

# Introduction to *SPIRIT*

*SPIRIT I* and *II* are state-of-the-art robotic telescopes that allow you to capture images of the night sky from anywhere on Earth, using an Internet browser. This quick guide will help you take your first image with *SPIRIT*.

## Step one: Plan your targets

The *SPIRIT* telescopes are ideally suited to image deep sky objects.

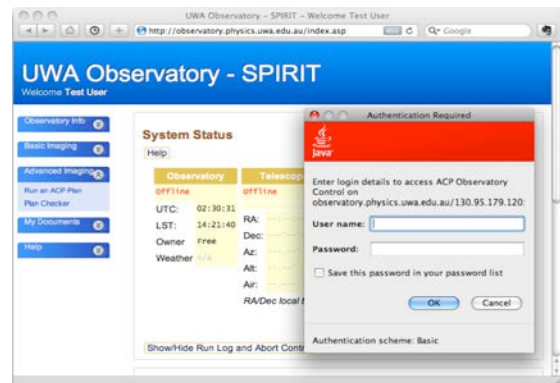
Your task during your allocated 30-minute time slot is to image four deep sky objects. You should aim to image relatively bright objects, high in the night sky.

To help you choose suitable targets your teacher will provide a list of objects, that includes galaxies, nebulae and star clusters. The target list has four categories and you should choose one object from each category.

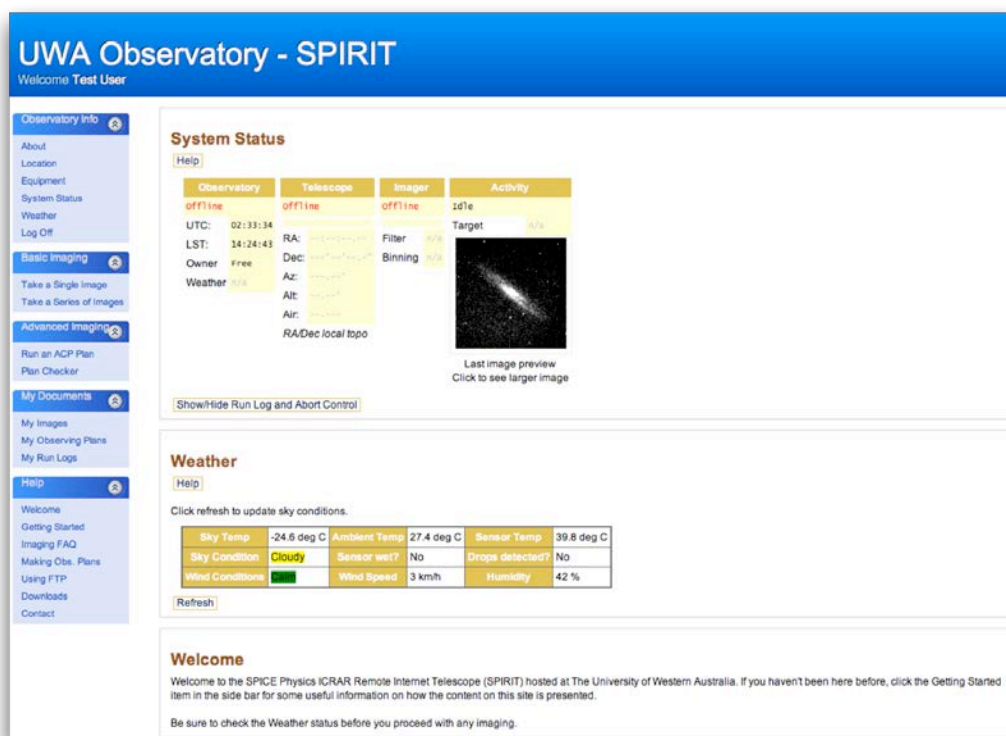
## Step two: Log in to *SPIRIT*

The web site for accessing *SPIRIT* is <http://spice.uwa.edu.au/spirit>

Select the link **Telescope access** then choose either *SPIRIT I* or *SPIRIT II*. You will be asked for a user name and password. Once the web site has loaded, you will be asked for your user name and password a second time.

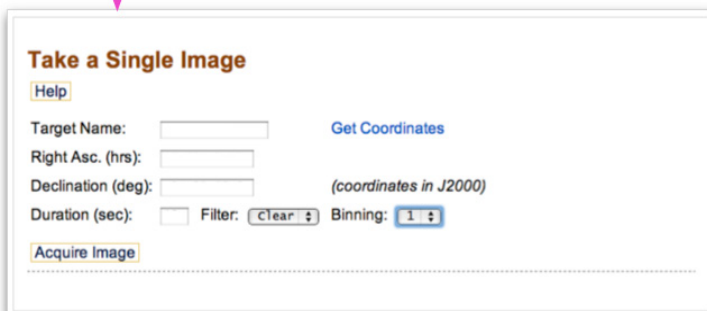
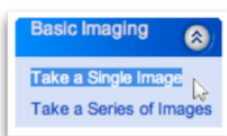


The home page of *SPIRIT* opens with the **System Status**, **Weather** and **Welcome** panes. The left hand menu provides access to other *SPIRIT* pages, including **Basic Imaging**.

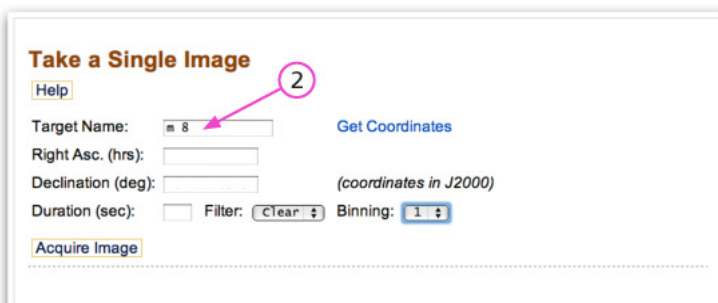


## Step 3: Basic imaging

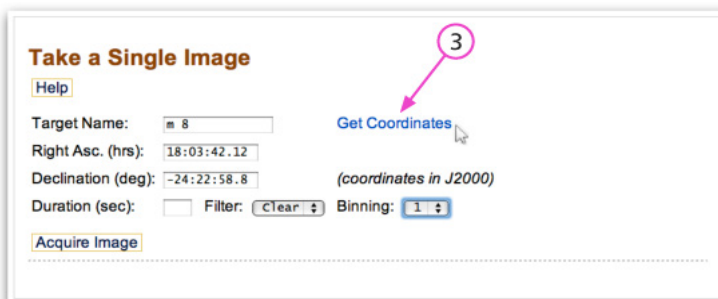
1. Select **Take a Single Image**.

A screenshot of the 'Take a Single Image' form. It has a 'Help' link, a 'Target Name' field, a 'Right Asc. (hrs)' field, a 'Declination (deg)' field, a 'Duration (sec)' field with a checkbox, a 'Filter' dropdown set to 'Clear', and a 'Binning' dropdown set to '1'. There is a 'Get Coordinates' link and an 'Acquire Image' button at the bottom.

2. Enter the **Target Name**.  
Be sure to leave a space between the catalogue and number, for example, 'm 8' for Messier object 8.

A screenshot of the 'Take a Single Image' form. The 'Target Name' field now contains 'm 8'. A pink circle with the number '2' and an arrow points to this field.

3. Select **Get Coordinates**.  
This will automatically complete fields for right ascension and declination.

A screenshot of the 'Take a Single Image' form. The 'Get Coordinates' link is highlighted with a mouse cursor. A pink circle with the number '3' and an arrow points to this link. The 'Right Asc. (hrs)' field now contains '18:03:42.12' and the 'Declination (deg)' field contains '-24:22:58.8'.

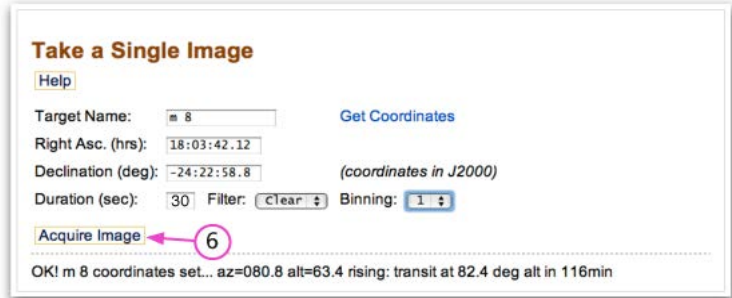
4. Enter **Duration** of your exposure.  
An exposure of about 30 seconds is a good start for your first deep sky object.

A screenshot of the 'Take a Single Image' form. The 'Duration (sec)' field now contains '30'. A pink circle with the number '4' and an arrow points to this field.

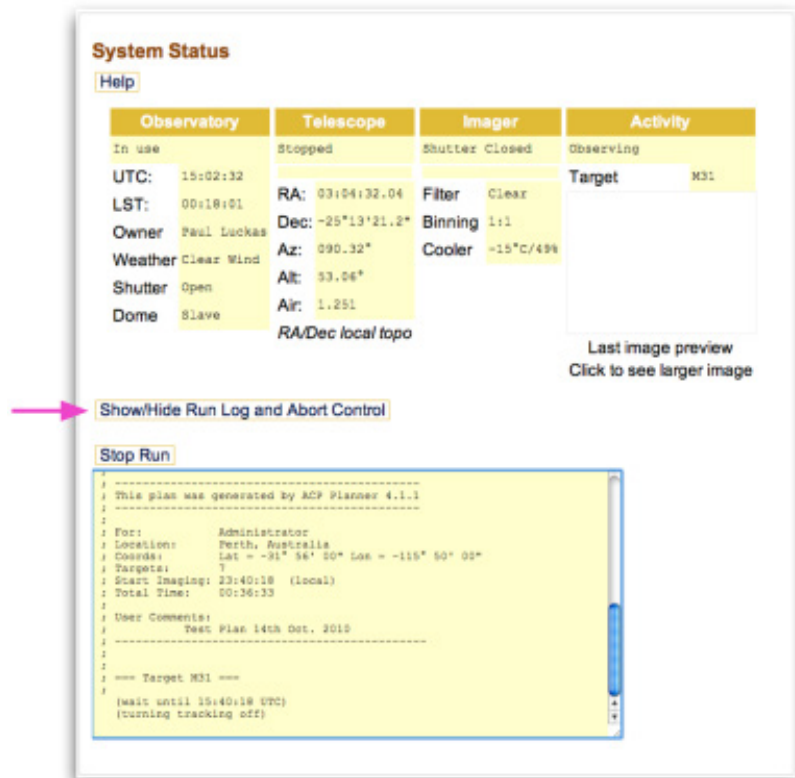
- Select **Clear** from the **Filter** menu. Leave **Binning** at its default value ('1' for *SPIRIT I* and '3' for *SPIRIT II*).



- Select **Acquire Image**. An 'OK' message should appear at the bottom of the pane.



- Acquisition of the image sequence 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.

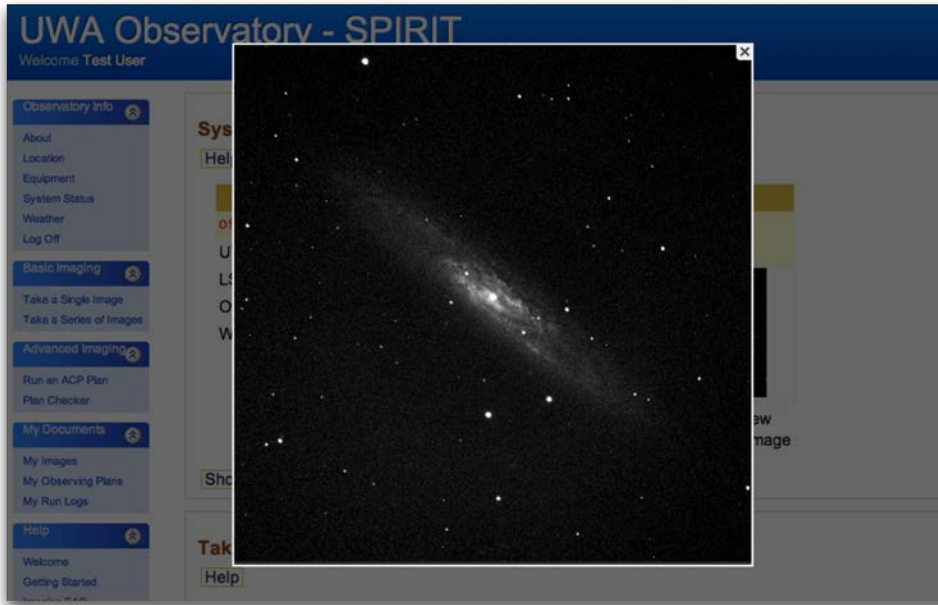


- Telescope operations can also be monitored with the observatory webcam.



## Step four: Download your image

A low quality thumbnail image will appear in the **System Status** pane when imaging is complete. Select the image to enlarge it.



Your image can be viewed and downloaded from 'My Documents / My Images'. Images are sorted into folders, by date.



Navigate to a folder that contains an image you wish to download. JPEG versions of images can be downloaded and viewed without special software.

## Step five: Log out

Important! You must log out of *SPIRIT* so that other people can use the telescope.

