

Version 2.1

# Summary

This is a brief guide to using the Faulkes Telescope controls

## 1. Logging onto the website

#### Go to http://www.faulkes-telescope.com



Click on the 'Take Control' tab on the left-hand side menu bar.

You will then be prompted for your username and password before being able to access any of the telescope controls.

Enter your username and password and click 'Go!'

You are now logged in and new menu options appear on the left hand side of the screen. If you click back on to the 'Faulkes Telescope' tab you will have different menu bar options.

# 2. To book a session

On the 'Take Control' tab, click on '**Bookings'** in the menu on the left hand side. You will be shown a page which details the amount of time you have available on the telescope.

Click on '**Search for available slots**'. You will be shown calendars for the days in which slots are available to be booked. Please note that the system only shows five weeks ahead of the current date.

Click on the **day** on which you want the slot. Click on the **time** of the slot. You will be asked to confirm that is the slot you wish to book. Click **'ok'**.

When the slot is booked you will be taken to a screen showing your current bookings. You can then choose to book more slots or log out of the website.

#### Important note about cancelling bookings

To cancel any slots you must telephone the Faulkes Telescope Operations Centre (07870427063), or email <u>info@faulkes-telescope.com</u> at least 24 hours before your slot is due to begin. You risk forfeiting your time if you do not cancel a session with at least 24 hours notice.

If you do not use your session without cancelling first, with the Faulkes Telescope Operations Centre, you risk having your account suspended. Re-activation may be made on application.

## 3. To take control of the telescope

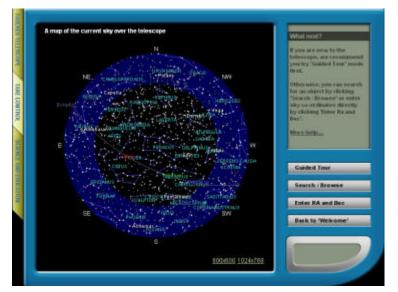
Before your first control session, it is *highly recommended* that you read the observing advice section of the website. It can be found at:

Faulkes website > Science & Education > Telescope Advice

If you log into your account up to 2 hours before your session is due to start you will see a timer that is counting down to your session time. In the LCD status box at the top of the screen, it says what the status of the telescope is currently. For further details on the status of the telescope, click on '**Status**' in the menubar.

You should look at this page prior to your session as it gives details of the current state of the telescope, weather information and messages from the FT operations centre which might affect your observing session.

When the timer reaches 00:00:00 you will asked if you wish to take control of the telescope. Click 'yes'.



#### Sky View

The first page that you will see is a simplified star chart. This will give you an idea of the constellations and planets visible in the sky, as well as the position of the Moon in the sky. It is advised that you do not take any observations within 30° of the Moon as they will be greatly affected by the reflected light from the Moon.

On the right-hand side is a menu bar. You are given the option of 'Guided Tour', 'Search/Browse' or 'Enter RA and Dec'.

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## **Guided Tours**

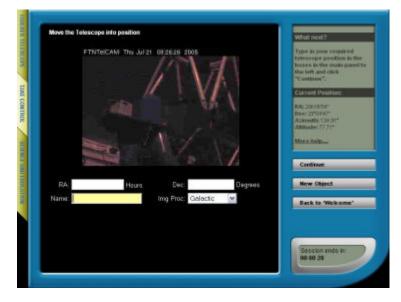
The tour shown is called 'Deep Sky Highlights'. Different burs group different objects, which fit into the field of view of the telescope. We are continually developing new tours.

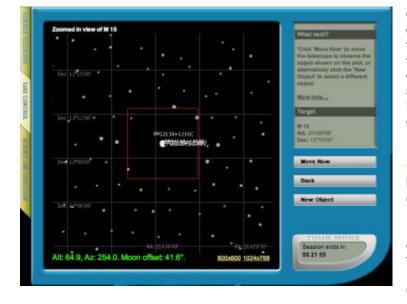
This page shows a list of objects that are visible and is useful if you are new to astronomy and are unsure of how to find out what is visible in the sky.

To select an object, click on its name in the first column.

**N.B.** This shows objects which are above the horizon but they may be obscured by the Moon.







### Search/Browse

### Search

You can use this option to type in the name, Messier or NGC number of the object you wish to observe. After typing in the object and clicking search you will be shown a table. This gives details about the object and whether it is visible or not. To select the object, click on its name in the first column.

#### Browse

Gives a list of objects which the FT team have selected as good examples to observe, for the first time user.

### Enter RA and Dec

Allows you to type in the celestial coordinates of the object you wish to observe. This is the tool you will need to use if looking for asteroids or comets.

Each part of the co-ordinate value is separated by a colon. So in RA: 14h 28' 40" would be entered as: 14:28:40 and in Dec:

35°45'10"

would be entered as: 35:45:10

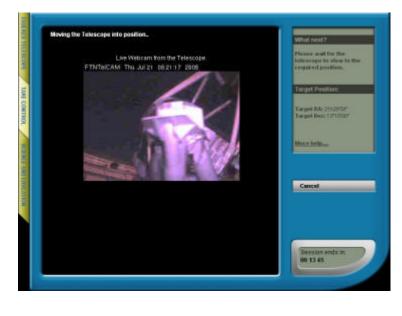
**N.B.** no '+' sign. For a negative Dec you must enter a preceeding '-', i.e. -10:20:45

Once you have selected the object to observe you will be shown a chart of where the object will appear in the field of view of the telescope. The information at the base of the chart tells you useful information such as how far the object is from the horizon, and how close the Moon is to the object selected.

If the 'Alt', 'Az', or 'Moon offset' appear yellow, your observations may be affected by scattered light from the Moon or being close to the horizon.

If any of this text appears **red**, the observation is not possible because it is too close to the horizon or moon.

Click 'Move Now' to move the telescope.



You will now see a screen which shows the telescope moving. This is a from a webcam mounted inside the telescope enclosure.

Once the telescope is in position an alert will appear informing you of that. Click '**ok**'.

This page automatically refreshes. If you do not see the web-cam image of the telescope moving, you may have to refresh this with the button on the browser.

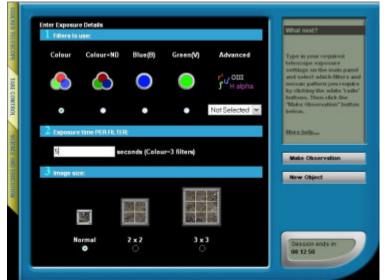
You may be presented with a 'time out' pop up message. This is not an error, only that the telescope has taken longer to complete your command than expected. If you want to begin again you can click '**Cancel**', otherwise click '**OK**'.

### 4. Making observations

Once the telescope has moved to the object you specified, you can choose filters and exposure times. It is highly recommended that you view the advice section on the Faulkes Telescope website for filters:

Faulkes website > Science & Education > Telescope Advice > Using filters And exposure times:

Faulkes website > Science & Education > Telescope Advice > Exposure Times



You now need to set the telescope exposure settings. Firstly, select which filter(s) you wish to use. You can chose from colour, blue and green or select more advanced filters from the drop down menu.

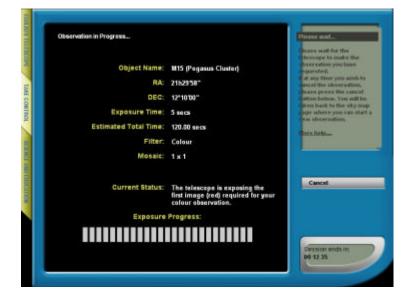
Then you need to choose an exposure time. Note, if you have chosen a colour filter the exposure time you choose will be the total time for the exposure (.e. divide by 3 for the amount of time each filter is exposed).

At present, the mosaic function is not enabled and is undergoing development.

Once you have chosen your parameters click 'Make Observation'.

The following page will show your observation in progress, with a timeline measuring the progress of the observation. The page will tell you the status of the observation including which filter is being used and when your image is being downloaded.

Once the image is downloaded an alert will appear to tell you the observation is complete. Click **'ok'** to view the image.





Your image will appear in the window. This is automatically saved and you are able to view it from the **'Your Images'** option which appears when you log into the website at the beginning of the process.

Click '**New Observation**' to repeat the observation process.

Click '**Re-expose Object**' if you would like to change the filters or try different exposure times, or to repeat that observation.

# 5. Viewing your images

All images that are taken by you are saved onto the website. To search them go to the menu that appears once you have logged in (see section 1). Select '**Your Images**'. A table will appear which lists the images that you have taken and when they were taken.

To save these images to your desktop, click on the image. It will open in a pop-up window. Right click on the image and 'save picture as'. You can then select the folder into which you would like the image to be saved.

There is also an option to allow you to crop the image. This is a useful tool to get the correct size images for the galaxy project spreadsheets.

You will also see some options beneath the image in the pop-up window. There is a link to allow you to access the FITS data file from your observation. This is required for some of the projects (see Science and Education section of our website > Introductory Activities or Research Projects). Clicking on this link will reveal another link, which you can use to access your data. You should right-click on this second link, and select '**Save linked file as'**, otherwise the browser will (unsuccessfully) try to display the FITS data from your image.

## 6. Checking the status of the telescope

Once you have logged in, click on '**Status**' to check the status page. This is where you can find current information about the telescope. There are bulletins from the control centre, a weather map to check the current weather status, details about the weather instrumentation and the last image that the telescope has taken.

We advise you to check this page a few times on the day of your observation, in case there is sudden change in weather conditions.

## 7. Checking/changing your details

By clicking on '**Your Details**' you can check or update your details and change your password, once you have logged in.

## 8. Help

Further help and information can be found either on 'Help' or 'FAQ' (Frequently Asked Questions).

# 9. Logout

Once you have completed using the website you should log out using this option.

# 10. Further information and support

During your session

Telephone:

07870427063 (calls are charged at your network's mobile phone rate)

<u>Support/General Questions</u> To have questions answered submit a support ticket:

http://www.ftresources.com/support/

(we aim to answer all support tickets within 3 working days) Or look at our 'Frequently Asked Questions' webpage: Faulkes Telescope website > Help & Support > FAQ

<u>Discuss problems</u> with other users at our mailing list: <u>faulkes-telescope@yahoogroups.com</u> Sign up at: Faulkes Telescope website > Help & Support