User Interface (UI) Guidance

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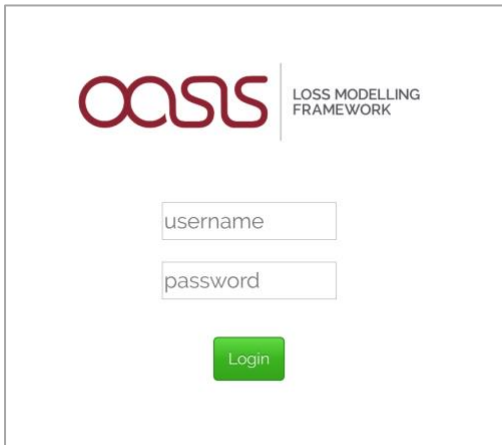
1.0 Introduction

The aim of this document is to provide a step-by-step user guide for the Oasis User Interface (UI).

1.1 Log in

After downloading the Oasis UI GitHub repository, the user will be prompted to log in.

Credentials will be provided by the administrator. Please note that there are some differences between 'administrator' and 'non-admin' modes. As an administrator, some of the tables will contain more information, however, functionalities of the UI do not vary.

1.2 Statutes

The progress of each step along the process is represented by the status icons which are found along the right-hand side of the *Portfolios* or *Analyses* tables.

The following icons represent actions performed by the API:

- "In progress": the API is processing the inputs.

- "Failed": something went wrong during the processing (e.g. the wrong model or uploaded files, …).

- "Ready": processing of input files and model was successful, analysis is ready to be run,

- "Completed": processing was completed successfully.

1.3 Function Buttons

- Refresh: table is re-generated, and statuses updated.

- **Collapse**: window collapses. Once clicked, the icon will change to the expand button.

- **Expand**: window is expanded. Once clicked, the icon will change to the collapse button.

- **Close**: window is closed.

- **Pop-up list**: to select a previously run analysis.

- **View**: contents of files can be viewed by selecting the row and clicking on the **View** button.

Selected		Files		Name		View	
☑		location_file		dom-rep-cutdown-oed-location.csv		View	

File Summary

File Name   location_file.csv

Number of Rows   10

Column names   LocCurrency, PortNumber, AccNumber, LocNumber, GeogName1, AreaName1, Latitude, Longitude, CountryCode, ConstructionCode, OccupancyCode, YearBuilt, YearUpgraded, NumberOfStoreys, NumberOfBuildings, LocPerilsCovered, BuildingTIV

[Content] [Map] [Export]

File content

Show 5 entries   Search: [   ]

LocCurrency	PortNumber	AccNumber	LocNumber	GeogName1	AreaName1	Latitude
n/a	1	146	10527	Pedro Brand	Santo Domingo	18.64788
n/a	1	146	10526	Pedro Brand	Santo Domingo	18.64788
n/a	1	146	10525	Pedro Brand	Santo Domingo	18.64788
n/a	1	146	10524	Pedro Brand	Santo Domingo	18.64788
n/a	1	146	10523	Pedro Brand	Santo Domingo	18.64788
All	All	Al	Al	All	A	

Showing 1 to 5 of 10 entries   Previous 1 2 Next

Dismiss

The exposures can be viewed on a map by selecting the 'map' button under the file summary. When zoomed in, the map displays the individual location, their corresponding address info and total insured value.
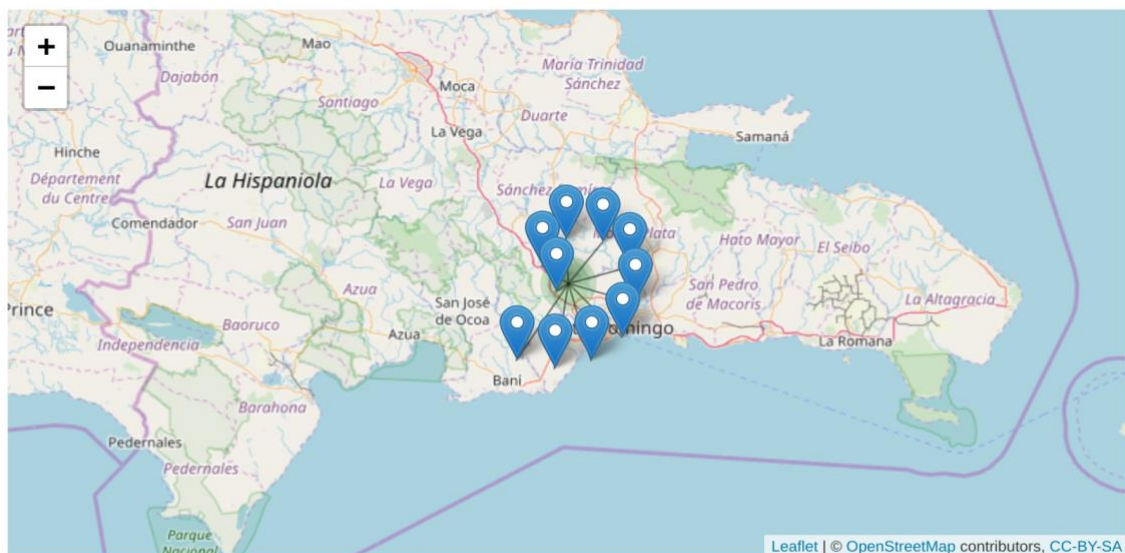
File Summary

File Name   location_file.csv

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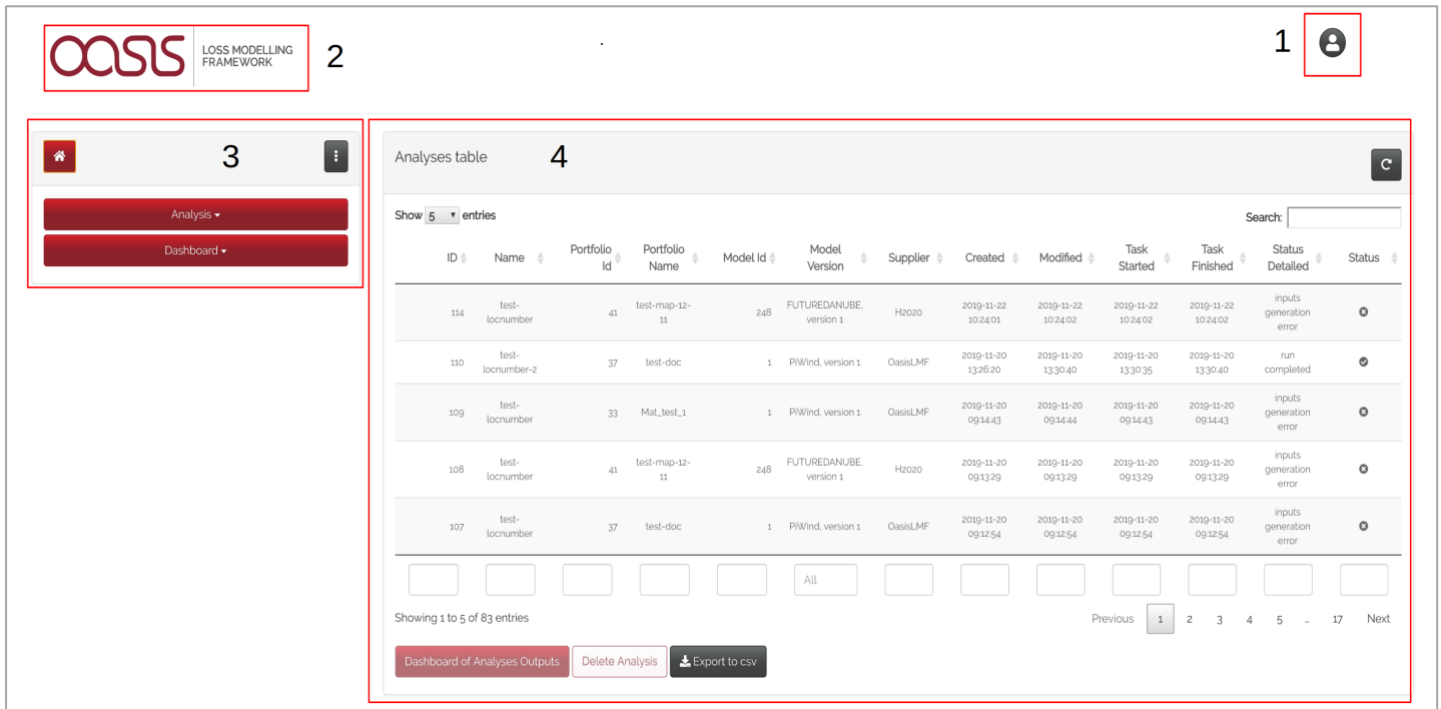
[Content] [Map] [Export]

Map

Leaflet | © OpenStreetMap contributors, CC-BY-SA

[Dismiss]

2.0 Home Page and Navigation

After logging in, the user will be prompted to the Home page. This window shows all of the analyses created by the user as well as all the accessible sections.

Starting from the top right:

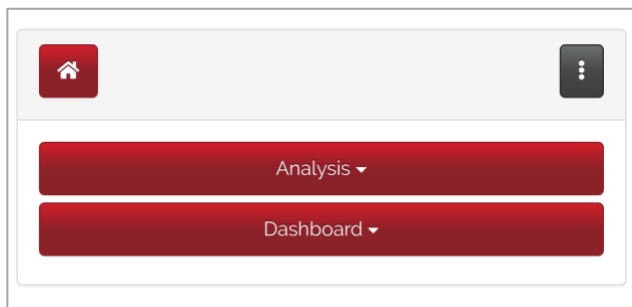1. The user icon offers the option to log out.
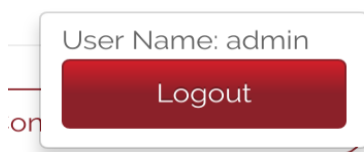
2. The Oasis logo will re-direct to the Oasis website.

3. The left-hand panel lists the sections available in the UI and can be accessed at any point during the workflow to re-direct the user to any section of the UI.
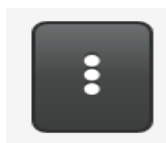

Several functionalities are integrated within:

- The Home button on the top left will re-direct the user to the Home page view at any point.

- The collapse button will minimize the navigation panel (dropdown window) to allow for more space for the other panels.

- The *Analysis* button allows the user to start the process of creating a portfolio and running an analysis. The dashboard button allows the user to view results from a successful run and create additional plots.

4. The *Analysis* table shows all previously created analyses. If an analysis was successful, the user can go directly to the *Dashboard* by selecting the related row and clicking on *Dashboard of Analyses Outputs*. Additionally, this is the only place where an analysis can be deleted.
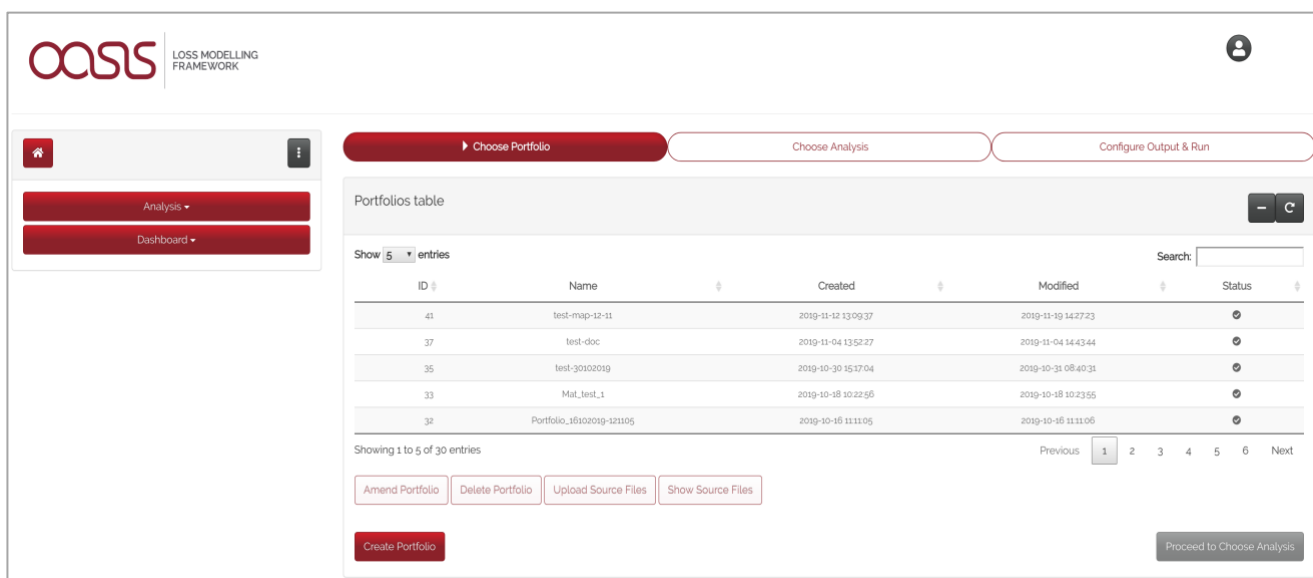
3.0 Uploading Data and Executing Analysis

The Analysis section guides the user towards a complete workflow from creating a portfolio to running an analysis. It can be accessed from the Home page by clicking on Analysis -> Single Analysis in the dropdown.

It is divided into three steps outlined below.

3.1 Choose Portfolio

The first step involves choosing a portfolio. If no portfolio has been created previously, the Portfolios table will be empty.

To model or review a previously created portfolio that requires no further changes, the user can simply select this row from the table. Any portfolio can be deleted or amended from this table by clicking either *Delete Portfolio* or *Amend Portfolio*. Once a previous portfolio has been chosen, the user can then progress onto the next step by clicking on *Proceed to Choose Analysis*.
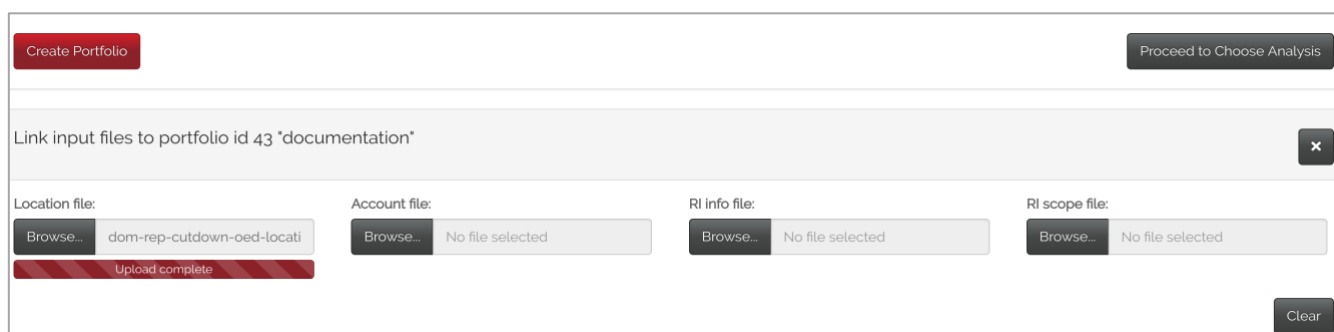

When creating a new portfolio, a name is mandatory.
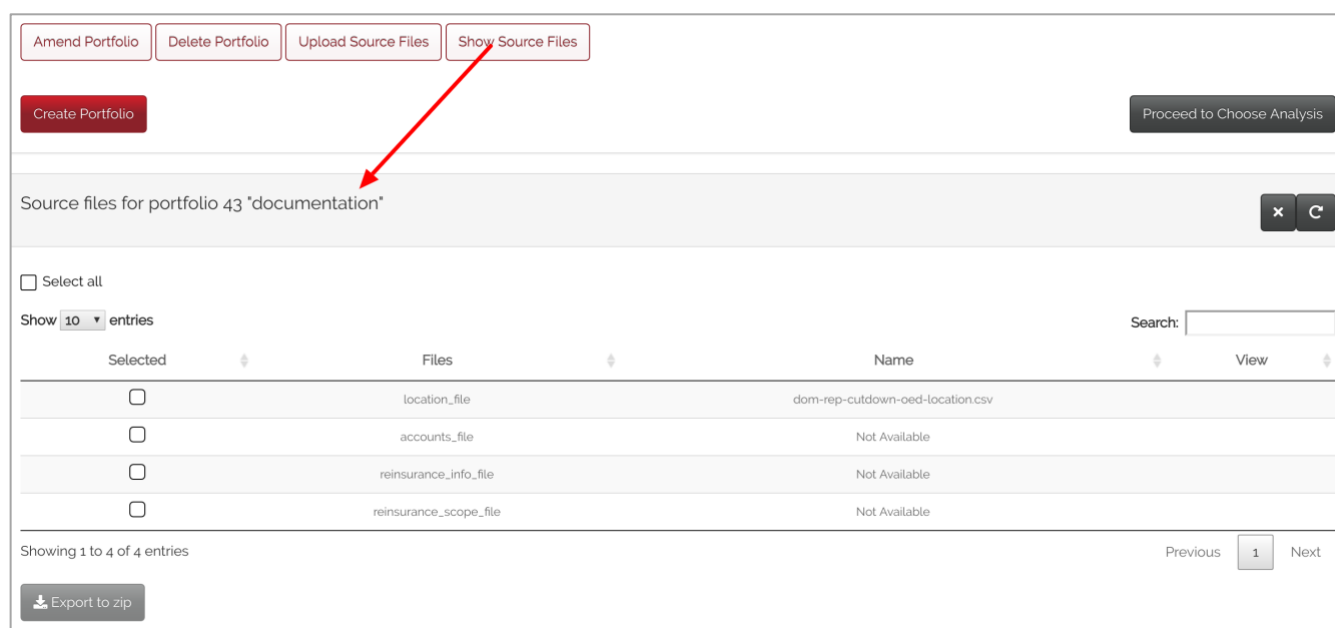
After the portfolio has been labeled a 'location' file has to be uploaded. The 'location' file is the only compulsory data file required to produce the ground-up loss (GUL). The 'account' file will be required to calculate the insured loss (IL) and the 'RI scope' and 'RI info' files will be needed to model the net of reinsurance perspective, making four files in total. If a portfolio was previously created but requires different data files to be uploaded, this panel can be accessed by clicking on **Upload Source Files**.

Previously uploaded files can be viewed by clicking on **Show Source File**.

By clicking on the refresh button on the top right the status of the portfolio will then change from "In Progress" to "Completed" or "Failed". When the status of the portfolio is "Ready" then it is possible to move forward to the second step by clicking on **Proceed to Choose Analysis.**[1]

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[1]   Status explanations can be found in the Introduction section under the "Statuses" paragraph.

3.2 Choose Analysis

In the second step, a new analysis can be created by clicking on **Create Analysis**. If other analyses related to the same portfolio were previously created, they will appear in the **Analyses table**.

It is also possible to change the portfolio by selecting a different one in the dropdown on the top.

To choose a previously created analysis, the corresponding row in the **Analyses table** has to be selected. The user can now progress onto the third step by clicking on **Proceed to Configure Output & Run**.

After creating and naming the analysis, the user has to choose a model to run.

This is the only step where a model can be selected, and this action cannot be reverted. Once an analysis has been created, it is not possible to change it. If the wrong model was associated, a new analysis with the correct choice will have to be created. Model information will depend on what the administrator has set up.

Further details on model settings and hazard maps (if available) can be viewed by clicking on *Show Model Details* which are highlighted in the figures below.
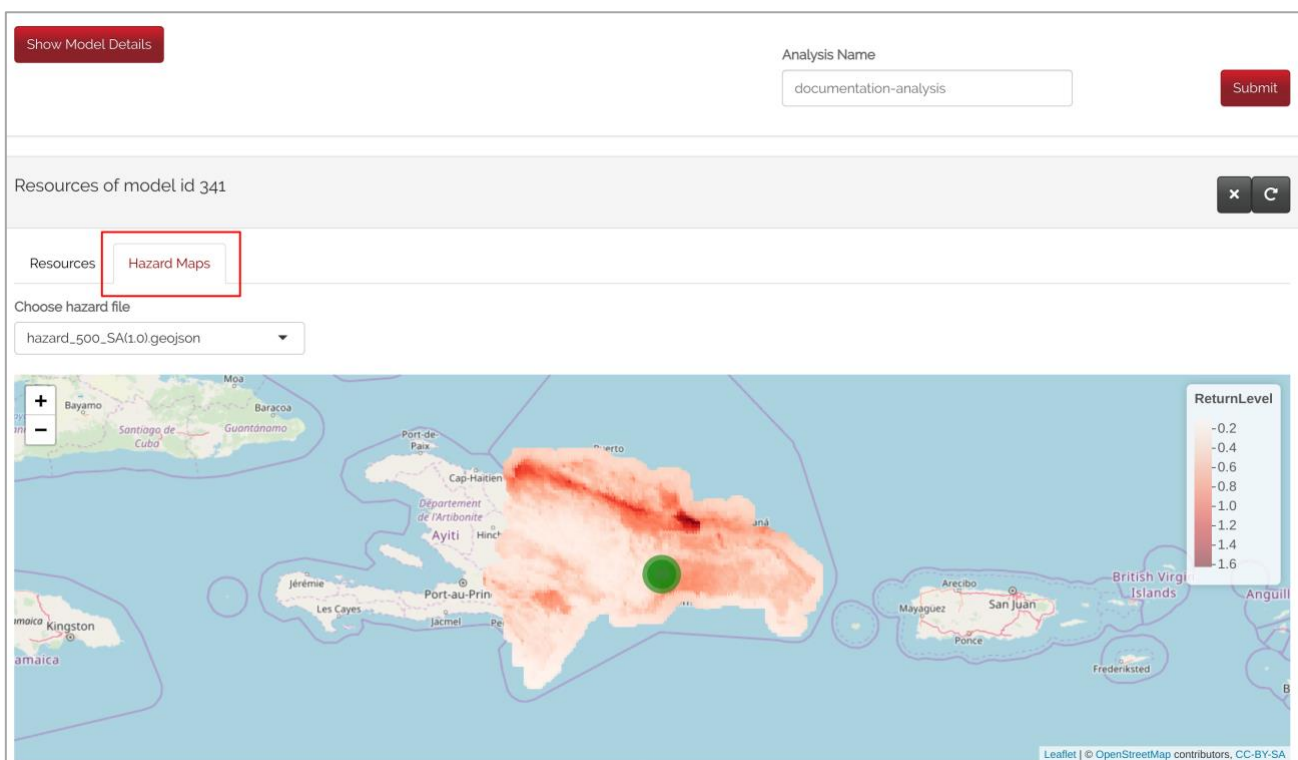
Once the analysis is created the status will show as "inputs generation started" in the **Analyses table.**

By clicking on the refresh button, the status will change to either "ready" or "inputs error".

There could be several reasons for an "inputs error" such as the wrong model or file being chosen or there could be some temporary issues in the back-end API. Details of an analysis can be viewed in the log file. Once the status is "ready" the 'Validation Summary', 'Validation Map' and 'Inputs' will be displayed as highlighted in the figures below:

- The 'Validation Summary' displays some exposure information and highlights the successful and failed exposures.

- The 'Validation Map' is interactive and displays the pins of each successfully imported location in green with its corresponding address, TIV and location ID. These pins are displayed in red if they failed.

- The 'Inputs' display the analyses input files which have been generated combining the imported and exposure information as well as the selected model settings. These can be viewed and downloaded as csv, json or txt.

The user can now proceed to step 3 by clicking **Configure Output & Run.**

3.3 Configure Output & Run

In the third step, the user can choose the model configuration and parameters before running the analysis. The Analysis status will still be "ready" and will change after a configuration is run.
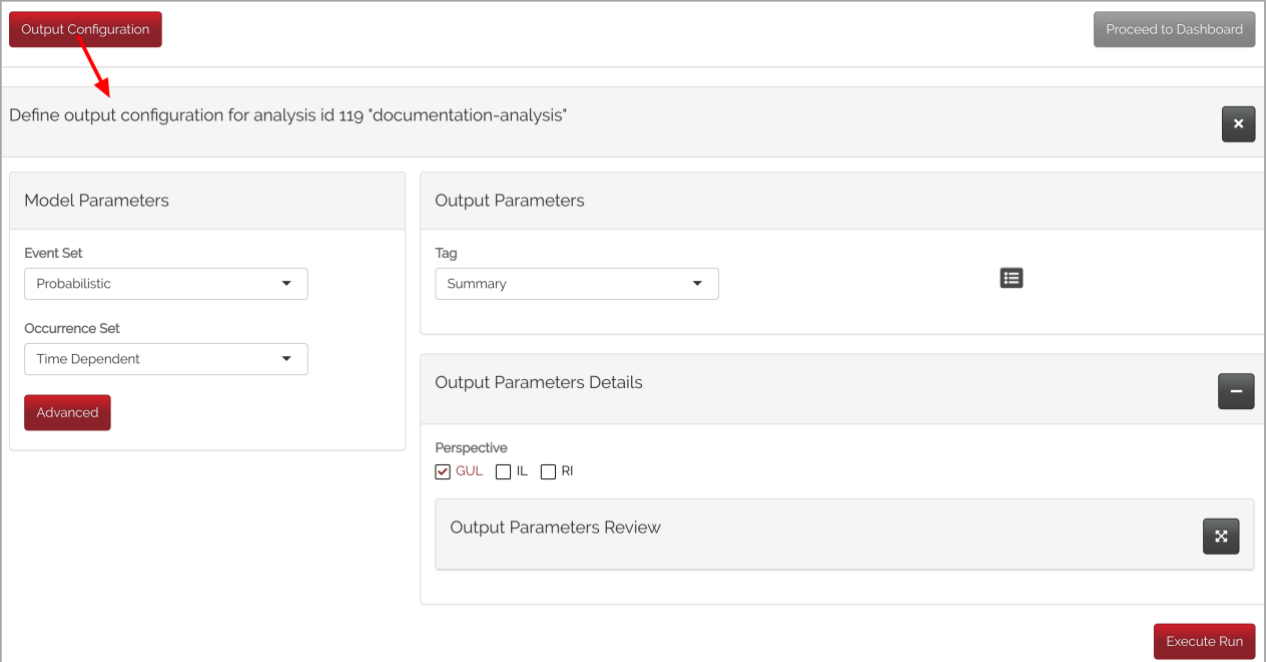
For a new analysis, the user should select **Output Configuration**. If the analysis was run previously, the user should select **Rerun** and the related window will display the previous configuration.

The Output configuration window includes choices of perspectives, summary levels, reports and model parameters.

On the left, the 'Model Parameters' panel shows the available selection for the chosen model. More parameters can be viewed and selected when the user clicks on *Advanced*. Here the user can change the event set, the number of samples, loss threshold and select 'demand surge'.

These settings are model-specific and will change with a different model.

On the right, the 'Output Parameters' panel displays all options for tags, perspectives, summary levels and reports. If no previous configuration was selected for the analysis, the default tag will be set to *Summary*. This includes *All Risks* at the summary level and *AAL, LEC Full Uncertainty OEP* and *LEC Full Uncertainty AEP* for the reports. The financial perspective is also selected here (ground-up, insured or net of reinsurance).

Tag

Summary ▾

Output Parameters Details [−]

Perspective

☑ GUL ☐ IL ☐ RI

Output Parameters Review [−]

Show 10 ▾ entries   Search: [   ]

Perspective	Summary Level	Report
GUL	All Risks	AAL
GUL	All Risks	LEC Full Uncertainty AEP
GUL	All Risks	LEC Full Uncertainty OEP

Showing 1 to 3 of 3 entries   Previous [1] Next

⬇ Export to csv

The second tag available is *Drill down*, where in addition to *All Risks*, other summary levels are available. This produces losses by specific, user-defined exposure characteristics such as occupancy or construction.
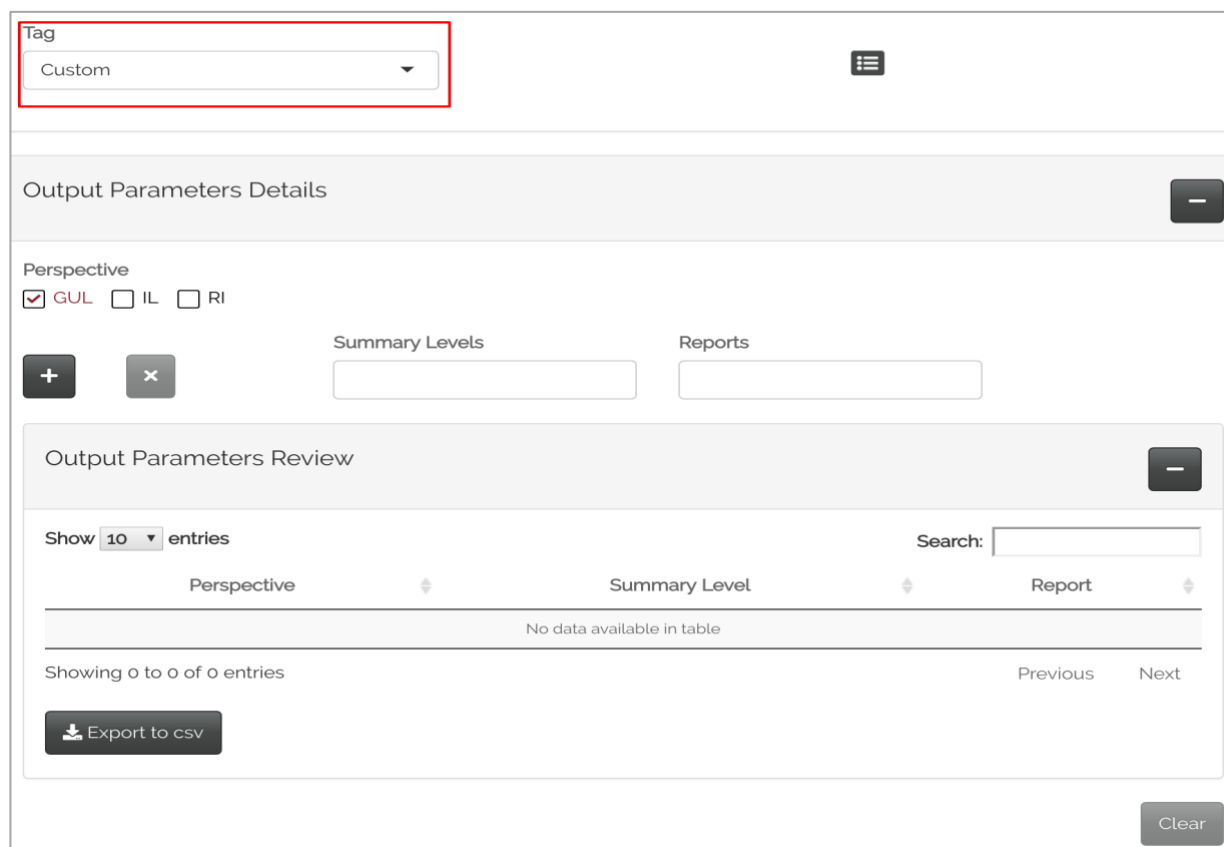
The final tag is *Custom* where any combination of summary levels and reports are available. This is the only tag option that does not include a default selection.

From here, the user can produce an extensive suite of outputs with various combinations. If multiple entries are selected in the 'Summary Levels', the losses for each 'Report' selected will be aggregated on the same line in *Output Parameters Review*. If the user requires the losses to be separated by individual 'Summary Level', then these will need to be selected separately. It is possible to add rows for more combinations by clicking on the "+" button and remove others by clicking on the "-". All selections will produce reports for each chosen financial perspective.

It is also possible to duplicate the output configuration used in another analysis by clicking on the pop-up list button on the right of the Tag dropdown.

The **Clear** button will erase the entire selection. Once the selection is completed, the model can be run by clicking on **Execute Run**.

By clicking on the refresh button, the analysis status will change from "run started" to "completed" or "run error". In the event of a failed run, the details of the failure can be viewed in the log window; if successful, the user should proceed to the **Dashboard**.

4.0 View Results

The *Dashboard* section contains the model outputs from successfully run analyses and allows the user to create additional plots and view the input and output files. This view can be reached from the Home page by either selecting an analysis from the *Analyses table* and clicking on **Dashboard of Analyses Outputs** or by clicking on **Dashboard → Single Analysis Dashboard** in the drop-down.
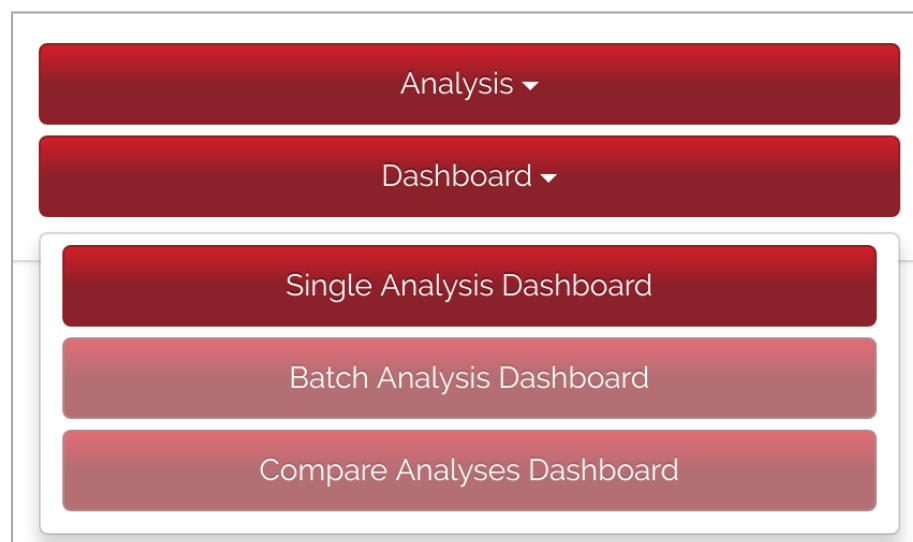
Results from a different analysis can be viewed at any time by clicking on the pop-up list button on the top.

This section comprises of 3 tabs: Summary, Plots, and Files.

4.1 Summary

The Summary tab shows the *Inputs*, *Parameters* and *Outputs tables*, as well as plots for any selection of *AAL* (for both Analytical and Sample types), *LEC Full Uncertainty OEP* and *LEC Full Uncertainty AEP* (Sample type if available, otherwise Analytical). Graphs are plotted separately for all of the chosen perspectives.
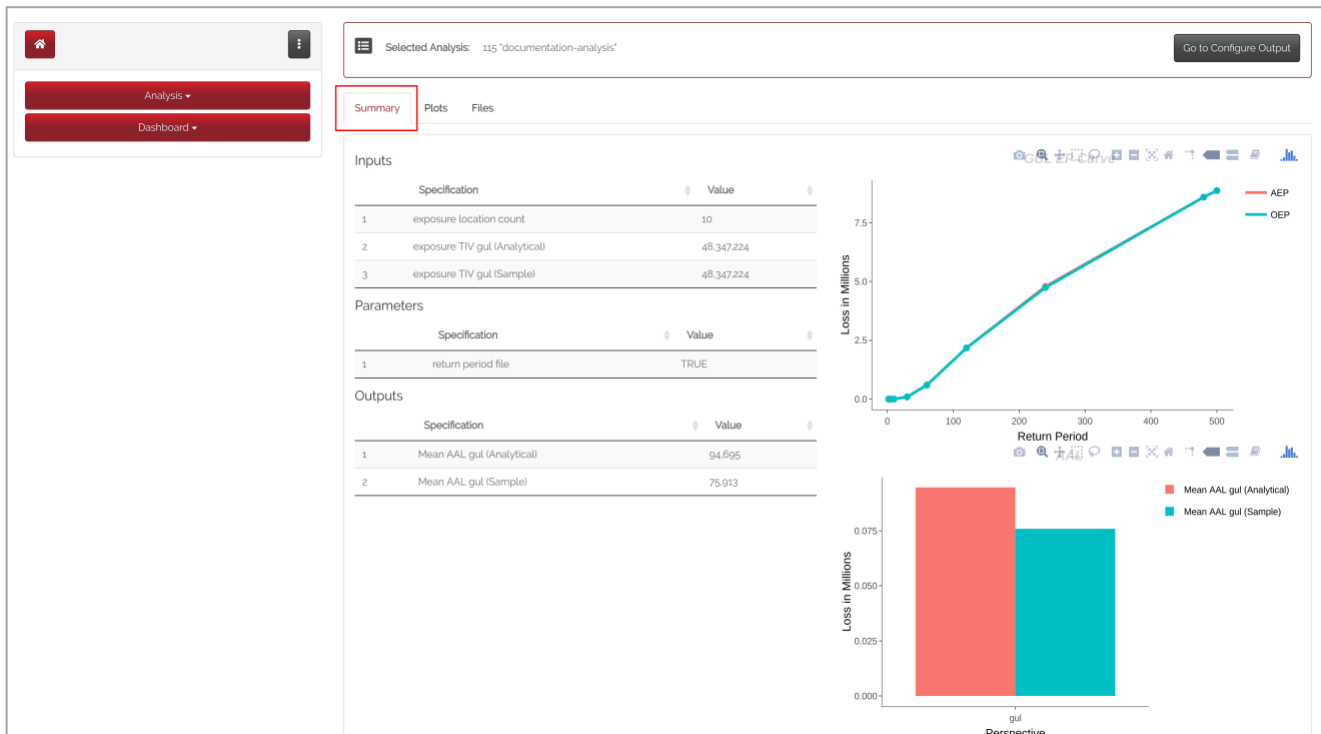
4.2 Plots

Additional plots can be created in the 'Plots' tab by clicking on **New Plot**. However, these plots will not be stored and will be removed as soon the page is changed.

Choices of plots include; *loss per return period line plot*, *AAL bar plot* and *loss for return period map*. These show plots for each selection made during the configuration of outputs explained in section 3.3.

The user can choose plots for each type ('analytical' or 'sample'), choose the summary level from the previous selections and name the plots in 'Title'.
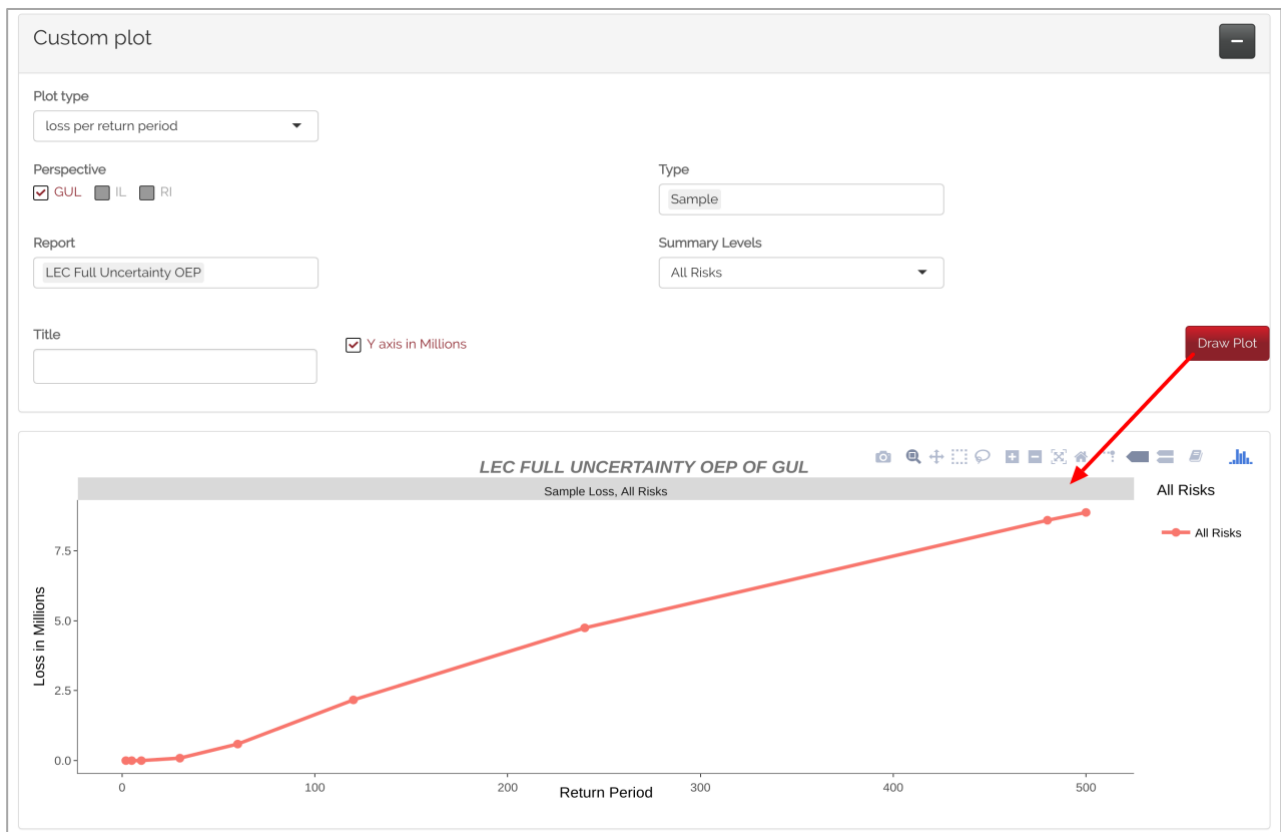
The **AAL bar plot** also includes the option for uncertainty bars.
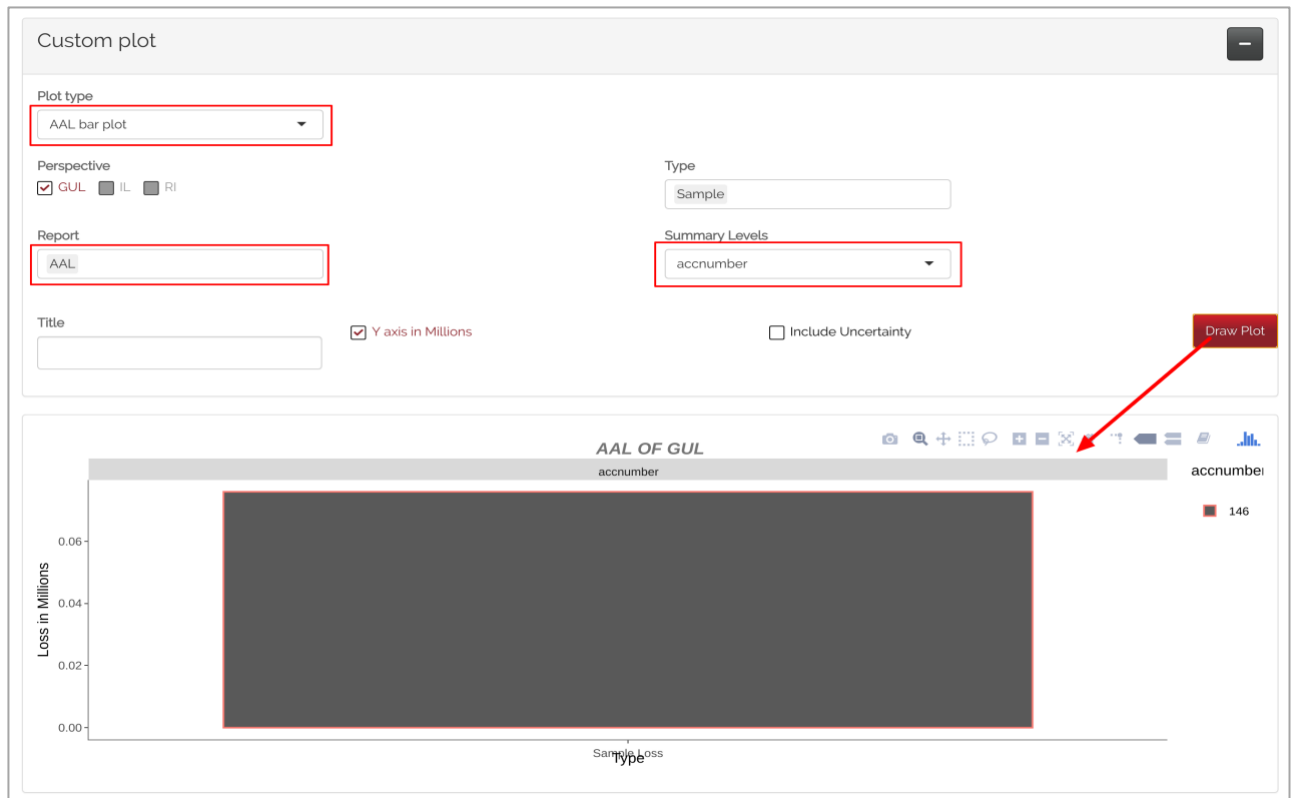
4.3 Files

The Files tab comprises of two panels.

The first window shows the **Output files table**, which lists the output files. These files include all information regarding the run selection and all related outputs.

Below the **Input files table** contains all of the analysis' input files.

The content of each file can be viewed in a separate pop-up by selecting the equivalent row and clicking on the **View** button. These files can also be downloaded as a .csv or zip.

5.0 Glossary

- AAL: Average Annual Loss.
- All Risks: all OED fields (open exposure database).
- Account file: Contains all financial policy terms such as deductibles, limits, and shares.
- AEP: Aggregate Exceedance Probability. The losses from all modeled events in a given year or period.
- Custom option: no default summary levels and reports.
- Demand Surge: An uplift to modeled losses to account for higher repair costs for building damage that could occur following large catastrophic events.
- Drilldown option: default summary levels and reports with no option of additional summary levels.
- Event Set: Probabilistic or Historical.
- Perspectives: GUL (Ground Up Loss). The losses produced before any policy terms are applied. IL (Insured (or gross) Loss). The losses produced net of any policy terms. RI (reinsurance). The losses net of any reinsurance structure.
- Hazard Map: probability distribution of intensity for each combination of events and area perils.
- Location file: the file containing exposure information such as address and location data, occupancy, construction, and building age. Coverage total insured values are also contained in this file.
- Loss Threshold: the amount of loss not to be exceeded.
- Model: the combination of hazard and vulnerability modules.
- Number of Samples: number of 'Monte Carlo' simulations to be run.
- Occurrence Set: Time Dependent or Time Independent.
- OEP: Occurrence Exceedance Probability. The losses from the single largest event in a given year or period.
- Portfolio: Contains all exposure, policy and reinsurance information to be modeled.
- Resources: model and lookup settings.
- Return period: The probabilistic loss of different severities along a loss curve.
- RI scope file: Reinsurance scope file: Contains information on which exposures being modeled, the reinsurance should apply to.
- RI info file: Reinsurance information file. It contains information on the reinsurance structure such as attachment point, limits, shares, and reinstatement premiums.
- Summary option: default summary levels and reports with no option of additional combination
- TIV: Total Insured Value.