

RV2 Video Processor

This fast fact sheet provides basic reference information for the RV2 Video Processor and related devices. See reverse for Synapse set-up. See the System 3 Manual for more detailed information.

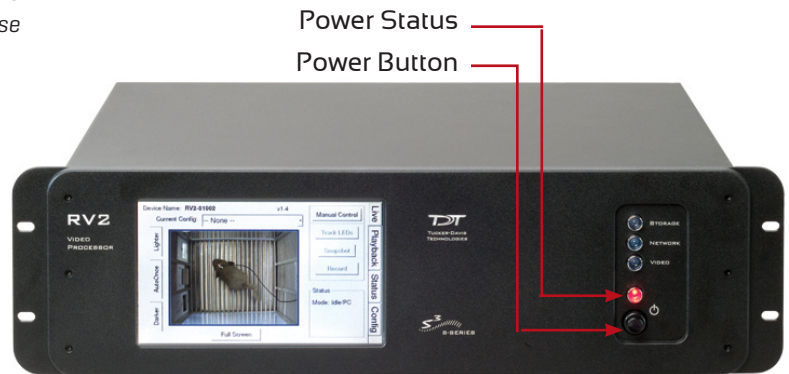
Overview. The RV2 dedicated video processor and collection device and the VGAC machine vision color camera work together for video recording and tracking tasks. Video is streamed from the camera to the RV2 where it is processed and stored. In a complete system, camera triggering is precisely synchronized to an RZ processor (such as RZ2 or RZ5D) allowing frame-by-frame correlation between video data and other recorded signals.

Hardware Setup. The RV2 receives timing pulses and returns tracking information via a fiber optic connection to a special DSP (RZDSP-V) on the RZ processor.

Connect the orange fiber optic cables from the port on the back of the RV2 to the port on the back of the RZ, labeled **To RV2**. The fiber optic cables are color coded to prevent wiring errors.

Connect the gray camera power cable from the **Power-1** port on the RV2 to the VGAC camera.

Connect a Gigabit Ethernet cable from the **Camera-1** port on the RV2 to the VGAC camera.

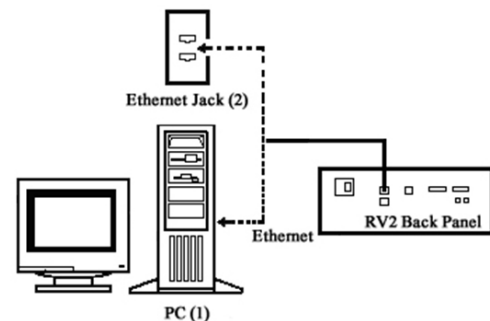


Important! Make sure that all cables are connected before powering on the RV2.



VGAC

Connect an Ethernet cable from the **Network** port on the RV2 to either a local area network (LAN) or directly to the PC running OpenEx.

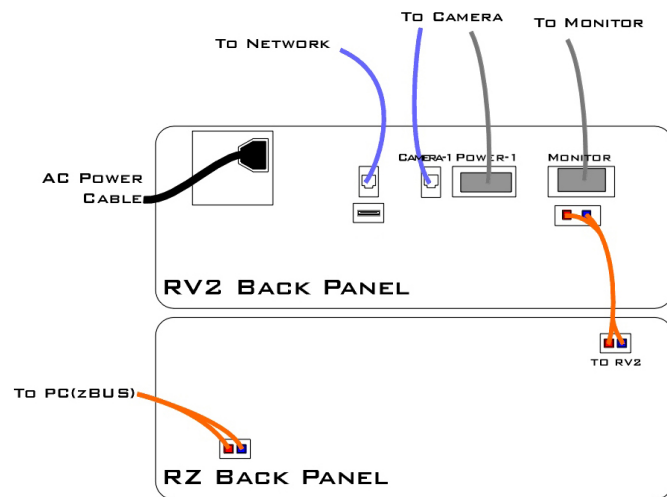


RV2 PC and Network Connection Diagram
Possible connections to a PC (1) or LAN (2).

The RV2's default IP address is 10.1.0.42.

To access the RV2 file system through a PC you must configure the PC TCP/IP settings and set the PC IP address to 10.1.0.x, where x is any value, 1 - 254 except 42.

To access the RV2 file system through a lan network, DHCP must be enabled ON THE NETWORK. *Do not attempt to write to the RV2 while data is actively streaming.



RV2 to RZ Connection Diagram

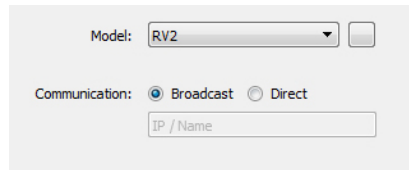
Optionally, **connect** a VGA cable from the **Monitor** port on the RV2 to an external monitor.

For more information on network configuration, see the Video Processor section of the System 3 Manual

Synapse Configuration. The RV2 must be configured in the Rig Editor.

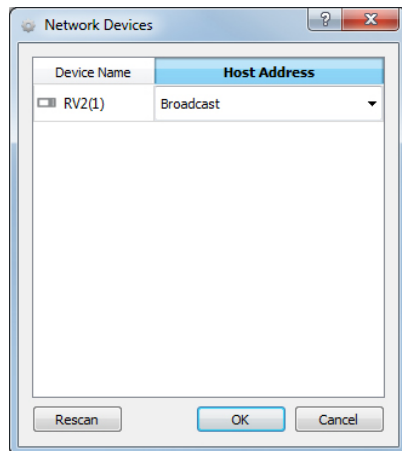
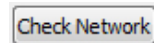
DSPV5 The DSPS optical DSP should be auto-detected. Click the check box next to the RV2 icon to enable the video tracker.
 RV2(?)

DSPV5 Click the icon in the tree to display configuration options.
 RV2



Select Broadcast or Direct connection, then enter the IP address.

Alternatively, click the Check Network button and select the RV2 IP address in the Host Address drop-down for the RV2 [1].



PC Tools. RVMaP software is installed with TDT drivers. It provides a simple visual interface to define regions and targets for video tracking using video snapshots sent from the RV2 to the PC [or over the network]. Region and target information is collected and transferred to the RZ for storage.

The OpenScope video viewer supports synchronized video playback.

See the Video Processor/RVMaP Software section of the System 3 Manual for more information.

Device Address. Typically, the path or device address `\\RV2-0XXXX\` is used to access the RV2 storage array, where **XXXX is the device serial number**. The name should be verified on the **Live** tab of the touchscreen interface. Alternatively, use the IP address which is shown on the **Settings** tab.

Storage Array Type. The RV2 is equipped with 2 terabytes of storage space and supports two RAID based array types: Striped and Mirrored. The default array type is **Mirrored** which provides data back-up in case of drive failure. The RV2 storage array can be reformatted for more recording capacity on the **Config** tab of the touch screen interface. However, keep in mind that under most conditions several months of video can be stored on the mirrored array.

User Interface. The RV2 LCD touch screen displays live or stored video and can be used to configure RV2 options.

Four page selection tabs are located on the right side of the screen.

Live. View the current image captured by the camera, change camera settings and tracking configuration.

Playback. Select and review stored videos.

Status. View IP address and other system information.

Config. Reformat storage array, update firmware, or reboot the system.

Updating Firmware: The RV2 firmware can be updated on the Config tab. Firmware is downloaded from the TDT server and automatically installed on the RV2. Connection to a DHCP enabled network that has internet connectivity is required to retrieve any updates.