

ImageXpress Pico Automated Cell Imaging System

QUICK REFERENCE GUIDE

Connecting Multiple Instruments on a Network

The ImageXpress[®] Pico Automated Cell Imaging System is an all-in-one platform for automatically acquiring and analyzing images from fluorescently labeled biological samples in plates and slides. When used in combination with the CellReporterXpress[®] Image Acquisition and Analysis Software, which features powerful image analysis capabilities and more than 25 available predefined experimental protocols, the ImageXpress Pico system becomes an extremely flexible device, ideally suited for user-defined, automated assays.

This guide describes how to set up multiple ImageXpress Pico instruments on a network to enable simultaneous acquisition and analysis. The diagram below illustrates the recommended configuration to connect four instruments. (Your number of instruments may be different.) The following page describes the details and process for this configuration.



Configuration Details

To set up the recommended configuration, the following must be true:

- All host computers in the configuration are connected on a reliable, dedicated network with a speed of at least 1 Gb/second.
- For image acquisition, each ImageXpress Pico instrument is directly connected to a host computer running licensed CellReporterXpress software. A direct connection uses the LAN1 port on the instrument as described in the Standalone Configuration section of the CellReporterXpress Installation & IT Guide.
- For image analysis, an additional host computer running licensed CellReporterXpress software is connected on the dedicated network.
- For storing image and data files, a remote storage computer (that is, a computer running the CellReporterXpress Location Service) is connected on the dedicated network. See the CellReporterXpress Installation & IT Guide for details on setting up a remote storage computer.
- If needed, client workstations can be connected on the network or wirelessly. Set up the client workstations to connect to each acquisition host computer and the analysis host computer. See the *CellReporterXpress Installation & IT Guide* for details on installing client workstations.

Configuration Notes

Consider the following when setting up multiple instruments on a network:

- Each host computer must be a physical computer. Do not use virtual machines for acquisition or analysis.
- In addition, all host computers contain a SafeNet Sentinel USB hardware key (also called a "dongle").
- Cloud storage of image and data files is not supported by the CellReporterXpress software.
- Each acquisition host computer should only control its directly connected ImageXpress Pico instrument.
- Each host computer must be dedicated to running its installed CellReporterXpress software.

Process

To acquire and analyze images from multiple instruments:

- On each acquisition host computer, in the CellReporterXpress software, open a protocol based on the New Plate No Analysis template.
- 2. On the **Acquisition Device** page, select the directly connected instrument.
- 3. On the **Run Protocol** page, enter a unique experiment name. We recommend including the instrument name in the experiment name to avoid conflicts during analysis.
- Click Storage and specify the storage location (either the local host computer or the remote storage computer) for the image and data files.
- 5. Run the experiment and wait for it to complete.
- If the image and data files are stored on a local host computer, manually copy the files to the remote storage computer. Otherwise, skip this step.

Note that there are utilities—for example, Robocopy that can automate the file copying process. However, these utilities can cause loss of data and image files, and they are not supported by Molecular Devices. We recommend manually copying the files.

- 7. On the analysis host computer, open the experiment from the remote storage computer.
- 8. On the Experiments page, click Add Analysis.
- 9. Follow the Add Analysis workflow to set up the analysis. See the *CellReporterXpress Help* or the *CellReporterXpress User Guide* for details.

Obtaining Support

Molecular Devices is a leading worldwide manufacturer and distributor of analytical instrumentation, software, and reagents. We are committed to the quality of our products and to fully supporting our customers with the highest level of technical support.

Our Support website describes the support options offered by Molecular Devices, including service plans and professional services. It also has a link to the Molecular Devices Knowledge Base, which contains documentation, technical notes, software upgrades, safety data sheets, and other resources. If you still need assistance, submit a request to Molecular Devices Technical Support.

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