JDox & Help Desk Homework

The [JWST User Documentation system](#), or JDox, is one of the primary resources STScI is making available to help the user community learn about JWST, its instrumentation and data, and how to propose for observing time. Thus, it will be important for you as a Master Class participant to familiarize yourself with the JDox content and how to find information in this extensive set of cross-linked articles.

While the JDox interface is largely intuitive, you may find this short video tutorial to be of use in understanding how to navigate the documentation and search for information:

https://youtu.be/01sxcReWPTQ

Instructions for JDox Scavenger Hunt

We have compiled a list of questions for you to answer by undertaking a "scavenger hunt" through JDox. Answer all bold-faced questions and your choice of questions within each category. Please see the headings below for the recommended number of additional questions to answer within each category.

Cross Instrument

In addition to the required questions in bold-faced, answer an *additional 1 question* from this list.

1. **What's the first thing I should do when preparing my proposal?**

2. **What observing methods does JWST support?**

3. **How do I know when a given target is visible to JWST?**

4. When should I propose for NIRISS Wide Field Slitless Spectroscopy (WFSS) instead of NIRCam WFSS?

5. If I want to observe the spectra of transiting exoplanets, what spectroscopic JWST observing modes are available to me?

6. Which JWST instruments offer standard imaging? What is the wavelength coverage of the imaging modes?

7. I would like to obtain spatially resolved 2-D spectroscopy with JWST. Is that possible? If so, what observing modes support this, and what wavelengths are covered?

8. What JWST observing modes will allow me to observe faint companions near bright host objects?

MIRI

In addition to the required questions in bold-faced, answer an *additional 2 questions* from this list.

1. **What is the wavelength coverage of MIRI? What are the pixel scales for the various observing modes?**

2. For what MIRI observing modes should I dither? Is there a limit for the amount of time I should spend in a given dither position?

3. What is the field-of-view & wavelength range for the MIRI IFU (medium-resolution spectroscopy) channels?

4. What separations between a faint companion and bright host can I achieve with the MIRI coronagraphic masks? What are the central wavelength coverages of these masks?

5. When observing with the low-resolution spectrometer (LRS), should I choose slit or slitless spectroscopy?

6. When using MIRI MRS Simultaneous Imaging, will I get imaging observations of my target "for free"? What is this mode used for? When should I choose to not use this option?

7. When should I take a dedicated background observation?

NIRCam

In addition to the required question in bold-faced, answer an *additional 2 questions* from this list.

1. **What is the wavelength coverage, field of view, and pixel scale for NIRCam's short-wavelength and long-wavelength detectors?**

2. I would like to observe the gaps in between NIRCam's A & B module when using imaging. What dither pattern should I use? What dither pattern should I use for NIRCam Wide Field Slitless Spectroscopy?

3. What NIRCam observing modes support mosaicking? When I should a mosaic and when should I dither?

4. Which NIRCam readout patterns have skipped frames?

5. What coronagraphic masks are offered by NIRCam, and what wavelength ranges do they cover?

6. Should I dither for grism time-series imaging observations?

NIRISS

In addition to the required question in bold-faced, answer an *additional 2 questions* from this list.

1. **What is the field of view and wavelength coverage of NIRISS? What is the pixel scale?**

2. What is the difference between the NIRISS readout patterns? Which should I choose for my science?

3. For which NIRISS observing modes do I have to use a target acquisition?

4. Which NIRISS observing modes require dithering?

5. What are the four factors to consider when choosing a PSF reference (i.e., calibrator) star for an AMI observation?

6. I want to observe a galaxy cluster field with NIRISS WFSS. Is there a good example of how to set up my observations? How do I remove contamination from overlapping spectra?

NIRSpec

In addition to the required question in bold-faced, answer an *additional 2 questions* from this list.

1. **What is the wavelength coverage of NIRSpec? What is the pixel scale of NIRSpec?**

2. What is the field of view of the NIRSpec Micro-Shutter Assembly? What is the field of view of the NIRSpec IFU?

3. What is the estimated best possible accuracy for target acquisition for the micro-shutter assembly shutters and which TA method will deliver it?

4. I have ground-based and Spitzer imaging of my field. Do I need NIRCam pre-imaging to ensure that my objects are precisely located in their MSA shutters?

5. There are bright stars in the MSA FOV that will cause leakage and will contaminate my IFU observations. What are the mitigation strategies that can be implemented when

designing the observations?

6. What do I do if I need precise centering for a target that's too bright for WATA?

7. I want to use a 0.2" fixed slit to observe a source with an emission feature at 1.355 microns. Which slit should I use? Can I use both of the A slits for this?

Astronomer's Proposal Tool (APT)

In addition to the bold-faced required question, answer an *additional 2 questions* from this list.

1. **When I enter an observation in APT, there is a box at far right labeled "ETC Wkbk.Calc ID", but there is no context-sensitive help available. What am I supposed to put in that box, and is it a required input?**

2. The JWST Web site lists accepted Early Release Science programs:

   http://www.stsci.edu/jwst/observing-programs/approved-ers-programs

   I am interested in looking at program ID 1334, "The Resolved Stellar Populations Early Release Science Program" as an example, and I understand the APT files for the approved Early Release Science Programs can be loaded directly into APT for inspection. How do I do that?

3. If I am requesting a sequence of observations that need to be chained together in time (hence I put a special requirement in to make a non-interruptible sequence), is there a maximum time limit for such a sequence?

4. Why does my observation have "Implicit" special requirements in APT, and why can't I edit them?

5. Which APT observation templates fall into the category of mini-mosaics?

6. I see an option for "Module" in the NIRCam APT template. What do these two options refer to?

Exposure Time Calculator (ETC)

In addition to the bold-faced required question, answer an *additional 2 questions* from the list.

1. **The ETC will give me a warning if I start inputting parameters that are not supported by APT, right?**

2. Can I upload a custom spectrum for my source for ETC calculations? What information should I provide, if so?

3. What options do I have for defining the flux distribution for an extended source?

4. In the Hubble ETC, I can input my desired SNR and receive as output the necessary integration time. Why can't the JWST ETC optimize the number of groups and integrations for my signal-to-noise goal? Running a whole bunch of calculations is tedious... Is there a way to speed this up?

5. When should I use the IFU Nod off Scene strategy?

6. I would like to do additional analysis beyond what the ETC reports. Is there a way to access the output data products so I can use my own software tools for further analysis?

JWST Help Desk Homework Questions

Please answer all questions below.

1. **Announcements such as new APT and ETC releases/downtimes, Call for Proposals, etc. are posted on the Help Desk homepage (jwsthelp.stsci.edu, see screenshot below). What is the latest announcement posted on the homepage?**
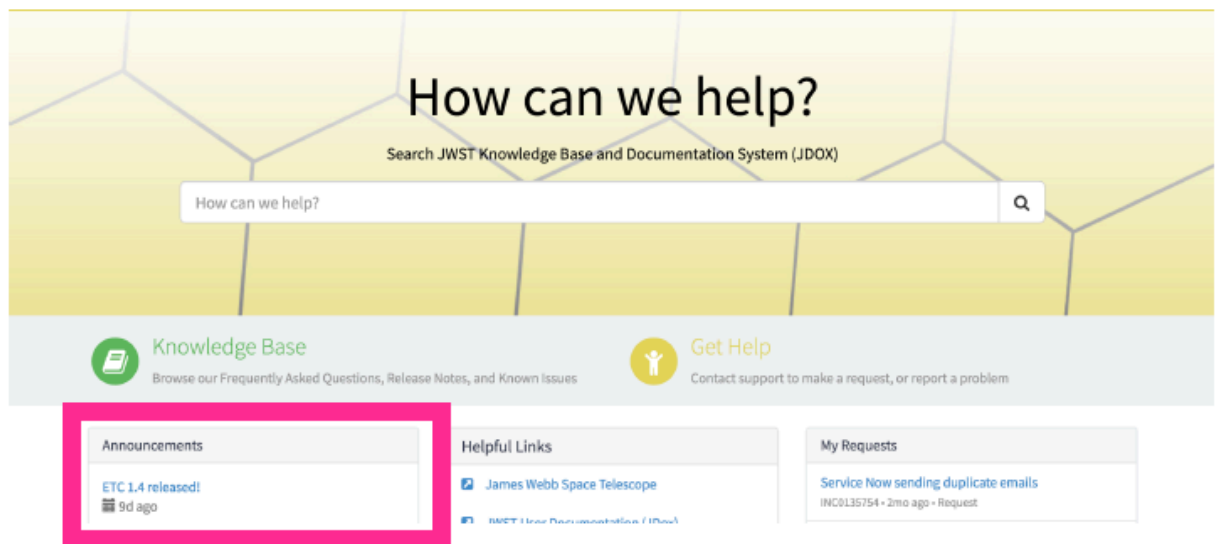

2. **From the Help Desk homepage (jwsthelp.stsci.edu) you can search for answers to your questions. Search results will give Knowledge Base articles first and then JDox results. You can use the sidebar tree to filter for specific types of articles. See the screenshot below for the search results for "APT MIRI".**

Use the Help Desk search bar to find out why you may be having trouble connecting to the APT server. Explore using the sidebar tree to filter types of articles.

3. **If you can't find an answer to your question using the search function, you may submit a question (otherwise known as a "ticket") for a member of the Help Desk staff to answer. You submit a question by clicking on the "Get Help" icon on the homepage. This will send you to a page of "catalogs" to choose from to get an answer quicker (See example screenshot below). If you can't determine what catalog to choose you may also choose "General". What catalog would you submit to if you have a question about adding an investigator to your proposal?**
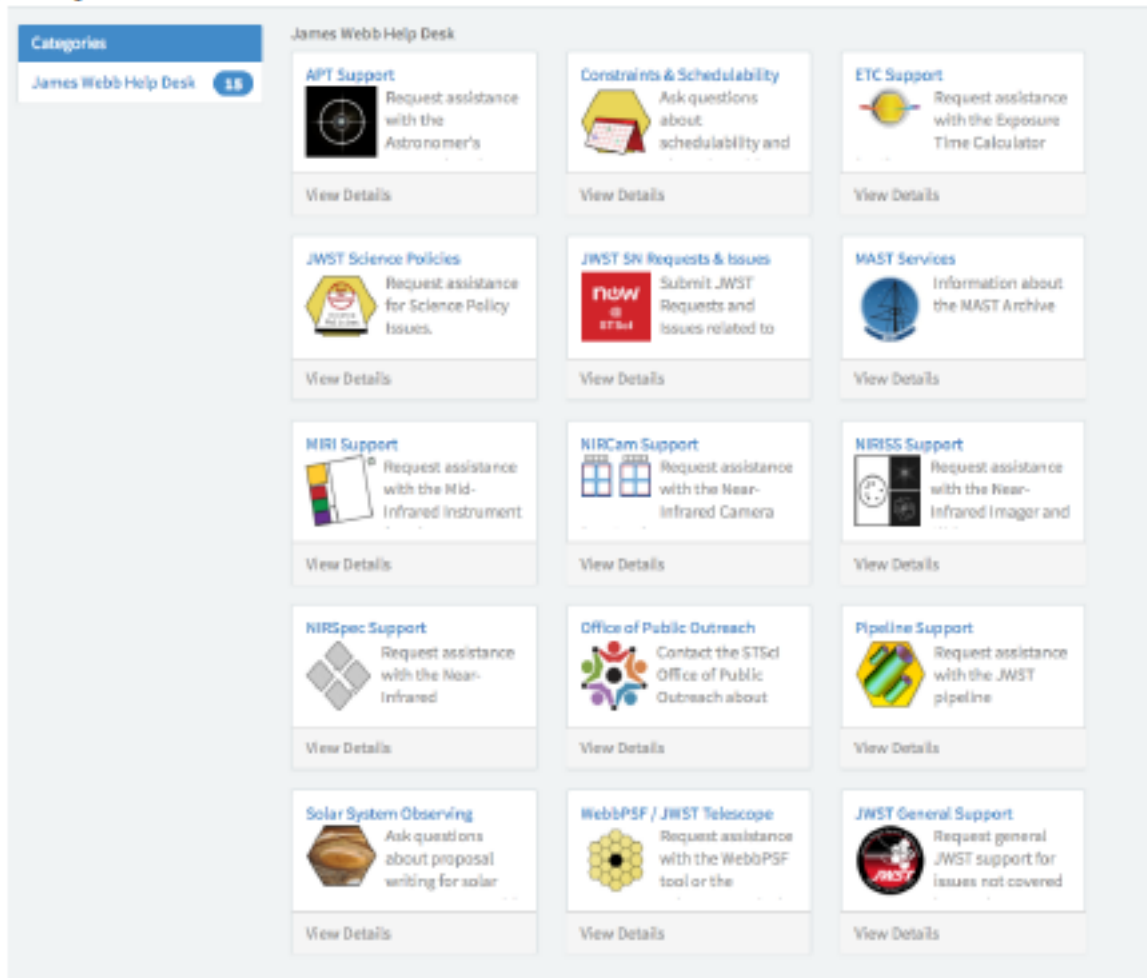
(You may have noticed while answering Question 2 that your search results may also send you directly to the page to submit your question, that is also fine.)

4. **Practice using the Help Desk by submitting a practice ticket to the catalog "JWST Master Class". Request that your ticket be proprietary, use the subject "My Test Ticket", and the description "Hello, I am practicing using the Help Desk for the JWST Masterclass, please send me a response. Thank you."**

5. **After submitting your question you will see your ticket under "My Open Tickets" in the top menu bar. You can view and update your tickets here. You may add an attachment or a collaborator to the "watchlist" (the collaborator will then receive all future updates to the ticket in an email. Note: you can add also someone to watchlist when you first submit your ticket). Re-open the practice ticket you submitted in Question 4 and either add someone to the watchlist or send an attachment image of your favorite astronomical target. See example screenshot below:**

Agent working on this Incident:
Jessica Hale-Lynch

Number
INC0018602

State
Customer
Scheduled

Created
2mo

Updated
3d

∧ Options

Subject
Add JDox Closure Codes

Describe Enhancement
Can we please add two new closure
codes 1. Solved (using JDox article)
2. Solved (needs JDox article)

Add to Watchlist

Enter an email address to follow