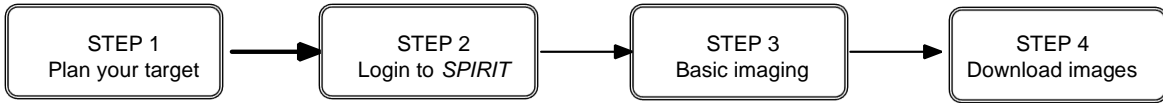


These are the steps to take your first image with *SPIRIT*:



## STEP 1: Plan your target

Use a planetarium program, such as Stellarium, to find out what’s in the sky at the time you intend to image with *SPIRIT*. An introduction to Stellarium for target planning is available from the *SPIRIT* website (<http://spirit.icrar.org/guides-and-documents/> ).

*SPIRIT* is ideally suited as a deep-sky telescope, so you should start with a relatively bright, deep-sky target. Open clusters, globular clusters, nebulae and bright galaxies are all suitable.

## STEP 2: Login to *SPIRIT*

The *SPIRIT* telescopes may be accessed from <http://spirit.icrar.org> when it is your allotted time

Enter your user name and password, **you may be asked to enter them twice.**

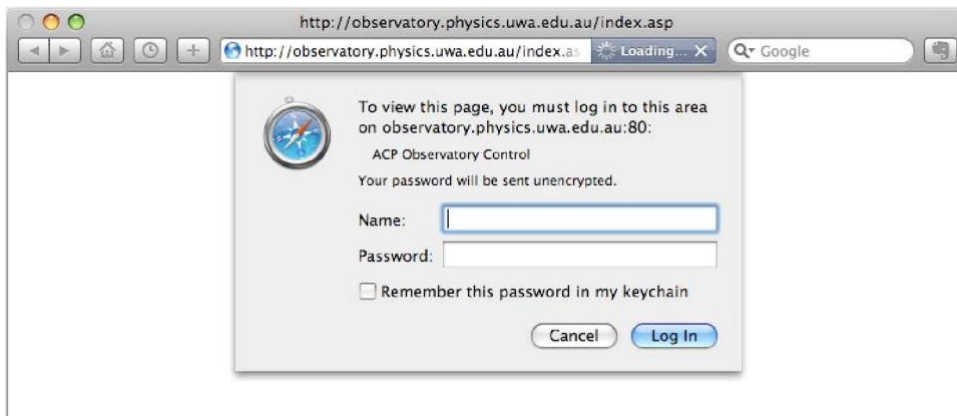


figure 1: Enter your user name and password.

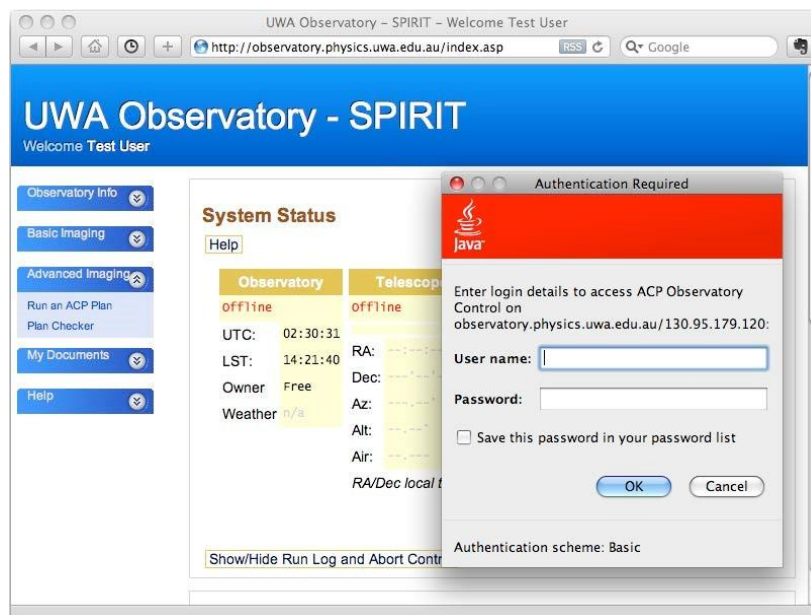


figure 2: Enter your user name and password again, after the first web page has loaded, if requested.

The *SPIRIT* home page ('Observatory Info') displays three panes: **System Status**, **Weather** and **Welcome**. Use the left hand menu to display other pages, such as 'Basic imaging'.

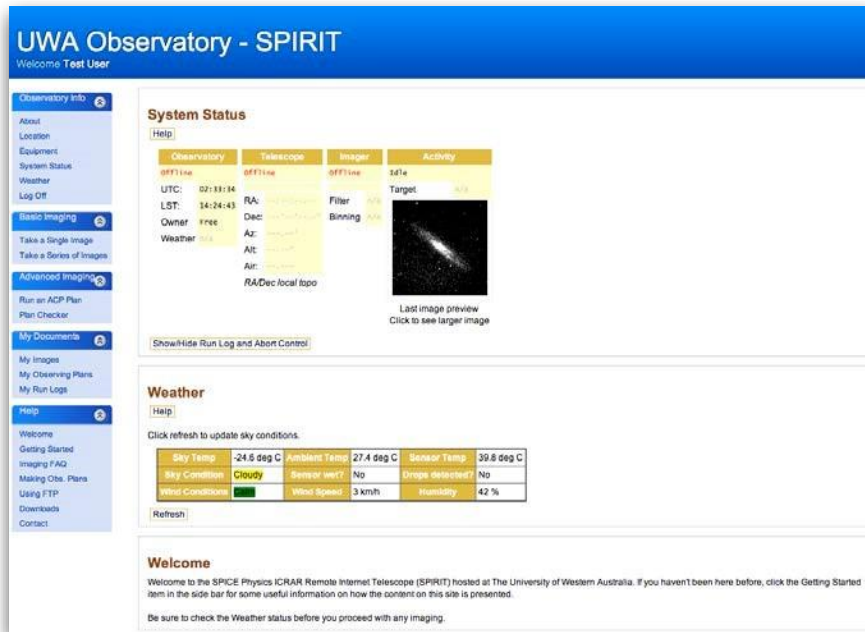


figure 3: *SPIRIT* home page

**STEP 3: Basic imaging**

Select **Take a Single Image** from the left-hand menu.



figure 4: Enter parameters to take a basic image.

1. Enter your target name. Be sure to leave a space between the catalogue and number (eg 'm 8', not 'm8').

**Take a Single Image**

[Help](#)

Target Name:  [Get Coordinates](#)

Right Asc. (hrs):  [Deep Sky Catalog Search](#)

Declination (deg):  *(coordinates in J2000)*

Duration (sec):  Filter:  Binning:

[Acquire Image](#)

OK! m 8 coordinates set... az=080.8 alt=63.4 rising: transit at 82.4 deg alt in 116min

figure 5: Enter your target name.

2. Select **Get Coordinates**. This will automatically put values into fields for 'Right Asc.' (RA) and 'Declination' (Dec).

**Take a Single Image**

[Help](#)

Target Name:  [Get Coordinates](#)

Right Asc. (hrs):  [Deep Sky Catalog Search](#)

Declination (deg):  *(coordinates in J2000)*

Duration (sec):  Filter:  Binning:

[Acquire Image](#)

OK! m 8 coordinates set... az=080.8 alt=63.4 rising: transit at 82.4 deg alt in 116min

figure 6: Get the coordinates of your target.

3. Enter your exposure duration, in seconds. For your first deep sky object, an exposure of about 30 s is a good start.

**Take a Single Image**

[Help](#)

Target Name:  [Get Coordinates](#)

Right Asc. (hrs):  [Deep Sky Catalog Search](#)

Declination (deg):  *(coordinates in J2000)*

Duration (sec):  Filter:  Binning:

[Acquire Image](#)

OK! m 8 coordinates set... az=080.8 alt=63.4 rising: transit at 82.4 deg alt in 116min

figure 7: Setting an exposure duration of 30 s.

- Select the 'clear' filter.

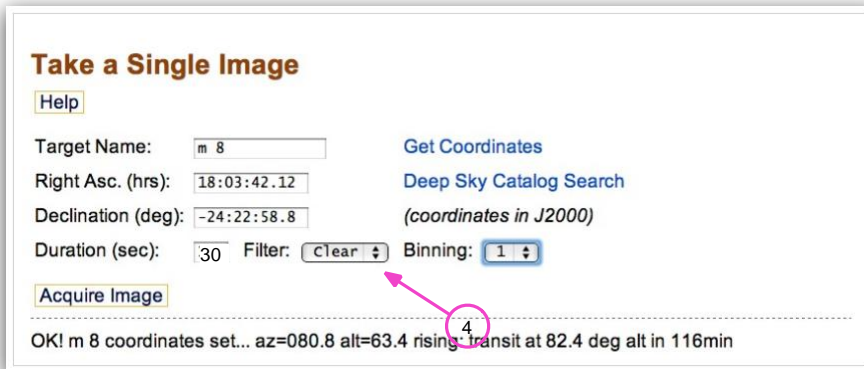


figure 8: Choose a filter.

- Select **Acquire Image** from the left hand menu. An 'OK!' message should appear at the bottom of the pane.

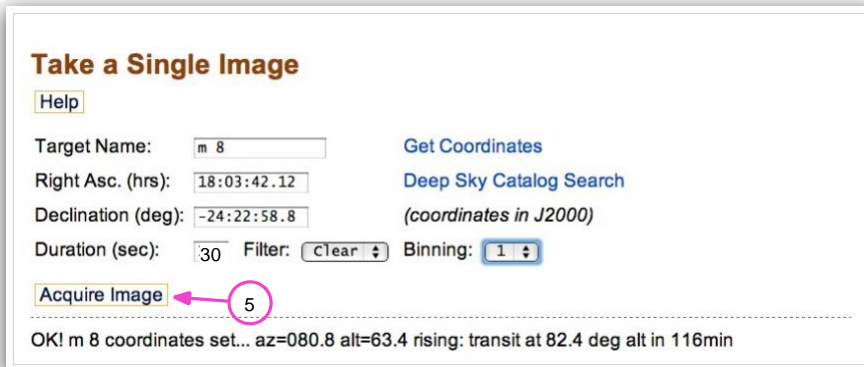


figure 9: Acquire the image once settings are complete.

The sequence of commands to take the image will now commence. You can monitor progress in the 'System Status' pane. Select **Show/Hide Run Log and Abort Control** to expand the progress window.

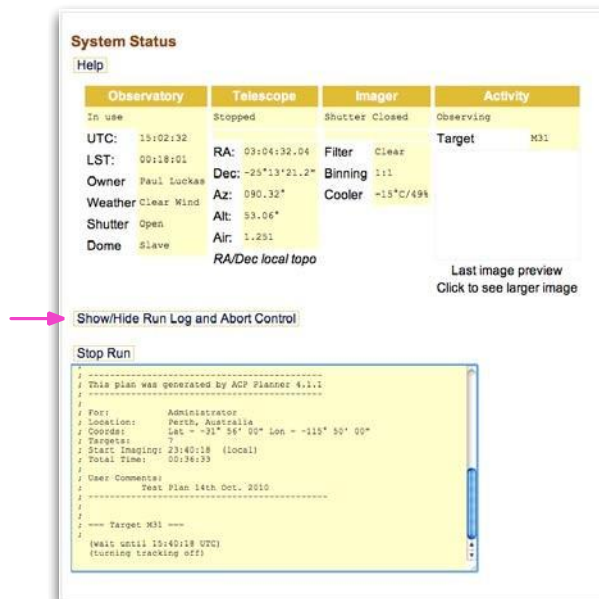


figure 10: Monitor the progress of image acquisition.

#### STEP 4: Download images

Once imaging is complete, a low quality image thumbnail appears in the 'System Status' pane. Select the image to enlarge the view.

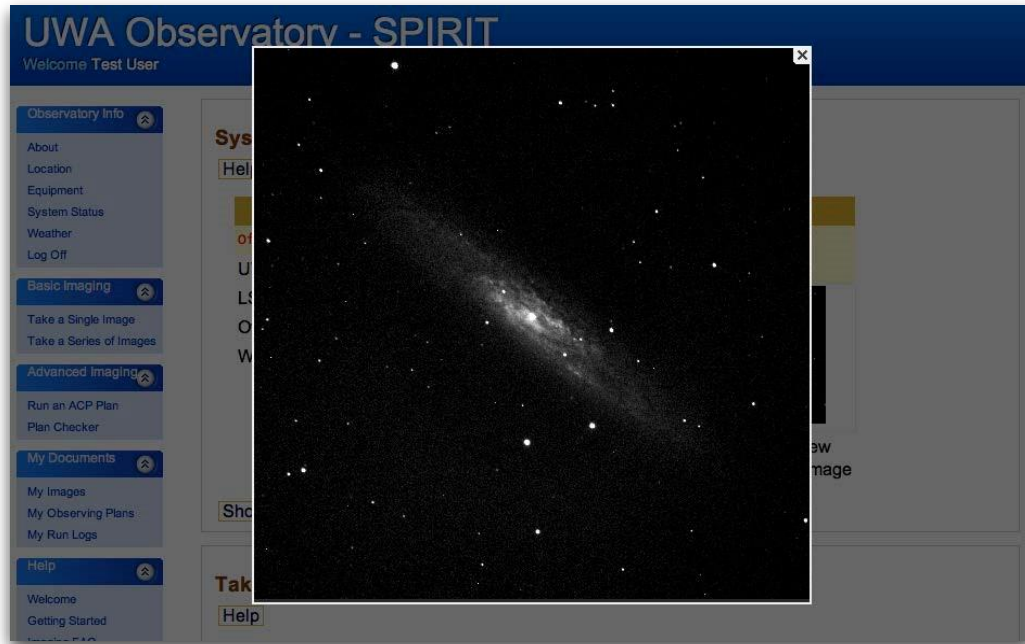


figure 10: Preview your image.

Your images are best accessed by FTP rather than attempting to download the images from the telescope web interface. Please contact us for the FTP server addresses or for help with FTP.