TELEDYNE DALSA
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SAP-AN0005: Sapera LT Plugin for ImageJ for DALSA GigE camera

Installing the Sapera LT Plugin for ImageJ

Overview

This application note describes how to install the Sapera LT plugin for ImageJ under Windows Operating system. ImageJ is an open source Java image processing program. The Sapera LT plugin allows image acquisition from Teledyne DALSA GigE cameras in the ImageJ application on systems with Sapera LT 8.x installed.

Sapera LT SDK (full version), the image acquisition and control SDK for Teledyne DALSA cameras and frame grabbers is available for download from the Teledyne DALSA website:

http://teledynedalsa.com/imaging/support/downloads/sdks/

Software Development Kits

Access to certain drivers and SDK updates are restricted to Teledyne DALSA customers that have registered their development package (SDK). If you have not yet done so, please register your software before proceeding.

Description	Version	Release Date
Sapera LT SDK (full version) - Free Download	8.20	10/28/2016

> **Note:** Administrative privileges are required to perform the Sapera LT software installation described in this application note.

1. Download ImageJ

ImageJ (1.46 or greater) is available for download from the ImageJ website:

https://imagej.net/Downloads

Delete any existing installation of ImageJ, including any *TDalsaAcqDevice.dll* file in the Windows/System32 directory.

2. Download the Sapera LT Plugin for ImageJ

The Sapera LT Plugin for ImageJ is available for download from the Teledyne DALSA ftp site:
ftp://ftp.dalsa.com/Private/p_ProductSupport/Genie/Tools/ImageJ-Teledyne_Dalsa_GigE_Acquisition_plugins_For_Sapera_LT_v8.x.zip

3. Copy Files for Windows Platform to ImageJ Directory

Extract the files from the Sapera LT plugin for ImageJ .zip archive; versions are available for 32 or 64-bit Windows platforms, with each containing a *.zip* file.
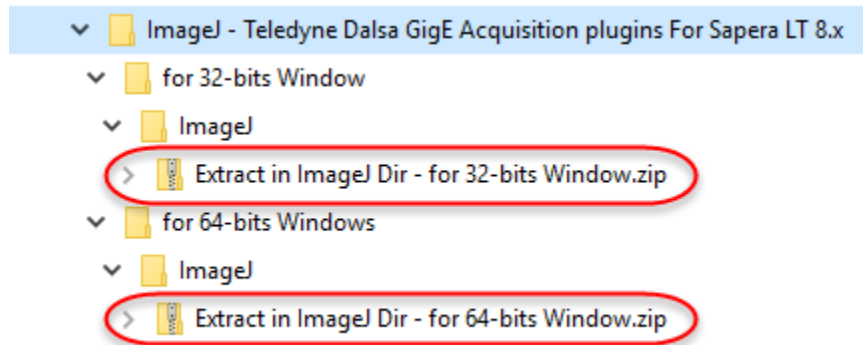
Extract the files in the required Windows platform *.zip* file into the <install-directory>\ImageJ\ directory.

Files such as the *ImageJ.cfg*, *TDalsaAcqDevice.dll* and *Teledyne_Dalsa.jar* are placed in the required directories (root, /lib and /plugins/Teledyne Dalsa, respectively).

> **Note:** Note, depending on the ImageJ distribution installed the ImageJ folder may use a different name. For example, the Fiji distribution directory structure uses <install-directory>\Fiji.app\:

4. Start the ImageJ Application

Start the ImageJ application by running the ImageJ executable located in the directory where the ImageJ files were extracted.
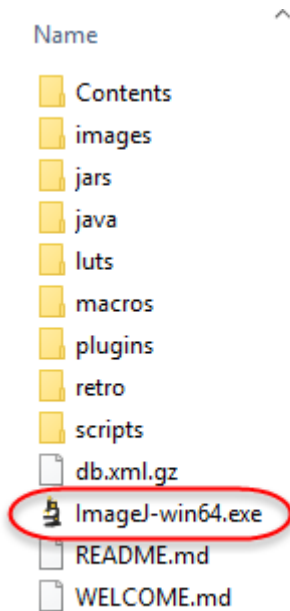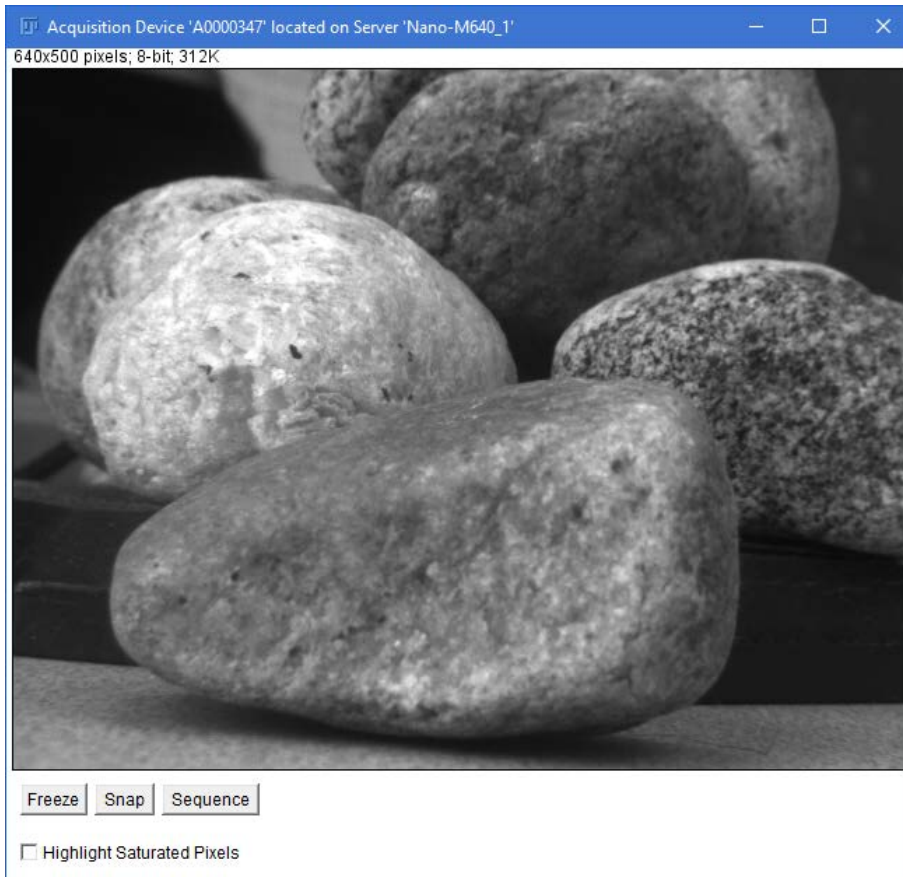
To acquire images from a connected Teledyne DALSA Camera, use the Plugins > Teledyne Dalsa > Acquisition Device menu command.
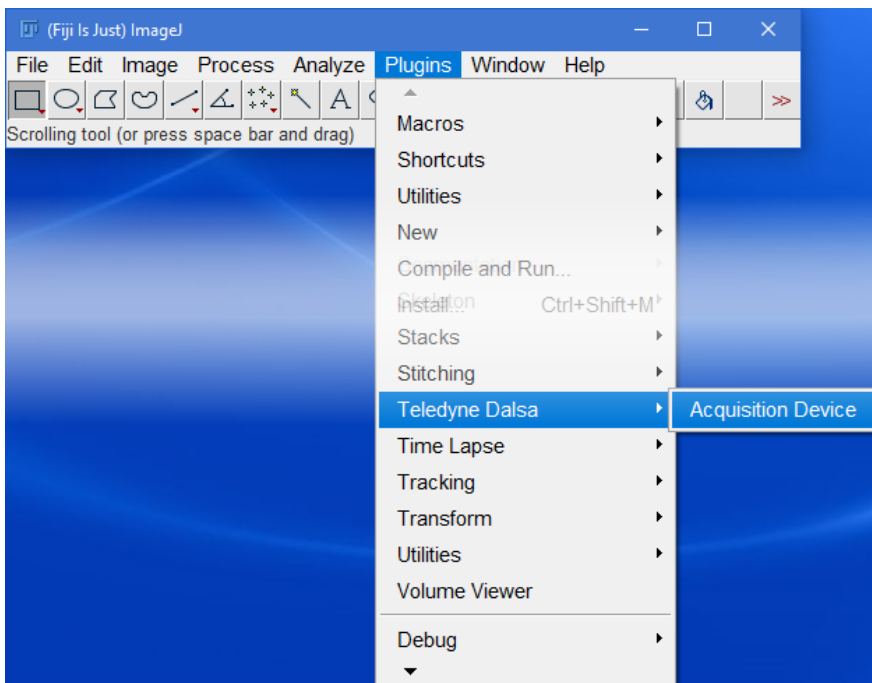
The Acquisition Configuration dialog is displayed; select the required device from the Acquisition Server drop-down list and click **OK**.
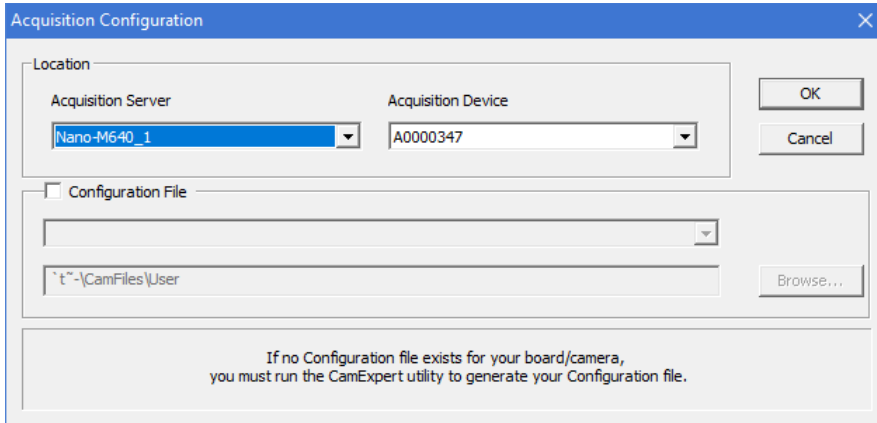
An acquisition window is displayed. Use the Freeze, Snap or Sequence buttons to acquire images.

Supported ImageJ functions can be executed on individual acquired images. For example, the following image has an inverting LUT applied.