MetaXpress® 6 Software Guide

Logical Operations and Marked Objects

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MOLECULAR DEVICES

Chapter Purpose

The purpose of this chapter is to illustrate the **Logical Operations**, **Remove Marked Objects**, and **Keep Marked Objects** options in the **Custom Module Editor** (CME) plugin.

These tools are found in the CME **Modify Objects** menu. They are used to combine two masks together as appropriate for the analysis.

Overview

Logical Operations

- Performs operations on two masks on a pixel-by-pixel basis

  – AND (intersection)

  – OR (union)

  – ANDNOT (subtract)

  – XOR (union – intersection)

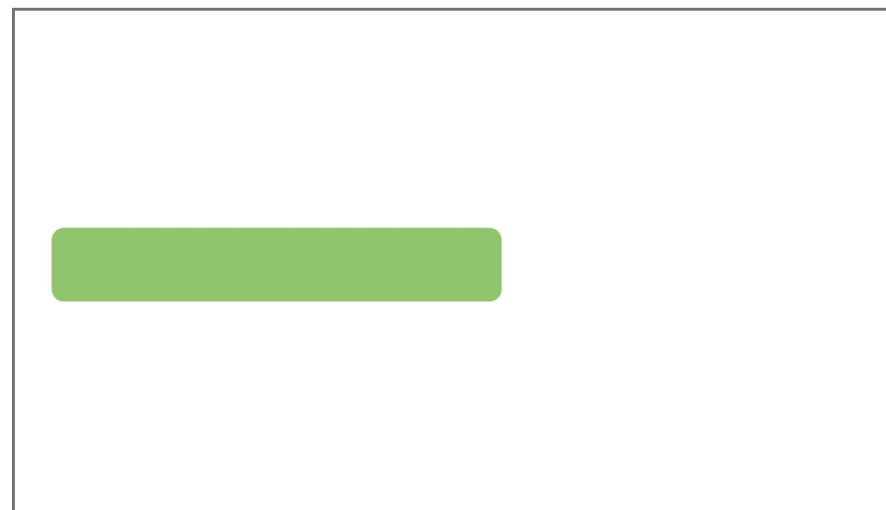**Marked Objects**

- Performs operations on two masks on an object-by-object basis

  – Remove Marked Objects

  – Keep Marked Objects
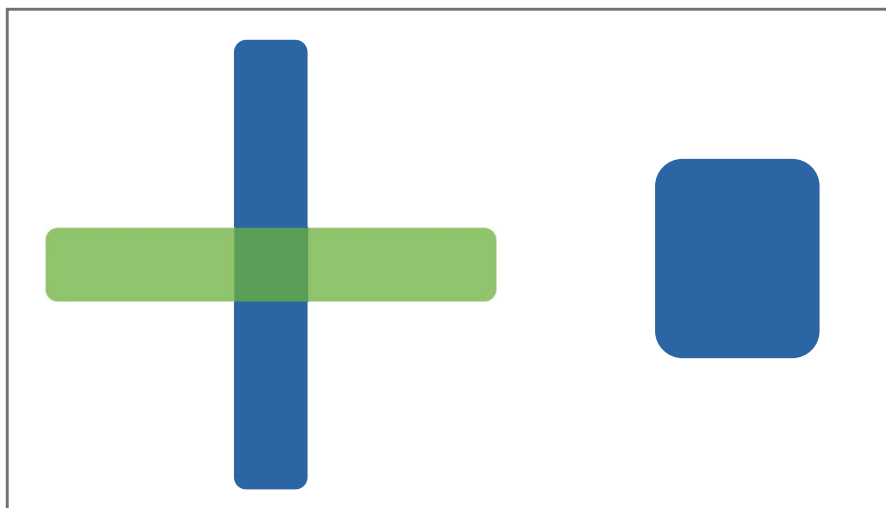
Example: Original Masks
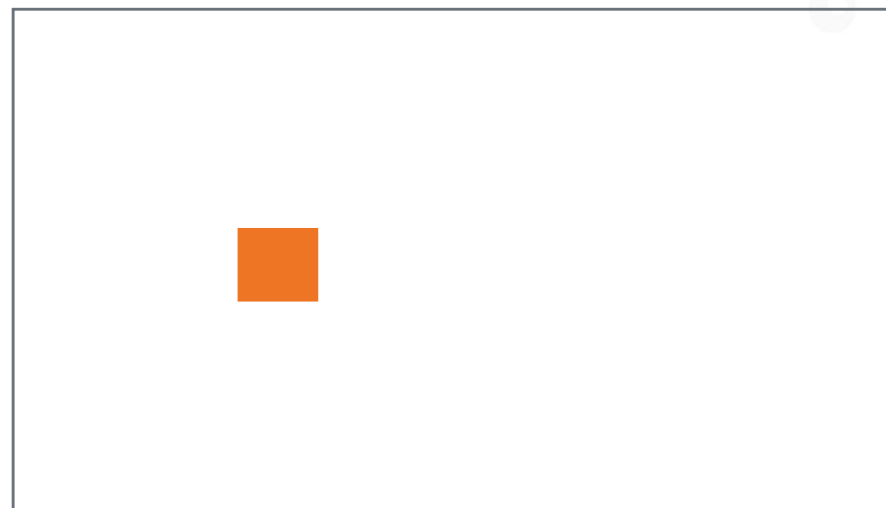

Mask 1 (blue)

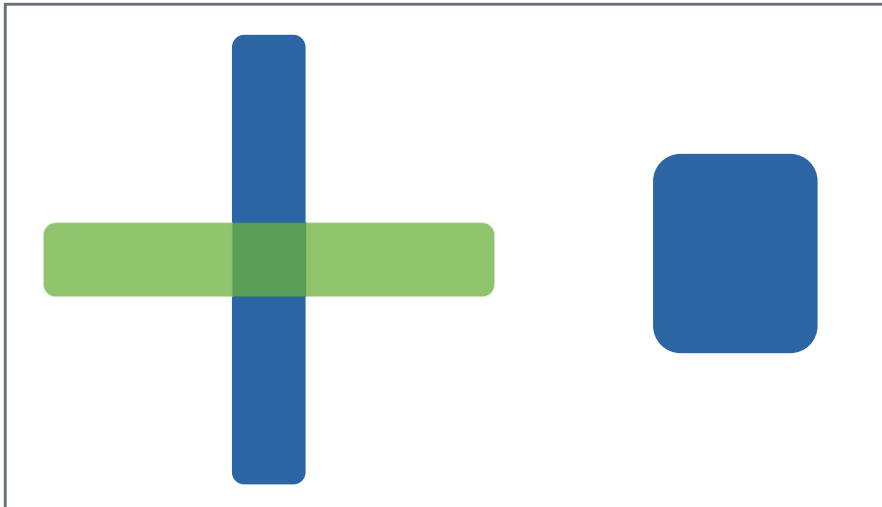Mask 2 (green)

Logical Operations – AND

Original Masks:
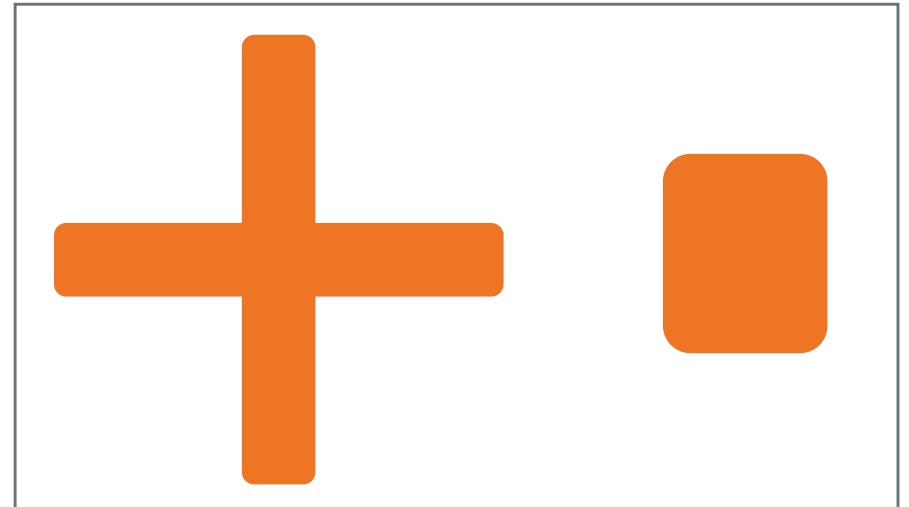Mask 1 (blue)
Mask 2 (green)

Logical Operations AND result:
Intersection of pixels from
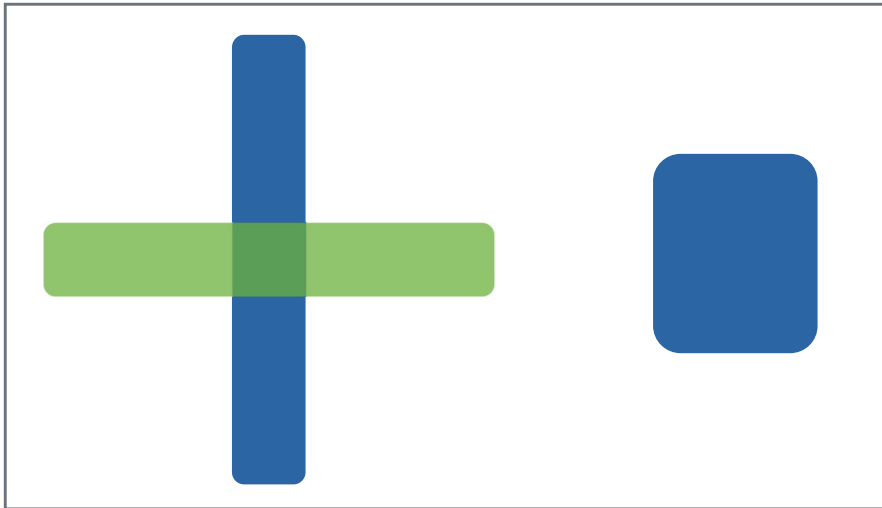Mask 1 (blue)
Mask 2 (green)

Logical Operations – OR

Original Masks:
Mask 1 (blue)
Mask 2 (green)

Logical Operations OR result:
Union of pixels from
Mask 1 (blue)
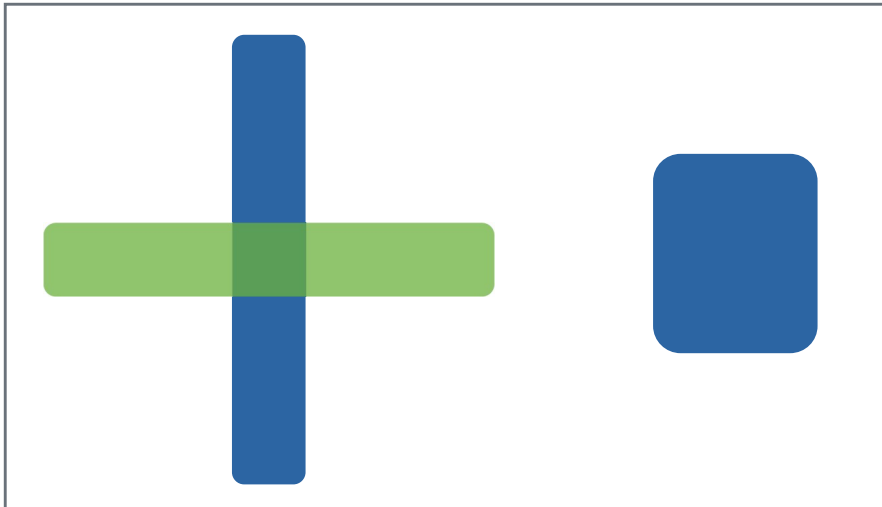Mask 2 (green)

Logical Operations – ANDNOT

Original Masks:
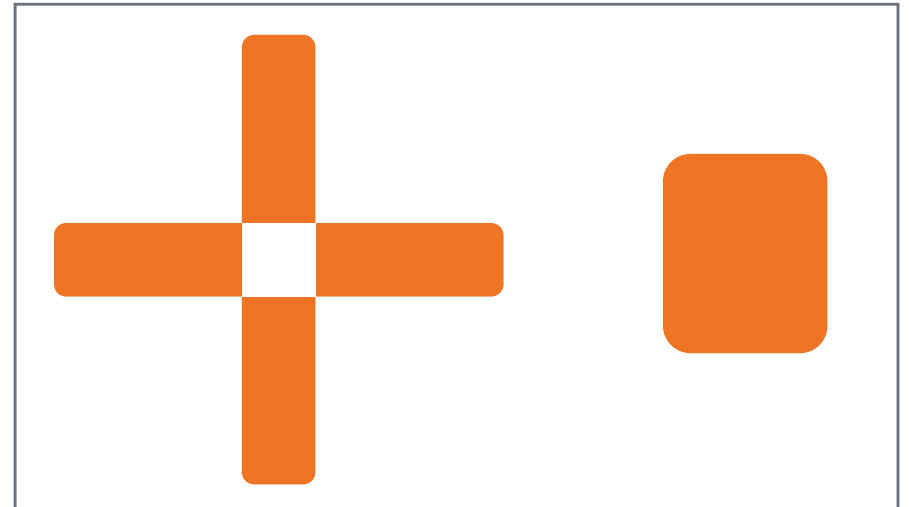Mask 1 (blue)
Mask 2 (green)

Logical Operations ANDNOT result:
Subtract
Mask 2 (green)
pixels from
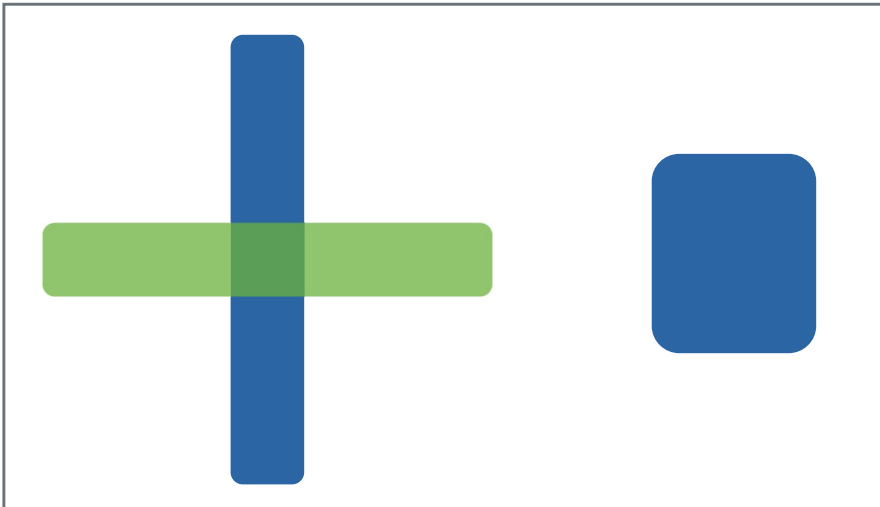Mask 1 (blue)

Logical Operations – XOR

Original Masks:
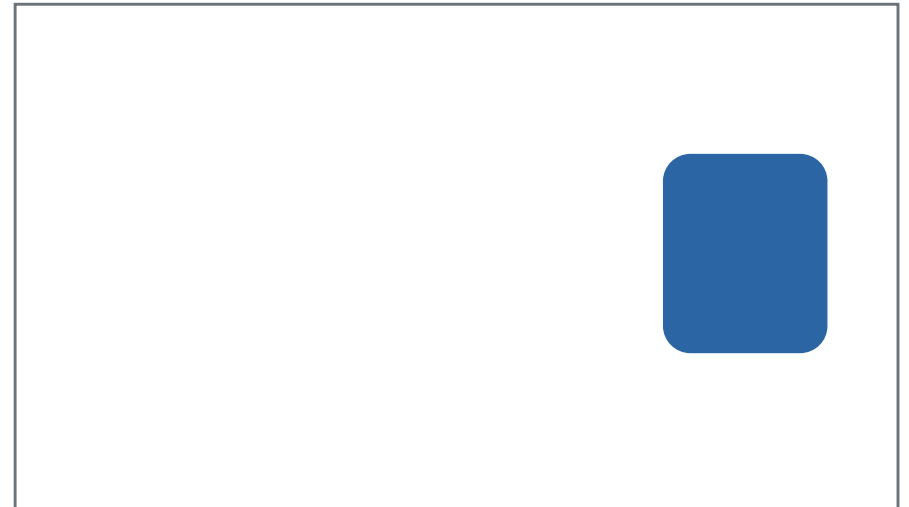Mask 1 (blue)
Mask 2 (green)

Logical Operations XOR result:
Union minus Intersection of
Mask 1 (blue)
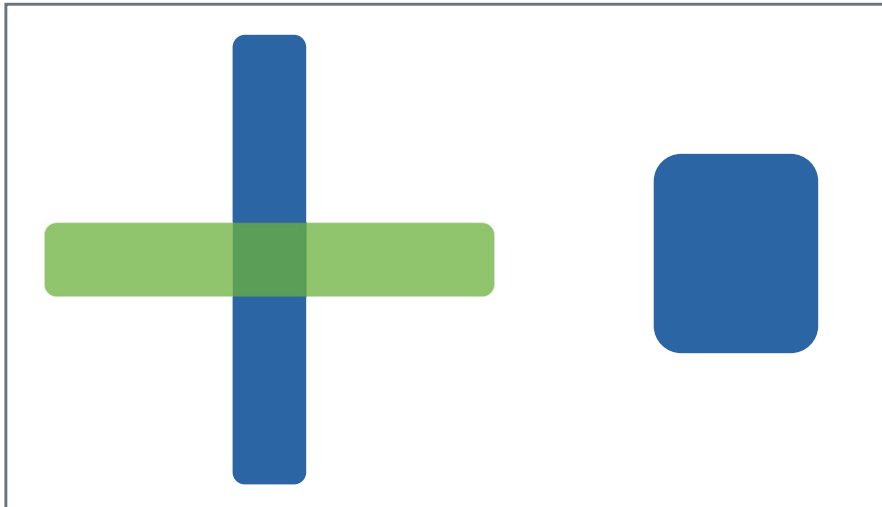Mask 2 (green)

Remove Marked Objects

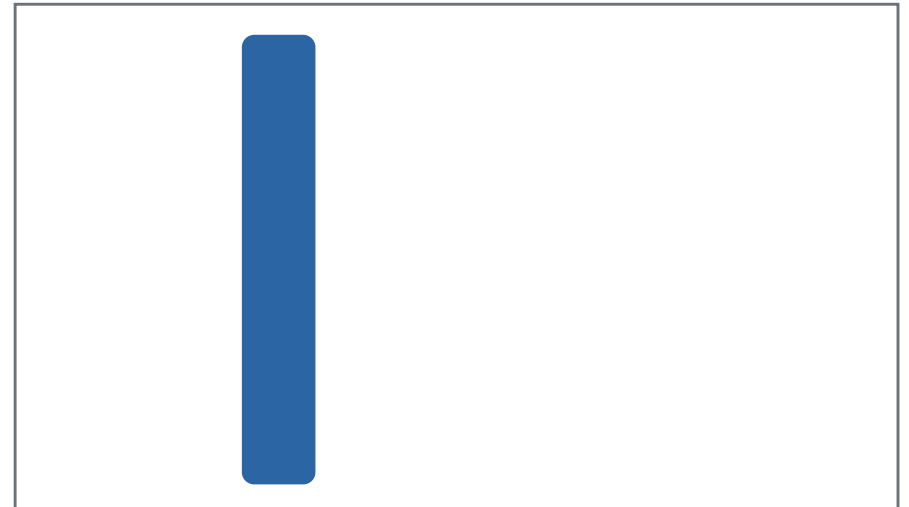
Original Masks:
Objects (blue)
Marker (green)

Remove Marked Objects result:
Objects (blue) not touching
Marker (green) remain

Keep Marked Objects

Original Masks:
Objects (blue)
Marker (green)

Keep Marked Objects result:
Objects (blue) touching
Marker (green) remain

Support Resources

- F1 / HELP within MetaXpress® Software

- Support and Knowledge Base: http://mdc.custhelp.com/

- Request Support: http://mdc.custhelp.com/app/ask

- Technical Support can also be reached by telephone:
  - 1 (800) 635-5577 (North America)
  - https://www.moleculardevices.com/contact for other regions
  - Select options for Tech Support → Cellular Imaging Products → ImageXpress Instruments

ADVANCING DISCOVERY

Molecular Devices, LLC
3860 N First Street
San Jose, CA 95134 USA

📞 +1 408.747.1700

🔧 support@moldev.com

⚛ moleculardevices.com

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