[ray_white_21_inch_telescope](#)

# Telescope Control System GUI for the Ray E White Telescope.

The Graphical User Interface (GUI) for the Ray E. White Telescope is located on the desktop of the computers in the dome. The Telescope Control computer should be running before you start the GUI program other wise the program will hang. To open the program simply double click on the icon labeled TCS GUI 03-24-2008. If everything is working correctly you should get a window that looks like this:



## Finder Scope Access position

Generally the first function you use on the telescope is the Finder Scope Action choice in the service menu. To access this menu:

1. click on the service tab at the top
2. click on the Finder Scope Access item (will be highlighted after clicking)
3. click on the Go To button located below the reload button.

The telescope should slew towards the northern wall so you can access the finder scope cover.

## General Use

Generally, you will be using the GOTO tab to slew to an object. The GOTO tab looks like this:

There are a few ways to slew to and track an object in the night sky.

**Enter RA and Dec coordinates**

To enter RA and Dec coordinates manually, make sure you are in the GOTO tab. Enter the coordinates of your object and click the Set Next button. The object's coordinates are now in the buffer. Click the Go Next button to slew to these coordinates.

**Find the object in a catalog**

To slew to an object in the catalog you must be in the GOTO window. Click on the Open Catalog button in the center of the window. You will be given a list of catalog. Double click on the catalog you would like. The objects in the catalog will be listed in the catalog box at the bottom half of the window. All objects below the horizon are highlighted in red. Click on the object you are interested in and click the Set Next button and then Go Next buttons.

## Initializing the Telescope on a Bright Star

In order to verify the telescope knows where it is in the sky slew to a bright star using the GOTO window. Make sure you use the Set Next button in order to put the coordinates into the buffer. Use the using_dome_remote_paddle:paddle controls to put that object in the center of the field of view of the telescope. Return to the GUI application and click on the Service tab. In the service tab click the Init Next Button at the bottom of the screen.

## List of Popular Stars for observing

| Proper Name | FK5 | SAO | Greek Letter | Constellation | Type | |
|---|---|---|---|---|---|---|
| Albireo | 732 | | | Cygnus | Visual | |
| Alcor 497 | | | | Ursa Major | Spectroscopic | |
| Algol 111 | | | | Perseus | Eclipsing | |
| Almach 73 | | | gamma | Andromeda | Visual | |

| Proper Name | FK5 | SAO | Greek Letter | Constellation | Type | |
|---|---|---|---|---|---|---|
| Alpheratz | 1 | | | Andromeda | Spectroscopic | |
| Arcturus | 526 | | Alpha | Bootes | 3rd brightest star in sky | |
| Bellatrix | 201 | | | Orion | No | |
| Betelgeuse | 224 | | | Orion | Spectroscopic | |
| Capella | 193 | | | Auriga | Spectroscopic | |
| Castor 287 | | | | Gemini | Visual | |
| Gamma Leporis | 217 | | | Lepus | yellow and red | |
| Dubhe 417 | | | | Ursa Major | Visual | |
| Iota Cancri | | 80416 | Iota | Cancer | Visual*** | |
| Mintaka | 206 | | | Orion | Eclipsing | |
| Mirach 42 | | | Beta | Andromeda | | |
| Mizar 497 | | | | Ursa Major | Visual | |
| Polaris | 907 | | | Ursa Minor | Inferred | |
| Pollux 295 | | | | Gemini | No | |
| Procyon | 291 | | | Canis Minor | Visual (but don't bother) | |
| Rigel 194 | | | | Orion | Visual (very nice, almost looks like a quad) | |
| R Leporis | | 150058 | | Lepus | "Drop of blood" red star | |
| Sigma Orionis | | 132406 | Sigma | Orion | Gravitational nonuple system, can see 7 easily - awesome!! | |
| Saif 209 | | | | Orion | No | |
| Spica 498 | | | | | | |
| Sirius 257 | | | | Canis Major | Visual (but don't bother) | |
| Tsih 32 | | | Gamma | Cassiopeia | | |
| Vega 699 | | | | Lyra | Freaking bright star | |
| ghost of jupiter | NGC 3242 | | | | planetary nebula | |
| 37 NGC 2169 | | | | | | open cluster |
| epsilon lyrae | 67310 | | | Lyra | double double system | |

## Questions or Suggestions

If you have any questions or suggestions for changing the GUI email Scott Swindell sswindell@as.arizona.edu. Here is a list of suggestions we have already received.