

# Arius Enterprise

## Direct Import



IT TAKES VISION

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## 1. Introduction

Arius Enterprise **Direct Import** provides an efficient way to update multiple tables in multiple projects in an Arius Enterprise Analysis database. It supports updating any input data table, as well as manual selected rows in exhibits and manual selected columns in formula-driven assumption tables. This feature is typically used to load data that may not be found in a typical Triangles on Demand input file, such as Bornhuetter-Ferguson *a priori* loss ratios, on-level premium, loss trend indices, historical ultimate selections, or carried (or booked) reserves.

## 2. Accessing the Direct Import Functionality

**Direct Import** functionality is available from the ANALYSIS | PROJECTS screen in the Arius Enterprise portal.

The screenshot displays the Arius Enterprise portal interface. The top navigation bar includes tabs for Databases, Uploads, Analysis (highlighted), Automation, Reporting, Power BI, and Downloads. The left sidebar shows a list of navigation items: Analysis Home, Projects (highlighted), Collection Sets, Print Lists, Excel Lists, Exhibit Options, Data Defaults, and Exhibit. The main content area is titled 'Projects' and features a search bar, 'Run Script' and 'Run Task' buttons, and a 'See status reports' link. A table of projects is displayed with columns: ID, Cate..., Project Name, Checked Out By, Checked Out, Last Updated By, Last Updated, U..., and Status. The table contains three rows of project data. A red arrow points to the 'Direct Import' button in the top right corner of the main content area.

ID	Cate...	Project Name	Checked Out By	Checked Out	Last Updated By	Last Updated	U...	Status
541		Commercial Auto BI			Bethany Cass - Batch	07/29/2021 1:24 PM		Not Started
540		Commercial Auto CompColl			Bethany Cass - Batch	07/29/2021 1:24 PM		Not Started
530		Commercial Auto PD			Michael Henk	08/12/2021 10:34 AM		In Progress

Click on the **Direct Import** icon to select a CSV file and begin the import process.

### 3. CSV Columns

Columns required in the Direct Import CSV file are:

- Project identification
- Segment identification
- Exposure date and/or development age
- Table data

There are no requirements regarding the order of the fields in the CSV file.

#### PROJECT IDENTIFICATION

Direct Import supports two methods of identifying unique projects in an Arius Analysis database:

- ProjectID or
- ProjectName / DataStructure / ValuationDate combination

If the CSV file contains a ProjectID column, Direct Import will rely on that field to determine which projects to update (and ignore the other identifying fields). Records in the CSV file that do not match an existing project in the database will be ignored. The batch process will continue for matching projects even if some records in the CSV file are ignored.

#### SEGMENT IDENTIFICATION

There are two ways to specify in the CSV file which segments need to be updated:

- Segment name or
- Arius Analysis database dimensions

To match by segment name, the CSV file must have a column named Segment. If this column is present, all the dimension columns in the CSV file are ignored for segment selection.

To match by database dimension, the CSV file must contain columns (at least one) with names matching dimension names defined in the database. Note that the CSV file does not need to include a column for *every* dimension. For example, if the Analysis database has LOB and State dimensions and the CSV file only has a LOB column, every segment with a matching LOB will be updated regardless of the value of its State dimension.

#### EXPOSURE DATE OR DEVELOPMENT AGE

Direct Import supports updating input triangles (cumulative values), input columns, and input rows, including selected development factors. Depending on the array type, the following fields are required to provide the correct coordinates for the cell:

- Triangle array – requires ExposureDate and DevelopmentAge (unless importing only the last diagonal, in which case only the ExposureDate is needed)
- Historical Ultimate array – requires ExposureDate and DevelopmentAge
- Column array – requires ExposureDate
- Row (or SDF) array – requires DevelopmentAge

## ExposureDate

Values for ExposureDate must be a valid date within the project's data structure, but they do not need to match the project's date format. For example, records with ExposureDate 1/15/2021 and 6/28/2021 will both fall in the 2021 year exposure period. Records in the CSV file with dates that fall outside of the Arius file structure will be ignored. Multiple records in the CSV file with the same exposure period will not be aggregated; the last one in the file will be used.

## DevelopmentAge

The value for DevelopmentAge must be a valid integer. Any non-integer, values below 0, and values higher than the maximum development age will result in that data being ignored during the Direct Import process. Any value will match the next highest development age in a table. For example, in an Arius file structure with development ages 3,15,27,..., DevelopmentAge values of 1, 2, or 3 will place the data value into the leftmost cell of the row, DevelopmentAge values 4-15 will match the second cell of the row, and so on. If there are multiple records in the CSV file with the same development age, the last one in the file will be used, and prior records will be ignored.

The CSV file does not need to contain records for every exposure date or development age. Rows and columns omitted from the CSV file will retain their existing value in the Arius file.

## TABLE DATA

Tables in Arius can be identified in the CSV file by Table Name, Abbreviated Name, or prefixed ID Number.

When using ID Number, it must be prefixed with a letter.

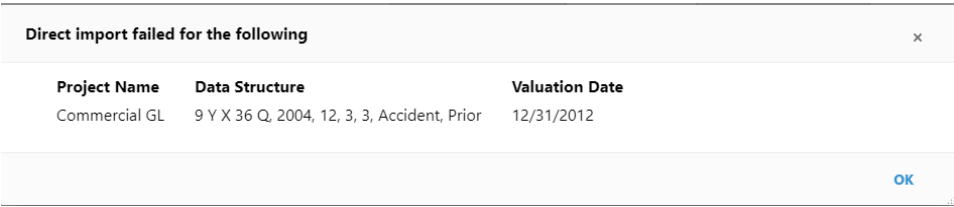
- **T** for triangles/rows/columns
- **S** for scalars
- **E** for selected factors
- **I** for interpolated factors

For example, T016 can be used to update the system Paid Loss triangle.

## 4. Executing Direct Import

Once the CSV file is initialized, the system will sequentially check out each project, perform the update, then save and check in the project.

If a ProjectID or ProjectName / DataStructure / ValuationDate combination is not recognized, these records will be ignored, and you will receive an error message similar to the one below. The batch process will continue for the remaining matching projects.



Progress for the process can be monitored on the [AUTOMATION | STATUS](#) page.

- The Direct Import process is successful if all tables are found, segments matched, and periods aligned with those in the project. Any fields that could not be validated will be reported, but the overall Direct Import process will show a status of *Completed*, so it is important to expand the list and review the status for each project.
- Once expanded, the following sequence of commands are listed with a description of the status: CSV Import, Initialize, DataLoaded, ApplytoSegments
  - If a Table name or ID is unrecognized, you will see the table listed under **Unrecognized** with a red **X** under the Initialize command.
  - If a Segment name is unrecognized, you will see the message *No segment found* with a red **X** under the ApplytoSegments command.

## EXAMPLES

An easy way to create a direct import CSV file in the correct format is to create and download an Extract table that includes the projects and tables you want to import and then filter on the required fields. For further guidance on creating Extract tables, refer to the document *Extract table* found in Arius under HELP | USER DOCUMENTATION.

## Triangular data:

	A	B	C	D	E	F	G	H
1	ProjectName	ValuationDate	DataStructure	Segment	ExposureDate	DevelopmentAge	Historical Ultimate Loss	Historical Ultimate Claims
2	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2011	108	21,326	6,549
3	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2012	96	14,383	4,820
4	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2013	84	13,250	3,738
5	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2014	72	8,775	2,511
6	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2015	60	8,297	2,493
7	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2016	48	7,054	2,424
8	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2017	36	7,730	2,627
9	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2018	24	11,221	3,519
10	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2019	12	15,951	4,268
11	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2011	96	21,435	6,552
12	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2012	84	14,393	4,820
13	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2013	72	13,372	3,738
14	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2014	60	8,834	2,510
15	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2015	48	8,283	2,493
16	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2016	36	6,850	2,424
17	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2017	24	7,898	2,627
18	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2018	12	10,511	3,455

## Selected development factors data:

	A	B	C	D	E	F	G
1	ProjectName	ValuationDate	DataStructure	Segment	DevelopmentAge	Incurred Loss Development (SDF)	Paid Loss Development (SDF)
2	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12	1.7565	1.7776
3	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	24	1.2151	1.2310
4	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	36	1.1257	1.1387
5	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	48	1.0463	1.0539
6	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	60	1.0287	1.0348
7	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	72	1.0095	1.0125
8	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	84	1.0063	1.0121
9	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	96	1.0033	1.0037
10	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	108	1.0017	1.0046
11	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	120	1.0019	1.0163

Note: For Interpolated Development Factors, use the system development ages determined from the Project's Data Structure (not the interpolated development ages) and prefix the Table Name with "Interpolated" (e.g., Interpolated Paid Loss Development (SDF))

## Columnar data:

	A	B	C	D	E	F	G
1	ProjectName	ValuationDate	DataStructure	Segment	ExposureDate	Loss Ratio - BF Method	Premium Adjustment Index
2	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2011	0.6285	1
3	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2012	0.5306	1
4	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2013	0.5646	1
5	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2014	0.5376	1
6	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2015	0.5608	1
7	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2016	0.5380	1
8	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2017	0.5529	1
9	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2018	0.6158	1
10	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2019	0.6903	1
11	Sample Arius Project	12/31/2020	10 Y X 10 Y, 2011, 12, 12, 12, Accident, No Prior	PP AutoLiab	12/31/2020	0.5698	1