

## Configuration Guide for MARBLE M-PIP

The purpose of the guide is a top level outline of the steps taken for configuration of a Vision 3 frame system and a MARBLE processor running the M-PIP application. The detailed information for each step of installation and configuration are available in the manuals for Vision 3 and M-PIP and can found on the USB drive included in the system packaging.

### Vision Frame System

1. Install the Vision 3 frame. Installation information can be found in section 2 (pages 8-15) of the Vision 3 manual.
2. Configure the Vision 3 frame for network connections. This connection will then be used to configure the MARBLE processor and M-PIP application. Please see Vision 3 manual section 3 (pages 17-18) for network configuration of the frame.
3. Make physical connections on the rear module of the MARBLE-V1 processor running the M-PIP application.  
*For rear modules VR04 and VR07, connect the appropriate signals via BNC for SDI operation and connect up to 4 x 10GbE connections for IP operation.*  
*For rear module VR06, connect the appropriate signals via BNC for SDI operation and connect up to 2 x 10GbE connections for IP operation.*  
These connections are detailed on page 6 of the M-PIP user manual.

### MARBLE-V1 and M-PIP Application

4. You are now ready to configure the M-PIP application and the MARBLE-V1 processor. VisionWeb web browser control is recommended for the configuration of the MARBLE-V1 software apps. This is achieved by entering the IP address of the frame into a web browser (10.0.0.201 on Ethernet port 1 of the frame by default). You should now see the Vision 3 home page and all installed boards in the frame. Select the slot of the M-PIP application to be configured by clicking on it.
5. You will now see the UI for the M-PIP application. For IP operation, select the **Ethernet Interfaces** menu at the bottom of the browser window. You will only need to configure the connections needed for your hardware (the number of SFP+ fitted to your hardware) and the connections required for your application (i.e. are protect signals in/out being used). The instructions for configuring the interfaces are in section 4.1 on page 7 of the M-PIP manual. This step can be ignored if input and output operation is SDI.
6. Next, configure input flows by selecting the **Flow In** menu on the bottom of the browser window. M-PIP is a triple inflow application for the background, foreground A and foreground B signals. Specific instructions on configuring input flows are found in section 4.2, 4.3, and 4.4 (pages 8-10) in the M-PIP manual.
7. Once the input flows are configured, you can check the flow status by going to the Status tab inside the **Flow In** menu. This is highlighted in the manual in section 5.1 on page 12. You should see that configured input flows are present and in the proper format.
8. Output flows are configured next. Select the **Flow Out** menu on the bottom of the browser window. There are two outflows in M-PIP. IP outflow configuration is covered in section 4.5 on page 11 of the M-PIP manual. After outflows are configured, status can be checked in the status tab of this menu. You should see that output flows are present and in the proper format.
9. Output traffic shaping, if required, can now be configured. Detailed instructions on traffic shaping can be found in section 8, page 24 of the manual.
10. Flow referencing and output timing should now be configured. Select the **References** menu at the bottom of the browser window. Reference configuration is covered in section 7 of the manual starting on page 19.
11. The MARBLE-V1 processor should now be configured for inflow/outflow operation. The Picture in Picture operation is next. Select the **Picture in Picture** menu at the bottom of the browser window. Operation is outlined in section 6 of the M-PIP manual beginning on page 14.
12. The mixer operation for the fading of the *picture in picture* up or down is outlined on page 17 of the manual.

Detailed installation and configuration information is provided in the product manuals. For installation and operation questions please email [support@crystalvision.tv](mailto:support@crystalvision.tv)