

SKF Multilog IMx Configurator

Part No. 32283300-EN
Revision B

User Manual

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Introduction to the SKF Multilog IMx Configurator

The SKF Multilog IMx Configurator allows various operations between SKF @ptitude Analyst and the IMx System for the IMx-M, IMx-P, IMx-S, and IMx-T.

This tool is the only way to set the network configuration and identification for an IMx. You can also view current IMx measurements, clear measurement data, and display the current measurement configuration.

CM Network Configuration File

To establish communication between the IMx and the SKF @ptitude IMx service, you must download a network configuration file to the IMx and configure the IMx's identity.

The file is created with the IMx Configurator and downloaded to the IMx using the integrated serial interface.

Creating a Configuration File

To create a configuration file:

- Launch the **SKF Multilog IMx Configurator** program from **Start / Programs / SKF / SKF @ptitude Monitoring Suite / Admin Tools**.

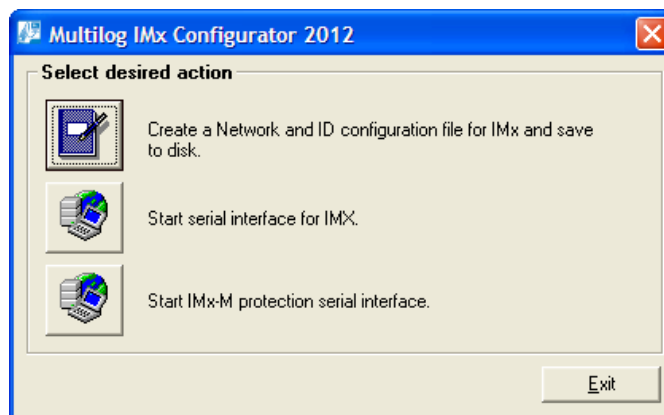


Figure 2 - 1: The Multilog IMx Configurator Main Menu.

- From the main menu, click **Create a network and ID configuration file for IMx and save to disk**. The **Create IMx/Mascon16 Config** dialog displays.

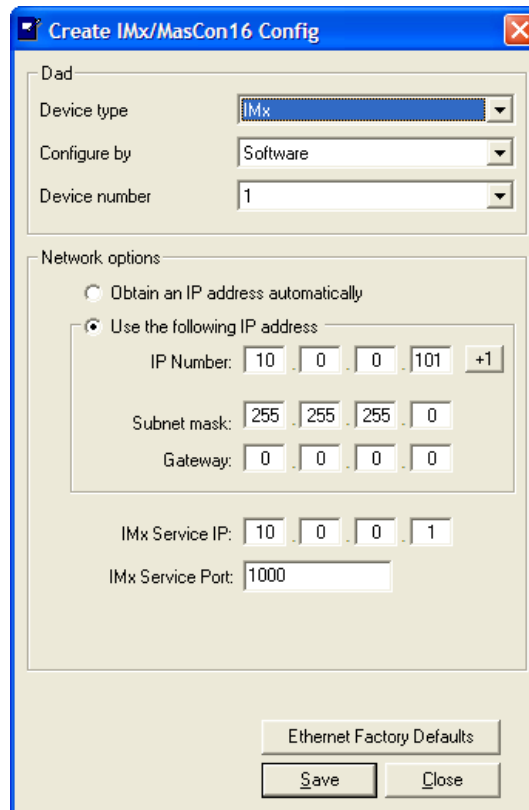


Figure 2 - 2: The **Create IMx/MasCon16 Config** Dialog.

Fields are described below:

Device type – Select the Device type for which you need to create a network and ID configuration file. Currently only the **IMx** device type is supported.

Configure by – Select **Hardware Switches** or **Software** to define how the IMx's IP address and unit ID will be configured.

Hardware Switches – Select to specify that the IMx will retrieve its device number from the hex rotary switches located on the IMx's circuit board. The hex rotary switches must be set manually. Reference the **Network Configuration** section in the IMx device's hardware user manual for details on how to manually set hex rotary switches.

- The first part of the IP Number and the Gateway need to be set using the configuration file.

Software – Select to specify that the IMx will retrieve a device number generated by the IMx Configurator.

Device number – Only active if you have selected the **Configure by / Software** option. The Device number is the unique identifier required to allow the IMx Service to communicate with the IMx. Select a unique device number between 1 and 255 for each IMx device. The same device number cannot be used for two IMx devices.

Obtain an IP address automatically – Select to allow the IMx to acquire an IP address automatically through the DHCP (Dynamic Host Configuration Protocol) server.

Use the following IP address – Select to enter the IP Number, Subnet mask, and Gateway information manually into the fields below. Work with your system administrator to obtain the required network information to enter in communication setup fields.

IP number and **Subnet mask** – Enter the IP number and Subnet mask according to the TCP/IP standard that all devices communicating with the TCP/IP protocol use.

+1 – Click to increase **IP number** and **Device number** by one when the **Configure by / Software** option is selected. This is useful when configuring a large number of IMx's using the **Configure by / Software** option.

Gateway – Enter the Gateway address according to the TCP/IP standard. If a gateway address is not necessary, enter the default value **0.0.0.0**.

IMx Service IP and **IMx Service Port** – Enter the IP number and port number of the computer where IMx Service is installed. The IMx must know where IMx Service is located in order to send and retrieve data.

Ethernet factory defaults – Click to reset all settings back to factory default. A message prompt displays with the following text, **Do you wish to reset all settings to factory default settings?** Click **Yes** to continue with the reset, or click **No** to cancel and keep the current settings.

To save the configuration file:

- Click the **Save** button. The **Save As** dialog displays.
- Select a location to save the configuration file, and then click **Save**. The configuration file saves with the extension **.IMx**, and is used to update the IMx's network configuration using a serial interface.

Downloading

Downloading the network configuration file to the IMx is a simple one-time process which is accomplished by the serial interface. Refer to the **Serial Interface** chapter for details.

Serial Interface

The serial interface in SKF IMx Configurator contains functions and instructions useful when configuring and performing a service on the IMx. It is recommended that you run the serial interface from a portable computer with a standard serial or SKF USB Isolator cable, depending on your IMx device.

Attaching the Cable

The steps for attaching a cable to an IMx are different depending on which IMx device you are using. Choose the appropriate section below and follow the steps for your specific IMx device.

To attach the cable to the IMx-M:

- Connect one end of the SKF USB Isolator cable to the host computer's USB port and the other end to the IMx-M's USB port. The IMx-M has two different USB ports:

CPU-card (condition monitoring) – Used to configure the CPU module, located on the front panel of CPU module, for condition monitoring purposes.

IO-card (protection module) – Used to configure the Protection I/O module, located on the front panel of Protection I/O module, for Protection purposes.

Important - SKF USB isolator cables must always be used when connecting to IMx-M USB ports.

To attach the cable to the IMx-P, IMx-S, IMx-T, and IMx-W:

- Connect one end of the serial cable to the IMx's RS 232 port and the other end to a COM port on your computer.

Important - Before performing a service or installation in the field, verify that your computer has a COM port, as many of the new portable computers do not have a COM port. If your portable computer does not have a COM port, you must use "USB to serial converter" to connect the serial cable to your computer.

Starting the Serial Interface

To start the serial interface:

- Launch the IMx Configurator. The **Multilog IMx Configurator** main menu displays.

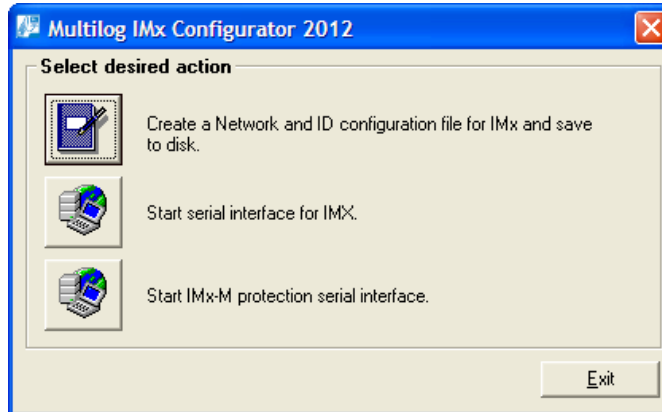


Figure 3 - 1: The **Multilog IMx Configurator** Main Menu.

- From the main menu, click the **Start serial interface for IMx** to configure the IMx's CPU module (Condition Monitoring) serial interface, or click **Start IMx-M protection serial interface** to configure the IMx-M's Protection I/O module serial interface.

Serial Interface for IMx Condition Monitoring

This section describes the serial interface for Condition Monitoring part of IMx units.

Each command or instruction sent using this serial interface has equivalent text commands which can be entered manually.

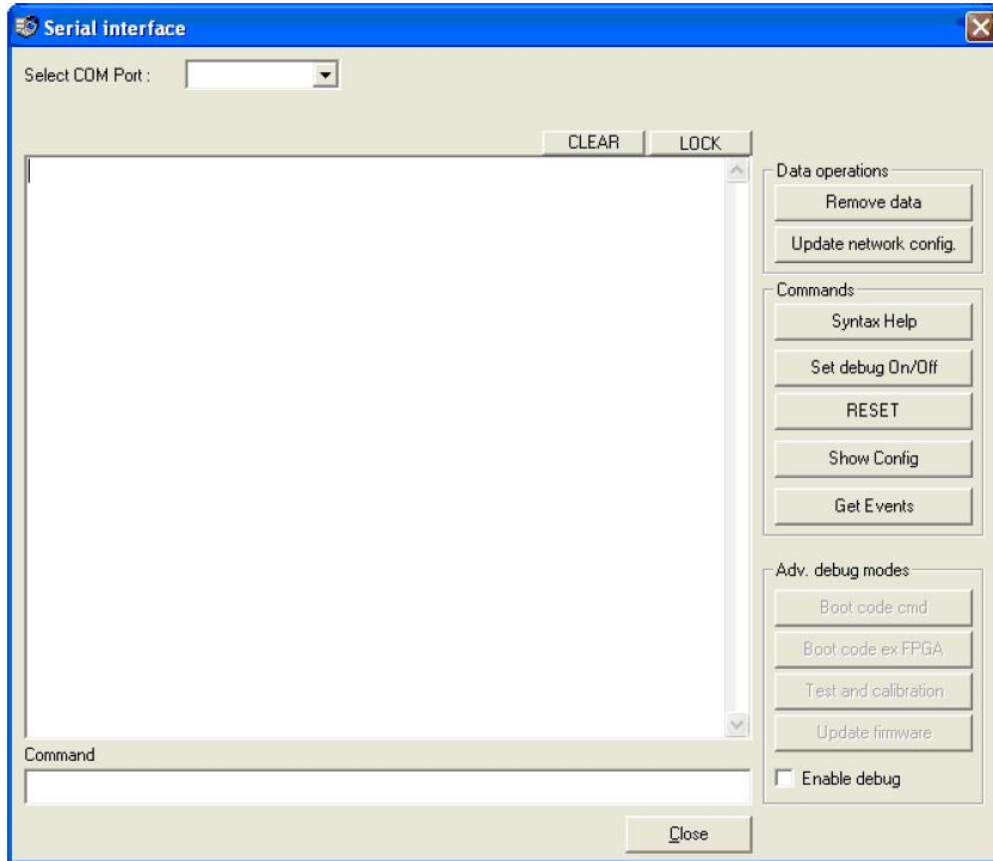


Figure 3 - 2: The **Serial interface** dialog.

Select COM port – Select the COM Port to use to connect the IMx to the computer.

- For the IMx-M, refer to the **Select COM Port for IMx-M** section below for details on how to determine the COM port number or to change COM port number.

Clear – Click to clear the output window.

Lock – Click to lock or unlock the contents on the output window. This can be useful to copy / paste information from the output window.

Remove data – Click to delete all measurement data and event logs currently collected and stored in the IMx's memory.

- Any data or events that have not been transferred to SKF @ptitude Analyst will be lost and not stored in @ptitude Analyst's database.
- As a general rule, always run this after completing an installation to make sure that incorrect data or data that was taken under unrealistic conditions (such as data collected when installing sensor) is removed.

Update network config. – Click to update the network configuration file. You are prompted to browse to and select a .IMx configuration file. The network configuration file updates with the selected file.

Syntax Help – Click to display a list of help command prompts that you may manually enter into the **Command** text box.

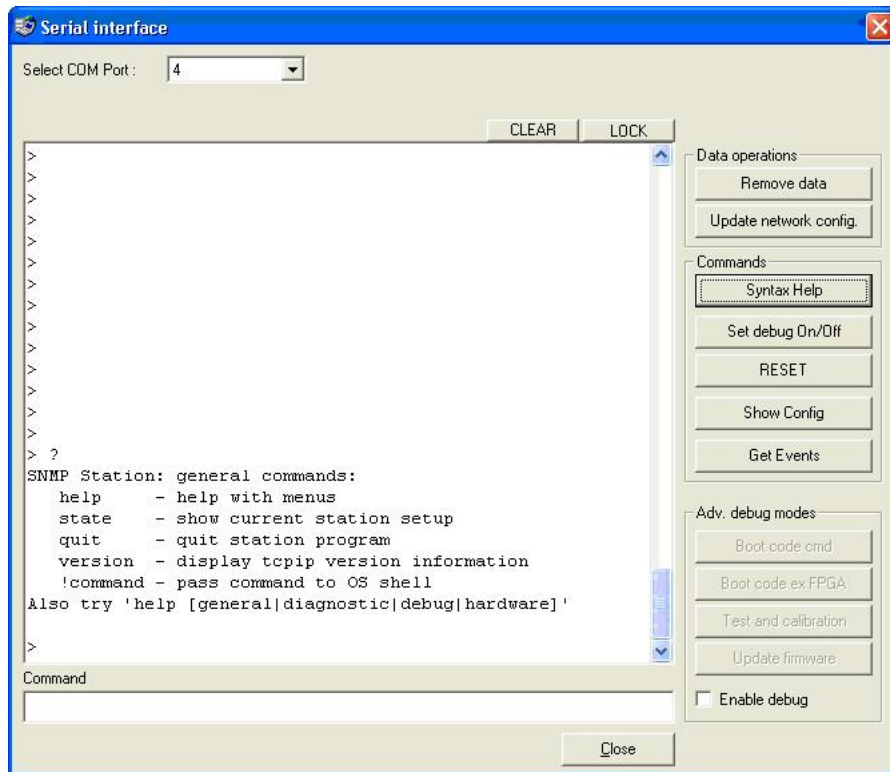


Figure 3 - 3: The **Serial interface** Dialog Showing Syntax Help.

Set debug On/Off – Click to display the measurement values that the IMx is currently measuring, for example, > PROCESS 69.617386 - ANA10000004 on channel 4, DBID = 10000004.

RESET – Click to reboot the IMx device.

Show Config – Click to display the current measurement configuration of the IMx device.

Get Events – Click to store all events from the unit to a file in user readable format. Reference your IMx User Manual for detailed event information.

Adv. debug modes - Advanced debug modes should only be used by experienced installation engineers in cooperation with the SKF Condition Monitoring Center.

Command – Manually enter command prompts or instructions in the **Command** text box. Click the **Syntax Help** button or reference your IMx User Manual for available commands.

Serial Interface for IMx-M Protection

This section describes the serial interface for the Protection I/O Module for IMx-M devices.

Each command or instruction sent using this serial interface has equivalent text commands which can be entered manually.

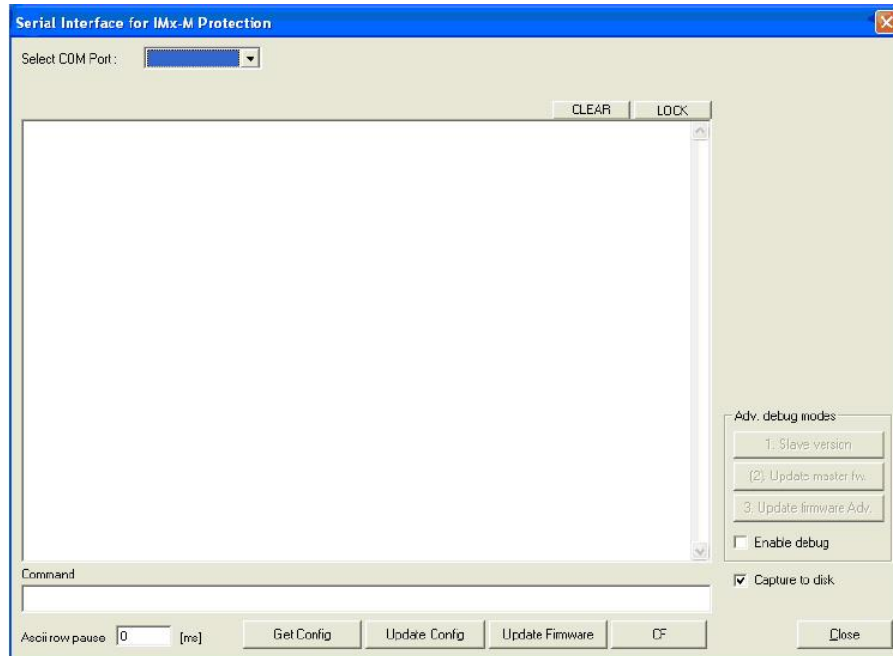


Figure 3 - 4. The **Serial Interface for IMx-M Protection** dialog.

Fields are described below:

Select COM port – Select the COM Port to use to connect the IMx-M to the computer.

- Refer to the **Select COM Port for IMx-M** section below for details on how to determine to the COM port number or to change COM port number.

Clear – Click to clear the output window.

Lock – Click to lock or unlock the contents on the output window. This can be useful to copy / paste information from the output window.

Command – Enter commands or instructions manually. Reference your IMx-M User Manual for more information about IMx-M protection commands.

ASCII row pause – Enter the amount of time in milliseconds that the system will pause between each ASCII row. This setting typically does not need to be changed.

Get Config – Click to retrieve the protection configuration file stored in the IMx-M device and save it to your computer's hard drive.

Update Config – Click to download a new configuration file to IMx-M device. Refer to the **IMx-M Unit Protection Configuration** chapter for details.

Update Firmware – Click to download new protection firmware to IMx-M device. Refer to the **IMx-M Protection Firmware Download** chapter for details.

CF – Click to display the current IMx-M slot's circuit faults and descriptions.

Close – Click to close the **Serial Interface for IMx-M Protection** dialog and return to the IMx Configuration main screen.

Adv. debug modes - Advanced debug modes should only be used by experienced installation engineers in cooperation with the SKF Condition Monitoring Center.

Capture to disk – Enable to save responses or messages received from commands to a log file. The log file is automatically saved with the current date and time in the same location where the IMxConfigurator.exe file is stored. The **Capture to disk** check box should always be enabled, as it stores information that may be important in case a need for technical support arises.

Select COM Port for IMx-M

To find windows allocated COM port number:

- Open Windows' **Control Panel** and double-click the **System** option. The System Properties dialog displays.
- Select the **Hardware** tab, and click the **Device Manager** button. The **Device Manager** window displays.
- Double-click the **Ports (COM & LPT)** item to see available USB Serial Ports.

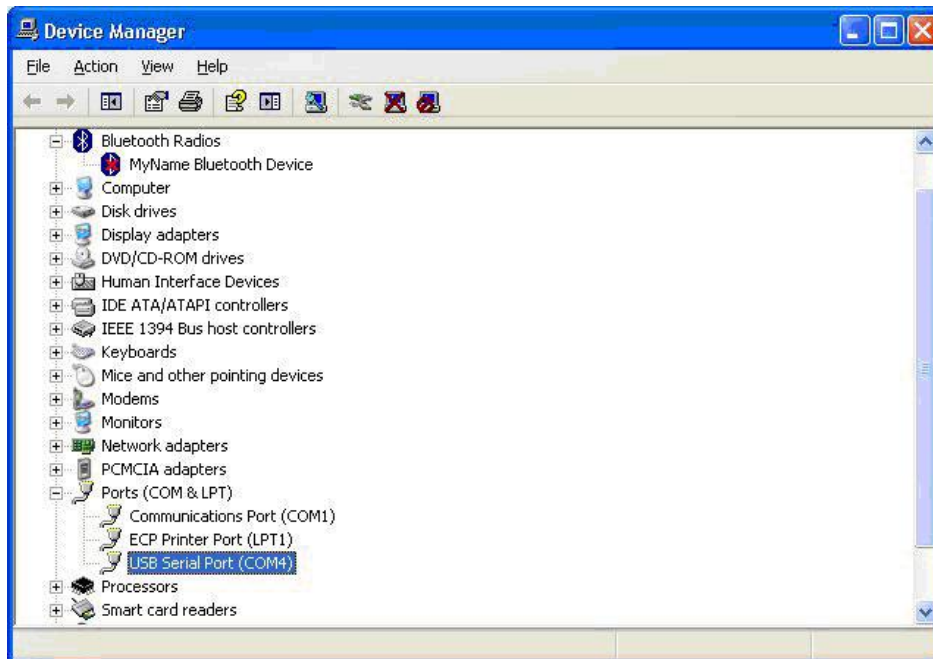


Figure 3 - 5. The Windows **Device Manager** Showing COM Port Location.

To change the COM port number:

- Continue from the above steps.

- Double-click the **USB Serial Port** item, and select the **Port Settings** option. The **USB Serial Port Properties** dialog displays.



Figure 3 - 6. The **USB Serial Port Properties** Dialog's **Port Settings** Tab.

- Click the **Advanced...** button. The **Advanced Settings** dialog displays.

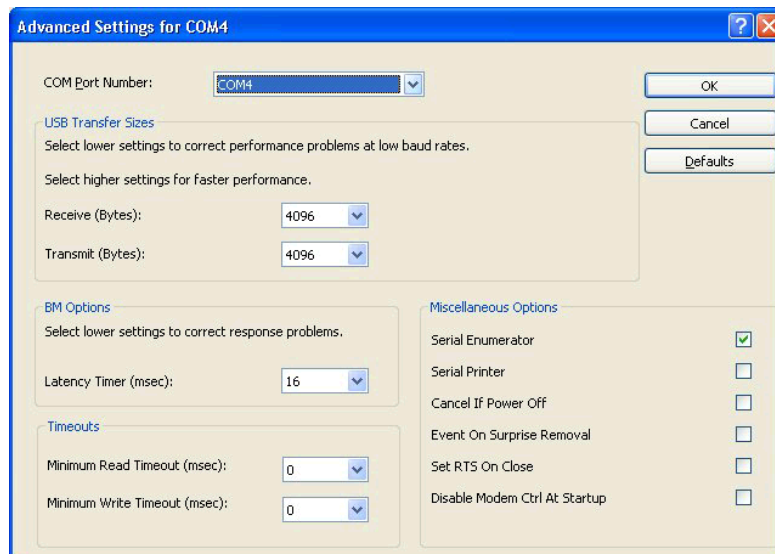


Figure 3 - 7. The **Advanced Settings** Dialog.

- Select a different COM port number from the **COM Port Number** drop down list. The Com port number may be changed to any COM port number above 2.
 - Confirm that the port is not in use by any other hardware installed on the computer.

IMx-M Protection Firmware Download

This section guides you through downloading new protection firmware to an IMx-M device.

Important - For information on the automatic download of condition monitoring firmware from @ptitude Analyst to the IMx-M, refer to the SKF @ptitude Analyst Import/Export Features chapter of your SKF @ptitude Analyst Introduction User Manual (PN 32296600).

Downloading Firmware to the IMx-M

To download firmware to the IMx-M:

- Connect one end of the SKF USB Isolator cable to the host computer's USB port and the other end to the IMx-M's USB port on the Protection I/O module.

Important - SKF USB isolator cables must always be used when connecting to IMx-M USB ports.

- Launch the **SKF Multilog IMx Configurator** from **Start / Programs/ SKF @ptitude Monitoring Suite / Admin Tools**. The SKF Multilog IMx Configurator main screen displays.
- Power on the IMx-M unit and place it into disarm mode.

Important - System must be in disarm mode before protection configuration update procedure takes place. Read the Protection Configuration Update chapter in your IMx-M User Manual before proceeding.

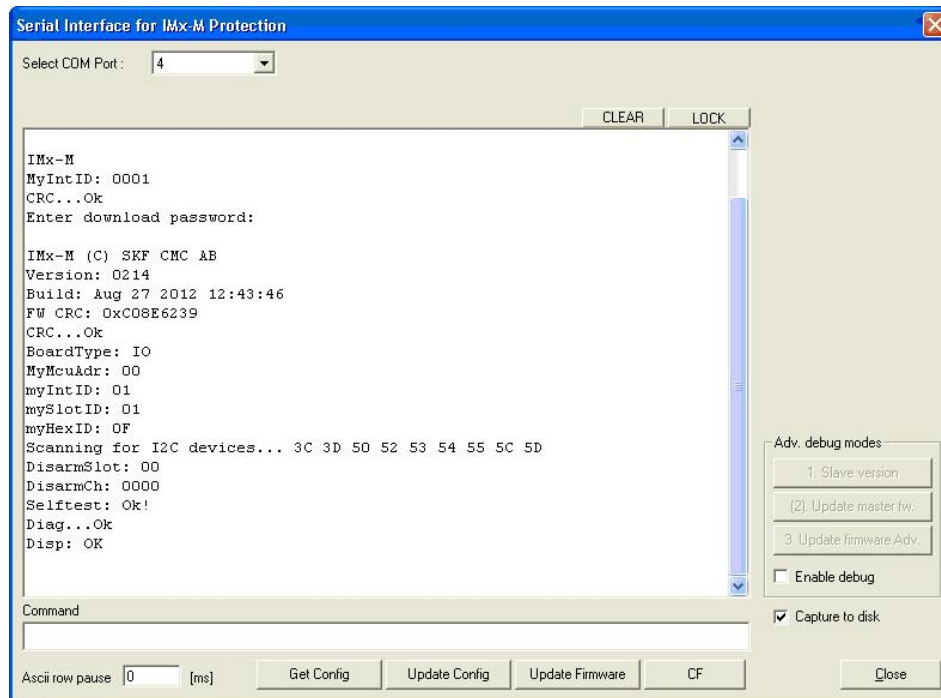


Figure 4 - 1. The **Serial Interface for IMx-M Protection** – Boot-up Text.

The Serial Interface for the IMx-M Protection screen displays the IMx-M's firmware version and other boot-up text at first. The exact boot-up text depends on the firmware version.

- Depending on which firmware version the system is currently using, or the new firmware version you will be installing on the IMx-M, either click **Update Firmware** (faster) or select the **Enable debug** checkbox and select the **3. Update firmware Adv.** option. The **Open** dialog displays.
 - If you are unsure if the firmware update requires an advanced firmware update, you should choose the **3. Update firmware Adv.** option.

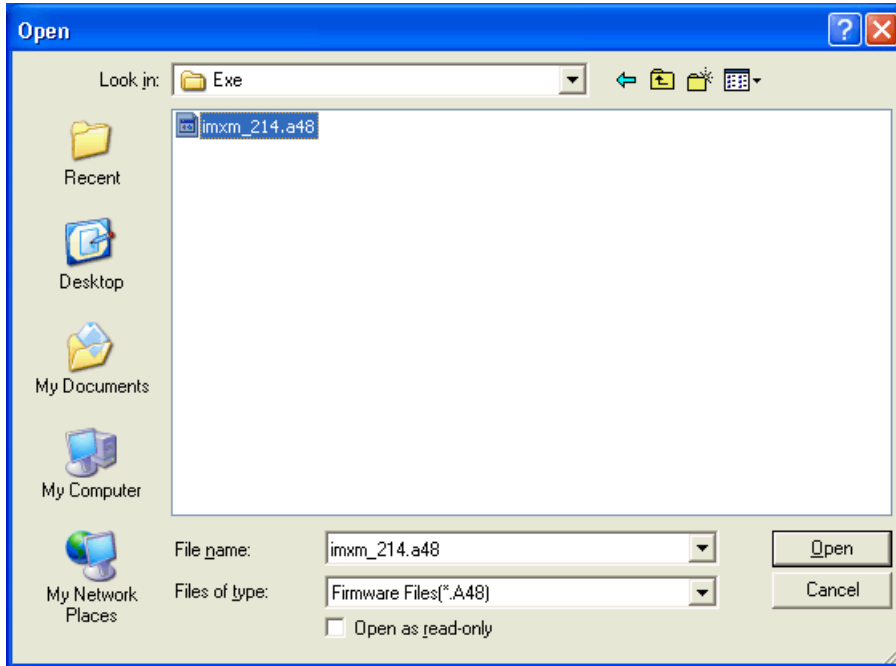


Figure 4 - 2. The **Open** Dialog.

- Browse to and select the **.a48** firmware file that you wish to download to the IMx-M and click **Open**. A password prompt displays.

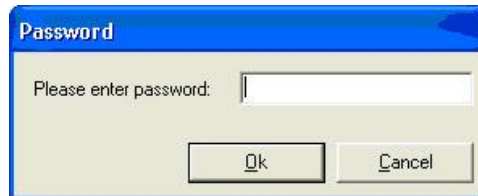


Figure 4 - 3. The **Password** Dialog.

- Enter “secret” in the text box and click **Ok** to continue. The transmission of the firmware file starts immediately.

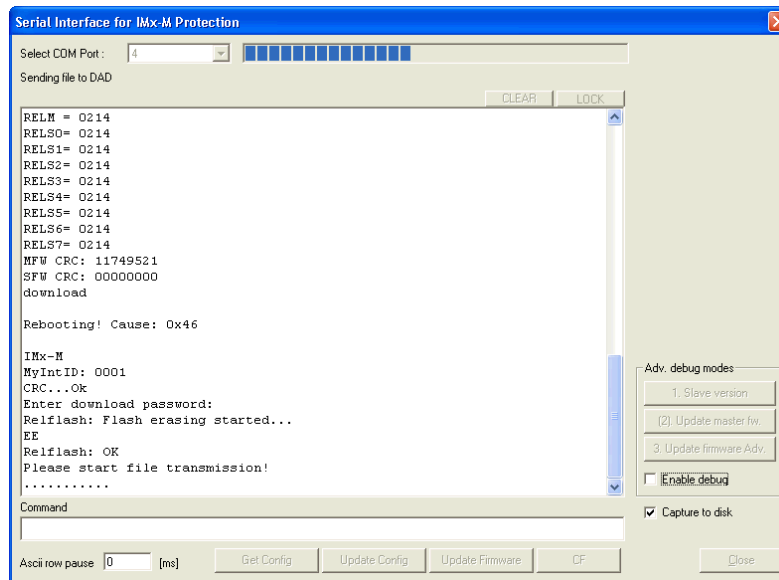


Figure 4 - 4. The **Serial Interface for IMx-M Protection** – IMx M Firmware Update Progress.

- When the download has successfully completed, the IMx-M reboots and runs the new version of the firmware.

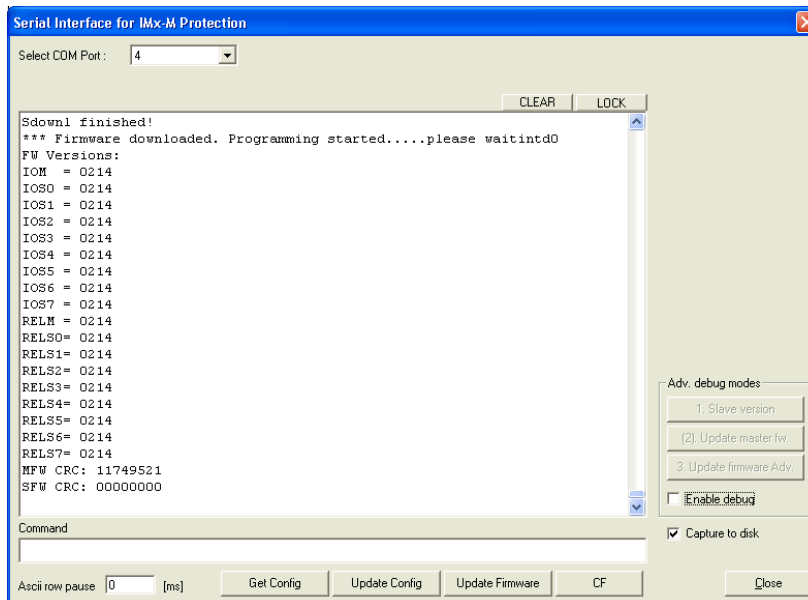


Figure 4 - 5. The **Serial Interface for IMx-M Protection** – IMx M Firmware Update Complete.

Important – Do not release the disarm until the IMx-M is running with the proper firmware version. Read the Protection Firmware Update chapter in IMx-M User Manual thoroughly and understand it.

IMx-M Unit Protection Configuration

This section guides you through downloading the protection configuration file to an IMx-M device.

Downloading a Protection Configuration File to the IMx-M

To download the protection configuration file to the IMx-M:

- Connect one end of the SKF USB Isolator cable to the host computer's USB port and the other end to the IMx-M's USB port on the Protection I/O module.

Important - SKF USB isolator cables must always be used when connecting to IMx-M USB ports.

- Launch the **SKF Multilog IMx Configurator** from **Start / Programs/ SKF @ptitude Monitoring Suite / Admin Tools**. The SKF Multilog IMx Configurator main screen displays.
- Click the **Start IMx-M protection serial interface** button.
- Power on the IMx-M unit and place it into disarm mode.

Important - System must be in disarm mode before protection configuration update procedure takes place. Read the Protection Configuration Update chapter in your IMx-M User Manual before proceeding.

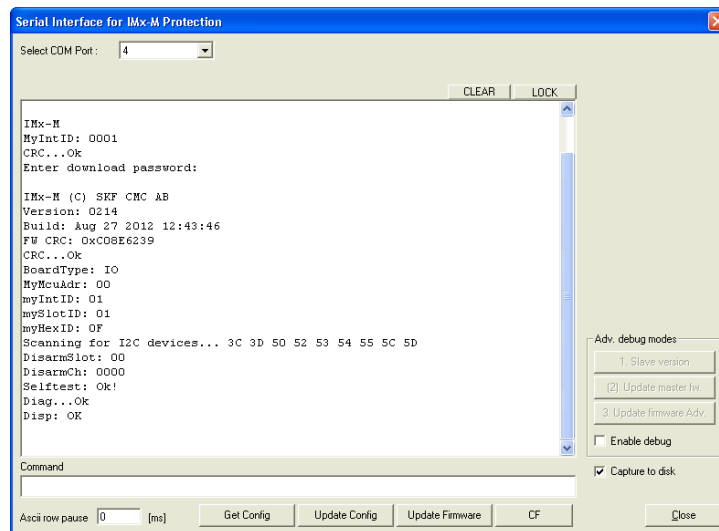


Figure 5 - 1. The **Serial Interface for IMx-M Protection** – Boot-up Text.

The Serial Interface for the IMx-M Protection screen displays the IMx-M's firmware version and other boot-up text at first. The exact boot-up text depends on the firmware version.

- Click the **Update Config** button. The **Open** dialog displays.

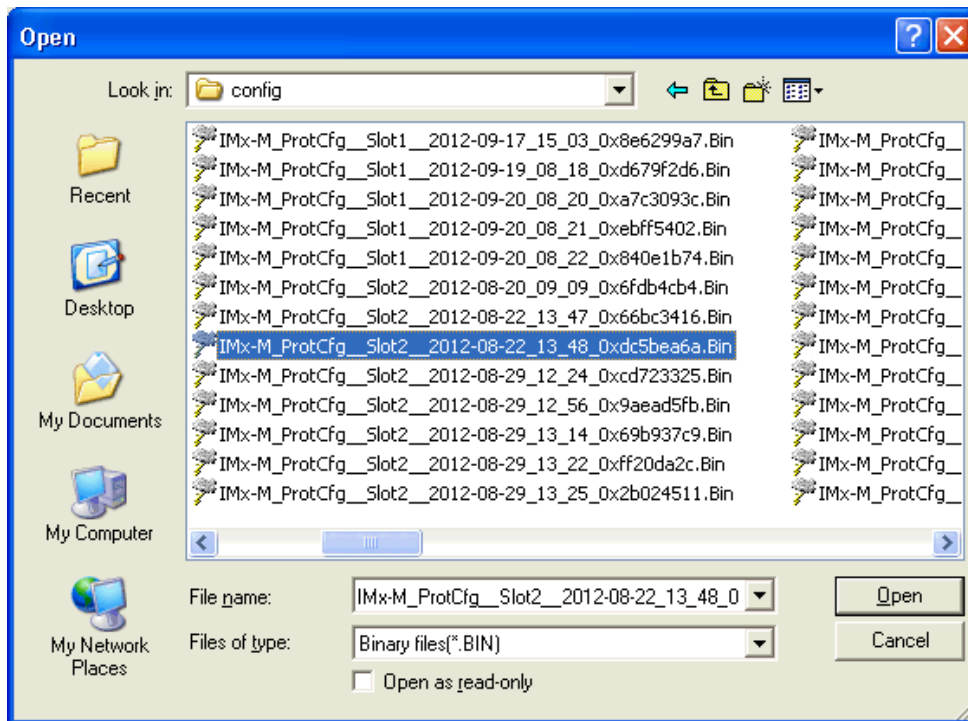


Figure 5 - 2. The **Open** Dialog.

- Browse to and select the **.Bin** file to use to configure the IMx-M.
- Click **Open**. A **Password** prompt displays.

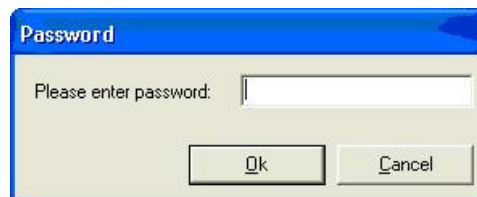


Figure 5 - 3. The **Password** Dialog.

- Enter “secret” in the text box and click **Ok** to continue. The transmission of the configuration file will start immediately.

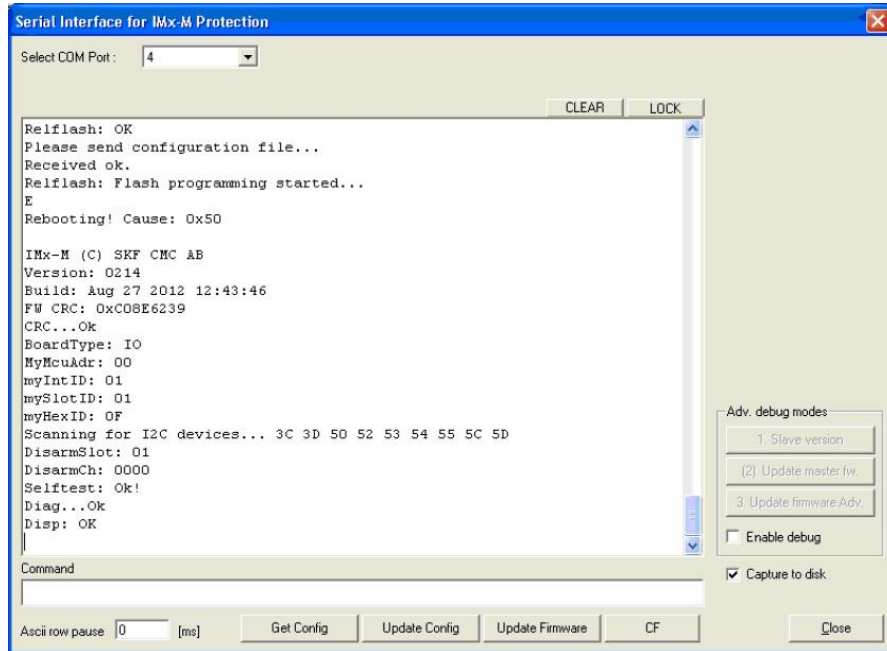


Figure 5 - 4. The **Serial Interface for IMx-M Protection** – Configuration File Download Progress.

- If the download is successful, the IMx-M restarts using new IMx-M protection configuration file.

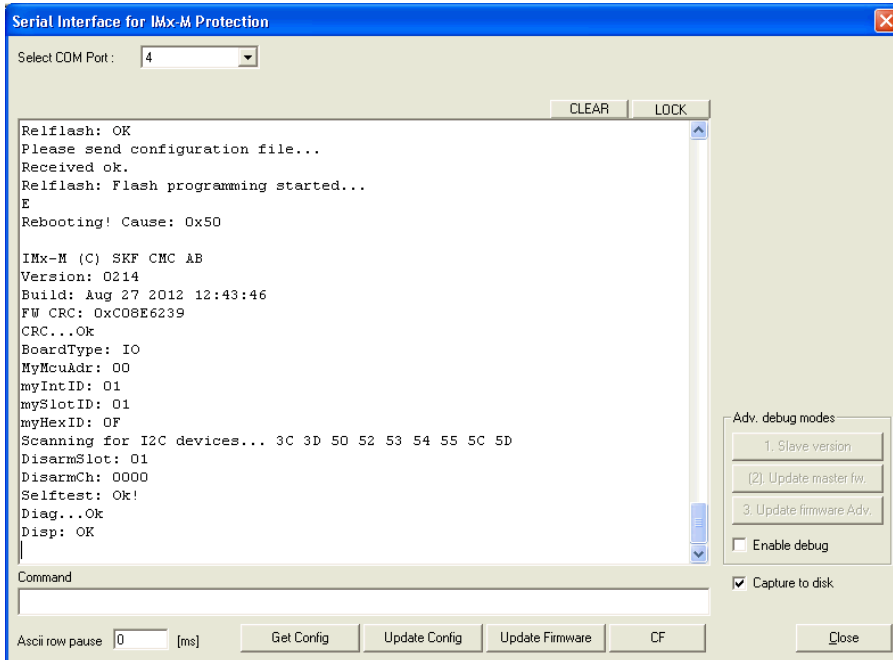


Figure 5 - 5. The **Serial Interface for IMx-M Protection** – Configuration File Download Complete.

Before releasing the disarm, you should read and understand the Disarm chapter in IMx-M User Manual, verify that there are no circuit faults, and wait at least 30 seconds after the IMx-M restarts.

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