JDox and Help Desk Assignment

This assignment aims to familiarize Master Class attendees with the JWST User Documentation System (JDox) and Help Desk. In this assignment you will find a list of questions for you to answer by undertaking a "scavenger hunt" through JDox. **Try to answer at least all the bold-faced questions** as well as the recommended number of additional questions within each category.

1. Introduction

The JWST User Documentation system, or JDox, is one of the primary resources STScI offers to help the user community learn about JWST, its instrumentation and data, and how to propose for observing time. As a Master Class participant it is important 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.

2. JWST Cross Instrument questions

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

1. **What is 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, which observing modes support this, and what wavelengths are covered?
8. Which JWST observing modes will allow me to observe faint companions near bright host objects?

3. MIRI
In addition to the required questions in bold, answer an additional 2 questions from the list.

1. **What is the wavelength coverage of MIRI? What are the different PSFs for MIRI imaging in different filters?**
2. **For which 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 and wavelength range for the MIRI IFU (medium-resolution spectroscopy) channels?**
4. What separation 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 use this option, or not use this option?
7. When should I take a dedicated background observation?

4. NIRCam
In addition to the required question in bold, answer an additional 2 questions from the 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 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. Which NIRCam observing modes support mosaicking? When should I create 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?

5. NIRISS
In addition to the required question in bold, answer an additional 2 questions from the 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 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?

6. NIRSpec
In addition to the required question in bold, answer an additional 2 questions from the list.

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

7. Astronomer's Proposal Tool (APT)
In addition to the required question in bold, answer an additional 2 questions from the 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 website lists accepted Early Release Science programs (http://www.stsci.edu/jwst/observing-programs/approved-ers-programs). I would like to view 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 linked 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?

8. Exposure Time Calculator (ETC)

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

1. **Will the ETC warn me if I start inputting parameters that are not supported by APT?**
2. Can I upload a custom spectrum for my source for ETC calculations? If so, what information should I provide?
3. What options do I have for defining the flux distribution for an extended source?
4. Running many 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?

9. JWST Help Desk

Please answer all questions below.

1. Announcements such as new APT and ETC releases or downtimes, Call for Proposals, etc. are posted on the Help Desk homepage (https://stsci.service-now.com/jwst, see screenshot below). What is the latest announcement posted on the homepage? (You may need to log in with your myST account)

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.
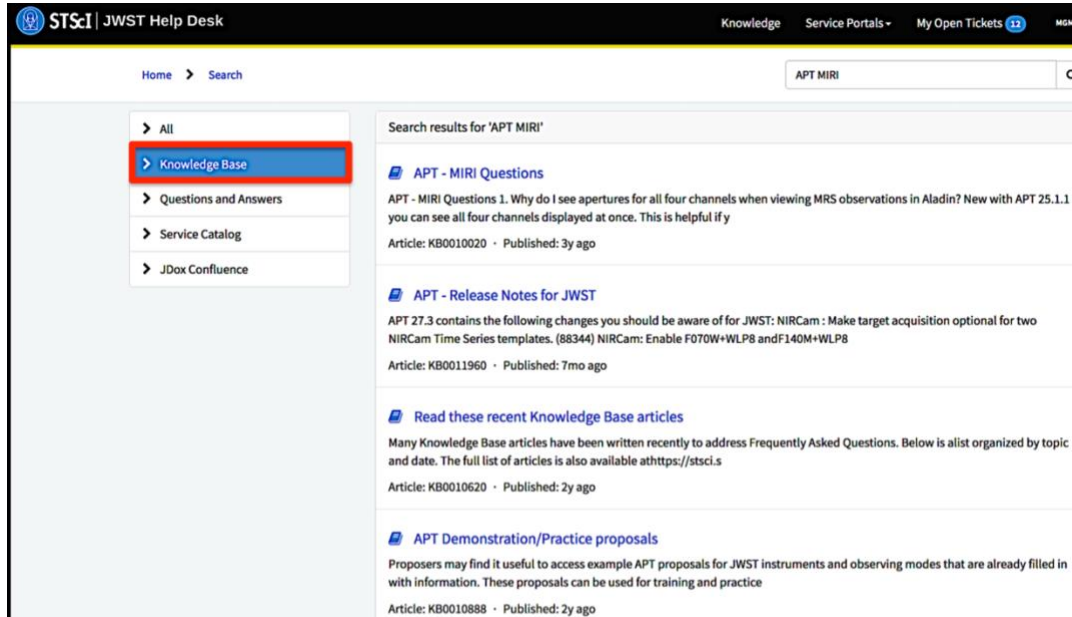
3. If, while preparing your JWST proposal, you can't find an answer to any question using the search function or JDox, you may submit a question (otherwise known as a "ticket") for a member of the Help Desk staff to answer. You submit a question by clicking on the "Get Help" icon on the homepage. This 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?

4. 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).

Agent working on this Incident:

Number
INC0020577

State
Resolved

Created
2y ago

Watch list

Updated
2y ago

ⅴ Options

Add to Watchlist

Enter an email address to follow

Enter an email address here

Add

Attachments 📎

Drop files here