

Motion Control 4.5 Release Notes

January 2012:

Released for use with iVision 4.5.2.

Device Additions and Changes:

CrEST X-Light:

Added a device module for support of the CrEST X-Light confocal imaging device.

Lumencor Sola:

Added a shutter device so that the lamp can be treated as a shutter (open = lamp on, closed = lamp off) in Multi-D and other commands which only work with shutters.

Added an option in Device Setup to always turn off the lamp when quitting iVision.

Additions and Enhancements

Device Select will now look in the Shared preferences folder if there is no device selection list found in the User's folder.

Improved notification of devices that are disconnected and then re-connected so that dialogs show the correct status for them after re-connection.

If a scripted device command is set to use a device which does not exist when you later edit the script, the item will be shown as a disabled item at the bottom of the menu. This reduces confusion about which device the dialog is meant to use.

If a stage has a servo lock applied, that fact will now be displayed in the Stage Control dialog.

Improved the Stage Control dialog to use "Move To" when doing absolute moves and "Move By" when doing relative moves.

Bug Fixes:

Fixed Device Select to correctly read the XY stage selection when there is no Z device.

Fixed the Device Select dialog to re-enable items in the left-hand list that have been removed from the right-hand list.

Changed the Record Position command to zero the positions window after it is created.

July 2011:

Released for use with iVision 4.5.1.

Device Changes and Additions:

Lumencor Sola:

Added support for the LED white-light source. It is controlled with the *Microscope Lamp* command in the Control menu. The level ranges from 0 to 255.

Vincent UniBlitz Shutters:

An option was added to allow the use of up to 3 daisy-chained controllers. The address switch on the first controller must be 0, the address on the second 1, and on the third 2.

Bug Fixes:

Fixed a bug that applied the Lamp level even if the level option was not checked.

Fixed User Devices to allow Connect after adding definitions to an empty User Devices folder.

Fixed a possible crash in User Devices if you cancelled the Device Setup dialog.

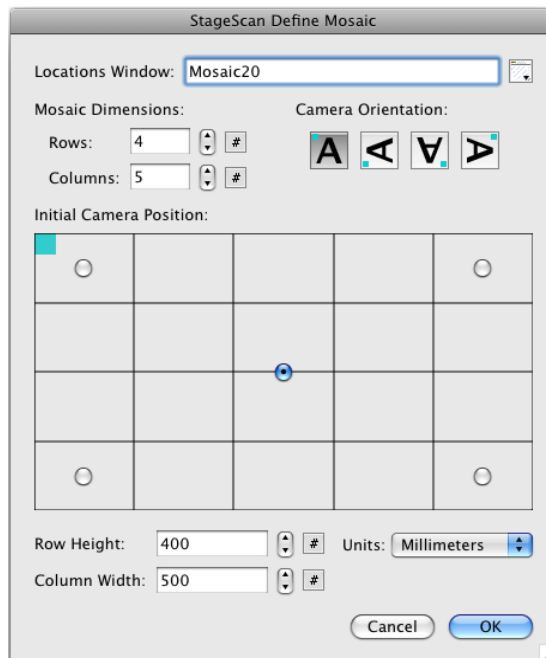
StageScan Extension:

The StageScan extension contains two commands which have been updated from the 4.0 version of StageScan: *Define Mosaic* and *Move/Iterate*.

Define Mosaic (previously Mosaic Calibrate):

The **StageScan Define Mosaic** command helps you acquire a mosaic, or rectangular array, of images. Place your area of interest in front of the camera and then run this command. You will set the number of images to capture and the distance between the centers of each image. Your script will then move to each position and captures an image there. The script will use the **StageScan Move/Iterate** command to move the stage to each position.

The **StageScan Define Mosaic** command calculates the capture positions based upon the camera's initial position. If the camera is looking at the center of the sample, then this command will calculate all positions relative to the center. If the camera is looking at a corner of the sample, then this command will calculate all positions relative to that corner.



Locations Window:

This is the name of the window which will be created by this command, and which will hold the coordinates needed by the Move/Iterate command.

Mosaic Dimensions:

The Rows and Columns fields set the width and height of the mosaic, measured in the number of images.

Camera Orientation:

If your camera is rotated with respect to the stage, select the orientation from the four choices. The matching green rectangle will be drawn in the grid as a reminder.

Initial Camera Position:

Click the button that represents the camera's position relative to the mosaic as the start of the image capture. The mosaic can be created with the camera starting at the center or any corner.

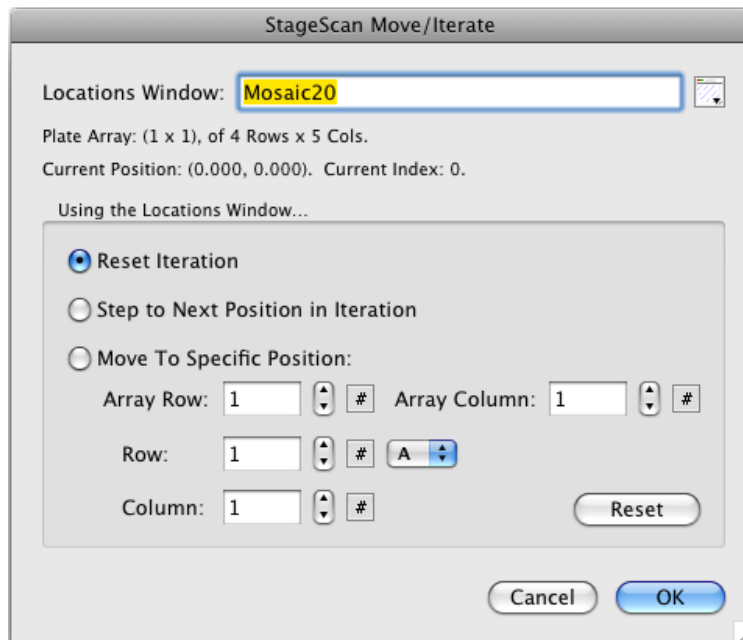
Row Height & Column Width:

These two fields determine the distance between the centers of the images. The stage will move this relative distance when moving into position for the next image. The Units menu applies to both fields. The possible units are micrometers and millimeters.

StageScan Move/Iterate:

This command uses the data stored in a locations window to move the stage.

StageScan Move/Iterate can move the stage to multiple positions in multiple arrays, in an order of your choosing. Scripts using **StageScan Move/Iterate** can quickly move to all the desired positions within an array or mosaic, acquiring images and performing other actions at each position.



Locations Window:

Enter the name of a Locations Window created by the Define Mosaic command. The line below the window name shows the size of the mosaic.

Reset Iteration:

Use this option to initialize the iteration process. It sets the iteration index to 0. The index indicates which position in the locations window to use next.

Step to Next Position in Iteration:

Use this option within a loop in a script to move the stage to the next step of the grid. When the iteration reaches the end of the path the index will be reset and the scan be started again.

Move to Specific Position:

Use this option to move to a specific location, based on row and column position. The row can be entered by letter using the menu; it will enter the appropriate number into the Row field.

February 2011:

Released for use with iVision 4.5.0.

The separate User Devices (previously: "Serial Control") extension has been combined into the Device Setup extension.

The "Generic S&F" device module has been renamed "User Defined S&F".