

CANbus Firmware Download Example

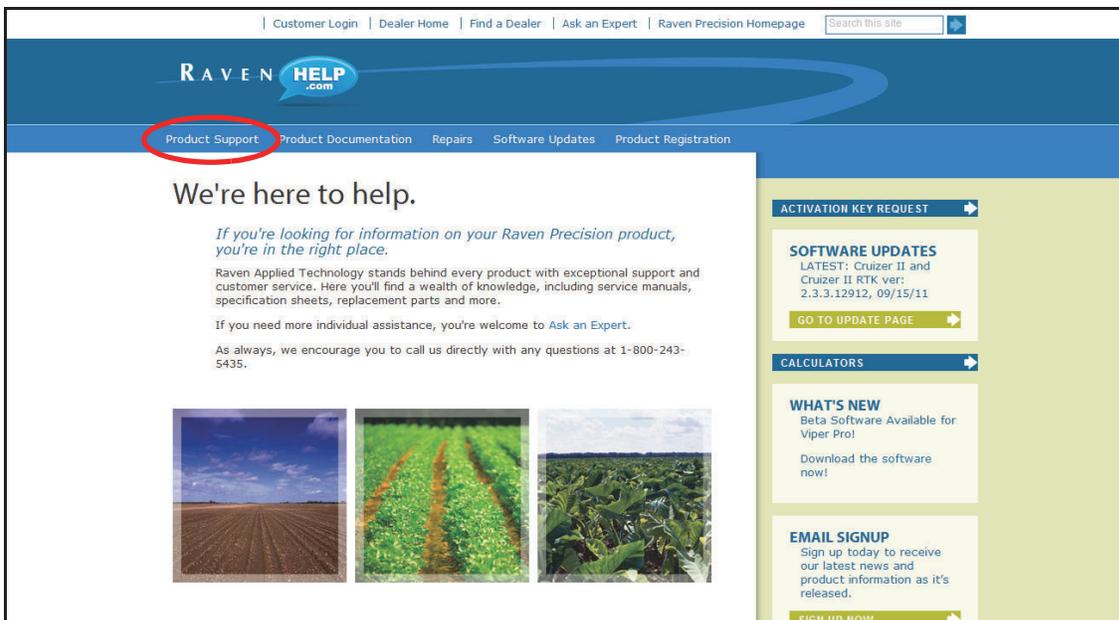
Note: The following procedure is intended for example purposes only. Any images provided in this section may not accurately depict the web browser or prompts encountered on various home or office computer systems. Please refer to computer or web browser user help sections for additional assistance.

Firmware updates for Raven CANbus components will be made available periodically from the Raven Help web site:

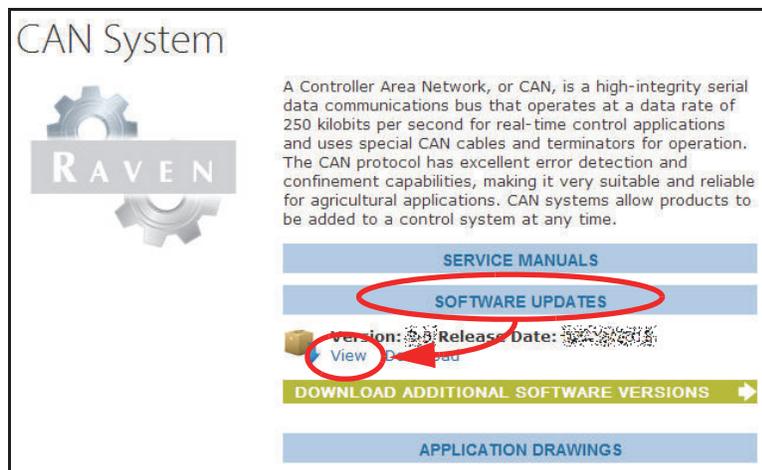
www.ravenhelp.com

To download ROS updates:

1. On a home or office computer, visit the Raven Help web site.
2. Select the “Product Support” menu and locate the CAN System support area within the Application Controls product family.



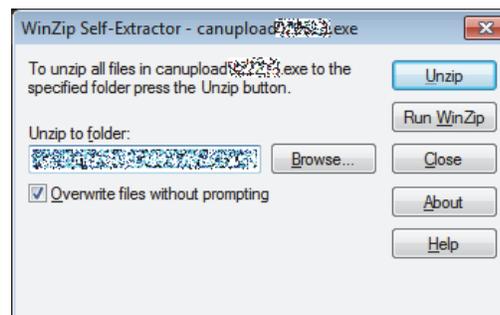
3. Select the “Software Updates” option to view available firmware updates. Unless otherwise instructed by a support or service technician, it is recommended to download the latest firmware version.



4. Select “View” to review the software release notes for the new software version.
The release notes page may have important information about how updating the ROS device may affect system operation. Please review these notes and be sure to follow any special instructions.
5. At the bottom of the release notes page, select the “Download Update” link to start the firmware download.
6. Select the “Save” option to save the firmware to the home or office computer. It is recommended to select a commonly used download directory or a destination which will be easy to locate after the download completes.

Note: *It may be necessary to accept any security or warning prompts displayed by the browser or computer system to successfully save the firmware update to the computer.*

7. Insert a USB flash drive used with the ROS device into an available USB port on the computer.
8. Once the download is complete, locate and open the “canupload” self extracting file.



9. Select the “Browse...” button and use the browser to select the USB flash drive used with the ROS device.
10. Select the root directory or the USB flash drive and select the Unzip button to extract the CAN firmware to the drive. For example, “F” is the drive letter assigned in the following graphic:



11. Remove the USB flash drive from the home or office computer.
12. Refer to the *Import CAN Node Updates* section on page 48 for assistance using the USB Manager to copy the CANbus firmware updates onto the ROS device before proceeding the *Installing CANbus Firmware Updates* section on page 34 to apply firmware updates to the CANbus system.

Installing CANbus Firmware Updates

Note: The CAN node firmware must be transferred from the USB flash drive onto the ROS device before the firmware updates may be applied to nodes connected to the system using the System Manager utility. Refer to *Import CAN Node Updates* section on page 48 for assistance copying CAN Node Update files.

The following procedure is only applicable to Raven CANbus components. ISOBUS components cannot be updated via the ROS device.

To apply a firmware update to a CANbus system component:



1. Insert the USB flash drive with the firmware update files in the required folder into the ROS device.

Note: Review the *CANbus Firmware Download Example* section on page 32 for more information on the folder structure required for performing the update.

2. Use the USB Manager utility within the File Manager to import the CAN node updates. Refer to Chapter 7, *File Manager*, for additional assistance using the USB Manager.
3. Touch the Administrator or User panel along the top of the main panel display to expand the panel.
4. Select the System Manager utility and touch the Hardware Update tab.
5. In the upper portion of the Hardware Update tab, select a specific node to be updated.

Note: It is recommended to take note of the program number (PGM #) for the node selected. In case of problems with the node update, this number will be required to select the appropriate program number for recovering the node. Refer to the *Node Recovery Mode* section on page 35 or contact a local Raven dealer for additional assistance.

6. Next, use the Versions Available scrolling list to select the appropriate update to apply to the selected CANbus node.
7. Touch the Apply Update button to update the CANbus firmware on the selected node. The ROS device will install the selected firmware update. Repeat the process to update any other CANbus nodes as necessary or required.

If a problem is encountered during the firmware update process, refer to the *Raven CANbus Installation Manual* for information on troubleshooting the node and use the recovery mode to attempt to restore the CANbus node. Refer to the *Node Recovery Mode* section on page 35 for additional information on using the recovery mode with a Raven CANbus system.

Node Recovery Mode

Note: The node program number will be required to properly recover the node. If the program number is unknown, contact a local Raven dealer or the Raven Technical Support Center for additional assistance with appropriate program numbers for recovering a CANbus node.

To attempt to recover a CANbus node on which a failed update has occurred:



1. Insert the USB flash drive with the firmware update files in the required folder into the ROS device.

Note: Review the *CANbus Firmware Download Example* section on page 32 for more information on the folder structure required for performing the update.

2. Use the USB Manager utility within the File Manager to import the CAN node updates. Refer to Chapter 7, *File Manager*, for additional assistance using the USB Manager.
3. Touch the Administrator or User panel along the top of the main panel display to expand the panel.
4. Select the System Manager utility and touch the Hardware Update tab.
5. Disconnect the rectangular connectors on the node for approximately 5 seconds to cycle power to the node. Ensure any status LEDs are off or stop flashing before reconnecting the node.
6. On the ROS device, touch the versions field and use the scrolling list to select the appropriate node program to reset the node.

The node program and version numbers will be displayed in the following format:

P144V111

Program Number

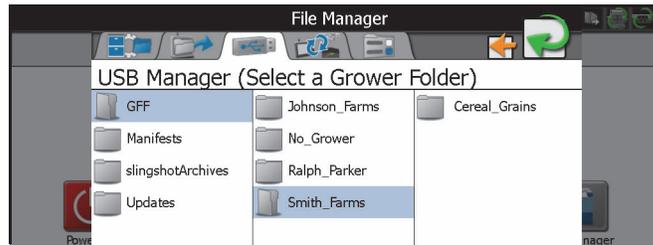
Version Number

7. Touch the Apply Update button to attempt to recover the node.
If the node recovery fails, or for additional support, contact a local Raven dealer.

7. Use the displayed browser to locate the Grower folder within the GFF folder structure to be imported.

For Example.

“USB Drive Name” > Raven > GFF > “Grower Name”



Note: When importing the GFF folder structure, only select to the “Grower” folder level of the GFF folder structure. The ROS device will automatically transfer the folder information contained within the grower folder to complete the GFF structure. If farm or field folders are selected, the GFF folder structure will be incorrect when imported to the ROS device.

8. With the grower file selected, select one of the following import actions:



•Copy - create a duplicate of the selected information on the ROS device, or



•Move - import the selected information to the ROS device and remove the information from the USB flash drive.

The Import Files prompt will be displayed.

9. Verify the list of files to be imported is correct. If the list requires further configuration, touch the Cancel button in the upper, right corner of the display to return to the USB Manager tab.

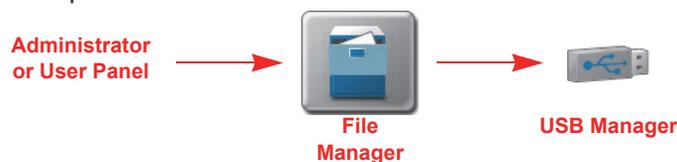
10. Touch the Import button to begin the file transfer process.

Import CAN Node Updates

Note: Review the *Installing CANbus Firmware Updates* section on page 34 for additional information on downloading and applying updates to Raven CANbus hardware.

Any node firmware updates copied or moved to the ROS device will be saved on the device until deleted using the file maintenance feature. Refer to the *Delete Files* section on page 42 for assistance with deleting node update files from the ROS device.

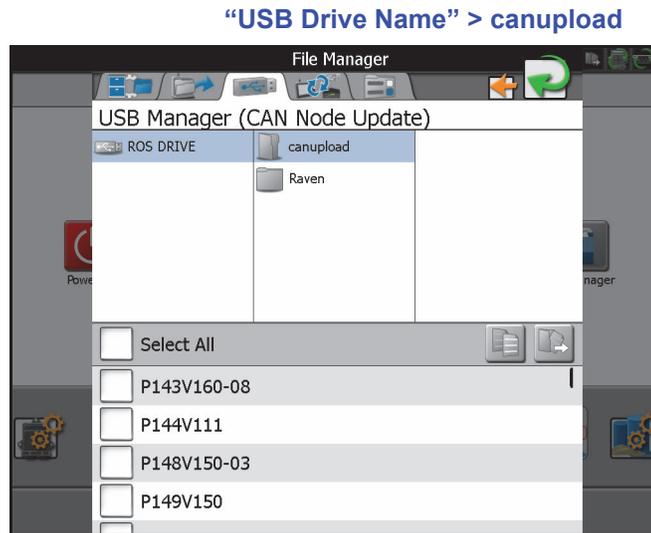
To import CAN node firmware updates from a USB flash drive:



1. Insert a USB flash drive used with the ROS device and containing the CAN node updates to be imported.
2. Touch the Administrator or User panel along the top of the main panel display to expand the panel.
3. Select the File Manager utility and touch the USB manager tab.
4. Touch the USB drop down and select the connected USB flash drive from which to import files.
5. Touch the file type drop down and select the “CAN Node Update” option.
6. Touch the Next button in the lower, right corner of the USB manager tab. The USB flash drive and folder structure will be displayed.

- Use the displayed browser to locate and select the “canupload” folder downloaded from the Raven web site. Node update files currently stored on the USB flash drive will be displayed in the lower portion of the USB manager tab.

For Example.



Note: Review the *Installing CANbus Firmware Updates* section on page 34 for additional information on downloading and applying updates to Raven CANbus hardware.

- It is recommended to touch the Select All option at the top of the file list to import all node updates from the USB flash drive. Node updates may be removed or deleted after the CANbus hardware update process has been completed. Alternatively, touch the box displayed to the left of the node update file name to import only a specific node update if the file name is known.
- With at least one CAN node update file selected, select one of the following import actions:



- Copy - create a duplicate of the selected information on the ROS device



- Move - import the selected information to the ROS device and remove the information from the USB flash drive.

The Import Files prompt will be displayed.

- Verify the list of files to be imported is correct. If the list requires further configuration, touch the Cancel button in the upper, right corner of the display to return to the USB Manager tab.
- Touch the Import button to begin the file transfer process.