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embedded computing

APPLICATION EXAMPLE: Mission Video Recorder



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Galleon's XSR Video Recorder suited the majority of the requirements from the customer as a standard product. Additional features were implemented by using an internal expansion module.

Executive Summary

The customer needed a multi-source digital video recorder for use on board an airborne platform. This requirement also included additional/optional Audio and Composite video inputs, and the requirement to record both Uncompressed and Compressed video data at the same time – all of which needed to be combined is a single LRU for simple installation on the aircraft.

Key Requirements

End user modes of operation added complexity:

- 3 Digital Video Inputs + Composite Video and Audio
- Record both Uncompressed and Compressed data to the disk at the same time
- The ability to change between Uncompressed/Compressed recording on each individual channel.
- Event Marking and Pre-trigger recording (allowing for human reaction times to significant events)
- Flexible and easily upgradable Removeable memory
- Rugged system design

How Galleon Product Helped



The CP50 which is used alongside the XSR in this system, allows the mission recording profile to be adjusted and monitored whilst in flight.

The Galleon solution was a single LRU capable of providing all of the requirements for the customer – 4 HD-SDI inputs, 2 Audio inputs, and 1 Composite video input. The XSR was integrated with our CP50 Control Panel which allows the user to control and adjust the recording functions during the mission. The CP50 is also NVIS compatible, essential for this Helicopter based application.

Galleon provided recording products with all of the functionality required. This included Galleon's Recorder software which allows the user to use event markers, playback and other features.

Although not needed for this specific requirement, Galleon's recorders can be used for processing the data, not just for recording. This can allow the system to be enhanced in the future to add features such as overlays and other image processing if needed.

Post mission, Galleon's offload servers were supplied to allow the user to gain access to the data quickly and perform the necessary mission debrief.



Galleon's Offload server and Docking stations allow the user to gain access to the recorded data quickly once the mission has been completed.

Results and Future Plans

Variants of this video recording system are operational in several Countries around the World, with operators benefitting from the ease of operation and fast offload provided by Galleon's recording solutions.

If you have a requirement for a Video Recorder system then Galleon products could help. Galleon can also provide other systems such as NAS, processing, with other IO connectivity such as sFPDP, Ethernet and 10GBE. Each system has a unique architecture, and Galleon has been able to provide solutions based on the systems engineering requirements of each application.

