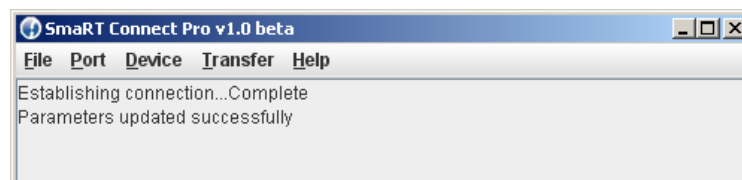


Figure 16

5.2 Check version...

Clicking **Check version...** tells the program to query the base unit for its version of application code. This is done in three quick steps as shown in Figure 17:

1. Establishing connection...
2. Complete
3. Display of the retrieved version information.



Figure 17

5.3 Read parameters...

Clicking **Read parameters...** tells the program to query the base unit for its *frequency*, *node ID*, and its *build date*. This is done in two quick steps as shown in Figure 18.

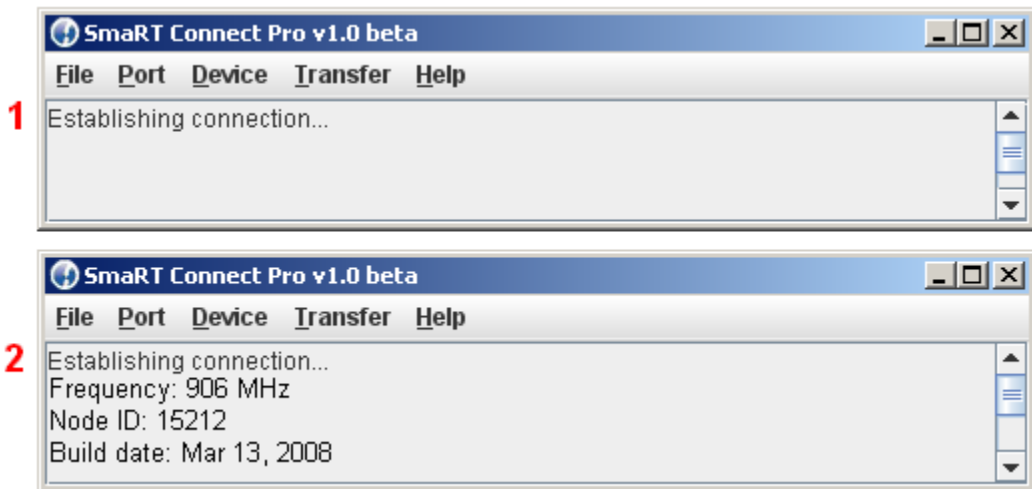


Figure 18

6.0 File Menu → Open workspace...

1. The **File Menu → Open workspace...** is used to re-open a saved Workspace. When **Open workspace...** is chosen, the program opens to where the last saved workspace file was stored. Our example in Figure 19 below opens to the **Desktop**, and in this case there is only one workspace saved, **Our New Config.xml**.

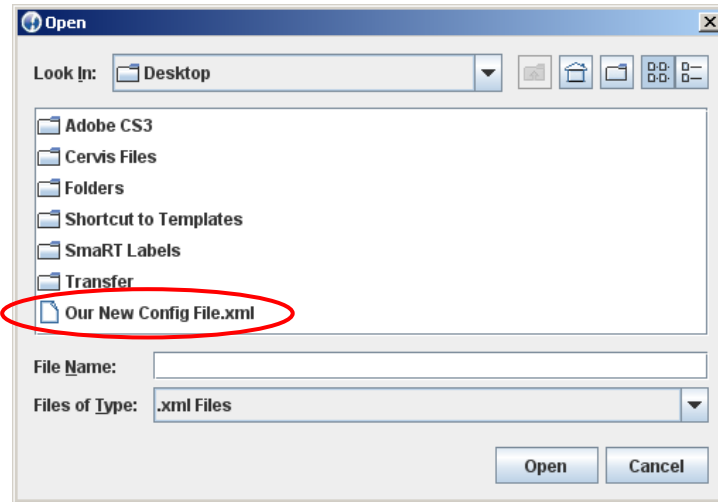


Figure 19

2. Select the file. It is placed in the **File Name** field as shown in Figure 20.

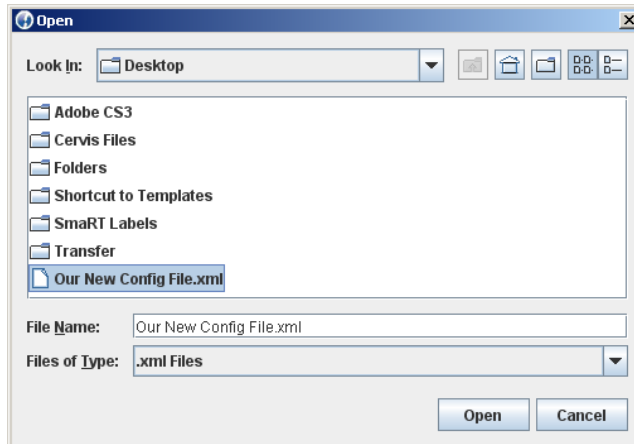


Figure 20

3. Click the **Open** button. The SmaRT Connect window opens with the message shown in Figure 21.

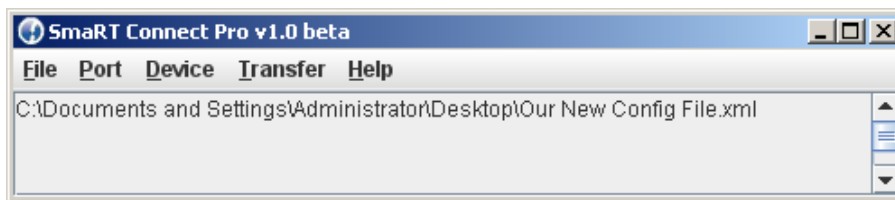


Figure 21

4. Select the base unit you want from the Device menu. BU-906F is selected in Figure 22. The workspace opens as shown in Figure 23 populated with the values that were last saved.

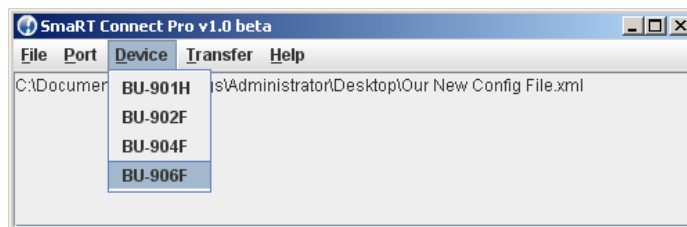
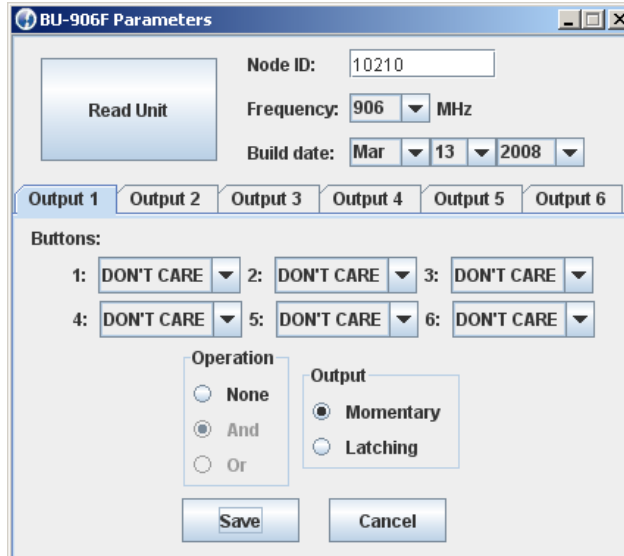


Figure 22



The image shows a software window titled "BU-906F Parameters". It contains a "Read Unit" button, a "Node ID" field with the value "10210", a "Frequency" dropdown set to "906 MHz", and a "Build date" dropdown set to "Mar 13 2008". Below these are tabs for "Output 1" through "Output 6". A "Buttons:" section contains six dropdown menus, each set to "DON'T CARE". At the bottom, there are two radio button groups: "Operation" with options "None", "And" (selected), and "Or"; and "Output" with options "Momentary" (selected) and "Latching". "Save" and "Cancel" buttons are at the bottom.

Figure 23



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