

ImageXpress Taskbar Installation Guide

Version 6.2

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Introduction

This guide provides instructions on how to install the optional ImageXpress Taskbar (“IX Taskbar”). The IX Taskbar is an organized collection of tools intended to enhance and/or streamline common tasks and user workflows for an ImageXpress Micro or ImageXpress Nano high-content screening system.

Compatibility

Software

- MetaXpress software version 6.2 and above (acquisition version)

Instrument

ImageXpress Nano system with MetaXpress software

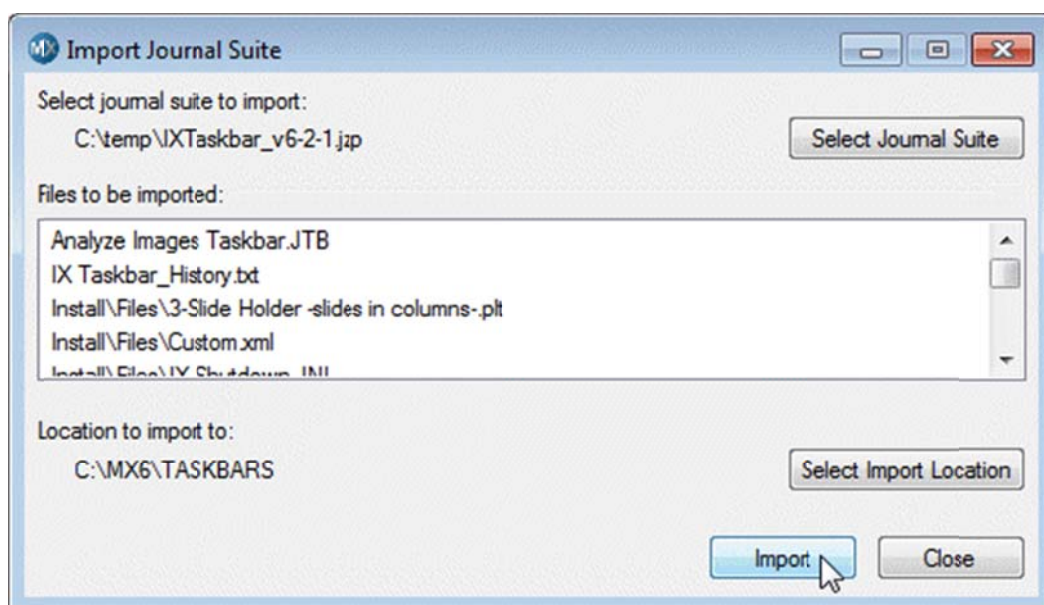
- ImageXpress Micro 4 system
- ImageXpress Micro Confocal system
- ImageXpress Micro XLS system
- ImageXpress Micro XL system
- ImageXpress Micro (Standard) system

For offline analysis computers, use the MX Analysis Taskbar version 6.2.

Installation Steps

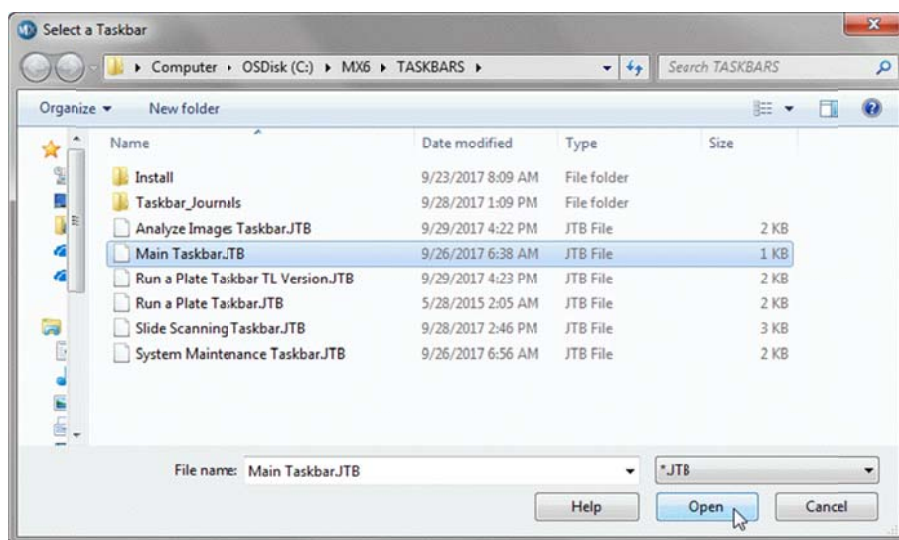
1. Importing and loading the taskbar

- a. Copy the provided **IXTaskbar_v6-2-x.jzp** file to a convenient location on the ImageXpress acquisition computer.
- b. Power on the ImageXpress system and start up the MetaXpress software.
- c. Go to **Journal > Import Journal Suite** (standard menu structure) or **Control > Journal > Import Journal Suite** (simplified menu structure).
- d. Select the **IXTaskbar_v6-2-x.jzp** file, and select the “Taskbars” folder within the MetaXpress installation directory (e.g. **C:\MX6\Taskbars**). If the folder does not exist, create it. Click **Import**.

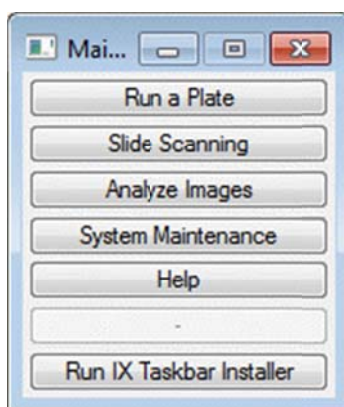


- e. Go to **Journal > Taskbars > Load Taskbar** (standard menu structure) or **Control > Journal > Taskbars > Load Taskbars** (simplified menu structure). Select the **Main Taskbar.JTB** file in the Taskbars directory (e.g. **C:\MX6\Taskbars**).

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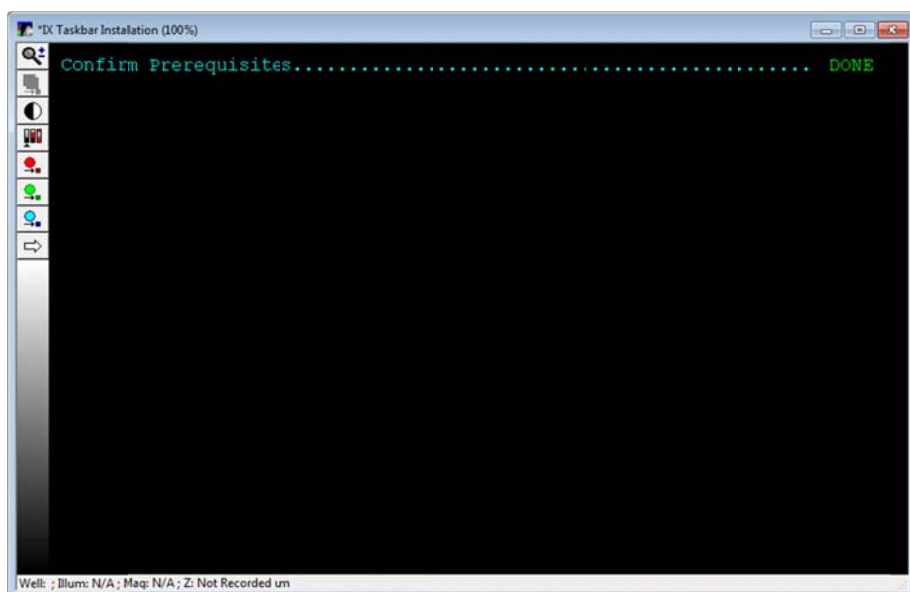


- f. The main taskbar appears in the MetaXpress window.

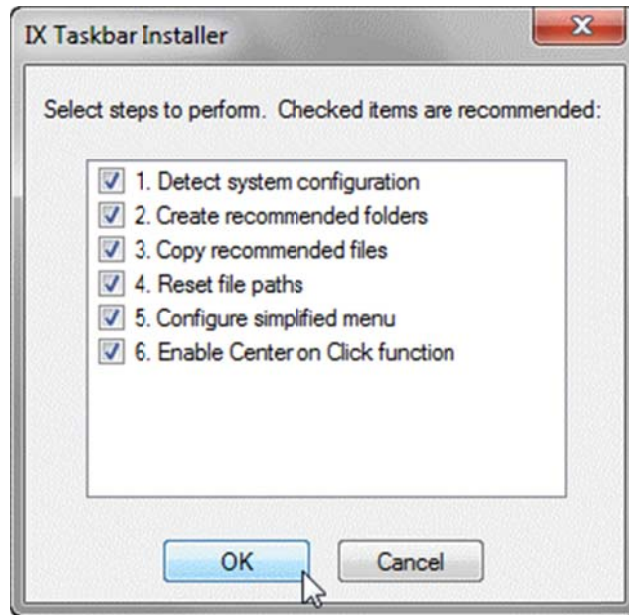


2. Running the IX taskbar installer

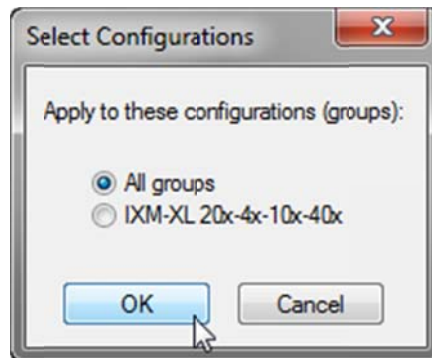
- g. On the Main Taskbar, click **Run IX Taskbar Installer**.
- h. The IX Taskbar Installation status window appears, confirming if prerequisites have been met:
 - i. The taskbar files were imported into a valid MetaXpress directory
 - ii. This is an acquisition computer.



- i. A menu of installation items appears with recommended items already checked. Change the selection as desired, then click **OK**. The individual items are described in detail later in this document.



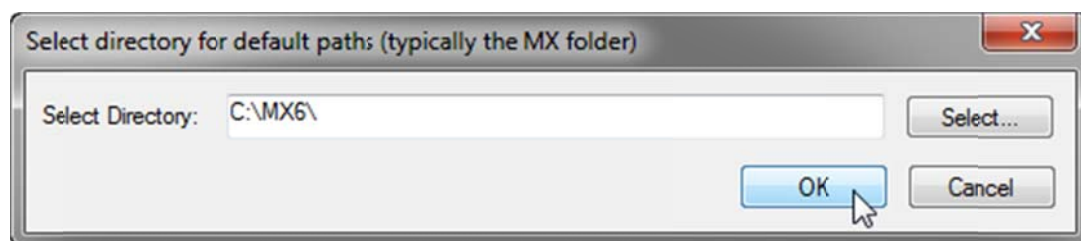
- j. If any of the steps 4 (Reset file paths), 5 (Configure simplified menu), or 6 (Enable Center on Click function) were selected, choose whether to apply the changes to all configurations (also known as groups or profiles) or just the current configuration.



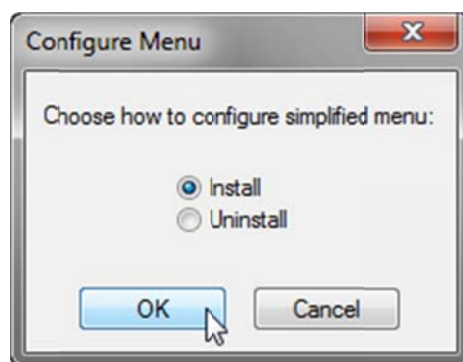
- k. If any of the steps 4 (Reset file paths), 5 (Configure simplified menu), or 6 (Enable Center on Click function) were selected, and MetaXpress is running in Multi-User Mode (uncommon), choose whether to apply the changes to all MetaXpress Users (these are different than the database users) or just the current MetaXpress User. If MetaXpress is running in Single-User Mode (default) then this step is skipped.



- l. If step 4 (Reset file paths) was selected, select the base folder to use for the default paths. This is usually either the MetaXpress installation directory (e.g. **C:\MX6**) or a location on the D: drive (e.g. **D:\MX Data**).

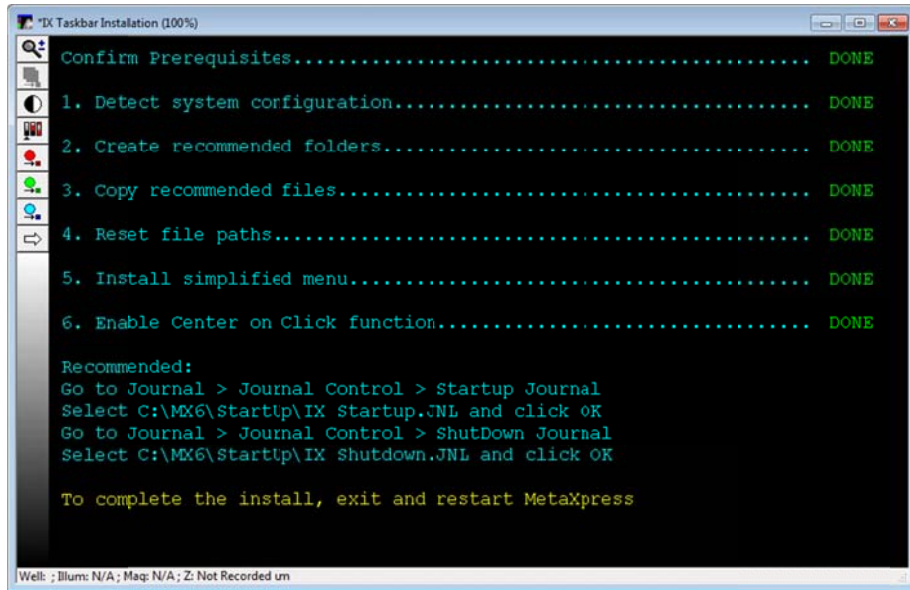


- m. If step 5 (Configure simplified menu) was selected, select whether to install or uninstall the simplified menu.



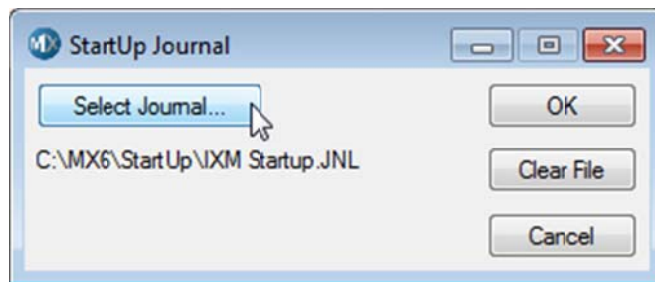
- n. The installation steps are now performed and the installation status window is updated.

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- o. If step 3 (Copy recommended files) was performed, a startup journal has been installed in the MetaXpress directory. You may optionally enable this to be run during MetaXpress software startup. To do so, go to **Journal > Journal Control > StartUp Journal** (standard menu structure) or **Control > Journal > Journal Control > StartUp Journal** (simplified menu structure) and select the file indicated in the installation status window, then click **OK**.

NOTE: In previous versions of the IXM Taskbar, the startup journal was required for full taskbar functionality. In the IX Taskbar version 6.2, the startup journal is now optional.



- p. If step 3 (Copy recommended files) was performed, a shutdown journal has been installed in the MetaXpress directory. You may optionally enable this to be run during MetaXpress software startup. To do so, go to **Journal > Journal Control > ShutDown Journal** (standard menu structure) or **Control > Journal > Journal Control > ShutDown Journal** (simplified menu structure) and select the file indicated in the installation status window, then click **OK**. This step is optional.
- q. If either step 5 (Configure simplified menu) or step 6 (Enable Center on Click function) was selected, exit and restart the MetaXpress software to complete the installation.

Multiple Configurations (Groups)

- r. If there are multiple configurations (multiple MetaXpress program shortcuts), the following steps must be repeated for each configuration:
 - i. Load the Main Taskbar using **Journal > Taskbars > Load Taskbar** (standard menu structure) or **Control > Journal > Taskbars > Load Taskbars** (simplified menu structure)
 - ii. **Optional:** select the startup journal using **Journal > Journal Control > StartUp Journal** (standard menu structure) or **Control > Journal > Journal Control > StartUp Journal** (simplified menu structure).
 - iii. **Optional:** select the shutdown journal using **Journal > Journal Control > ShutDown Journal** (standard menu structure) or **Control > Journal > Journal Control > ShutDown Journal** (simplified menu structure).

Multi-User mode

- s. If MetaXpress is run in Multi-User mode (uncommon), the following steps must be repeated for each MetaXpress User (this is different than a database user):
 - i. Load the Main Taskbar using **Journal > Taskbars > Load Taskbar** (standard menu structure) or **Control > Journal > Taskbars > Load Taskbars** (simplified menu structure)
 - ii. **Optional:** select the startup journal using **Journal > Journal Control > StartUp Journal** (standard menu structure) or **Control > Journal > Journal Control > StartUp Journal** (simplified menu structure).
 - iii. **Optional:** select the shutdown journal using **Journal > Journal Control > ShutDown Journal** (standard menu structure) or **Control > Journal > Journal Control > ShutDown Journal** (simplified menu structure).

Installation Details

1. Detect system configuration

Step 1 detects the specific camera type used in the ImageXpress Micro system and stores it in an INI file for use by other parts of the taskbar. Some of the taskbar functions vary depending on the camera type.

2. Create recommended folders

Step 2 creates the following main folders on the computer, if they do not already exist:

C:\assay (required for use of analysis journals)

C:\analysis (required for use of analysis journals)

C:\backup (at the start of acquisition, a backup of current MetaXpress settings is stored in this folder)

Within the C:\assay\ folder the following subfolders are created for the Slide Scanning workflow:

C:\assay\Slide Scanning

C:\assay\Slide Scanning\Temp

C:\assay\Slide Scanning\Journals

C:\assay\Slide Scanning\Settings

3. Copy recommended files

Step 3 copies a number of recommended files to appropriate locations on the acquisition computer:

IX Startup.JNL – This optional startup journal is copied to **C:\MX6\Startup** (or equivalent)

IX Startup.AST – A default camera settings file for the system is copied to **C:\MX6\Startup** (or equivalent)

IX Shutdown.JNL – This optional shutdown journal is copied to **C:\MX6\Startup** (or equivalent)

Slide Scanning_Start of Plate.JNL – This slide scanning journal is copied to **C:\assay\Slide Scanning\Journals**

Slide Scanning_Start of Well.JNL – This slide scanning journal is copied to **C:\assay\Slide Scanning\Journals**

Slide Scanning_Start of Site.JNL – This slide scanning journal is copied to **C:\assay\Slide Scanning\Journals**

3-Slide Holder –slides in columns-.plt – This generic plate file is copied to **C:\MX6\Plates** (or equivalent)

Single Slide Holder.plt – This generic plate file is copied to **C:\MX6\Plates** (or equivalent)

IXx_ScanSlide_Calibrations.scansetting – A scan slide settings file containing default objective calibrations for your instrument type is copied to **C:\MX6\Scan Slide Setting** (or equivalent)

Turn off Transmitted Lamp.JNL – This journal file is copied to **C:\MX6\app\mmproc\journals** (or equivalent). It can be used as an “end of plate” journal during Plate Acquisition.

NOTE: If any of these files (except IX Startup.AST) already exist in the specified location, the existing file will not be overwritten. The IX Startup.AST will be overwritten, as the settings may change if a replacement camera is installed during a service visit.

4. Reset file paths

In the MetaXpress software, the user can use **Edit > Configure Default Paths** to specify the default file paths for image saving, various settings files, regions, etc. However, each path must be specified individually. Step 4 of the taskbar installer allows you to configure all of the default paths in a single step by selecting the base folder to use, which is generally either the MetaXpress installation directory (e.g. **C:\MX6**) or **D:\MX Data** on the ImageXpress acquisition computer.

NOTE: After installing a new version of the MetaXpress software using the option to copy settings from a previous version, the default paths may be pointing to the previous version installation directory. It is recommended to use the IX Taskbar Installer to update these paths to reduce user confusion.

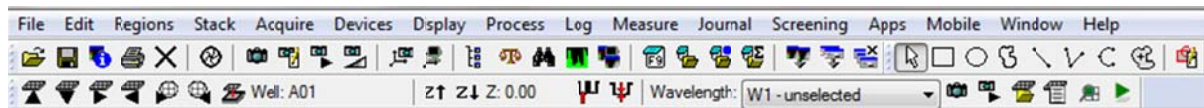
5. Configure simplified menu

An optional simplified menu structure can be installed to reduce the number of top-level menus. All the features of the software are available in this reorganized menu structure. You can use the Menu Map in the Help menu to help you find the locations of features in the simplified menu structure.

The IX taskbar installer can be used to install or uninstall the simplified menu structure. After either installation or uninstallation, the Metaxpress software must be restarted.

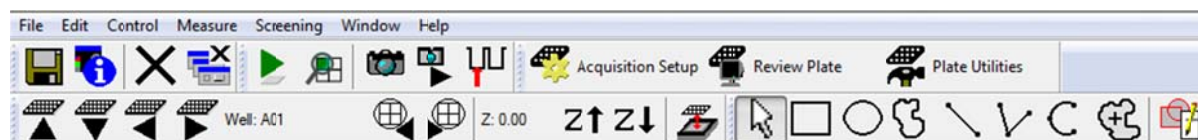
If you already have the simplified menu structure installed, but want to update it to the latest version, choose the install option.

Standard menu structure:



Simplified menu structure:

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Right-clicking over the toolbar area will allow you to customize the toolbar selection. The following toolbars are recommended for ImageXpress systems:

Basic Tools (enable Show Large Icons)

Screen Acquire (enable Show Large Icons)

Screening Tools (enable Show Large Icons and Show Button Text)

Hardware Tools (enable Show Large Icons)

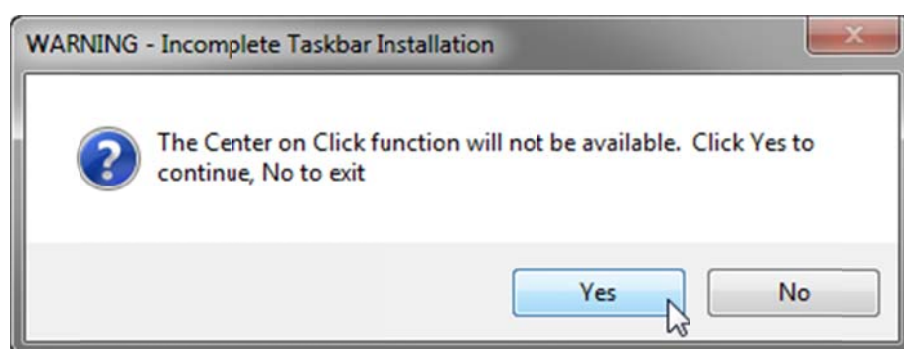
Region Tools (enable Show Large Icons, right-click and select Properties to edit Region Tools options)

	Hide Toolbar
☒	Show Button Text
☒	Show Large Icons
☒	Region Tools
	Overlay Tools
	Apps
	Arithmetic
	Basic Acquisition
☒	Basic Tools
	Binary
	Camera State
	Color
	Color Photography Tools
	Device Control
	Devices
	Display
	File
	Fluorescence Tools
☒	Hardware Tools
	Journal
	Journal Control and Looping
	Living Cell Tools
	Measure
	OptiGrid
	Plate Acquisition
	Process
	Region
☒	Screen Acquire
☒	Screening Tools
	Stack
	Stack Arithmetic
	Standard Tools
	Taskbar
	Transmitted Light Tools
	Variables

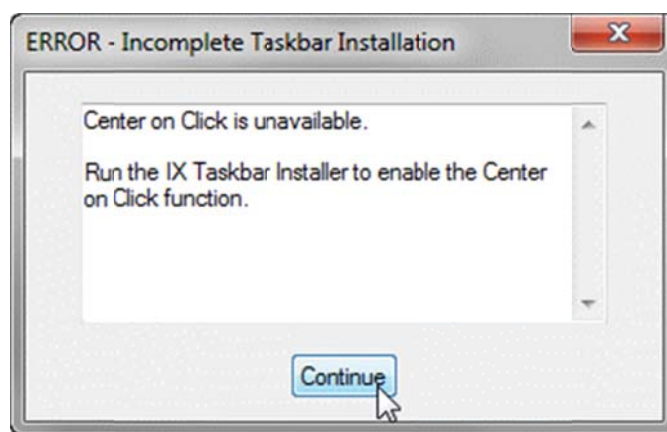
6. Enable Center on Click function

Certain taskbar tools (e.g. **Parfocality and XY Offsets**) include an interactive step for the user to adjust the stage position. The Center on Click function allows the user to click on a point of interest in an image to move the stage to that exact location. After the installer is run, exit and restart the MetaXpress software to complete enabling of this function.

If the Center on Click function is not enabled, a warning message will appear when one of these taskbar tools is selected.



If the **Center on Click** button on the Slide Scanning taskbar is selected and the Center on Click function is not enabled, an error message will appear.



7. Startup Journal

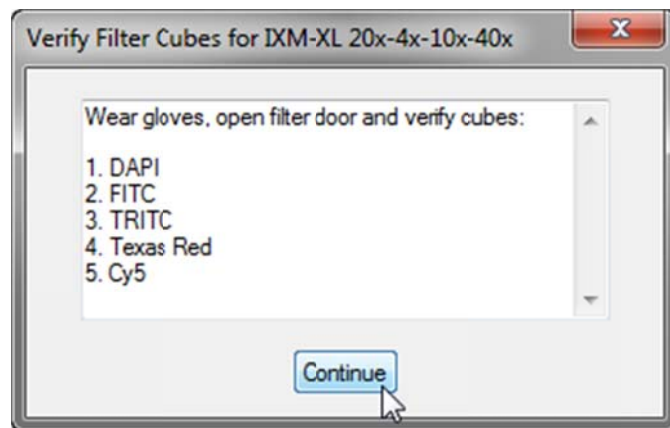
The provided startup journal is optional but recommended. If selected under **Journal > Journal Control > StartUp Journal** (standard menu structure) or **Control > Journal > Journal Control > StartUp Journal** (simplified menu structure), the startup journal is run at the beginning of every MetaXpress session.

The provided startup journal has two main functions:

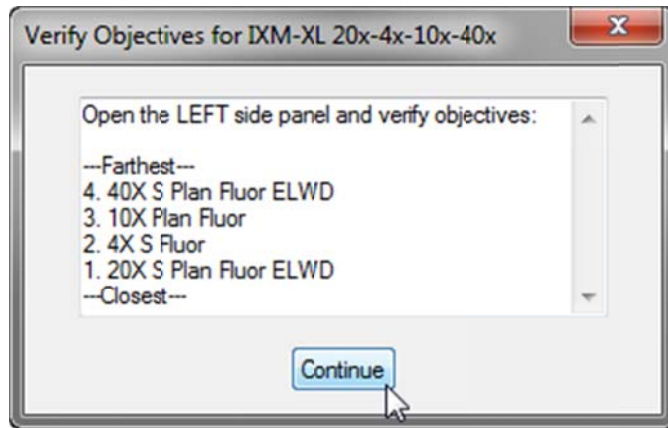
- **Load the main taskbar** – if a user accidentally closed the taskbar during a previous session, this will cause it to reappear automatically at software startup.
- **Restore default camera settings** – in case a user has altered the camera settings during a previous session, this will restore the system to factory default settings, recommended for best performance.

The startup journal also has three additional functions that can be enabled as needed:

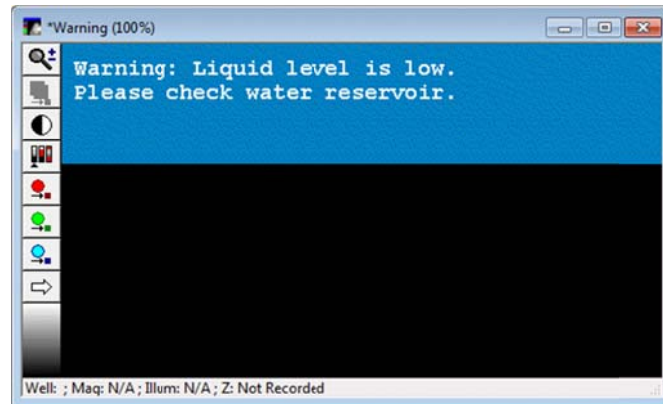
- **Prompt user to verify filter cubes** – Useful if a system has multiple filter cube configurations, this will eject the filter cubes and prompt the user to verify the expected cubes before proceeding.



- **Prompt user to verify objectives** – Useful if a system has multiple objective configurations, this will prompt the user to verify the expected objectives from one of the side panels before proceeding.

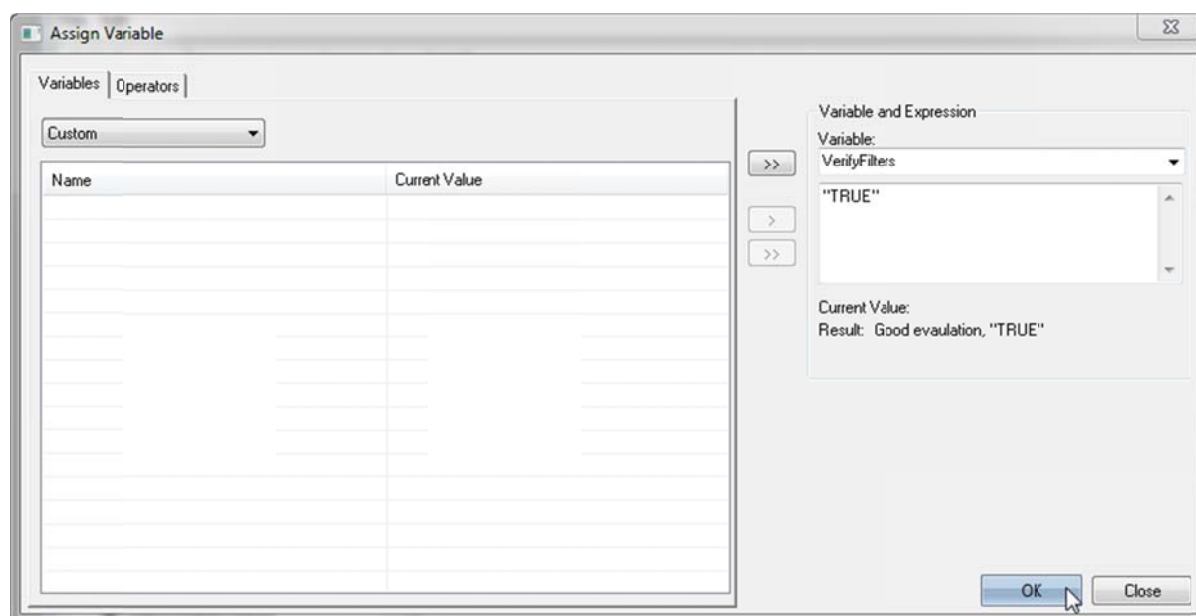
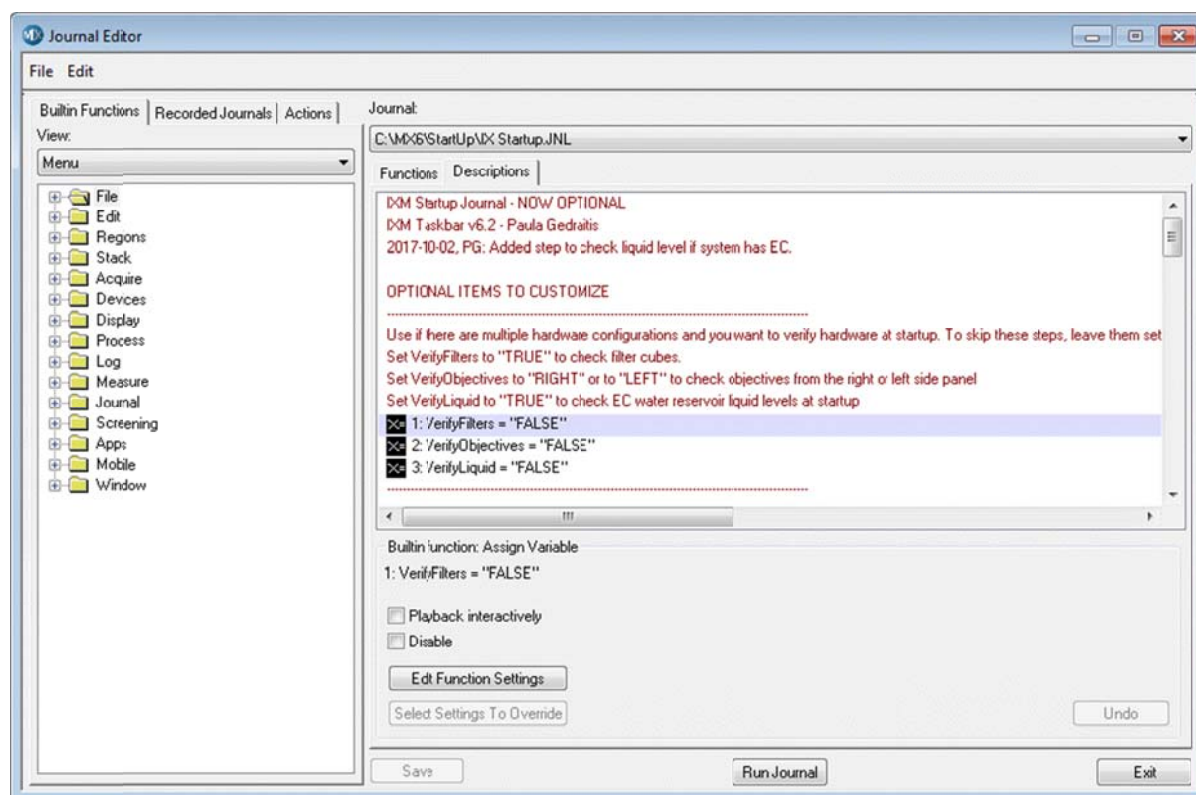


- **Check liquid level** – if the system has the Environmental Control option, and the liquid level is low, it displays a warning to the user prompting them to check the water reservoir.



To enable any of these functions, go to **Journal > Edit Journal** (standard menu structure) or **Control > Journal > Edit Journal** (simplified menu structure) and select the **IX Startup.JNL** file in the **C:\MX6\Startup** folder (or equivalent). Double-click on the first step and set the **VerifyFilters** variable to **"TRUE"** to enable the filter cube verification step. Click **OK**, then **Close**, to register the change.

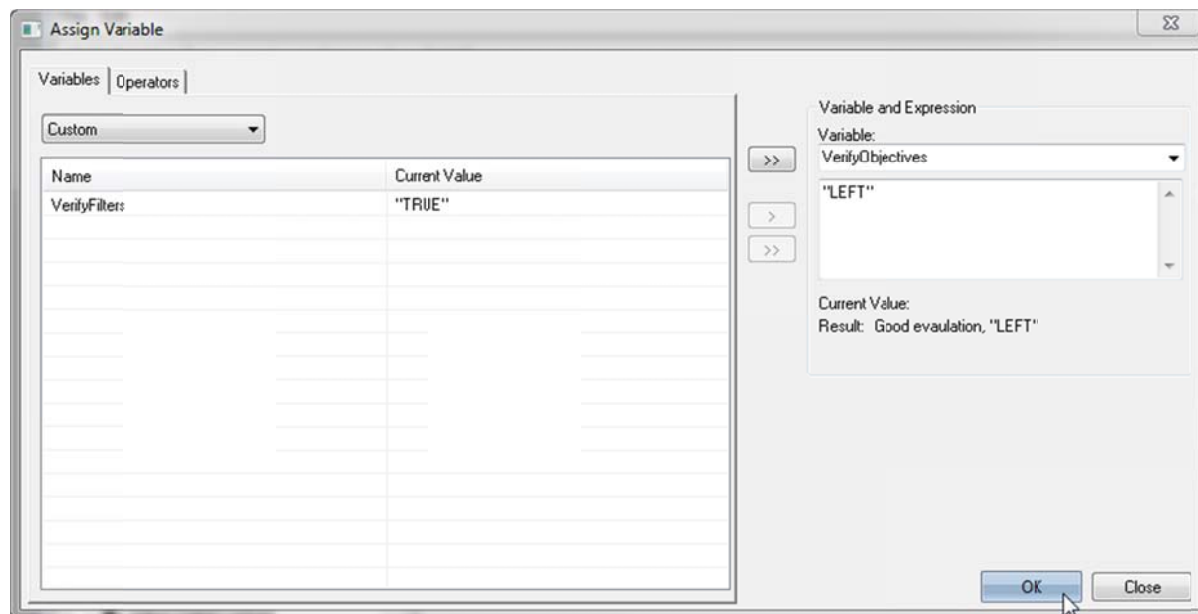
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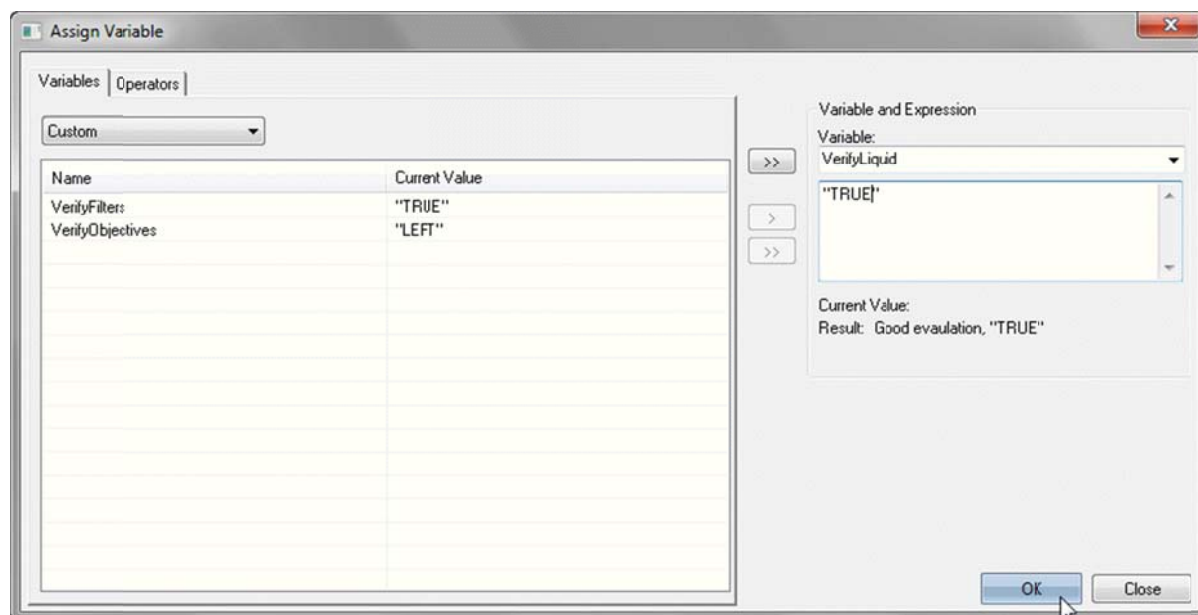
Double-click on the second step and set the **VerifyObjectives** variable to either “**LEFT**” or “**RIGHT**” to enable

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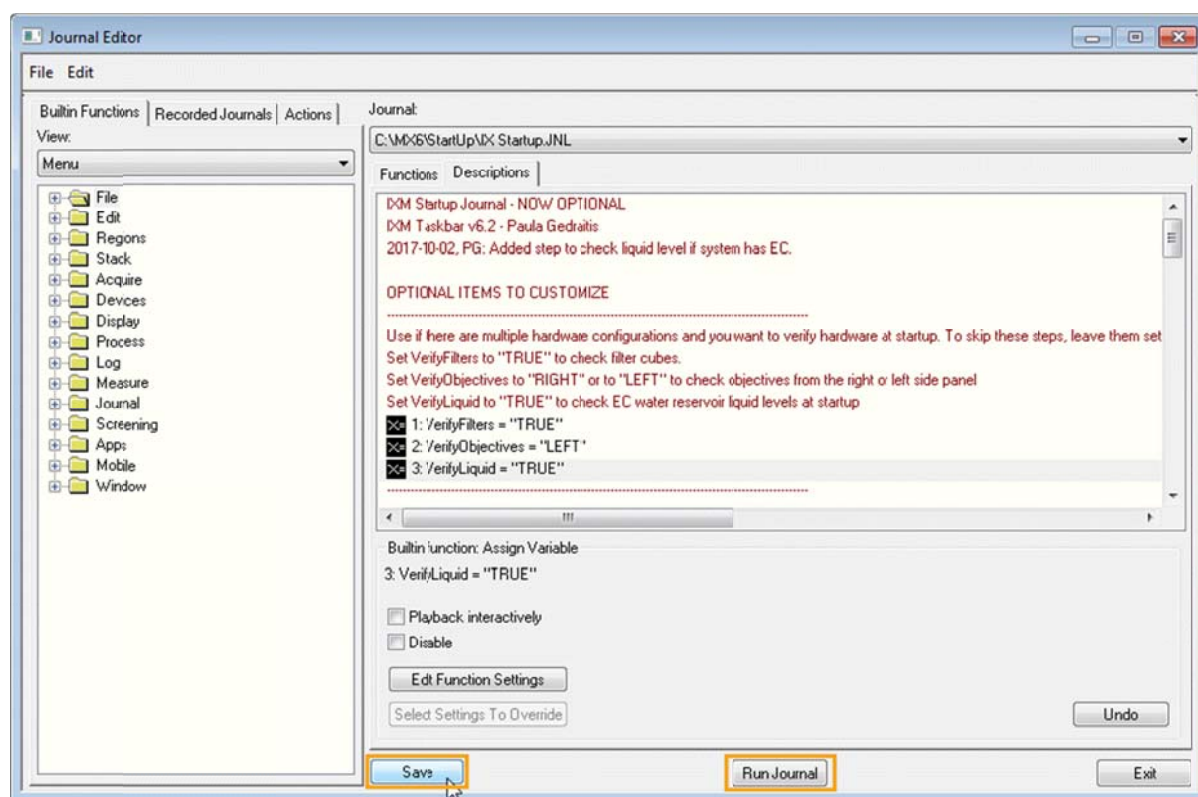
the objective verification step. Select left or right based on accessibility to the left or right side panel of the ImageXpress system. Click **OK**, then **Close**, to register the change.



Double-click on the third step and set the **VerifyLiquid** variable to "TRUE" to enable the liquid level verification. Click **OK**, then **Close**, to register the change.



Click **Save** to save the modified journal, then click **Run Journal** to test it.



Customization of the startup journal is now complete.

8. Shutdown Journal

The provided shutdown journal is optional but recommended. If selected under **Journal > Journal Control > ShutDown Journal** (standard menu structure) or **Control > Journal > Journal Control > ShutDown Journal** (simplified menu structure), the shutdown journal is run at the end of every MetaXpress session.

The provided startup journal has two main functions:

- **Turn off the Transmitted Light lamp** – if the system has the Transmitted Light option, and the lamp is on, this will turn the lamp off when exiting the software.
- **Allow user to remove plate** – prompt the user to remove any plate left in the system, then close the door before exiting the software.

Upgrading from an earlier version of the IX taskbar

1. If taskbar journals and startup journal were never customized for this system

- a. Clear the contents of the Taskbars subfolder in the MetaXpress installation folder (e.g. C:\MX6\Taskbars\) by deleting or by moving to another folder as a backup.
- b. Clear the contents of the Startup subfolder in the MetaXpress installation folder (e.g. C:\MX6\Startup\) by deleting or by moving to another folder as a backup.
- c. Follow the installation instructions above.

2. If startup journal was previously customized for this system

- d. Clear the contents of the Taskbars subfolder in the MetaXpress installation folder (e.g. C:\MX6\Taskbars\) by deleting or by moving to another folder as a backup.
- a. Follow the installation instructions above, but do not change the startup journal selection.
- b. If you need assistance to combine your customized startup journal with the new startup journal, please contact Molecular Devices technical support. <https://www.moleculardevices.com/support>

3. If taskbar was previously customized for this system

- a. Do not make any changes to the Taskbars subfolder in the MetaXpress installation folder (e.g. C:\MX6\Taskbars\).
- b. You may install the new taskbar in an alternate folder (e.g. C:\MX6\Taskbar62\) and use the Load Taskbar function to switch between the old and new taskbars.
- c. Alternatively, contact Molecular Devices technical support to determine if the customization can be carried over to the new taskbar. <https://www.moleculardevices.com/support>