



**STScI** | SPACE TELESCOPE  
SCIENCE INSTITUTE

EXPANDING THE FRONTIERS OF SPACE ASTRONOMY

# MOS Science Example Screenshots

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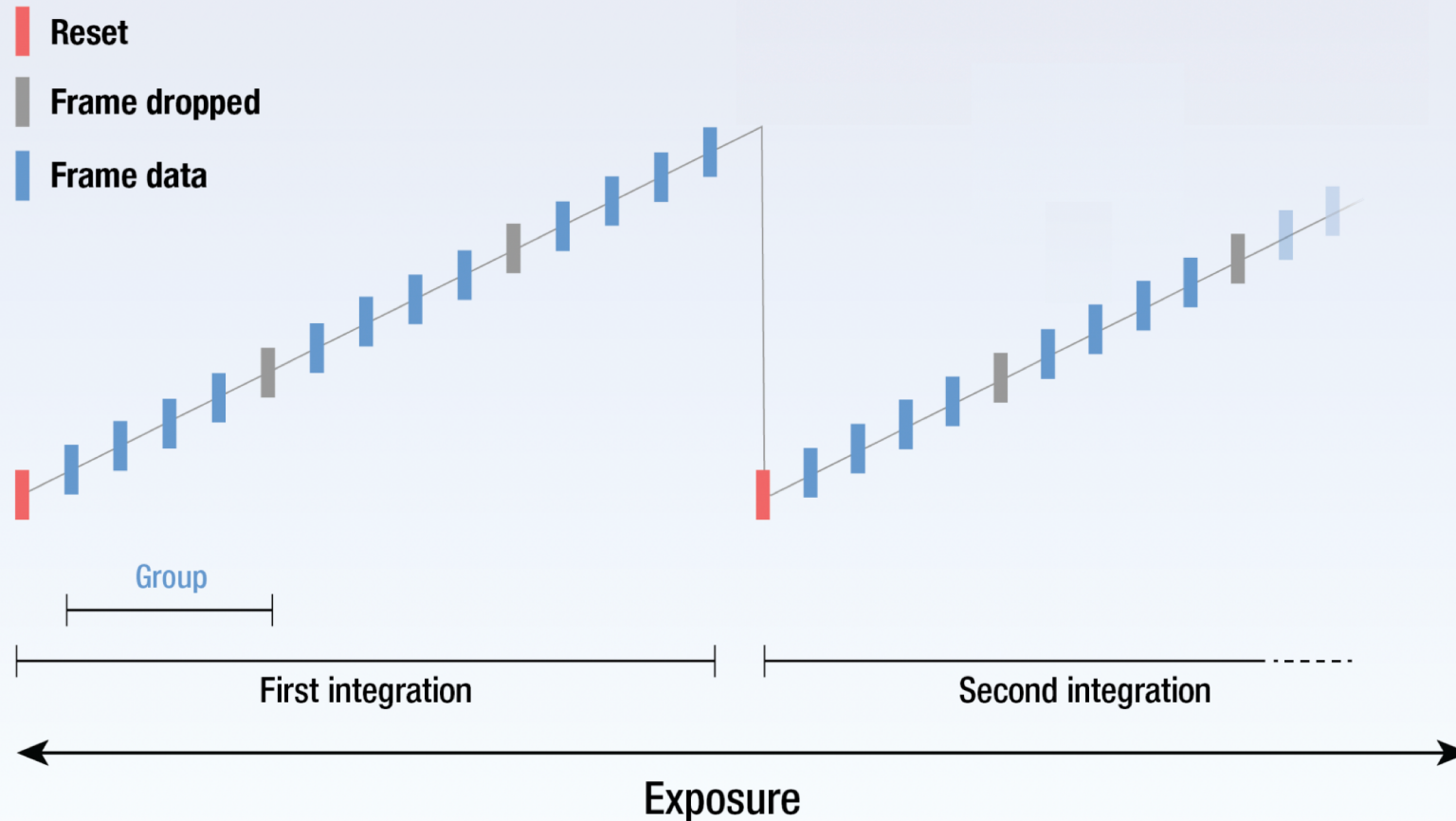
JWST Master Class at STScI

11/18/19 – 11/22/19



# Exposures, Groups and Integrations

## JWST Up-the-ramp Readout





# ETC Screenshots – continuum source

Calculations

Scenes and Sources

Upload Spectra

Caveats and Limitations

## Select a Scene

★ Default Scene

ID	Name -	Sources	# Calcs -
★ 1	Point source - z=6 galaxy 1		2
☆ 2	Point source - Z=6 emissi 2		3

New

Add Source

Remove Source

Delete

## Select a Source

ID	Plot	Name -	Scenes -	# Calcs -
1	<input checked="" type="checkbox"/>	z=6 compact dwarf	1	2
2	<input type="checkbox"/>	[CIII + [OII] + Ha at z= 2		3

New

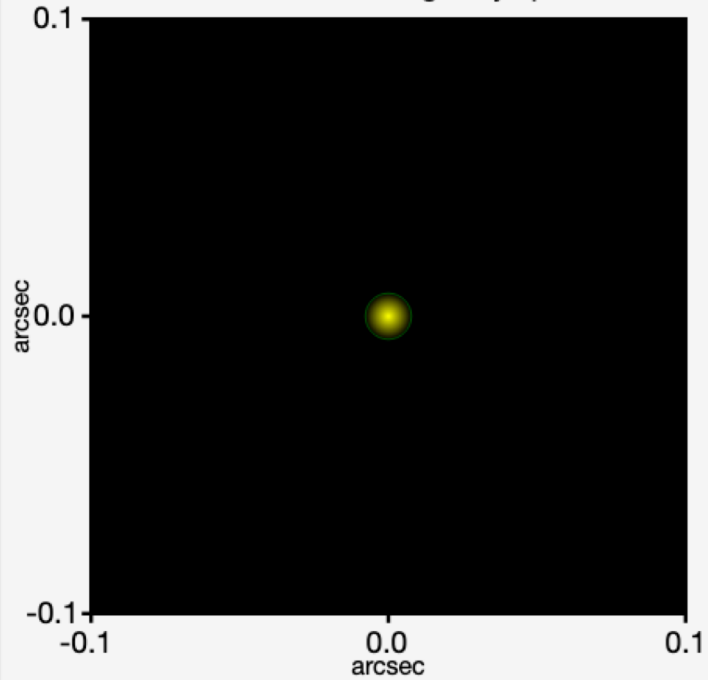
Delete



# ETC Screenshots – continuum source

## Scene Sketch

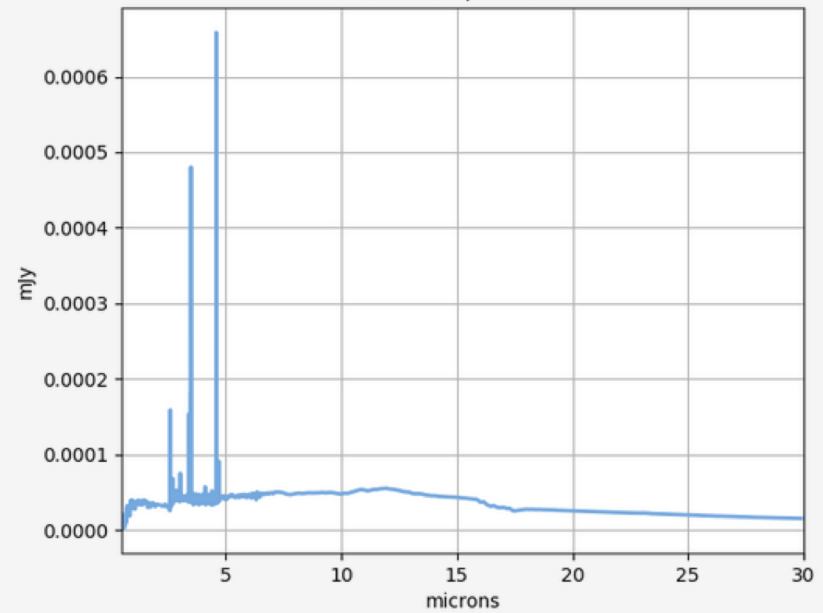
1: Point source - z=6 galaxy spectrum



Show source outlines

## Source Spectrum Plots

### Source Spectrum



### Spectra Plot

Bounds/Scale:

X: min  max  Linear

Y: min  max  Linear



# ETC Screenshots – continuum source

**Source Editor** ⓘ

ID **Continuum** Renorm Lines Shape Offset

**Scene Identity Information**

Point source - z=6 galaxy spectrum

Point source with emission lines

**Source Identity Information**

z=6 compact dwarf

Source selected: 1

Reset Save

**Source Editor** ⓘ

ID **Continuum** Renorm Lines Shape Offset

**Spectral Energy Distribution**

Uploaded File

Select

No Continuum

Redshift: 6

**Extinction**

Law: Milky Way R\_V=3.1

Ext. Magnitude: 0

Ext. Bandpass: J

Source selected: 1

Reset Save

**Source Editor** ⓘ

ID Continuum **Renorm** Lines Shape Offset

**Normalize Source Flux Density**

Renormalization applied after redshift

Normalize at wavelength

0.001 flam lambda 2 μm

Normalize in bandpass

27.5 abmag

JWST NIRCAM/SW\_IMAGING F150W

HST WFC3/IR F098M

Source selected: 1

Reset Save



# ETC Screenshots – continuum source

Source Editor ⓘ

ID Continuum Renorm **Lines** Shape Offset

Line name  Add Update Remove  
Lines applied after redshift and renormalization.

Line center Line width Line strength

Name -	Center -	Width -	Strength -
--------	----------	---------	------------

Source selected: 1 Reset Save

Source Editor ⓘ

ID Continuum Renorm Lines **Shape** Offset

Shape of source:  Point  Extended

Source selected: 1 Reset Save

Source Editor ⓘ

ID Continuum Renorm Lines Shape **Offset**

Position of Source in Scene

X offset  arcsec

Y offset  arcsec

Orientation  degrees

Source selected: 1 Reset Save



# ETC Screenshots – emission line source

Calculations

Scenes and Sources

Upload Spectra

Caveats and Limitations

## Select a Scene ?

★ Default Scene

ID -Name -	Sources	# Calcs -
☆ 1 Point source - z=6 galaxy sp 1		2
★ 2 Point source - Z=6 emission 2		3

New

Add Source

Remove Source

Delete

## Select a Source ?

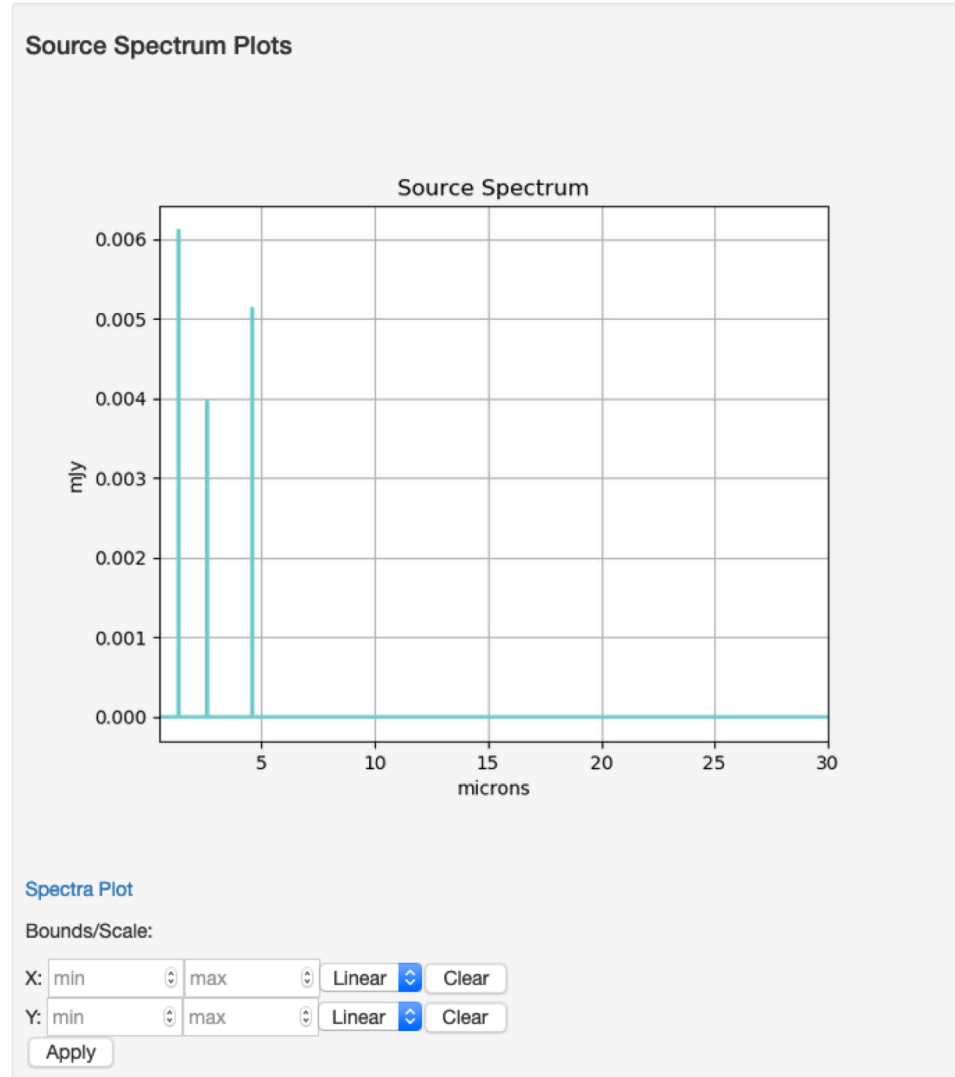
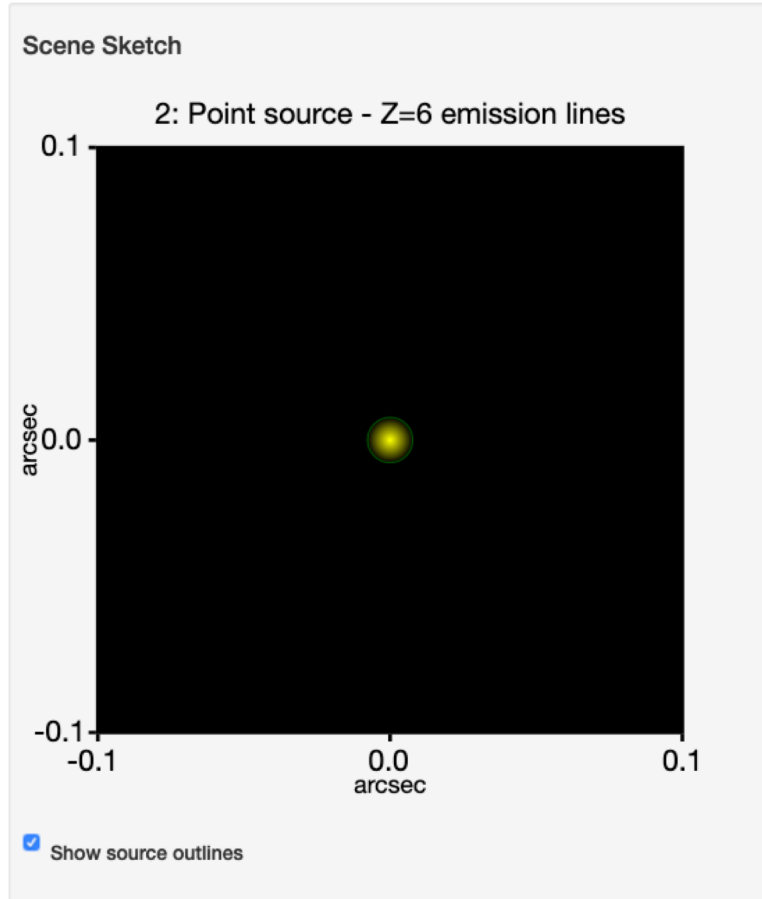
ID -	Plot	Name -	Scenes -	# Calcs - <span>⚠</span>
1	<input type="checkbox"/>	z=6 compact dwarf	1	2
2	<input checked="" type="checkbox"/>	[CIII + [OII] + Ha at z=6	2	3

New

Delete



# ETC Screenshots – emission line source







# ETC Screenshots – emission line source

**Source Editor** ⓘ

ID Continuum Renorm Lines Shape Offset

**Scene Identity Information**

Point source - z=6 emission lines

[CIII + [OII] + Ha

**Source Identity Information**

[CIII + [OII] + Ha at z=6

Source selected: 2

Reset Save

**Source Editor** ⓘ

ID Continuum Renorm Lines Shape Offset

**Spectral Energy Distribution**

Redshift 0

Uploaded File

Select

Galaxy Spectra from Brown et al. (201)

UGCA 219 (Blue Compact Dwarf)

No Continuum

**Extinction**

Law Milky Way R\_V=3.1

Ext. Magnitude 0

Ext. Bandpass J

Source selected: 2

Reset Save

**Source Editor** ⓘ

**Normalize Source Flux Density**

Renormalization applied after redshift

Normalize at wavelength

0.001 flam lambda 2 μm

Normalize in bandpass

27.5 abmag

JWST NIRCAM/SW\_IMAGING F150W

HST WFC3/IR F098M

Other Bessell J

Do not renormalize

Source selected: 2

Reset Save



# ETC Screenshots – emission line source

Source Editor ⓘ

ID Continuum Renorm **Lines** Shape Offset

Line name  Add Update Remove  
Lines applied after redshift and renormalization.

Line center Line width Line strength

<input type="text" value="10"/>	<input type="text" value="μm"/>	<input type="text" value="10000"/>	<input type="text" value="km/s"/>	<input type="text" value="1e-12"/>	<input type="text" value="erg/cm&lt;sup&gt;2&lt;/sup&gt;/s"/>
---------------------------------	---------------------------------	------------------------------------	-----------------------------------	------------------------------------	---

Name ▾	Center -	Width -	Strength -
[C III] at z=6	1.34	40	2.1e-18
[O II] at z=6	2.61	40	7e-19
Ha at z=6	4.59	40	5.15e-19

Source selected: 2 Reset Save

Source Editor ⓘ

ID Continuum Renorm Lines **Shape** Offset

Shape of source:  Point  Extended

Source selected: 2 Reset Save

Source Editor ⓘ

ID Continuum Renorm Lines Shape **Offset**

Position of Source in Scene

X offset  arcsec

Y offset  arcsec

Orientation  degrees

Source selected: 2 Reset Save



# ETC Screenshots - Calculations

Calculations   Scenes and Sources   Upload Spectra   Caveats and Limitations

MIRI ▾	NIRCam ▾	NIRISS ▾	NIRSpec ▾	?				
ID ▲	☑	Mode -	λ -	Scn -	(s) -	SNR -	⚠	
5	<input type="checkbox"/>	nirspec target_acq	2.59	1	171.79	7.86	⚠	
4	<input checked="" type="checkbox"/>	nirspec mos	4.59	2	31862.14	11.92	✓	
3	<input checked="" type="checkbox"/>	nirspec mos	2.61	2	31862.14	11.21	✓	
2	<input checked="" type="checkbox"/>	nirspec mos	1.34	2	31862.14	17.90	✓	
1	<input type="checkbox"/>	nirspec mos	1.16	1	95586.41	12.79	✓	
-	-	---	---	-	---	---	-	

Same type of screen shots for computations 4, 3 and 2 (medium spectral resolution configurations F100LP/G140M, F170LP/G235M and F290LP/G395M).

Showing only one of them.



# ETC Screenshots – emission line source scene

Scene ★ Backgrounds Instrument Setup Detector Setup Strategy

Scene for Calculation: 2: Point source - z=6 emission lines  
★ Default scene is 2.

Sources in that Scene: 2: [CIII + [OII] + Ha at z=6

Line name: My line

Line center: 10  $\mu\text{m}$  Line width: 10000 km/s Line strength: 1e-12  $\text{erg/cm}^2/\text{s}$

Buttons: Add, Update, Remove

Lines applied after redshift and renormalization.

Name	Center -	Width -	Strength -
[C III at z=6	1.34	40	2.1e-18
[O II] at z=6	2.61	40	7e-19
Ha at z=6	4.59	40	5.15e-19

Calculation selected: 4, Mode: nirspec mos

Buttons: Reset, Calculate



# ETC Screenshots – Background

Scene ★ **Backgrounds** Instrument Setup Detector Setup Strategy

Position ?

Ra Dec 03:32:28.00 -27:48:30.00

Background configuration

None  Low  Medium  High

Date Jul 1 2020

Calculation selected: 4, Mode: nirspec mos

Reset Calculate



# ETC Screenshots – Instrument Setup

Scene ★ Backgrounds **Instrument Setup** Detector Setup Strategy

**NIRSpec Multi-Object Spectroscopy**

**Grating/Filter Pair**  
G395M/F290LP

**Slitlet Shape**  
3 shutters (-1,0,1)

The source selected in the Strategy tab will be placed in shutter 0.

**MSA Location**  
Quadrant 3 center

These relative directions are when looking through the MSA towards the sky.

Wavelength range: (2.87 - 5.27)

Calculation selected: 4, Mode: nirspec mos

Reset Calculate

**NIRSPEC MOS G395M F290LP**

Wavelength ( $\mu\text{m}$ )	Total System Throughput
2.87	0.30
3.0	0.45
3.25	0.55
3.5	0.60
3.75	0.62
4.0	0.60
4.25	0.55
4.5	0.45
4.75	0.35
5.0	0.25
5.27	0.15



# ETC Screenshots – Detector Setup

Scene ★ Backgrounds Instrument Setup **Detector Setup** Strategy

**Subarray**  
FULL

**Readout pattern**  
NRSIRS2

**Groups per integration** ⓘ 18

**Integrations per exposure** 1

**Exposures per specification** 24

**Total exposure time:** 08:51:02 (31862.14 s)

**Total integrations:** 24

Calculation selected: 4, Mode: nirspec mos

Reset Calculate



# ETC Screenshots - Strategy

Scene ★ Backgrounds Instrument Setup Detector Setup Strategy

MSA Full Shutter Extraction

**Centered on source**

2: [CIII + [OII] + Ha at z=6

X, Y: 0,0 arcsec

**Angular units** arcsec

**Perform Background Subtraction Using**

background region

noiseless sky background

**Source offset from shutter center**

X 0 arcsec  
(0.00 fractional shutters)

Y 0 arcsec  
(0.00 fractional shutters)

**Wavelength of Interest** (2.87 - 5.27)

4.59 microns

Calculation selected: 4, Mode: nirspec mos

Reset Calculate





# ETC Screenshots - Calculations

Calculations   Scenes and Sources   Upload Spectra   Caveats and Limitations

MIRI ▾	NIRCam ▾	NIRISS ▾	NIRSpec ▾	?				
ID ▲	☑	Mode -	λ -	Scn -	(s) -	SNR -	⚠	
5	<input type="checkbox"/>	nirspec target_acq	2.59	1	171.79	7.86	!	
4	<input type="checkbox"/>	nirspec mos	4.59	2	31862.14	11.92	✓	
3	<input checked="" type="checkbox"/>	nirspec mos	2.61	2	31862.14	11.21	✓	
2	<input checked="" type="checkbox"/>	nirspec mos	1.34	2	31862.14	17.90	✓	
1	<input checked="" type="checkbox"/>	nirspec mos	1.16	1	95586.41	12.79	✓	
-	-	---	---	-	---	---	-	

CLEAR/PRISM



# ETC Screenshots – emission line source scene

Scene ★ Backgrounds Instrument Setup Detector Setup Strategy

Scene for Calculation  
1: Point source - z=6 galaxy spectrum  
★ Default scene is 2.

Sources in that Scene  
1: z=6 compact dwarf

Line name: My line [Add] [Update] [Remove]  
Lines applied after redshift and renormalization.

Line center: 10 μm Line width: 10000 km/s Line strength: 1e-12 erg/cm<sup>2</sup>/s

Name ▾	Center -	Width -	Strength -
--------	----------	---------	------------

Calculation selected: 1, Mode: nirspec mos [Reset] [Calculate]



# ETC Screenshots - Background

Scene ★ **Backgrounds** Instrument Setup Detector Setup Strategy

Position ?

Ra Dec 03:32:28.00 -27:48:30.00

Background configuration

None  Low  Medium  High

Date Jul 1 2020

Calculation selected: 1, Mode: nirspec mos

Reset Calculate



# ETC Screenshots – Instrument Setup

Scene ★ Backgrounds **Instrument Setup** Detector Setup Strategy

### NIRSpec Multi-Object Spectroscopy

**Grating/Filter Pair**  
Prism/CLEAR

**Slitlet Shape**  
3 shutters (-1,0,1)

The source selected in the Strategy tab will be placed in shutter 0.

**MSA Location**  
Quadrant 3 center

These relative directions are when looking through the MSA towards the sky.

Wavelength range: (0.6 - 5.3)

Calculation selected: 1, Mode: nirspec mos

Reset Calculate

### NIRSPEC MOS PRISM CLEAR

Wavelength ( $\mu\text{m}$ )	Total System Throughput
0.6	0.15
1.0	0.40
1.5	0.52
2.0	0.48
3.0	0.60
3.5	0.62
4.0	0.61
5.0	0.58
5.3	0.45



# ETC Screenshots – Detector Setup

Scene ★ Backgrounds Instrument Setup **Detector Setup** Strategy

**Subarray**  
FULL

**Readout pattern**  
NRSIRS2

**Groups per integration** ⓘ 18

**Integrations per exposure** 1

**Exposures per specification** 72

**Total exposure time:** 1d 02:33:06 (95586.41 s)

**Total integrations:** 72

Calculation selected: 1, Mode: nirspec mos

Reset Calculate



# ETC Screenshots - Strategy

Scene ★ Backgrounds Instrument Setup Detector Setup Strategy

MSA Full Shutter Extraction

**Centered on source**

1: z=6 compact dwarf

X, Y: 0,0 arcsec

**Angular units**

arcsec

**Perform Background Subtraction Using**

background region

noiseless sky background

**Source offset from shutter center**

X 0 arcsec  
(0.00 fractional shutters)

Y 0 arcsec  
(0.00 fractional shutters)

**Wavelength of Interest** (0.6 - 5.3)

1.15 microns

Calculation selected: 1, Mode: nirspec mos

Reset Calculate



# ETC Screenshots - Calculations

Calculations   Scenes and Sources   Upload Spectra   Caveats and Limitations

MIRI ▾   NIRCam ▾   NIRISS ▾   NIRSpec ▾   ?

ID ▲	☑	Mode -	$\lambda$ -	Scn -	(s) -	SNR -	⚠
5	<input checked="" type="checkbox"/>	nirspec target_acq	2.59	1	171.79	7.86	⚠
4	<input type="checkbox"/>	nirspec mos	4.59	2	31862.14	11.92	✓
3	<input type="checkbox"/>	nirspec mos	2.61	2	31862.14	11.21	✓
2	<input type="checkbox"/>	nirspec mos	1.34	2	31862.14	17.90	✓
1	<input type="checkbox"/>	nirspec mos	1.16	1	95586.41	12.79	✓
-	-	---	---	-	---	---	-

MSA Target Acquisition



# ETC Screenshots - Continuum source scene

Scene ★ Backgrounds Instrument Setup Detector Setup Strategy

Scene for Calculation  
1: Point source - z=6 galaxy spec

★ Default scene is 2.

Sources in that Scene  
1: z=6 compact dwarf

Info →

ID	Renorm	Lines	Shape	Offset
Continuum				

**Spectral Energy Distribution**

Uploaded File

Select

No Continuum

Redshift: 6

Extinction Law: Milky Way R\_V=3.1

Ext. Magnitude: 0

Ext. Bandpass: J

Calculation selected: 5, Mode: nirspec target\_acq

Reset Calculate





# ETC Screenshots - Background

Scene ★ **Backgrounds** Instrument Setup Detector Setup Strategy

Position ⓘ

Ra Dec 03:32:28.00 -27:48:30.00

Background configuration

None  Low  Medium  High

Date Jul 1 2020

Calculation selected: 5, Mode: nirspec target\_acq

Reset Calculate



# ETC Screenshots – Instrument Setup

Scene ★ Backgrounds **Instrument Setup** Detector Setup Strategy

**NIRSpec Target Acquisition**

**Acq Mode**  
MSATA (Single Object)

**Filter**  
CLEAR

**NIRSPEC TARGET ACQUISITION MSA SHUTTER CLEAR**

Wavelength ( $\mu\text{m}$ )	Total System Throughput
0.5	0.20
0.7	0.40
1.0	0.50
1.2	0.60
1.5	0.55
1.8	0.50
2.0	0.55
2.5	0.65
3.0	0.68
3.5	0.70
4.0	0.68
4.5	0.65
5.0	0.65
5.5	0.50

Calculation selected: 5, Mode: nirspec target\_acq

Reset Calculate



# ETC Screenshots – Detector Setup

Scene ★ Backgrounds Instrument Setup **Detector Setup** Strategy

**Subarray**  
FULL

**Readout pattern**  
NRSRAPIDD6

**Groups** ? 3

**Integrations** 1

**Exposures** 1

**Total exposure time:** 00:02:52 (171.79 s)

**Total integrations:** 1

Calculation selected: 5, Mode: nirspec target\_acq

Reset Calculate



# ETC Screenshots - Strategy

Scene ★ Backgrounds Instrument Setup Detector Setup **Strategy**

Target Acquisition

**Aperture centered on source**

1: z=6 compact dwarf

X, Y: 0,0 arcsec

Calculation selected: 5, Mode: nirspec target\_acq

Reset Calculate



# APT Screenshots – JWST Proposal and Catalog Target

Astronomer's Proposal Tools Version 27.3 mpt-demo (Thu Jul 25 2019) JWST PRD: PRDOPSSOC-L-023

Form Editor | Spreadsheet Editor | MSA Planning Tool | Orbit Planner | Visit Planner | Timeline | View in Aladin | BOT | Target Confirmation | PDF Preview | Submission | Errors and Warnings

What's New | Roadmap | Feedback

New Document

- New HST Proposal
- New JWST Proposal

## Astronomer's Proposal Tools

Version 27.3 mpt-demo (Thu Jul 25 2019) JWST PRD: PRDOPSSOC-L-023

- Copyright 2002 – 2007 United States Government and Administrator of the National Aeronautics and Space Administration. All Rights Reserved.
- This software has made use of the Aladin Sky Atlas developed at the *Centre de Données astronomiques de Strasbourg* (<http://cdsweb.u-strasbg.fr/>)
- This software has made use of the SIMBAD database developed at the *Centre de Données astronomiques de Strasbourg*, France.
- This software has made use of the NASA/IPAC Extragalactic Database (NED) which is operated by the Jet Propulsion Laboratory, California Institute of Technology, under contract with the National Aeronautics and Space Administration.
- This software uses portions of the JSky library which is developed by the European Southern Observatory.
- This product includes code licensed from RSA Data Security, Inc. (<http://www.apache.org/>).
- This product includes software developed by the Apache Software Foundation.

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Astronomer's Proposal Tools Version 27.3 mpt-demo (Thu Jul 25 2019) JWST PRD: PRDOPSSOC-L-023 - JWST Draft Proposal (Unsaved)

Form Editor | Spreadsheet Editor | MSA Planning Tool | Orbit Planner | Visit Planner | Timeline | View in Aladin | BOT | Target Confirmation | PDF Preview | Submission | Run All Tools | Stop

NewJWST Proposal | New

JWST Draft Proposal (Unsaved)

- Proposal Information
- Proposal Description
- Team Expertise
- Unnamed PI
- Unnamed Col
- Targets**
- Observations
- Observation Links

## Targets of JWST Draft Proposal (Unsaved)

### Targets

- Fixed Target Resolver | Resolve a target name or position
- New Fixed Target | Create a new Fixed Target
- New Target Group | Create a new Target Group
- New Solar System Target | Create a new Solar System Target
- New Generic Target | Create a new Generic Target
- Import MSA Source Catalog... | Import a source catalog to use in MSA Planning
- Import Targets... | Import Fixed Targets from whitespace, CSV, TSV, or VOTable

Edit Unnamed Col | New | Edit Observations

9 errors & warnings (Click for Details)



# APT Screenshots - The structure of the observation

Table shows number of integrations or exposures needed for each

		CLEAR/PRISM	F100LP/G140M	F170LP/G235M	F290LP/G395M
Dither position #1	Nod position #1a	8	3	3	3
	Nod position #1b	8	3	3	3
	Nod position #1c	8	3	3	3
Dither position #2	Nod position #2a	8	3	3	3
	Nod position #2b	8	3	3	3
	Nod position #2c	8	3	3	3
Dither position #3	Nod position #3a	8	2	2	2
	Nod position #3b	8	2	2	2
	Nod position #3b	8	2	2	2



# APT Screenshots

MSA Catalog Target  
Input for MPT

Astronomer's Proposal Tools Version 2020.1 mpt-demo (Fri Nov 01 2019) - JWST Draft Proposal (Unsaved)

Form Editor | Spreadsheet Editor | MSA Planning Tool | Create and review plans for the NIRSpec MSA #3 | VISIT PLANNER | TIMELINE | VIEW IN ALADIN | BOT | Target Confirmation | PDF Preview | Submission | Errors and Warnings | Run All Tools | Stop

New JWST Proposal | Import MSA Source Catalog... | What's New | Roadmap | Feedback

JWST Draft Proposal (Unsaved)

- Proposal Information
- Targets
- MSA Catalogs
  - 1 HUDF
- Observations
- Observation Links

1 HUDF of JWST Draft Proposal (Unsaved)

Number: 1

Name in the Proposal: HUDF (unique within proposal)

Name for the Archive: HUDF (standard resolvable name)

Candidate Sets | Comments

HUDF (9969 sources)

Astrometric Accuracy (mas): 15

Reference Position RA: 03 32 38.9682 Dec: -27 47 26.86

Pre-Image Availability: Is already obtained

ID	RA	DEC	Size	Redshift	Reference	Stellarity	MAG_F160W	NRS_F110W	NRS_F140X	NRS_CLEAR	Weight
514	03 32 42.0738	-27 49 11.61	0	5.581	Yes	0.91	22.46	22.741	-99	22.46	300
2639	03 32 42.7132	-27 48 11.80	0	5.66	Yes	0.81	99	29.631	-99	99	300
7894	03 32 39.8783	-27 45 51.42	0	6.45	Yes	0.81	29.284	29.126	28.984	29.284	300
3352	03 32 36.5666	-27 47 58.52	0	5.6	Yes	0.74	29.388	29.536	29.97	29.388	300
10101	03 32 43.4957	-27 46 53.32	0	5.59	Yes	0.74	28.977	28.965	29.15	28.977	300
4166	03 32 39.7497	-27 47 45.14	0	6.743	Yes	0.73	28.733	28.904	28.826	28.733	300
6093	03 32 36.2255	-27 47 37.90	0	5.63	Yes	0.73	30.681	30.137	30.707	30.681	300
7740	03 32 38.4014	-27 45 48.58	0	6.29	Yes	0.73	29.364	28.9	29.142	29.364	300
9976	03 32 34.5673	-27 46 49.30	0	6.74	Yes	0.73	29.263	29.557	29.012	29.263	300
3740	03 32 38.5297	-27 47 51.87	0	7.23	Yes	0.71	29.213	29.187	28.92	29.213	300
10586	03 32 33.3618	-27 47 22.34	0	6.04	Yes	0.71	29.582	29.489	29.477	29.582	300
615	03 32 38.0159	-27 49 8.39	0	5.651	Yes	0.7	24.087	24.614	-99	24.087	300
8694	03 32 40.9079	-27 46 28.50	0	5.73	Yes	0.7	29.424	29.433	29.738	29.424	300
2032	03 32 34.1404	-27 48 24.35	0	5.686	Yes	0.69	29.2	28.266	-99	29.2	300
6456	03 32 38.7694	-27 47 10.52	0	6.528	Yes	0.69	29.181	28.868	29.163	29.181	300
7919	03 32 40.0312	-27 45 51.75	0	6.42	Yes	0.68	29.013	28.712	28.911	29.013	300
4567	03 32 30.8886	-27 47 12.86	0	5.66	Yes	0.67	99	27.561	-99	99	300
7988	03 32 39.3228	-27 45 53.23	0	5.89	Yes	0.66	28.148	27.844	28.092	28.148	300
5914	03 32 38.4375	-27 47 35.48	0	6.09	Yes	0.64	29.424	29.482	29.47	29.424	300
20309	03 32 40.0600	-27 49 7.50	0	6.526	Yes	0.63	27.564	27.925	-99	27.564	300

New Candidate Set... | Delete | Send to Aladin

Edit MSA Catalogs | New | Edit Observations

Fixed Target: Equatorial	Number	Name	Archive Name	Comments
1	HUDF	HUDF	HUDF	

Show: Fixed Target: Equatorial

10 errors & warnings (Click for Details)



# APT Screenshots

## MSA Planning Tool Planner

Astronomer's Proposal Tools Version 2020.1 mpt-demo (Fri Nov 01 2019) - JWST Draft Proposal (Unsaved)

Form Editor | Spreadsheet Editor | **MSA Planning Tool** | Orbit Planner | Visit Planner | Timeline | View in Aladin | BOT | Target Confirmation | PDF Preview | Submission | Errors and Warnings

New JWST Proposal | Import MSA Source Catalog...

**JWST Draft Proposal (Unsaved)**

- Proposal Information
- Targets
  - MSA Catalogs
    - 1 HUDF
  - Observations
  - Observation Links

**Planner** | Plans

**Candidate Lists**

Primary Candidate List: HUDF (9969 sources)

Filler Candidate List: None Selected

**Plan Angle**

Planned

Aperture PA: 135.0 Degrees

**Slit Setup**

Slitlet: 3 Shutter Slitlet

Entire Open Shutter Area | Source Centering Constraint

**Pointing Setup**

Nod in slitlet:  3 exposures per configuration.

Dither Type: Fixed Dither | Short dithers recommended

#	Dispersion (shutters)	Cross-Dispersion (shutters)
1	5	0
2	0	5

Pattern

Add | Insert Above | Remove

3 configurations per target set.

**Exposure Setup**

- G140H/F070LP
- G140H/F100LP
- G140M/F070LP
- G140M/F100LP
- G235H/F170LP
- G235M/F170LP
- G395H/F290LP
- G395M/F290LP
- PRISM/CLEAR

**Grating/Filter**

Multiple Sources Per Row

**Search Grid**

Search Area Dimensions:

Center RA: 03 32 39.0067 Dec: -27 47 29.39

Width: 40 Arcseconds

Height: 40 Arcseconds

Search Step Size: 3.0 Arcseconds. 225 pointings will be tested.

**Parameters**

- Use Weights | Use number of targets for quality assessment.
- Enable Monte-Carlo

Fixed Target: Equatorial	Number	Name	Archive Name	Comments
...	...	...	...	...

Show: Fixed Target: Equatorial

10 errors & warnings (Click for Details)

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# APT Screenshots – Planner parameters

**Search Grid**

*Search Area Dimensions:*

Center RA:  Dec:

Width  Arcseconds

Height  Arcseconds

Search Step Size  Arcseconds. 225 pointings will be tested.

**Parameters**

Use Weights      Use number of targets for quality assessment.

Enable Monte-Carlo

Number of configurations  Enter N\*3 for N target sets.  
*If 'Number of configurations' is empty, tool will continue until all primary candidates are planned, or no more can be added to the plan.*

**Plan**

Plan Name

3 configurations per target set  exposures per configuration.



# APT Screenshots – Exposure specifications in the observation

**Science Parameters**

This observation was created from plan: *hudf\_PRISM+MRES\_step3* ➔

Primary Candidate List: HUDF (9969 sources) ⌵

Filler Candidate List: None Selected ⌵

Planned Aperture PA: 135.0 Degrees

Scheduled Aperture PA:  Degrees

Status: *Planning*

Science Aperture: MSA Center ⌵

**Exposure Specification**

#	Grating/Filter	Readout Pattern	Groups/Int	Integrations/Exp	Autocal	ETC Wkbk.Calc ID	ETC
1	G140M/F100LP	NRSIRS2	18	3	NONE		<a href="#">↗</a>
2	G235M/F170LP	NRSIRS2	18	3	NONE		<a href="#">↗</a>
3	G395M/F290LP	NRSIRS2	18	3	NONE		<a href="#">↗</a>
4	PRISM/CLEAR	NRSIRS2	18	4	NONE		<a href="#">↗</a>

↶ ↷

Add Duplicate Insert Above Remove

**Configurations/Pointings**

#	MSA Confi...	Exposure ...	Nod Pattern	Pointing	Dispersion Offset (Shutters)	Cross-Disper Offset (Shutte	Total Dith...	Total Integ...	Total Expo...	Edit Config
1	c1	1 (G140M...	3 Shutter ...	03 32 38...			3	9	11948.301	Edit
2	c1	2 (G235M...	3 Shutter ...	03 32 38...			3	9	11948.301	Edit
3	c1	3 (G395M...	3 Shutter ...	03 32 38...			3	9	11948.301	Edit
4	c1	4 (PRISM/...	3 Shutter ...	03 32 38...			3	12	15931.068	Edit
5	c1	4 (PRISM/...	3 Shutter ...	03 32 38...			3	12	15931.068	Edit
6	c2	1 (G140M...	3 Shutter ...	03 32 38...			3	9	11948.301	Edit
7	c2	2 (G235M...	3 Shutter ...	03 32 38...			3	9	11948.301	Edit
8	c2	3 (G395M...	3 Shutter ...	03 32 38...			3	9	11948.301	Edit

↶ ↷

Add Import Configuration(s) Duplicate Insert Above Remove



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