

UPDATING THE MICROCODE

The microcode is low-level software that resides in flash memory on the System 3 processor devices. The microcode contains the DSP instructions for the RpvdsEx processing components. Updating the microcode enables you to take advantage of improvements and corrections to the functionality of your System 3 devices and software.

When should the microcode be updated?

When new hardware is added to the system and any time a new version of RpvdsEx is installed on the host PC, the microcode should be updated on all processors in the system.

How is the microcode updated?

Users must update the microcode using the System 3 Device Programmer (PrgG21K.exe). This program is copied to the host PC during TDT Drivers installation.

Updating the Microcode - Step-By-Step

Important Notes: You should not use your PC for other tasks while devices are being reprogrammed. Most processors can be programmed in four minutes, however, the RZ processors may take up to 40 minutes (five minutes per DSP).

For instructions on updating an RL2 contact TDT Support.

1. Run the System 3 Device Programmer

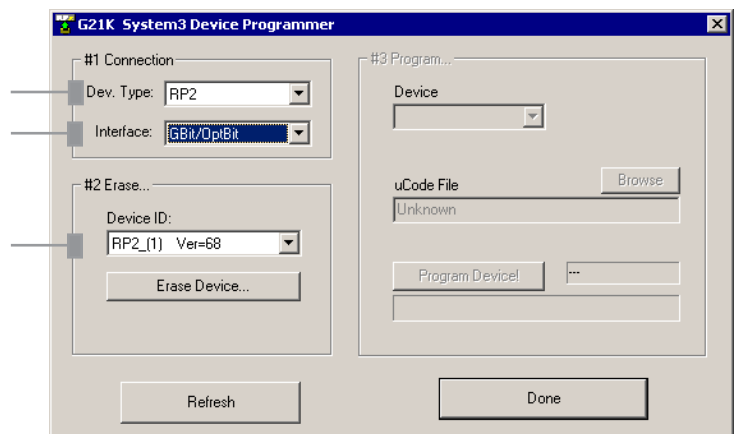
To run the System 3 Device Programmer, click the **Start/Programs** menu, point to **TDT Sys3** and click **RPProg**.

2. Select the Device and System Interface Type

Under *#1 Connection*, select the device type to be programmed from the **Dev.Type** drop-down list.

Select your system's interface type from the **Interface** drop-down list.

Connected devices (of the type selected) will appear in the Device ID drop-down list.



3. Erase (Prepare) the Device

Important Note: High performance processors, such as the RX5, are erased using a different method from other real-time processors. Please note your device type and follow the appropriate procedure for erasing the device.

Classic, Single-DSP Processors and Z-Series Processors

To erase the first device in the list, click the button below the Device ID list under #2 *Erase*. (**Erase Device!** or **Prepare Device...**)

A warning message will be displayed.

Click **Yes** to continue.

When the device has been erased, a message is displayed.

Click **OK**.

RX-Series Processors

To erase the device, press and hold the **Mode** button on the front panel of the device and click **Refresh** in the programmer window. Release the **Mode** button.

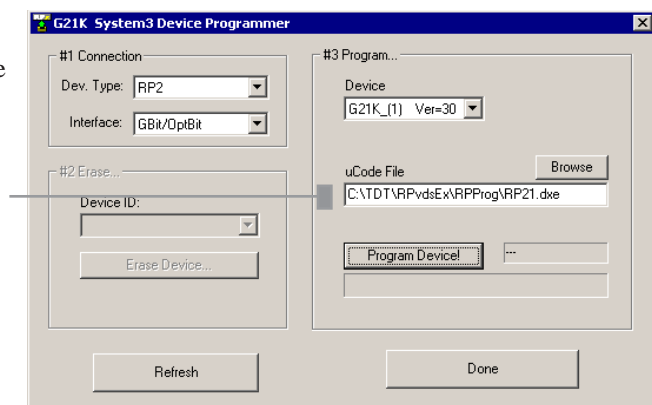
After the device is erased, the display on the device should read: FirmWare: BLANK.

After a device is erased it appears in the #3 *Program* area. In that list it appears with a generic name such as G21K_1 the remaining programmed devices are renumbered. This can sometimes make it difficult to identify devices if more than one device is erased at a time.

Be sure to program this device before erasing others.

4. Program the Device

Click **Browse** next to the *uCode File* box and navigate to the **C:\TDT\RPvdsEx\RPProg** folder, then select the appropriate microcode file for the selected device.



File	Device		
RP2.dxe	RP2 Real-Time Processor	RXn.dxe	RX5 Pentusa Base Station
RP21.dxe	RP2.1 Enhanced Real-Time Processor		RX6 MultiFunction Processor
RA16.dxe	RA16BA Medusa Base Station		RX7 Micro Stimulator Base Station
RV8.dxe	RV8 Barracuda Processor		RX8 Multi I/O Processor
RMX.dxe	RM1/RM2 Mobile Processors	RZn.dxe	Z-Series Processors

Click **Program Device!**.

A warning message will be displayed. Click **Yes** to continue.

Important! Wait until the device is programmed before doing anything else with your PC. Most processors can be programmed in four minutes, however, the RZ processors may take up to 40 minutes (five minutes per DSP).

Click **OK**.

The selected Real-Time Processor has now been reprogrammed.

5. Programming Additional Devices

If you have additional devices to program, click **Refresh**, then **repeat** beginning with Step 2, Select the Device and System Interface Type.

