

MDM Observing Workstations

A few things have changed in the control rooms over the 2012 summer shutdown.

We have installed new observing workstation computers. These feature:

- 4-processor quad-core Xeon CPUs (2GHz, 6Mb cache)
- 4Gb RAM
- Updated OS (CentOS 6 Linux)
- Updated Software (IRAF, Python, Java, all common astronomy packages)
- Remote Access modules bringing USB slots and sound and mic jacks from the computers into the control room.

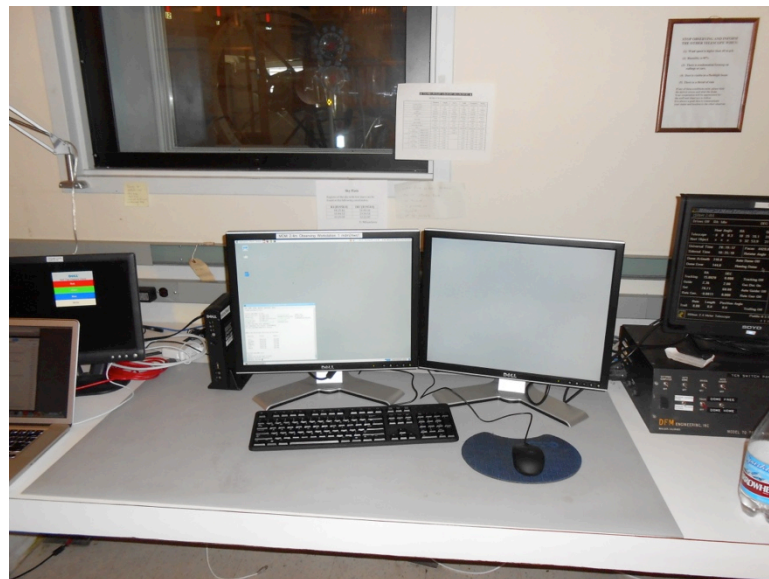
The main observing workstation features dual 1600x1200pix displays, and the secondary workstation has dual 1280x1024pix displays.

The old hiltner, mcgraw, et al. machines are now setup to run the data-taking systems and the telescope and MIS control systems.

This guide will help you familiarize yourself with the new computers.

2.4m Hiltner Telescope:

mdm24ws1 – main observing workstation
mdm24ws2 – second observing workstation
hiltner – xtcs, xmis, and OSU instruments
agung – retrocam and hiltner backup
mdmarc1 – OWL for MDM facility CCDs



1.3m McGraw-Hill Telescope:

mdm13ws1 – main observing workstation
mdm13ws2 – second observing workstation
mcgraw – xmis and OSU instruments
hill – 1.3m TCS servers and mcgraw backup
mdmarc2 – OWL for MDM facility CCDs



Dell FX-100 Remote Access Devices

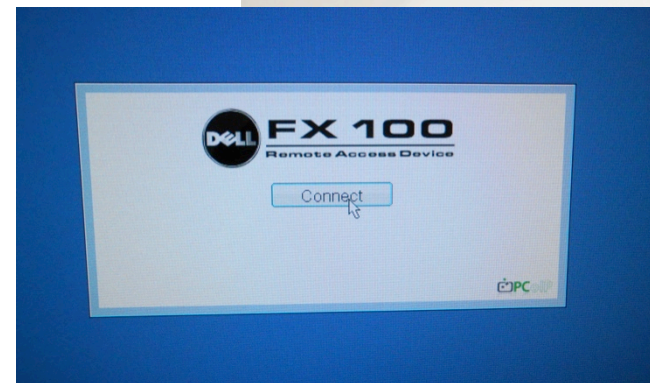
The monitors, keyboard, and mouse for each new workstation are connected to an FX-100 remote access device.

This device gives you access to computer “front panel” utilities in the control room:

- 2 USB ports
- 1 stereo headphone jack
- 1 microphone jack
- Computer power switch

After the workstations are powered up, you may need to press the Connect button to reset the remote link.

The blue FX-100 screen will give you a connect button, click on it to connect to the workstations.



Observing Workstation Logins

Observer login is the same as before

obs24m for 2.4m observing

obs13m for 1.3m observing

Passwords change regularly, see the board in the control room.

The data-taking computer consoles are accessed via the Raritan KVM switch and fold-up monitor in the computer rooms.

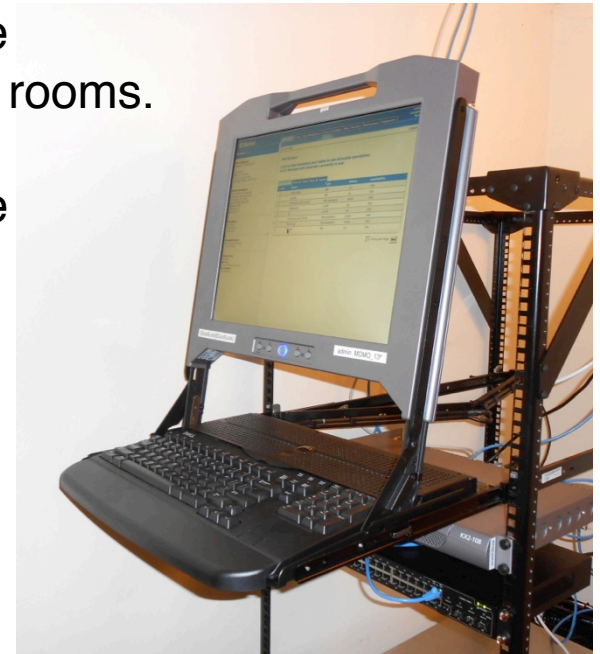
Press the “Scroll Lock” key twice to get the KVM console

Select the computer you wish to access using the track pad.

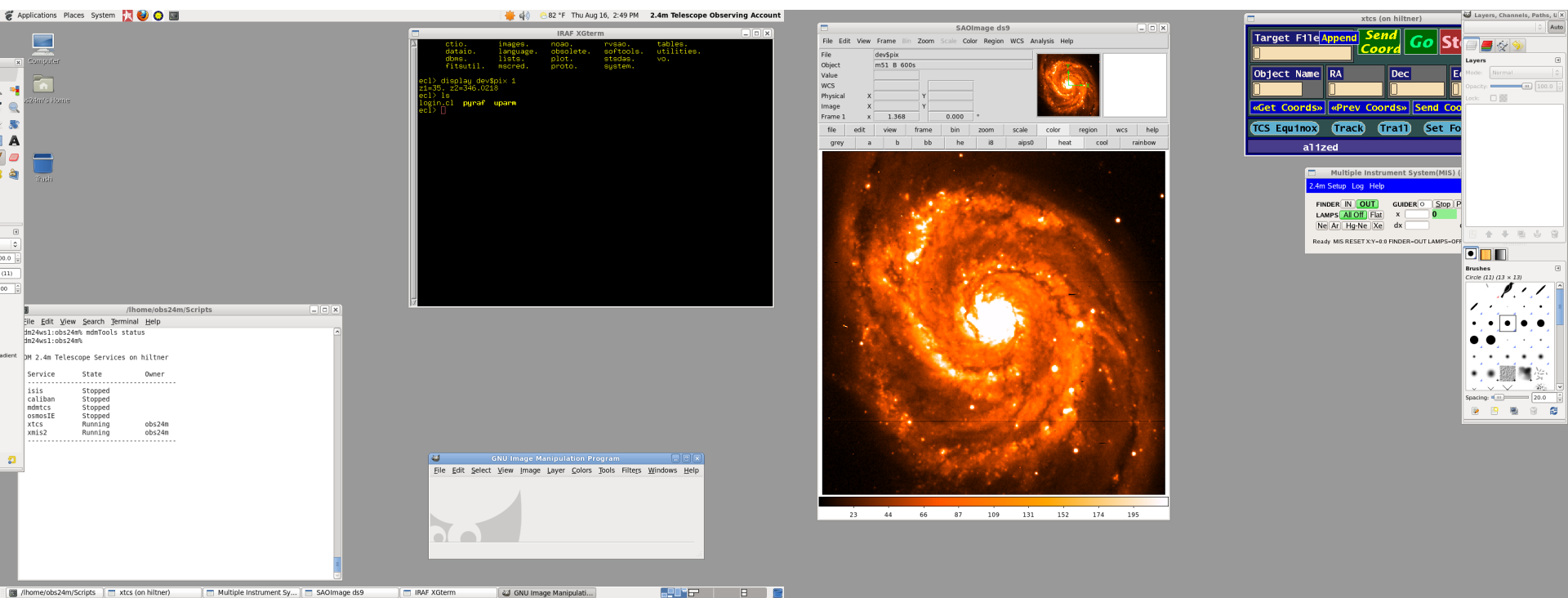
Data-taking computers connected to the Raritan units:

2.4m – hiltner, agung, and mdmarc1

1.3m – mcgraw and mdmarc2



The Observing Workstation Desktop



CentOS 6 Linux uses the GNOME-2 desktop environment.

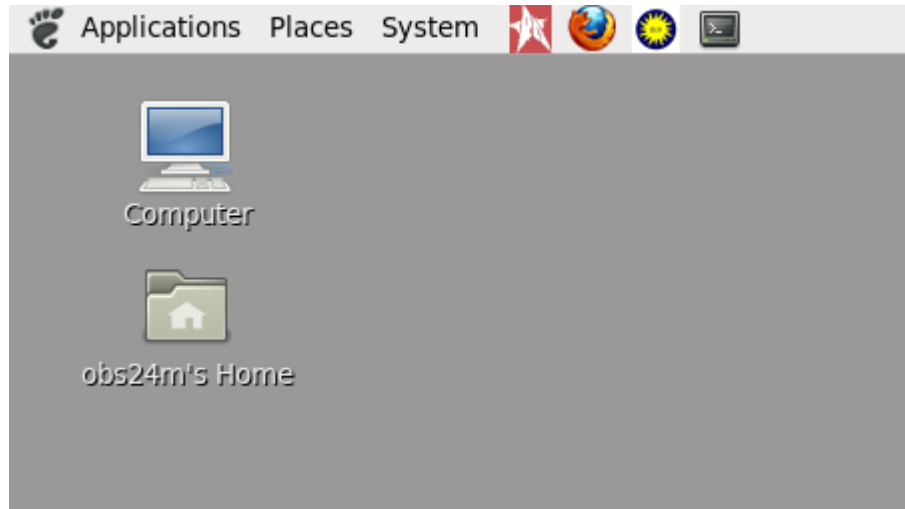
Main differences with the old system:

- All system menus are in the upper left corner of the left monitor

- No left-mouse-button menu for observatory programs

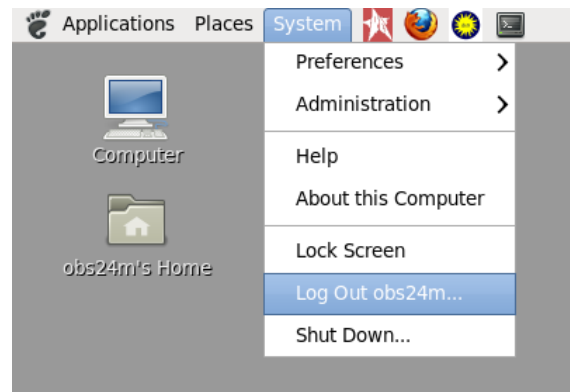
- Top bar has custom icons for IRAF, Firefox, ds9, and an xTerminal

Main Program Menus



All observing programs can be started from the Applications menu at the upper left-hand corner of the left monitor.

The System menu can be used to logout or shutdown the workstation



Telescope Control Programs

All telescope control programs are launched from the Applications – Telescope Control Menu:

2.4m Telescope:

xtcs – starts 2.4m Telescope GUI

xmis – starts old MIS

xmis2 – starts new MIS GUI

JSkyCalc24mGS – JSkyCalc with guider control

Rotator GUI – 2.4m rotator control

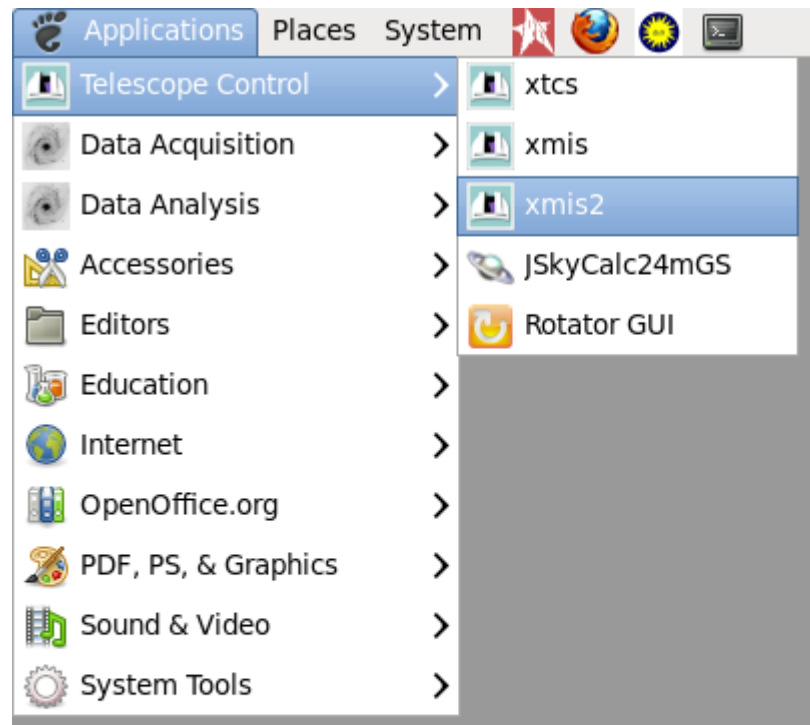
1.3m Telescope:

1.3m TCS – starts 1.3m Telescope GUI

xmis – starts old MIS

xmis2 – starts new MIS GUI

JSkyCalc13mGS – JSkyCalc with guider control



Note: the 1.3m telescope servers are still launched from an terminal with the “telescope start” command.

Data-Acquisition Programs

All main data-taking programs are launched from the Applications – Data Acquisition Menu:

2.4m Telescope:

ISIS – OSU instrument ISIS server

Caliban – OSU instrument data-transfer agent

MDMTCS Agent – Telescope interface agent

OSMOS IE – OSMOS control (if using)

Prospero – OSU instrument data-taking program

owl – MDM Facility CCD data-taking program

1.3m Telescope:

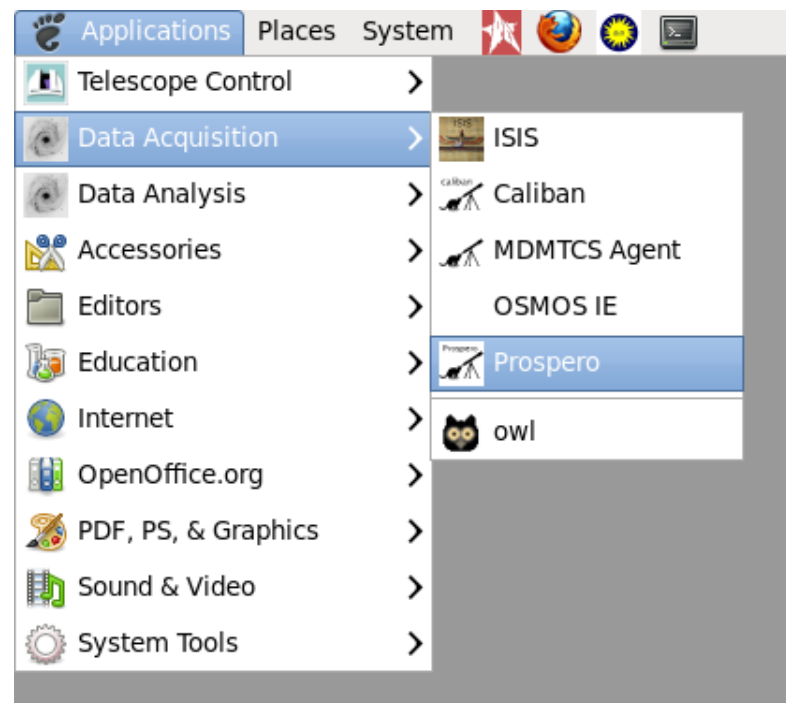
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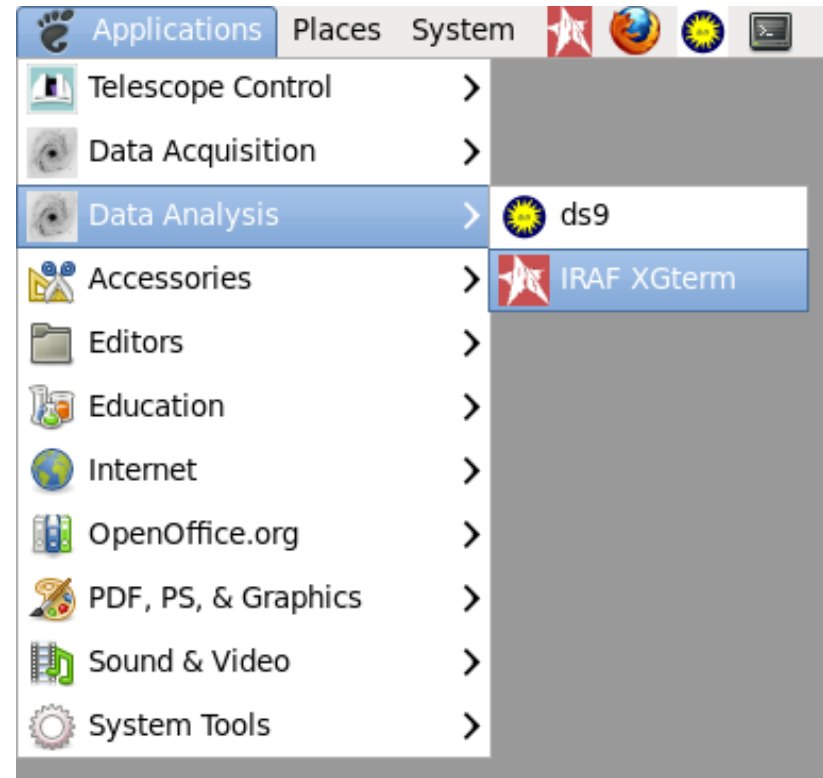
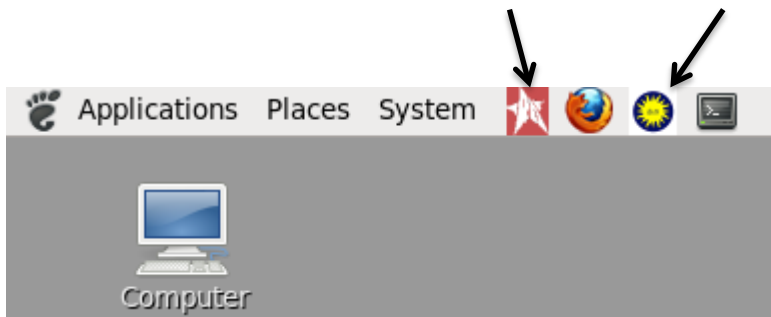
Data-Analysis Tools

The Applications – Data Analysis menu provides convenient startup of IRAF and ds9:

ds9 starts an IRAF-ready ds9 window on the local computer.

IRAF XGterm – starts IRAF in an Xgterm window in the main iraf/ directory.

Two buttons on the top bar also launch IRAF in an XGterm and ds9



RETROCAM (2.4m only)

Open an xTerm window and type

```
% mdmTools start retrocam
```

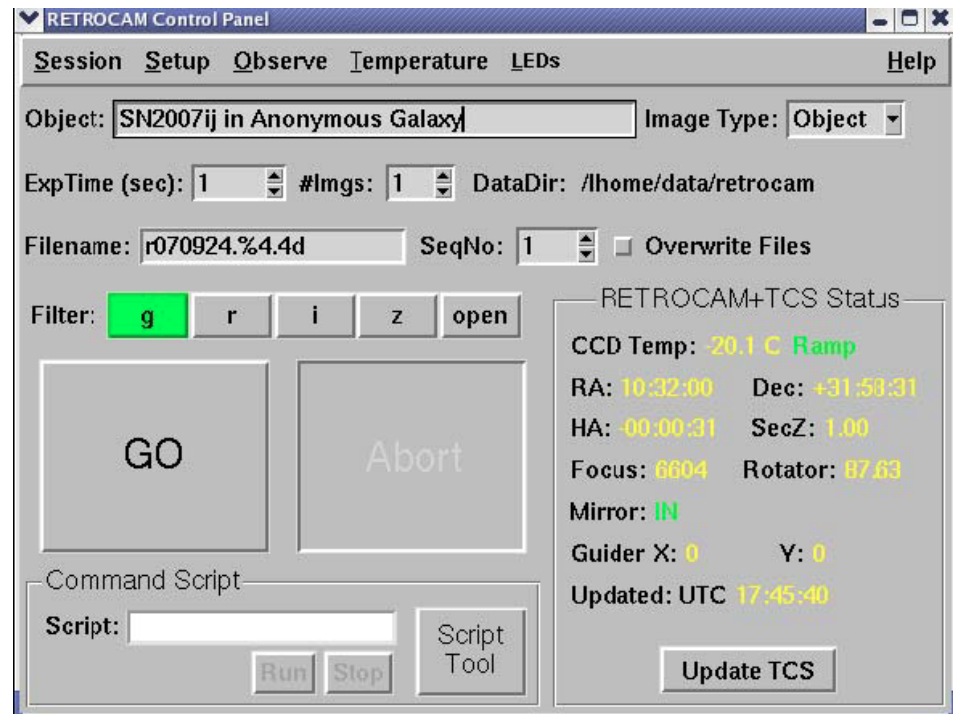
Similarly, to stop RETROCAM

```
% mdmTools stop retrocam
```

Data will be in /data/agung/retrocam/

The RETROCAM data-taking system runs on agung. The ds9 window it opens for autodisplay will only be accessible from agung, and will not interfere with IRAF ds9 windows opened on the workstations.

Note: You must have the xtcs and xmis programs running **before** launching the RETROCAM control program.



Where is my data?

The data-taking programs store their data locally. These data disks are mounted by the workstation computers, so you have full access to all of your data without having to login to the individual data-taking machines.

2.4m Telescope:

CCDS, OSMOS, TIFKAM, & RED4K: /data/hiltner

RETROCAM: /data/agung/retrocam

OWL (Templeton and Echelle): /data/mdmarc1

1.3m Telescope:

CCDS, TIFKAM, MDM4K, & RED4K: /data/mcgraw

OWL (Templeton and Echelle): /data/mdmarc2

Note:

All Prospero observing scripts that were on hiltner and mcgraw have been copied to the new workstations and are in the `Scripts/` directories.