

WEB – EPICS INTERFACES AT LIGO

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CALTECH

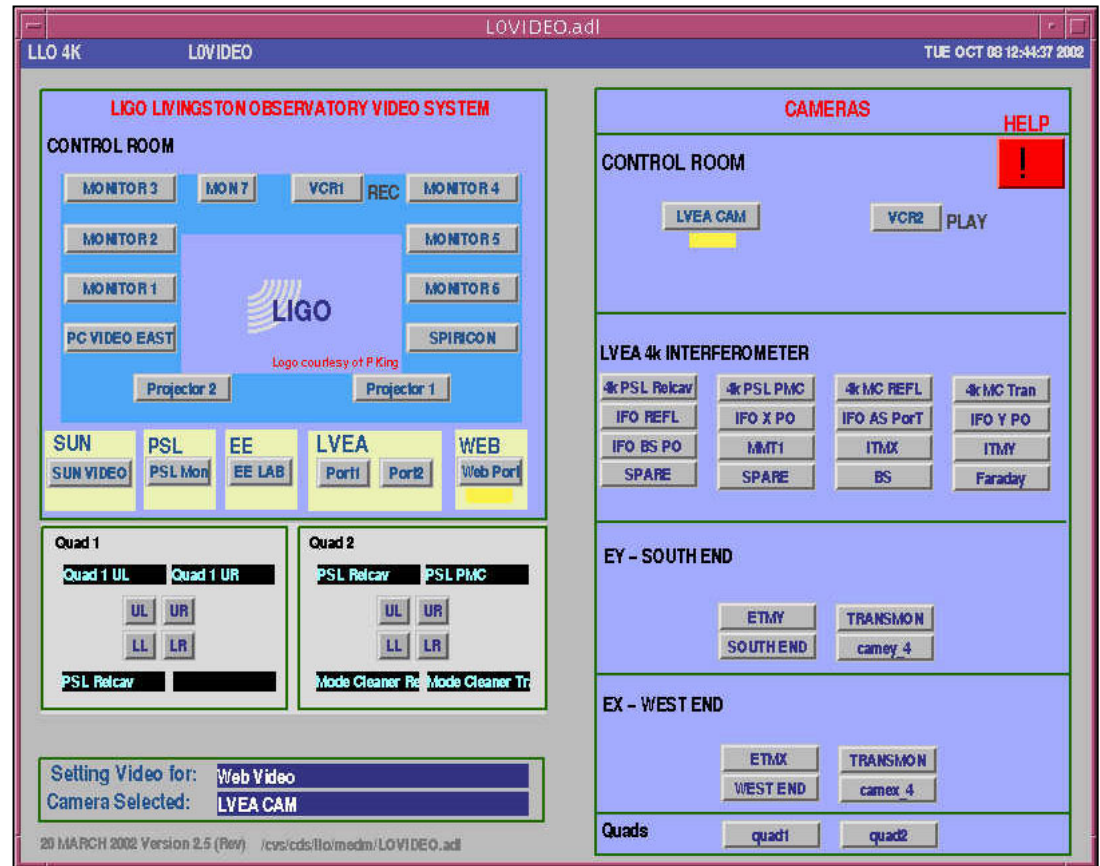
MIT



NSF

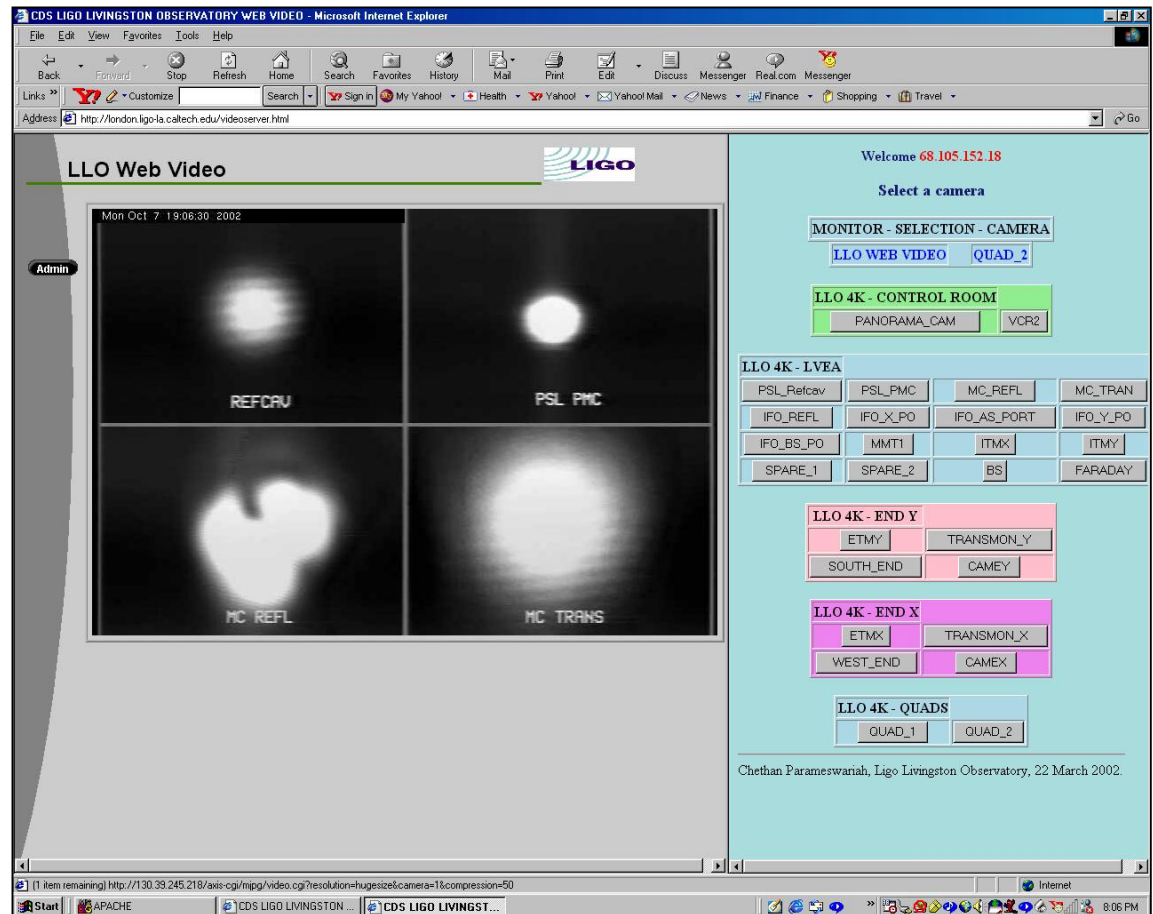
1. EPICS – MEDM VIDEO SYSTEM AT LLO

- Existing MEDM Screen
- Epics database loaded on a mv162 processor.
- State code for control and routing of cameras to monitor.
- Hardware – RS 232 controlled video switch.
- secure internal CDS – Control and Data Systems network.

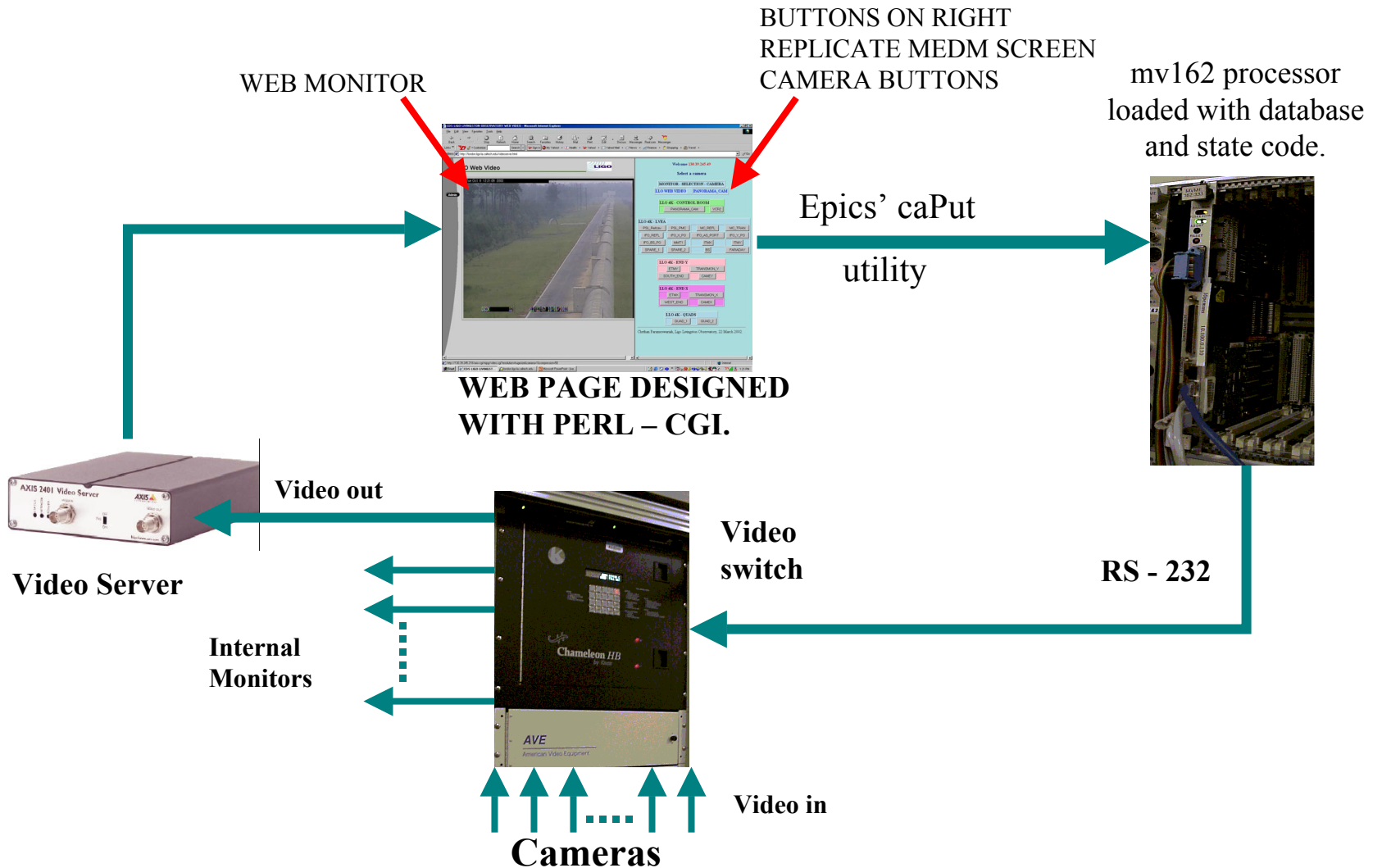


Need for interface

- monitoring LLO systems from external sites / homes.
- easy to use and accessible interface
- web – 1st choice.
- secure

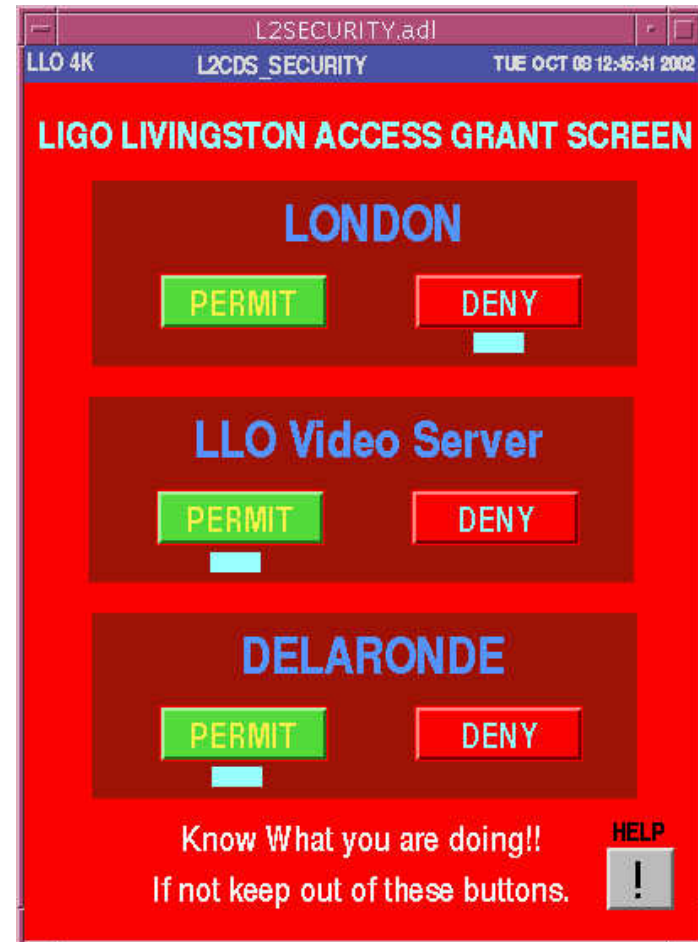


WEB - EPICS INTERFACE



Multiple levels:

- Apache server web page access configuration.
- Run web page as specific user than user - nobody.
- Epics security and control of access through medm screen by operators.



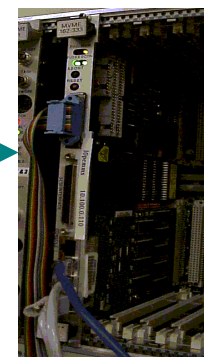
2. NETWORK MONITORING



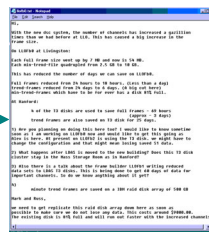
Web page interface of Network Monitoring tool for a LDAS Network - Not part of control room.

THE REVERSE: MONITORING EXTERNAL INFORMATION IN CONTROL ROOM

mv162 processor loaded with database

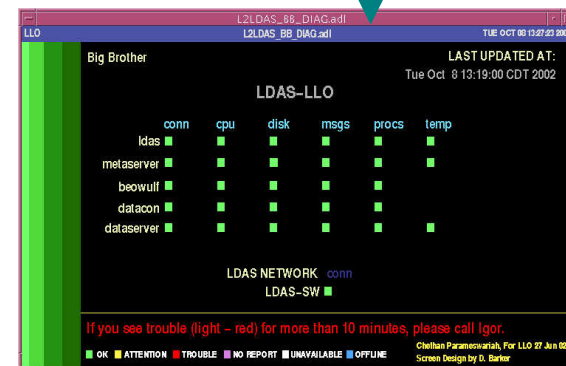


Gnu's wget
Runs on CDS gateway - cron job



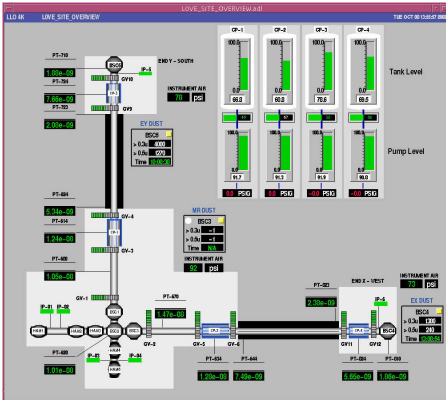
Html file

Perl parser and
Epics' caPut utility



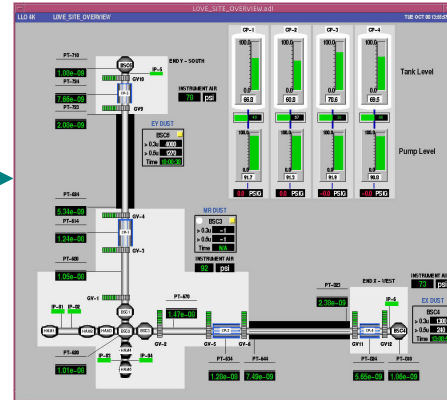
MEDM SCREEN ON CDS NETWORK
in control room

3. MEDM SCREENS to WEB



MEDM SCREEN FOR LLO VACUUM SYSTEM

Easycopy[®] software captures the desktop running the medm screen.



GIF IMAGE of MEDM SCREEN FOR LLO VACUUM SYSTEM

Shell script rotates the desktops containing medm screens



GOOD MONITORING TOOL - READ ONLY

Livingston Observatory Controls and Data Systems (CDS)

* = Page opened in new browser window. Secure Web Service © LIGO Livingston

★ LIGO LIVINGSTON CDS MEDM SCREENS - LIVE

display1.gif

display2.gif

display3.gif

display4.gif

display5.gif

display6.gif

CDS WEB PAGE with MEDM SCREEN IMAGES

CONCLUSION

- **Video System on Epics successfully interfaced to web.**
- **Reverse: Regular monitoring of different subnet network by operators in control room implemented.**
- **MEDM Screens brought to web live.**
- **Security has been taken care at multiple levels.**
- **Very useful for site managers and engineers.**
- **Any other ideas ???**

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