ska-oso-pht-ui Documentation

Release 0.1.2

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This project is is based upon the ska-react-webapp-skeleton, which is intended as a basis for all React applications

The skeleton includes tools for linting, code formatting, and testing which are easily integrated into various IDEs. It also includes modular federation, exposing the ReactSkeleton component, which can be imported into other applications.

CHAPTER

ONE

OVERVIEW

This project is is based upon the ska-react-webapp-skeleton, which is intended as a basis for all React applications

The skeleton includes tools for linting, code formatting, and testing which are easily integrated into various IDEs. It also includes modular federation, exposing the ReactSkeleton component, which can be imported into other applications.

For the latest information on the application, please refer to the User Guide

1.1 IDE Integration

1.2 VS Code

Install the [ESLint](https://marketplace.visualstudio.com/items?itemName=dbaeumer.vscode-ESLint) and [Prettier](https://marketplace.visualstudio.com/items?itemName=esbenp.prettier-vscode) extensions and reload the IDE.

Errors should now show in the editor. *shift* + *alt* + *F* will format a file, or you can turn on the format on save setting.

JetBrains (WebStorm, etc.)

ESLint is integrated into the Ultimate versions of all JetBrains IDEs

Prettier can be installed through a [plugin](https://plugins.jetbrains.com/plugin/10456-prettier). Follow the steps [here](https://www.jetbrains.com/help/idea/prettier.html) to configure it.

CHAPTER

TWO

REQUIREMENTS

This skeleton requires **Node** and **YARN** to install and run. To install these follow the instructions for your operating system at

[https://nodejs.org/en/download/{]}(https://nodejs.org/en/download/).

Alternatively the official Node docker image can be used. Instructions can be found on the

[official Node docker image site](https://github.com/nodejs/docker-node/blob/master/README.md#how-to-use-this-image).

CHAPTER

THREE

INSTALLATION

The following notes assume you are at the command prompt for your chosen environment.

1. Confirm Node and YARN are installed and configured correctly, both the following commands should return the relevant version number.

   > node –version

   > yarn –version

2. Clone the project from GitHub
3. Allow yarn to be able to include required SKA libraries

   > npm config set @ska-telescope:registry https://artefact.skao.int/repository/npm-internal/

4. Install all the necessary project dependencies by running

   > yarn init

5. Install required SKA libraries

It is expected that required SKA libraries would have been included at this point, however if this is found not to be the case, the following command will include them.

> yarn skao:update

3.1 Steps to convert to your own application

Here are the steps required to migrate this application for use within the Portal. These are required so that we can ensure a unique reference into the Portal. For this example we will use the name NewApp as the name of the new application

1. Clone the application into the appropriate folder
2. Follow the installation instructions in the previous paragraph
3. ReactSkeleton.tsx : Change *ReactSkeleton* to *NewApp* in 2 locations
4. ReactSkeleton.tsx : Change filename to *NewApp.tsx*
5. ReactSkeleton.cy.tsx : Change *ReactSkeleton* to *NewApp* in 4 locations
6. ReactSkeleton.cy.tsx : Change filename to *NewApp.cy.tsx*
7. Change Folder name from ReactSkeleton to NewApp
8. App.tsx : Change *ReactSkeleton* to *NewApp* in 4 locations
9. webPack.config.js : Change path for *ReactSkeleton* so it points to *NewAppNewApp*.

Compilation and running this application will allow it to be shown within the ReactSkeleton menu item within the developer section of the SKA-Portal. Whilst initial development is being done and until the application is allocated a permanent location, it is suggested that no other WebPack changes are done.

3.2 Steps to create a new release

Note, this does not currently work in the Windows Shell. Use either Linux, Mac, or Windows WSL.

Also note that the chart names should be updated when you use a different repo name.

The following steps and commands is to create a new release for the portal.

1. Create a new branch from `main` branch.
2. Run one of `make bump-major-release`, `make bump-minor-release`, or `make bump-patch-release`
3. Update the `charts/ska-oso-pht-ui/values.yaml` file, the *image.version* should be updated.
4. Make sure the following files have the new version:
   - `charts/ska-oso-pht-ui/Chart.yaml`
   - `package.json`
   - `.release`
5. Run `make git-create-tag`
6. Run `make git-push-tag`
7. You will then be able to merge that branch back in, and the new release should be created.

CHAPTER

FOUR

DURING DEVELOPMENT

It is note that the introduction of new libraries may throw an error. This is usually because WebPack requires the library to be included as part of the ModuleFederationPlugin entry within the webpack.config.js It is suggested that the new library be added into the area on the configuration annotated mixture.

4.1 Adjustment once final positioning within the SKA-Portal has been determined

So that there is no clashes with other applications originating from a skeleton, the following steps should be taken. Once these are done the application will no longer be available via the ReactSKeleton menu item within the SKA-Portal

1. webpack.config.js : Change the devServer port number from 6100.
2. webpack.config.js : Change the final ReactSkeleton entry to NewApp.
3. Relate these new values back to the developer responsible for updating the SKA-Portal

Once these steps have been completed, the application should be accessible from it's new location in the SKA-Portal

4.2 SKAO Components

These are supplied from the various components. An overview of the libraries have been provided here for reference. For specifics of the components/functions available, please refer to the appropriate repository

ska-javascript-components : library containing a few pure components and types

ska-gui-components : library containing components that have been built using Material UI.

ska-gui-local-storage : library containing redux local storage. This is used by the ska-gui-components components as applicable

It is noted that all the components from ska-javascript are provided in addition as part of the ska-gui-components library, so separate inclusion is not required if the ska-gui-components are included.

CHAPTER

FIVE

SERVICES

Included are a number of services, which have also been implemented into the code, providing simple examples. It is expected that in the main that there will be no updates to these services directly

5.1 theme

Contains the initialization of the latest SKAO Theme. The code for this has already been provided and ensures that styling adhere's to SKAO standards

5.2 i18n

Allows for text to be displayed in the language of the browser, with English as the default. The data is stored in folders under public/locales, with each language in its own folder (e.g. en). In this application, all the json files needed to be called pht.json

5.3 axios

Table 1: axios endpoints

Endpoint	Type	Local-Data	Parame-ters	Purpose
Pro-posal/list	GET	MockPro-posals	current user	A list of proposals that the user is involved with is obtained from the API
Proposal	GET	MockPro-posal	proposal Id	Complete details of a single proposal is obtained from the API
Proposal	PUT			Complete details of a proposal are sent to the API for storage
Pro-posal/validate	POST	TBD	TBD	A request to validate the proposal is requested of the API, which return validation results
coordinated	GET	TBD	Point of ref-erence	The API is asked to supply the coordinate information for the provided point of reference

REACT_APP_USE_LOCAL_DATA

This is an option to turn on/off the API call and instead use mocked data.

CHAPTER

SIX

SENSITIVITY CALCULATOR API

Each target that is selected in relation to an observation attempt to connect to the Sensitivity Calculator API. The GetSensitivityCalculatorAPIData service acts as the entry point to the different API requests to the Sensitivity Calculator and handles the appropriate number of requests to the endpoints as necessary.

Currently, the Observation data is passed to the Sensitivity Calculator Service and sent to the Calculate endpoint and Weighting end point. However, the target data is still mocked for both Calculate and Weighting.

There are 2 or 3 calls to the API endpoints made every time.

> Continuum Modes (Low or Mid): - 1 call to getCalculate - with Continuum parameter - 1 call to GetWeighting - with Continuum parameter - 1 call to GetWeighting - with Zoom parameter (weightingLine)
>
> Zoom Modes (Low or Mid): - 1 call to getCalculate - with Zoom parameter - 1 call to GetWeighting - with Zoom parameter (weightingLine)

6.1 Services

The 3 services used for the Sensitivity calculators are: - GetCalculate service - GetWeighting service - GetSensitivityCalculatorAPIData

6.2 Endpoints

There a 2 main endpoints: - getCalculate - getWeighting

These are called with different parameters depending on telescope (Mid, Low) and Mode (Continuum, Zoom).

6.3 Responses

In the responses, some results are used directly like the confusion noise, and some are combined and used for some calculations in the Sensitivity Calculator front-end.

CHAPTER

SEVEN

RUNNING / BUILDING THE APPLICATION

Scripts for running, testing, and building the application are provided as part of the standard configuration. These are run using YARN and listed in the scripts section of the package.json file.

From the project directory, you can run any of the following:

- > *yarn dev*

  Runs the app in the development mode at [http://localhost:6100{}](http://localhost:6100). The app will recompile and restart if you make any edits to the source files. Any linting errors will also be shown in the console.

- > *yarn skao:update*

  yarn will update the repository with the latest SKAO libraries

- > *yarn start*

  Same as *yarn dev* but for some implementations it is prefixed with NODE_ENV=testing. This is used in the CI/CD Processes

- > *yarn cypress*

  Launches Cypress which has been set up to provide component testing. For further information on the use of Cypress, see https://docs.cypress.io/guides/component-testing/overview

- > *yarn test*

  Launches the test runner in the interactive watch mode. See the [testing](#testing) section for more information.

- > *yarn build*

  Builds the app for production to the *build* folder. The build is minified and any JSX is transpiled to JavaScript. Your app is ready to be deployed!

- > *yarn audit*

  Checks the dependencies to see if there are any vulnerabilities.

7.1 Running the application inside a container

There are two ways that this can be done as below:

1. Run using docker compose

7.1.1 docker-compose up -d

2. build the docker file in the root directory and run the container exposing port 6100.

The project will then be accessible at the url http://localhost:6100/

CHAPTER

EIGHT

TESTING

8.1 Writing

We use Cypress as the test running framework. It will look for test files within a number of locations, however the standard that the SKAO will employ will be the use of *.cy.{tsx | jsx}* in the same folder as the component being tested. Below is a small illustration as an example.

```
components └─ App
        App.cy.tsx
        App.tsx
└─ ReactSkeleton
        ReactSkeleton.cy.tsx
        ReactSkeleton.tsx
```

Note that the ReactSkeleton component is exposed via WebPack 5 ModuleFederationPlugin, so this name should be changed to reflect the application being written (e.g. SignalDisplay, DataProductDashboard . . .)

See the SKAO developer guide for more information

8.2 Running

To run the interactive test runner, execute

> yarn test

This will also watch the source files and re-run when any changes are detected

To run the tests with coverage, execute

> yarn test:coverage

The coverage results are displayed in the console. They are also written to the *coverage* folder.

./build/coverage/index.html - open in a web browser to view

All the tests should pass before merging the code

8.3 Code Analysis

[ESLint](https://ESLint.org/) and [Prettier](https://prettier.io/) are included as code analysis and formatting tools. These do not need installing as they're included in *node_modules* by running *yarn init*.

These tools can be run in the command line or integrated into your IDE (recommended).

JavaScript based SKA projects must comply with the [AirBnB JavaScript Style Guide](https://github.com/airbnb/javascript). These rules are included in this project and ESLint and Prettier are configured to use them.

8.4 Running

To run the analysis tools, execute

```
> yarn code-analysis
```

This will display any errors in the command line. If there are any errors, YARN will exit with a non-zero code, the *-s* argument suppresses this and cleans up the output.

CHAPTER

NINE

INTRODUCTION

Welcome, astronomers!

Do you wish to understand every detail there is to know about the mysteries of the universe? Do you wish to visit space in order to learn more about pulsars, black holes, and far-off galaxies? If so, the secret to unleashing the potential of the Square Kilometer Array Observatory and its telescopes lies in the Proposal Preparation Tool (PPT)!

9.1 What is PPT?

Consider a tool made especially for astronomers such as yourself. A tool that simplifies the proposal process and makes requesting observation and processing time on the state-of-the-art telescopes of the SKAO easier than before. That's exactly what PPT is! You can create strong proposals with it, and you'll be well on your way to making ground-breaking findings.

9.2 Who is it for?

Both seasoned astronomers and those just starting out on their cosmic journey might benefit from PPT. We understand that putting in a proposal could be scary, but PPT has taken away the technological barriers so that astronomers can focus on what matters most: their scientific vision.

9.3 What can you achieve?

With PPT, you can:

- Submit proposals for scientific exploration: Let your curiosity guide you! Utilize the telescopes at the SKAO to view a wide range of cosmic objects and phenomena, including quasars, pulsars, and objects at the edge of the observable universe.
- Process and analyze public data: Delve into the wealth of data already collected by the SKAO. Uncover hidden insights and make new discoveries without requesting dedicated observing time.
- Secure observing time on the SKAO telescopes: Craft compelling proposals that highlight the scientific merit of your research. Gaining important observing time through successful proposals can lead to ground-breaking findings.
- Submit your research to journals: Contribute to the global dissemination of your study and the growth of astronomical knowledge.

9.4 Why choose PPT?

- Easy to understand and intuitive: The user-friendliness of PPT is a priority in its design. All astronomers are guaranteed a seamless experience because of the simple interface and guided approach.
- Powerful capabilities: Don't be fooled by the simplicity. With all the capabilities you need to write thorough and powerful proposals, PPT is a powerful tool.
- Access to the state-of-the-art technology: Leverage the power of the world's most advanced radio astronomy facilities, the SKAO telescopes, to further our understanding of the universe.

9.5 Are you ready to embark on your celestial voyage?

With the Proposal Preparation Tool, begin your cosmic exploration right now! You will be guided through every stage of the process by this user guide, from creating your proposal to submitting it. Now go ahead and let PPT serve as your springboard for celestial exploration as you let loose your scientific curiosity!

We hope you're excited to explore the universe with PPT!

Please note

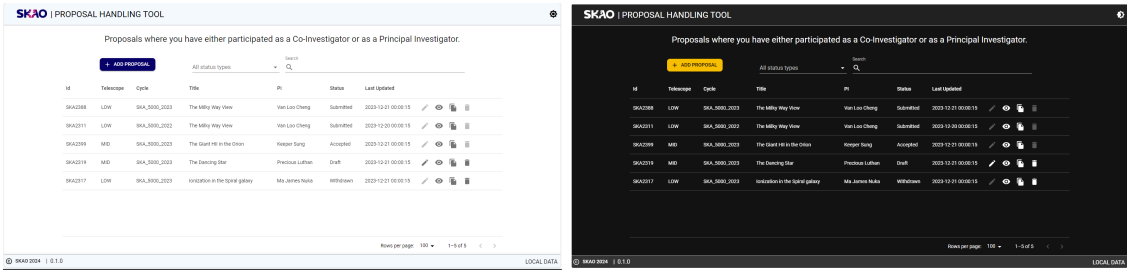
This is an MVP version of PPT, meaning it offers a subset of the functionalities planned for the future. However, it still provides a powerful platform for astronomers to submit proposals and access valuable data.

CHAPTER

TEN

LANDING PAGE

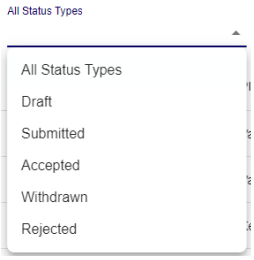
To submit a proposal to seek observing and processing time on the SKAO telescopes, start here. You will be guided through the landing page's main features and functionalities via this guide.



10.1 Layout and Navigation

- SKAO Header and Footer: Provides branding and navigation to other SKAO resources.
- Add New Proposal Button: Click this button to start creating a new proposal.

- Filter by Status: Use the dropdown menu to filter proposals by their current status.



- Search bar : Search for specific proposals by title, PI and proposal ID.

10.2 Proposal Table

This table lists your proposals with the following information

- Proposal ID : Unique identifier for each proposal.
- Cycle : SKAO observing cycle associated with the proposals.
- Title : Briefly describes the research project.
- PI : Principal Investigator leading the proposal.
- Status : Current stage of the proposal (e.g., draft, submitted, under review).
- Last Updated : Date and time the proposal was last modified.
- Perform various actions on individual proposals (See below).

10.3 Table Actions

Table 1: Actions

Icon	Purpose
Edit	Click the pencil icon to edit the details of a proposal
View	Click the eye icon to view a summary of a proposal. There is also an option to download the proposal
Clone	Click the clone icon to see a summary of a proposal, with options to download and confirm the clone
Delete	Click the delete icon to see a summary of a proposal, with options to download and confirm the deletion

10.4 Key Information and Actions

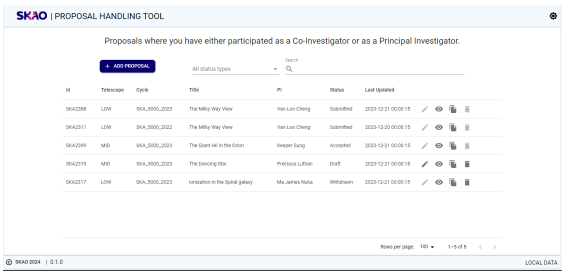
- An outline of your current proposals can be seen on the landing page.
- You can search for specific proposals, filter by title, cycle, and view details of each proposal in the table.
- Click the “Add New Proposal” button to start creating a new proposal.

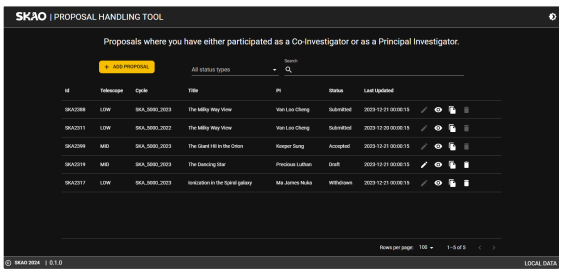
10.5 Additional Notes

- You need to be logged in to access the landing page and its features.
- The table is sortable by clicking on the column headers.
- Hovering over the action tab displays a tooltip explaining its function.
- The SKAO logo when clicked, opens a new browser window with the SKAO website
- The page supports both light and dark mode with a Sun/Moon icon on the top right corner of the page.

10.6 Next Steps

- To learn more about creating a new proposal, see the “Title Page” section of this user guide.
- If you have any questions or need further assistance, please contact the SKAO Help desk.



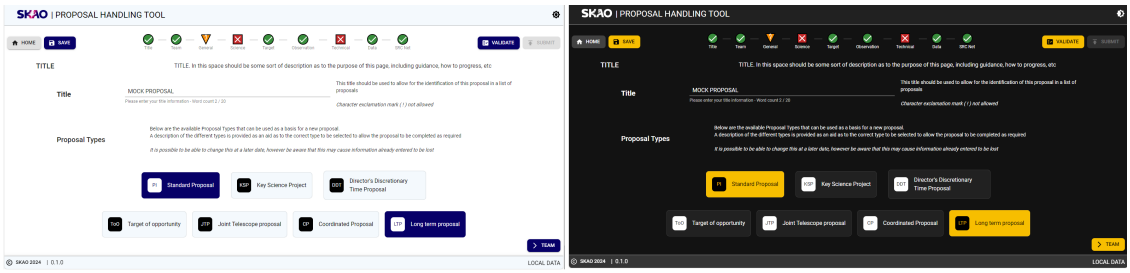


CHAPTER

ELEVEN

TITLE PAGE

This guide will walk you through the “Title Page” section, where you define the key details of your proposal.



11.1 Layout and Navigation

The Title Page has two main layouts:

11.2 Selecting Proposal Type

You will see several main proposal types like Standard Proposal, Key Science Project, and Director’s Discretionary Time Proposal.

Table 1: Proposal Types

Proposal Type	Initials	Description
Standard Proposal	PI	Standard Observing Proposal
Key Science Project	KSP	A large science project that requires observing time allocations over a period longer than one cycle.
Director’s Discretionary Time Proposal	DDT	Does not follow the normal proposal submission policies. It only requires approval from DG?

Clicking a main proposal type reveals relevant sub-proposal types like Target of Opportunity or Joint SKA Proposal. Proposal sub-types are optional.

Table 2: Sub-Proposal types

Proposal Sub-Type	Initials	Description
Target of Opportunity	ToO	A target of opportunity observing proposal
Joint Telescope proposal	JTP	proposal that requires both SKA-Mid and SKA-Low telescopes
Coordinated Proposal	CP	A proposal requiring observing to be coordinated with another facility(either ground or space based) with user-specified scheduling constraints provided.
Long Term Proposal	LTP	A proposal that spans multiple proposal cycles. This differs from KSP as LTP typically needs small amounts of time spread over more than one cycle and KSP requires a lot of observing time.

Tip: On Hover

- Hovering over a proposal type displays a description for your reference.

11.3 Entering Title and Creating proposal

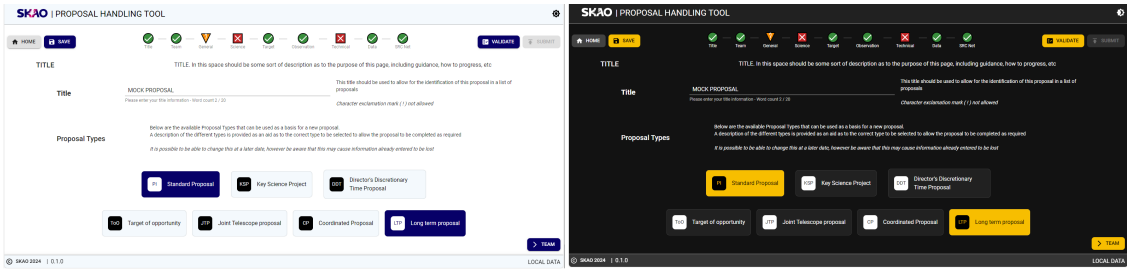
- Enter your proposal's title in the provided text field (maximum 20 words)
- The title field can contain latex in the provided text
- Select your chosen main and sub-proposal types from the menus.
- Once selected, a "Create" button with a plus sign appears at the bottom right.
- Click "Create" to proceed to the next page.

11.4 Navigation Elements

- Home: (Top left corner) Returns you to the Landing Page.
- Team: (Bottom right corner) Takes you to the next page for managing your team.
- Save: (Top left) Saves your progress on the Title Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all details are entered and validated.

11.5 Additional Features

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

11.6 Key Information and Actions

- On this page, you define the title and type of your proposal.
- Selecting the appropriate type helps categorize your proposal and ensures alignment with SKAO priorities.
- Use the “Create” button to proceed to the next step of building your proposal.

11.7 Next Steps

After successfully creating your proposal on this page, you’ll move on to the “Team” page, where you can manage the researchers involved in your project.

11.8 Additional Notes

- This guide assumes you’re already logged in to PPT.
- The content remains the same regardless of your user context.
- Remember to save your progress regularly using the “Save” button.
- The “Submit” button will only become active when all required information is entered and validated.

Confirmation Summary

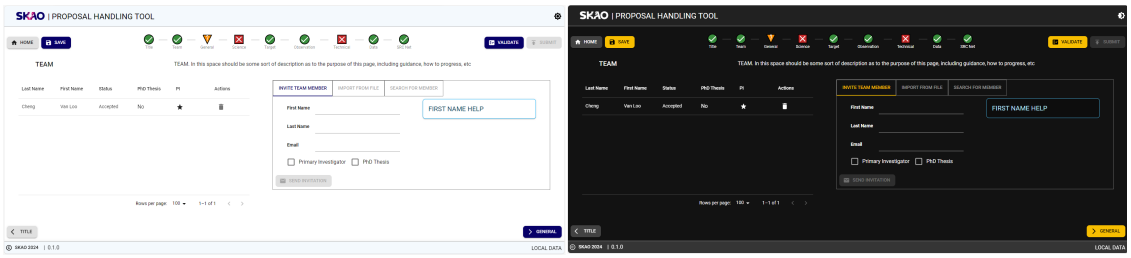
Before submitting your details, ensure everything is correct by clicking 'Validate'. Clicking 'Submit' after that will bring up a Confirmation Page summarizing your details. Review and click 'Confirm' to proceed or 'Cancel' to make changes.

CHAPTER

TWELVE

TEAM PAGE

This guide explains the "Team Page," where you manage the researchers involved in your project.



12.1 Layout and Navigation

The Team Page has two main sections:

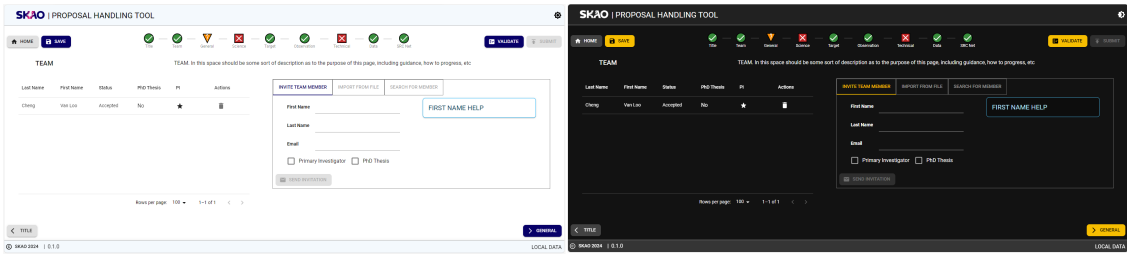
1. Team Member List (Left)
   - Displays a table with information about each team member
     - Last Name, First Name
     - Status (e.g., Invited, Accepted)
     - PhD Thesis checkbox
     - PI star icon (filled: Principal Investigator, hollow: not PI, missing: invitation not accepted)
     - "Actions" (delete)
   - Click the star icon to make someone a PI or remove the PI role.
2. Team Management Options (Right)
   - Invite Team Members: Add collaborators by entering their email and selecting PI, PhD Thesis options.
   - Import from File: Upload a file containing team member details.
   - Search for Member: Find existing users to add directly.
   - Field Sensitive Help: Content changes dependant upon the focused field
   - Send Invitation: Click this button after entering team member details. (Disabled until required fields are filled).

12.2 Navigation Elements

- Home: (Top left corner) Returns you to the Landing Page.
- Title Page: (Bottom left corner) Takes you back to the Title Page.
- Save: (Top left) Saves your progress on the Team Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all proposal details are entered and validated.
- General: (Bottom right corner) Takes you to the next page for general proposal details.

12.3 Additional Features

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

12.4 Key Information and Actions

- View and manage your proposal team.
- Invite new collaborators and assign PI roles.
- Import team members from a file or find existing users.
- Ensure clarity on everyone's involvement in the project.

12.5 Next Steps

After successfully managing your team on this page, you'll move on to the "General" page, where you enter general details about your proposal.

12.6 Additional Notes

- This guide assumes you're already logged in to PPT.
- The content remains the same regardless of your user context.
- Dynamic help is available, when you hover over fields, for descriptions.
- Remember to save your progress regularly using the "Save" button.
- The "Submit" button will only become active when all required information is entered and validated.

Confirmation Summary

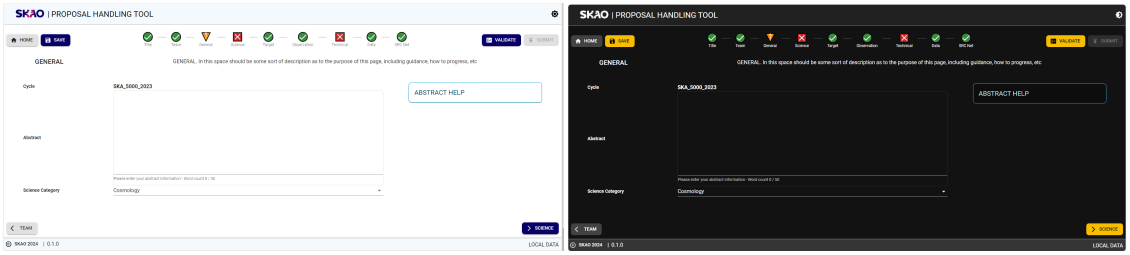
Before submitting your details, ensure everything is correct by clicking 'Validate'. Clicking 'Submit' after that will bring up a Confirmation Page summarizing your details. Review and click 'Confirm' to proceed or 'Cancel' to make changes.

CHAPTER

THIRTEEN

GENERAL PAGE

This guide explains the “General Page”, where you enter key details about your research proposal.



13.1 Layout and Navigation

The General Page has a clear structure:

- Top section: Displays the current proposal cycle (automatically populated).
- Abstract area: A large text box where you write your proposal abstract (maximum 250 words).

Science Category and Sub-category: Choose the relevant scientific category and sub-category from the respective dropdown menus.

Table 1: Science Category and Sub-category

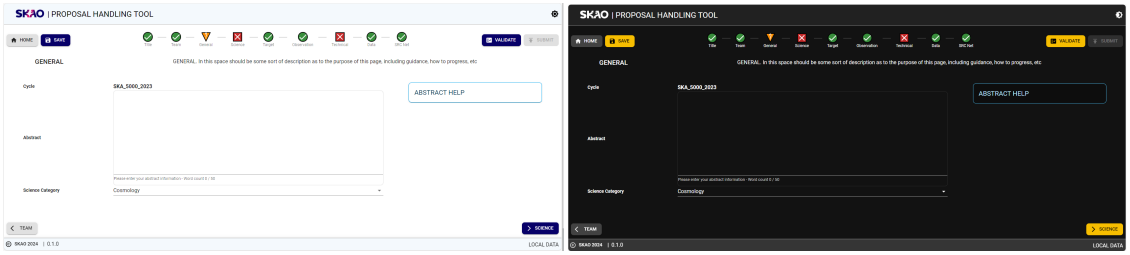
Category	Sub-category
Cosmology	
Cradle of Life	
Epoch of Re-ionization	
Extra Galactic continuum	
Extra Galactic Spectral line	
Gravitational Waves	
High Energy Cosmic Particles	
HI Galaxy science	
Magnetism	
Our Galaxy	
Pulsars	
Solar	
Heliospheric and Ionospheric Physics	
Transients	
VLBI	

13.2 Navigation Elements

- Home: (Top left corner) Returns you to the Landing Page.
- Team Page: (Bottom left corner) Takes you back to the Team Page.
- Save: (Top left) Saves your progress on the General Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all proposal details are entered and validated.
- Science: (Bottom right corner) Moves you to the next page for science details.

13.3 Additional Features

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

13.4 Key Information and Actions

- Enter your proposal abstract (maximum 250 words).
- The abstract field can contain latex in the provided text
- Provide a clear and concise abstract.
- Choose the relevant scientific category and subcategory.
- Save your progress regularly.
- Validate your information before submission.

13.5 Next Steps

After successfully entering your general proposal details, click “Science” to proceed to the next page, where you’ll provide more specific scientific information about your proposal.

13.6 Additional Notes

- This guide assumes you’re already logged in to PPT.
- The content remains the same regardless of your user context.
- Dynamic help is available, when you hover over fields, for descriptions.
- Remember to save your progress regularly using the “Save” button.
- The “Submit” button will only become active when all required information is entered and validated.

Confirmation Summary

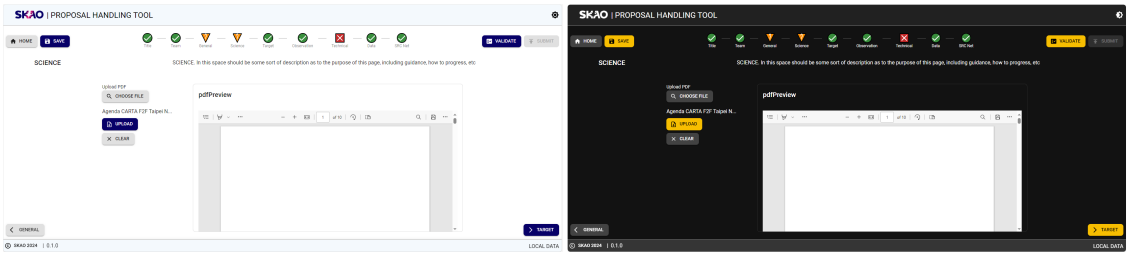
Before submitting your details, ensure everything is correct by clicking ‘Validate’. Clicking ‘Submit’ after that will bring up a Confirmation Page summarizing your details. Review and click ‘Confirm’ to proceed or ‘Cancel’ to make changes.

CHAPTER

FOURTEEN

SCIENCE JUSTIFICATION PAGE

This guide explains the “Science Page”, where you upload your scientific justification document.



14.1 Layout and Navigation

The Science Page has a clear and consistent layout:

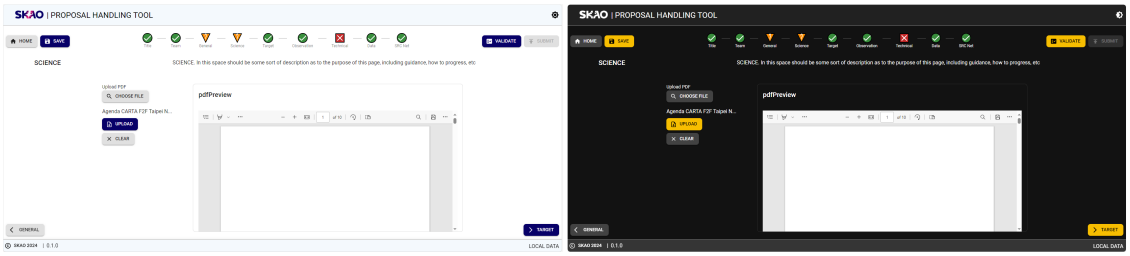
- Upload area: A designated section with an “Upload PDF” button.
- Preview option: In the center, is a “Preview” button, that allows you to check your uploaded document.

14.2 Navigation Elements

- Home: (Top left corner) Returns you to the Landing Page.
- General Page: (Bottom left corner) Takes you back to the General Page.
- Save: (Top left) Saves your progress on the Science Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all proposal details are entered and validated.
- Target: (Bottom right corner) Moves you to the next page for target details.

14.3 Additional Features

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

14.4 Key Information and Actions

- Upload your scientific justification document in PDF format.
- Preview your uploaded document before proceeding.
- Remember, only one PDF upload is allowed for the MVP stage.
- Save your progress regularly using the “Save” button.
- Validate your information before submission using the “Validate” button.

14.5 Next Steps

After successfully uploading and previewing your scientific justification, click “Target” to proceed to the next page, where you’ll provide details about your proposal’s target observations.

14.6 Additional Notes

- This guide assumes you're already logged in to PPT.
- The content remains the same regardless of your user context.
- Dynamic help is available, when you hover over fields, for descriptions.
- Remember to save your progress regularly using the "Save" button.
- The "Submit" button will only become active when all required information is entered and validated.

Confirmation Summary

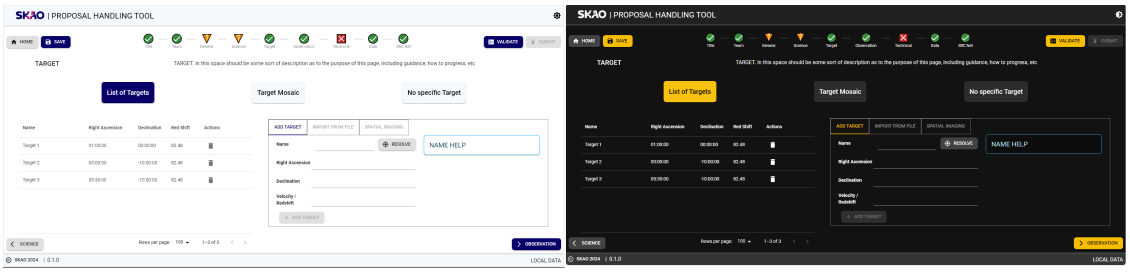
Before submitting your details, ensure everything is correct by clicking 'Validate'. Clicking 'Submit' after that will bring up a Confirmation Page summarizing your details. Review and click 'Confirm' to proceed or 'Cancel' to make changes.

CHAPTER

FIFTEEN

TARGET PAGE

This guide explains the “Target Page”, where you provide details about your observation targets.



15.1 Layout and Navigation

The Target Page has a clear and consistent layout:

Target input area: Three distinct sections offer different ways to specify your targets:

- List of targets:
  - Right side: Add individual targets by providing details like name, coordinates, and velocity/redshift. Use the “Add target” button. There is also an additional button “Resolve” when clicked, will automatically populate coordinates from SIMBAD & NED databases.
  - Left side: View a list of added targets with their details to edit and delete options.
  - “Import from file” and “Spatial imaging” tabs: Coming soon!
- Target mosaic: Using Aladin Lite Viewer
- No specific target: Select this option for Target of Opportunity or Director’s Discretionary Time proposals.

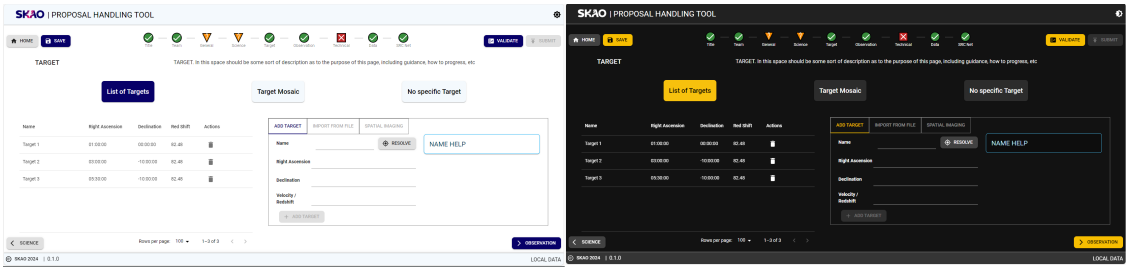
15.2 Navigation Elements

- Home: (Top left corner) Returns you to the Landing Page.
- Science: (Bottom left corner) Takes you back to the previous Science Page.
- Save: (Top left) Saves your progress on the Target Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all proposal details are entered and validated.

- Observation: (Bottom right corner) Moves you to the next page for Observation details.

15.3 Additional Features

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

15.4 Key Information and Actions

- Choose one of the three methods to specify your observation targets:
  - List of targets: Add individual targets with detailed information.
  - Target mosaic: Upload and visualize your target mosaic using the integrated Aladdin Lite viewer.
  - No specific target: Select for Target of Opportunity or Director's Discretionary Time proposals.
- Review and manage your added targets in the list on the left side.
- Remember to save your progress regularly using the "Save" button.
- Validate your information before submission using the "Validate" button.

15.5 Next Steps

After specifying your targets using one of the provided methods, click "Observation" to proceed to the next page, where you'll define your observation parameters.

15.6 Additional Notes

- This guide assumes you're already logged in to PPT.
- The content remains the same regardless of your user context.
- Dynamic help is available, when you hover over fields, for descriptions.
- Remember to save your progress regularly using the "Save" button.
- The "Submit" button will only become active when all required information is entered and validated.

Confirmation Summary

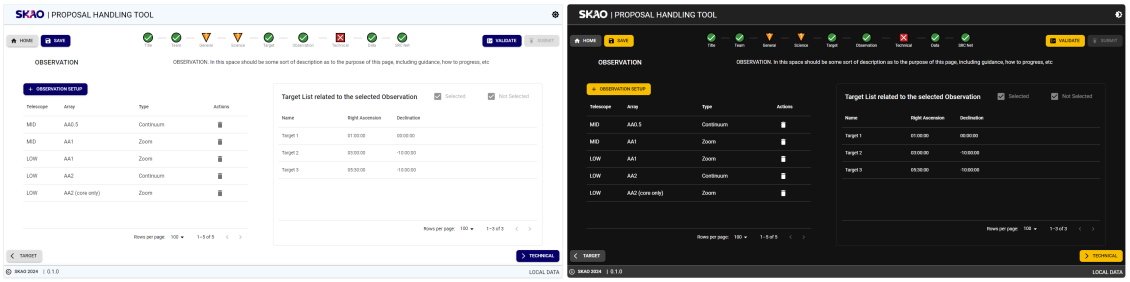
Before submitting your details, ensure everything is correct by clicking 'Validate'. Clicking 'Submit' after that will bring up a Confirmation Page summarizing your details. Review and click 'Confirm' to proceed or 'Cancel' to make changes.

CHAPTER

SIXTEEN

OBSERVATION PAGE

This guide explains the “Observation Page”, where you seamlessly define your observation needs.



16.1 Layout and Navigation

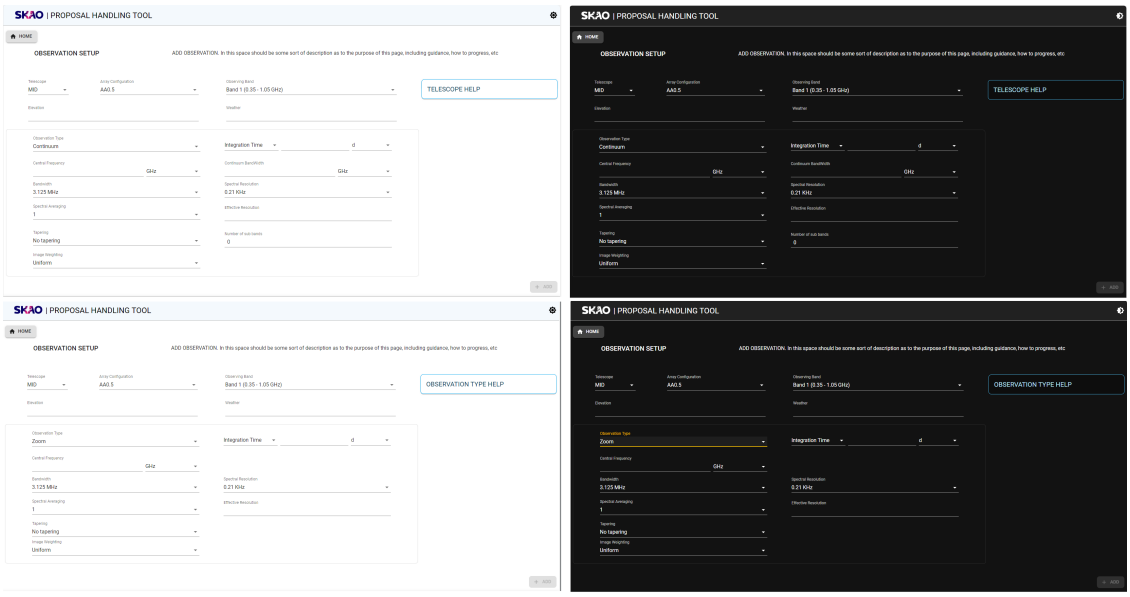
The Observation Page consists of two distinct sections:

1. Observation List and Target Selection:

- Left side:
  - Add Observation: Click this button to create a new observation entry.
  - Observation List: View a table summarizing existing observations with details like telescope, array, type, and actions (delete).
- Right side:
  - Target List: Select targets associated with the chosen observation by ticking the checkboxes. Use “Selected” and “Not Selected” buttons for bulk actions.
  - The status icon next to each linked target-observation shows the status of the Sensitivity Calculator API request.
  - If an error is returned from the Sensitivity Calculator API, a tooltip showing the error is displayed when hovering over the status icon.

2. Observation Mode Details:

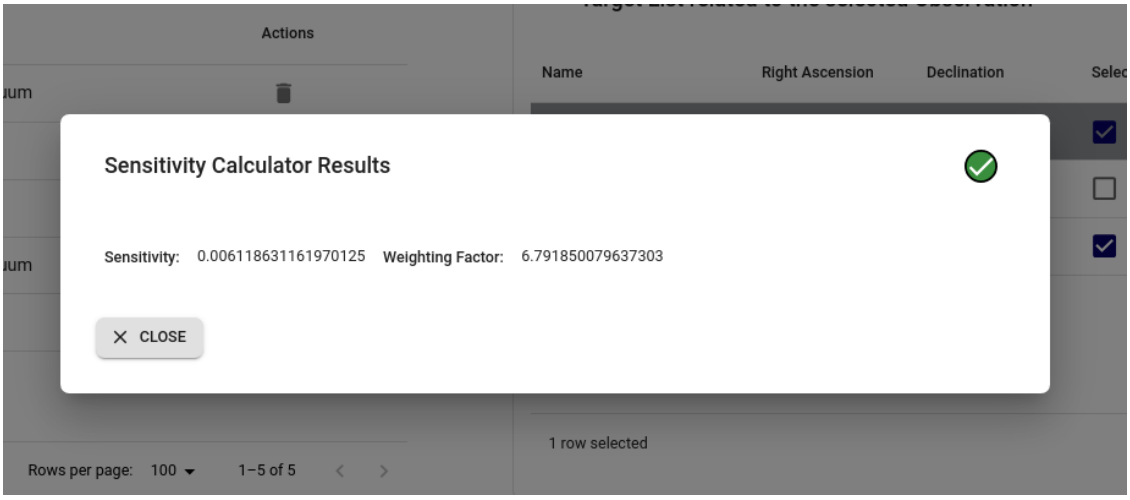
- This section appears upon clicking “Add Observation”.
- Enter specific parameters including:
  - Observing Band: Dropdown menu to choose available bands.
  - Array Configuration: Dropdown menu to choose available configurations.



  - Observation Type: Select either “Continuum” or “Zoom” mode.
  - Other fields: Additional details may appear based on your selections, influenced by the Sensitivity Calculator.
  - Add: Once finished, click this button to add the defined observation to the list.

3. Sensitivity Calculator results

- This modal appears upon clicking on the status icon at the right of the linked target-observation
- This displays the results returned from the Sensitivity Calculator API.
- There is also a modal showing the results for the list of linked targets, when clicking on the observation status.

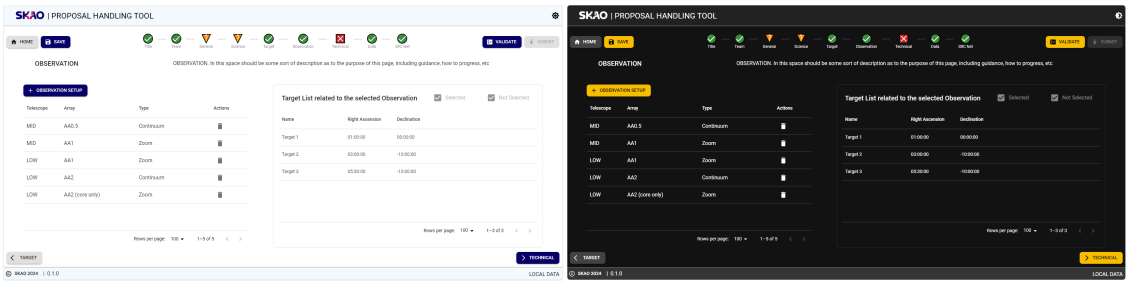


16.2 Navigation Elements

- Home: (Top left corner) Returns you to the Landing Page.
- Target Page: (Bottom left corner) Takes you back to the Target Page.
- Save: (Top left) Saves your progress on the Observation Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all proposal details are entered and validated.
- Technical: (Bottom right corner) Moves you to the next page for Technical Justification details.

16.3 Additional Features

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

16.4 Key Information and Actions

- The Observation Page allows you to:
  - Create new observation entries.
  - Link observations to specific targets.
  - Define key parameters like array configuration, observation type, and additional details.
  - View and manage your observation list.
  - Utilize dynamic help for field descriptions.
  - View the Sensitivity Calculator results for each linked observation-target.

16.5 Next Steps

After specifying your observation details using the provided methods, click "Technical" to proceed to the next page, where you'll provide more specific technical information about your proposal.

16.6 Additional Notes

- This guide assumes you're already logged in to PPT.
- The content remains the same regardless of your user context.
- Dynamic help is available, when you hover over fields, for descriptions.
- Remember to save your progress regularly using the "Save" button.
- The "Submit" button will only become active when all required information is entered and validated.

Confirmation Summary

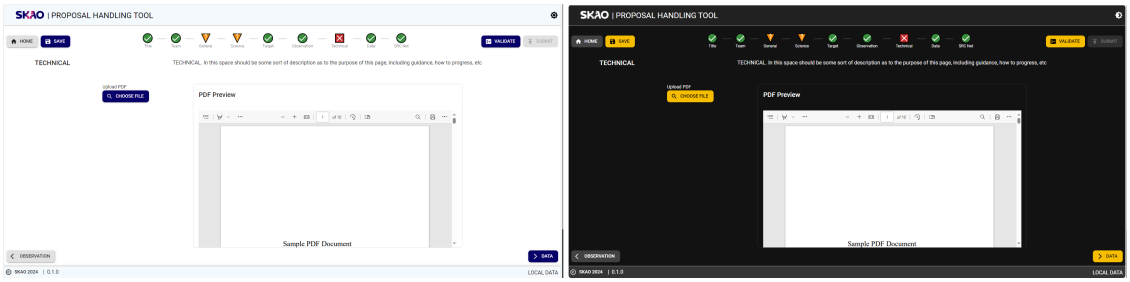
Before submitting your details, ensure everything is correct by clicking 'Validate'. Clicking 'Submit' after that will bring up a Confirmation Page summarizing your details. Review and click 'Confirm' to proceed or 'Cancel' to make changes.

CHAPTER

SEVENTEEN

TECHNICAL JUSTIFICATION PAGE

This guide explains the “Technical Page”, where you upload your technical justification document.



17.1 Layout and Navigation

The Technical Justification Page has a clear and consistent layout:

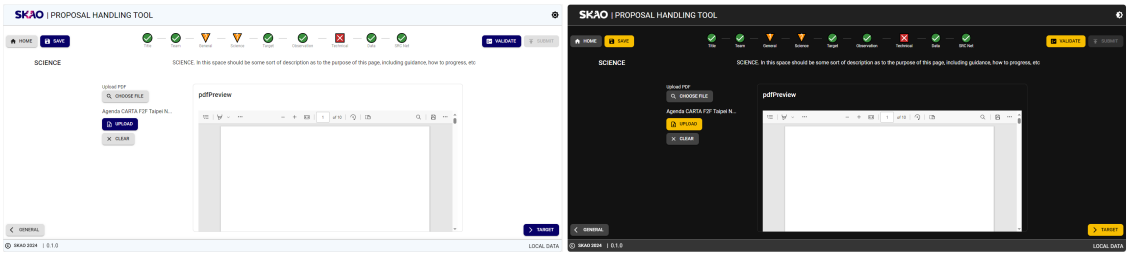
- Upload area: A designated section with an “Upload PDF” button.
- Preview option: In the center, is a “Preview” button, that allows you to check your uploaded document.

17.2 Navigation Elements

- Home: (Top left corner) Returns you to the Landing Page.
- Title Page: (Bottom left corner) Takes you back to the Title Page.
- Save: (Top left) Saves your progress on the Team Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all proposal details are entered and validated.
- Data: (Bottom right corner) Moves you to the next page for data details.

17.3 Additional Features

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

17.4 Key Information and Actions

- Upload your Technical Justification document in PDF format.
- Preview your uploaded document before proceeding.
- Remember, only one PDF upload is allowed for the MVP stage.
- Save your progress regularly using the “Save” button.
- Validate your information before submission using the “Validate” button.

17.5 Next Steps

After successfully uploading and previewing your technical justification, click “Data” to proceed to the next page, where you’ll provide details about your proposal’s data products.

17.6 Additional Notes

- This guide assumes you're already logged in to PPT.
- The content remains the same regardless of your user context.
- Dynamic help is available, when you hover over fields, for descriptions.
- Remember to save your progress regularly using the "Save" button.
- The "Submit" button will only become active when all required information is entered and validated.

Confirmation Summary

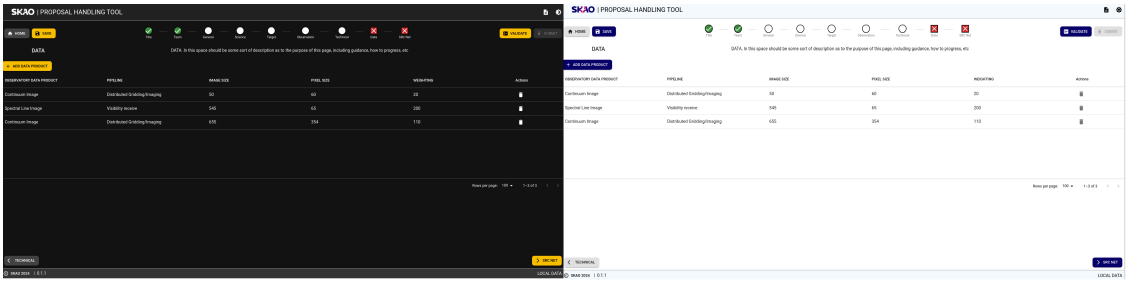
Before submitting your details, ensure everything is correct by clicking 'Validate'. Clicking 'Submit' after that will bring up a Confirmation Page summarizing your details. Review and click 'Confirm' to proceed or 'Cancel' to make changes.

CHAPTER

EIGHTEEN

DATA PAGE

This guide explains the “Data Page,” where you can add/delete Data Products associated with your proposal.



CHAPTER

NINETEEN

LAYOUT AND NAVIGATION

The Data Product Page contains the following:

1. Data Product List

- Displays a table with information about each data product
  - Observatory Data Product
  - Observations
  - Image Size
  - Pixel Size
  - Weighting
  - “Actions” (delete)

2. Data Product Management Options

- Clicking on the “Add Data Product button” takes the user to a page where he can enter a new data product
- Once added, the new data product is displayed in the table.

CHAPTER

TWENTY

NAVIGATION ELEMENTS

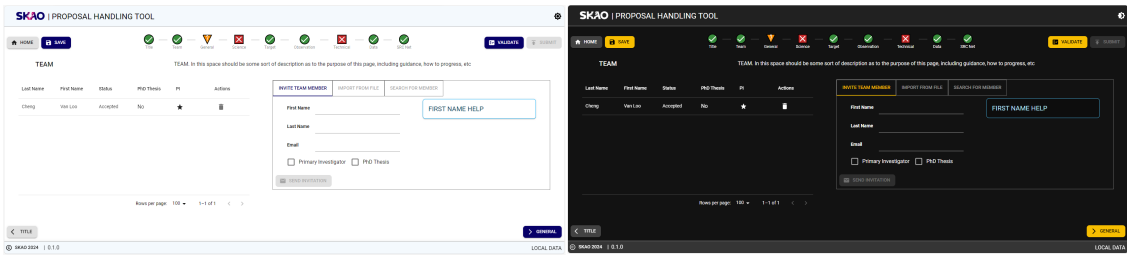
- Home: (Top left corner) Returns you to the Landing Page.
- Title Page: (Bottom left corner) Takes you back to the Title Page.
- Save: (Top left) Saves your progress on the Team Page.
- Validate: (Top right) Checks if all required information is filled correctly.
- Submit: (Top right corner, initially grayed out) Becomes clickable only when all proposal details are entered and validated.
- General: (Bottom right corner) Takes you to the next page for general proposal details.

CHAPTER

TWENTYONE

ADDITIONAL FEATURES

- SKAO Standard Header and Footer: Provides branding and navigation to other resources.
- Sun/Moon Mode Toggle: (Top right corner) Adjusts the page contrast for accessibility.



- A status indicator at the top shows the validation status of each page in the flow.
- Each status indicator, when clicked, will navigate to the appropriate page

CHAPTER

TWENTYTWO

KEY INFORMATION AND ACTIONS

- View your proposal data products.
- Create new data products.
- Delete data products.

CHAPTER

TWENTYTHREE

NEXT STEPS

After successfully managing your data products on this page, you'll move on to the "SRC Net" page, where you enter your pipeline information.

CHAPTER

TWENTYFOUR

ADDITIONAL NOTES

- This guide assumes you're already logged in to PPT.
- The content remains the same regardless of your user context.
- Dynamic help is available, when you hover over fields, for descriptions.
- Remember to save your progress regularly using the "Save" button.
- The "Submit" button will only become active when all required information is entered and validated.

Confirmation Summary

Before submitting your details, ensure everything is correct by clicking 'Validate'. Clicking 'Submit' after that will bring up a Confirmation Page summarizing your details. Review and click 'Confirm' to proceed or 'Cancel' to make changes.

CHAPTER

TWENTYFIVE

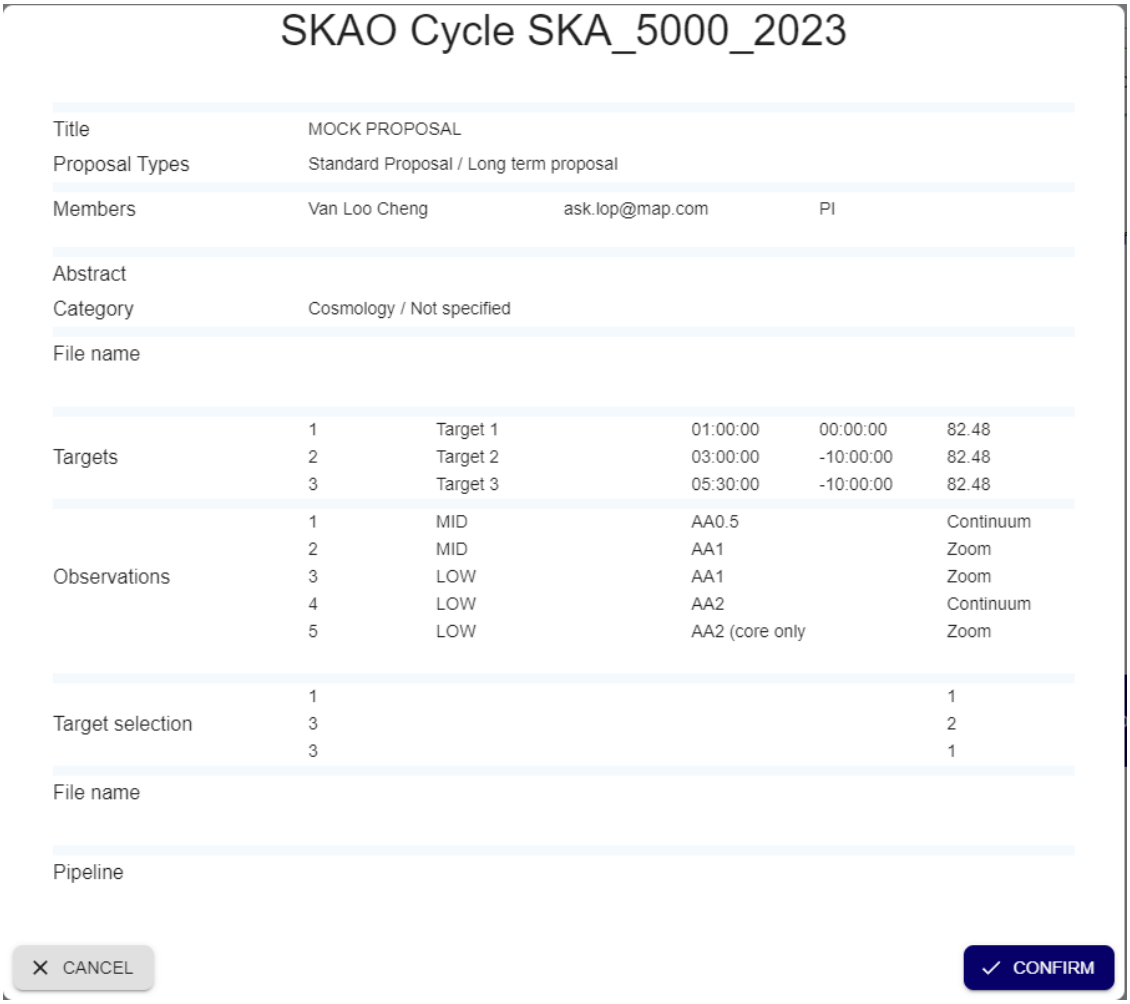
SRC NET PAGE

THIS PAGE IS UNDER DEVELOPMENT AND WILL BE UPDATED SOON

CHAPTER

TWENTYSIX

SUBMIT CONFIRMATION PAGE



THIS PAGE IS UNDER DEVELOPMENT AND WILL BE UPDATED SOON

CHAPTER

TWENTYSEVEN

COMMON QUESTIONS

27.1 Minimal FAQs for the MVP

How will I know if my proposal has been successfully submitted?

Answer to be supplied

Can I edit or update my proposal after submission?

Answer to be supplied

How does the review process work?

Answer to be supplied

What criteria are used to evaluate proposals?

Answer to be supplied

How will I be notified of the outcome of the proposal review process?

Answer to be supplied

27.2 Additional Notes

- You can also find answers to many common questions within the SKAO Help Desk or User Guide.
- Be sure to check the proposal guidelines and deadlines carefully before submitting your proposal.
- The support team is available to assist you with any questions or concerns you may have throughout the proposal process.

CHAPTER

TWENTYEIGHT

FEEDBACK AND IMPROVEMENT

We believe the best way to build a truly valuable tool is by listening to you. Share your feedback through the SKAO Help desk:

- SKAO Help desk: Submit your feedback and suggestions to the dedicated SKAO Help desk channel ([link to SKAO Help desk]).

CHAPTER

TWENTYNINE

FUTURE EXPANSION

As we embark on this path together, we want to be transparent about our development plans and invite your valuable feedback to shape the future of this tool.

29.1 Current State

Right now, PPT is our MVP, offering essential functionalities to support your proposal creation:

- Manage your proposals: Create, view, and edit proposals in one centralized location.
- Define your targets: Specify individual targets.
- Outline observations: Detail your desired observation parameters for each target.

29.2 Near-Term Focus

Our most immediate need, is the Data Page. This crucial component will enable you to:

- Specify data you collect (e.g., beam size, polarization), desired product types (images, spectra), and processing needs.
- Utilize data calculators and access advanced options like simulations.

29.3 The Road Ahead

The SKAO community is at the heart of our mission, and PPT is designed to empower you in achieving your scientific goals. With your involvement and feedback, we're confident this tool will continue to evolve and become an indispensable resource for your observing time proposals.

Join us on this journey of continuous improvement. Let's create a future where PPT seamlessly supports your research aspirations!

CHAPTER

THIRTY

CONCLUSION: COMPLETING YOUR PROPOSAL AND LOOKING AHEAD

Congratulations on reaching the final stage of your proposal journey! You've successfully navigated the Data Page and defined your observation details. By now, you have provided all the crucial information needed to showcase your scientific merit and potential impact.

Remember to use the "Save" button regularly to ensure your progress is secured.

Thank you for choosing the Proposal Preparation Tool (PPT) to streamline your proposal development. We believe this tool empowers you to present your research vision effectively and efficiently. We rely on your useful comments to keep improving PPT, so please use the avenues provided to express your ideas and suggestions.

We hope to see your ground-breaking research completed and wish you luck with your project!