

WEB – EPICS INTERFACES AT LIGO

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CALTECH

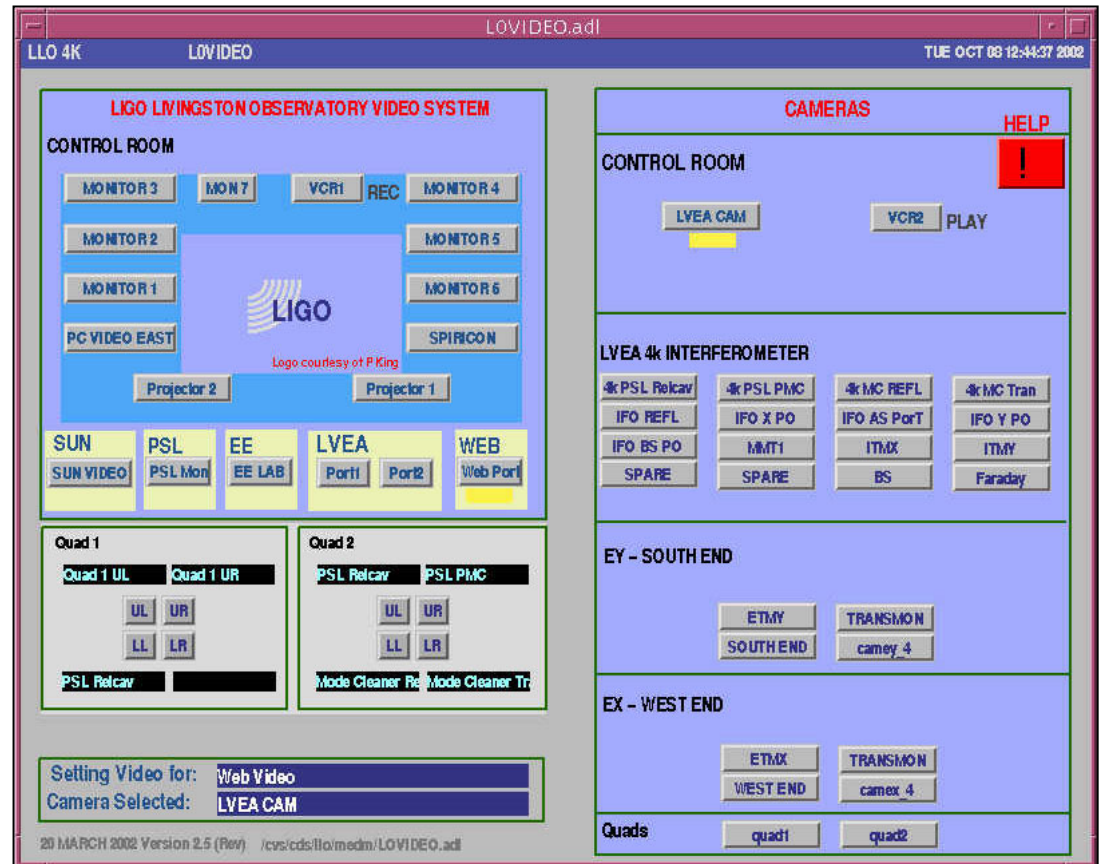
MIT



NSF

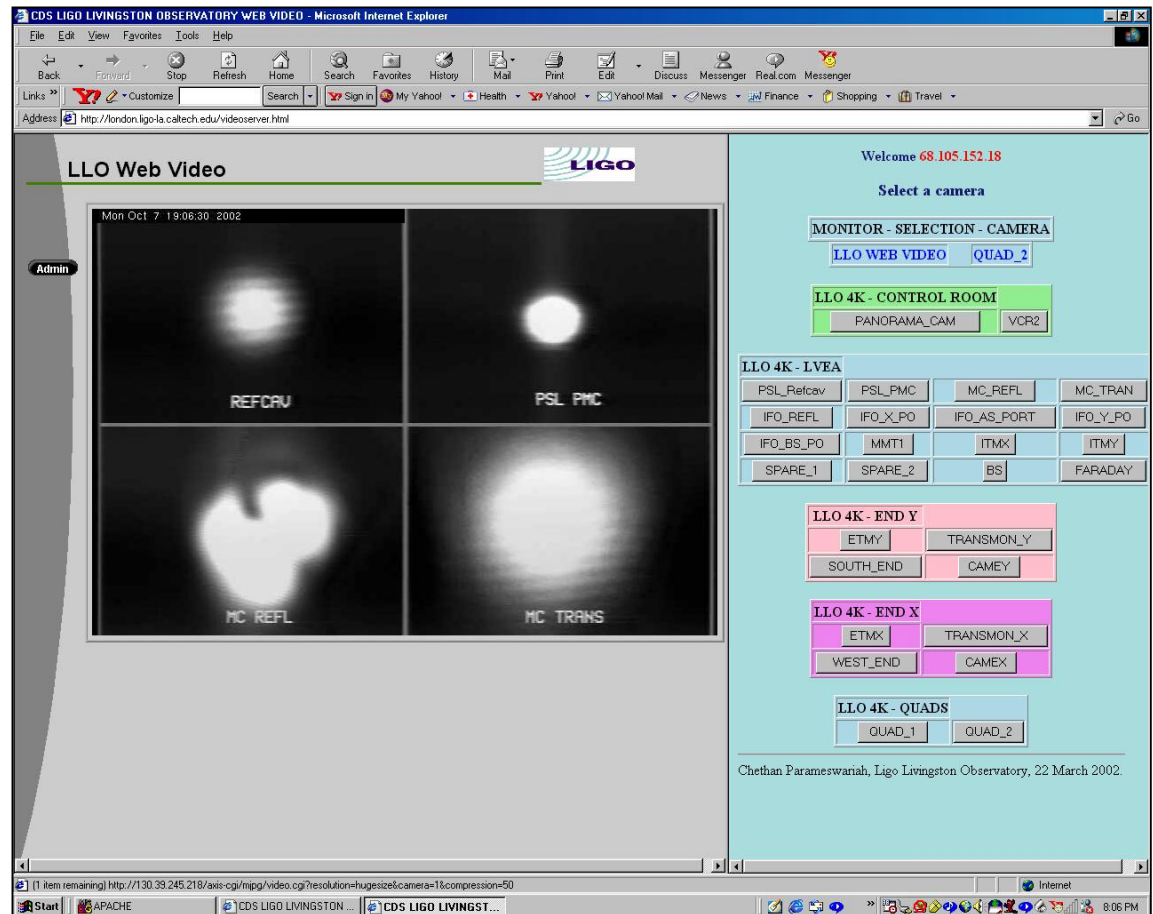
1. EPICS – MEDM VIDEO SYSTEM AT LLO

- 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.

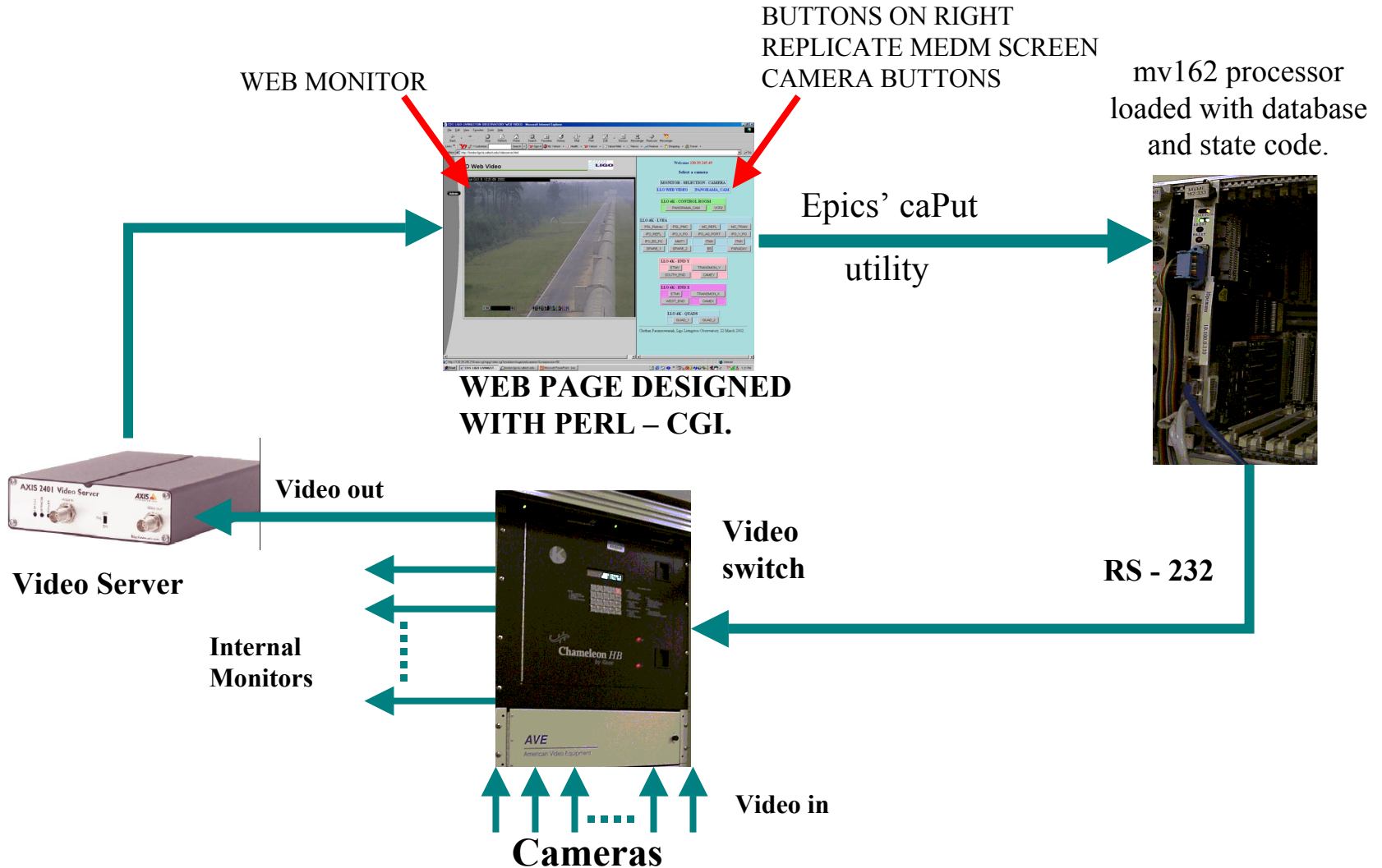


Need for interface

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

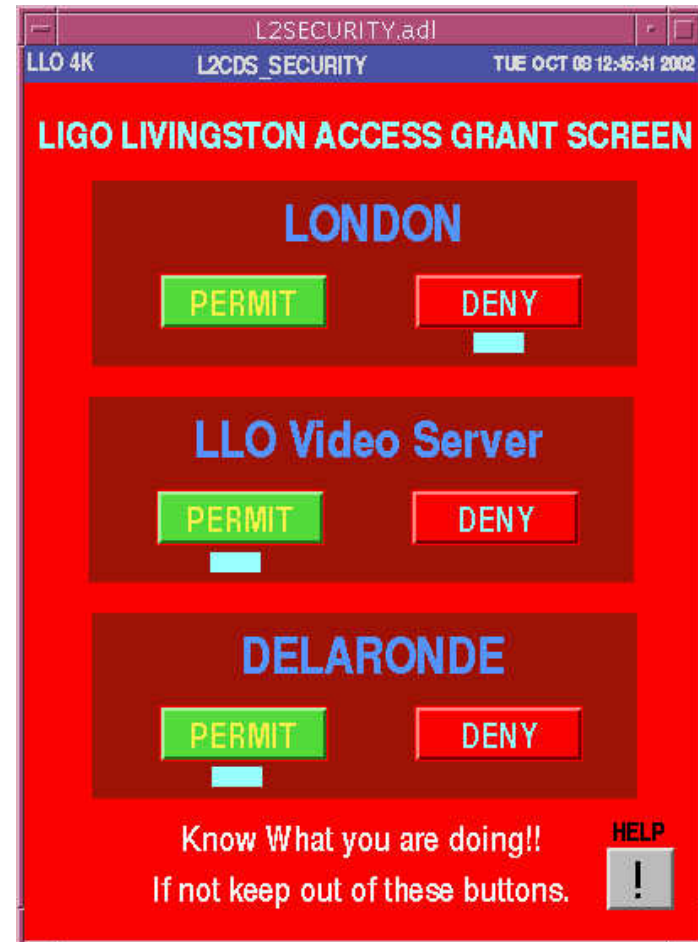


WEB - EPICS INTERFACE

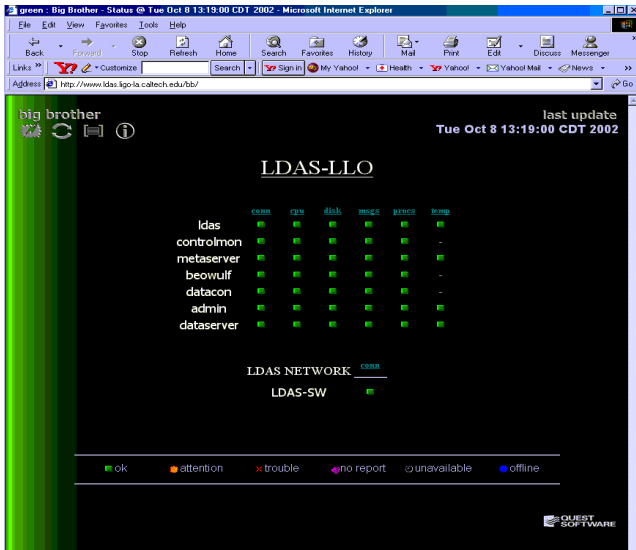


Multiple levels:

- 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.



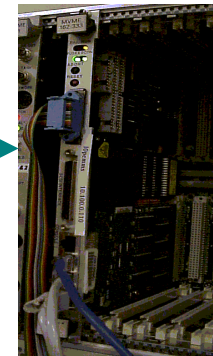
2. NETWORK MONITORING



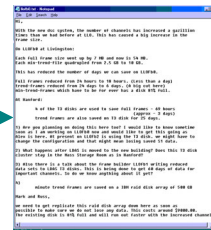
Web page interface of Network Monitoring tool for a LDAS Network - Not part of control room.

THE REVERSE: MONITORING EXTERNAL INFORMATION IN CONTROL ROOM

mv162 processor loaded with database



Gnu's wget
Runs on CDS gateway - cron job



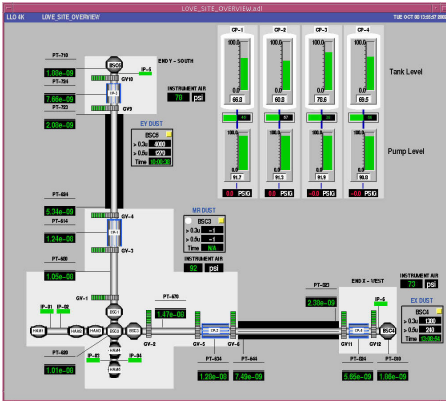
Html file

Perl parser and Epics' caPut utility



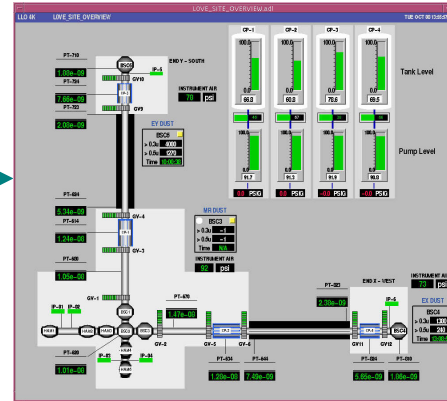
MEDM SCREEN ON CDS NETWORK in control room
EPICS WORKSHOP, Jefferson Lab, November 2002

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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