

## Configuration Guide for MARBLE M-SAFESWITCH-2

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-SAFESWITCH-2 application. The detailed information for each step of installation and configuration are available in the manuals for Vision 3 and M-SAFESWITCH-2 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-SAFESWITCH-2 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-SAFESWITCH-2 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 7 of the M-SAFESWITCH-2 user manual.

### MARBLE-V1 and M-SAFESWITCH-2 Application

4. You are now ready to configure the M-SAFESWITCH-2 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-SAFESWITCH-2 application to be configured by clicking on it.
5. You will now see the UI for the M-SAFESWITCH-2 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 8 of the M-SAFESWITCH-2 manual. This step can be ignored if input and output operation is SDI.
6. Next, configure inputs by selecting the **Input** menu on the bottom of the browser window. M-SAFESWITCH-2 is a four-input application. Specific instructions on configuring inputs are found in section 4.2, 4.3 and 4.4 (pages 10-12) in the M-SAFESWITCH-2 manual. For SDI operation, Input configuration is complete once the input is enabled, and protocol is set to SDI.
7. Once the inputs are configured, you can check the input status by going to the Status tab inside the **Input** menu. This is highlighted in the manual in section 5.1 on page 15. You should see that configured inputs are present and in the proper format.
8. Outputs are now configured. Select the **Output** menu on the bottom of the browser window. There are three outputs in M-SAFESWITCH-2. Note: Output 3 is IP only, whereas Output 1 and Output 2 are user defined as SDI or IP. IP output configuration is covered in section 4.5 on page 13 of the M-SAFESWITCH-2 manual. For SDI operation, an output needs to be enabled and SDI selected as the protocol. After outputs are configured, status can be checked in the status tab of this menu. You should see that outputs are present and in the proper format.
9. Output traffic shaping, if required for IP operation, can now be configured. Detailed instructions on traffic shaping can be found in section 9, page 29 of the manual.
10. 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 8 of the manual starting on page 25.
11. The MARBLE-V1 processor should now be configured for input/output operation. The Safe switch 1 and Safe switch 2 operation can now be configured. Select the **Safe switch 1** menu at the bottom of the browser window to configure safe switch 1. Select **Safe switch 2** menu to configure safe switch 2. Operation is outlined in section 6 of the M-SAFESWITCH-2 manual beginning on page 19.

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)