

Migrating from Business Central to IBM BAMOE Developer Tools

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Overview [↗](#)

Business Central is the previous generation web-based platform for authoring business automation assets such as data objects, rules, processes, cases, and planning entities. It includes capabilities for monitoring, administration, and management of business automation assets. With the release of both IBM BAMOE Developer Tools and IBM BAMOE Canvas most of the asset management capabilities were replaced or might take a different approach altogether. This section describes 'the' migration of business assets' created in Business Central so that developers can maintain them by using BAMOE Developer Tools or BAMOE Canvas or both.

Prerequisites [↗](#)

The following tools are required to migrate from Business Central to BAMOE Developer Tools. It is assumed that you have a current version of Business Central running to export certain types of assets to their supported form in BAMOE:

- [JDK 11](#) or later is installed.
- [Apache Maven 3.8.6](#) or later is installed.
- [Visual Studio Code IDE](#) latest version
- [IBM BAMOE Developer Tools](#) latest version of VS Code IDE extensions

 **Important**
Due to <https://github.com/quarkusio/quarkus/issues/31011>, it is recommend to use Apache Maven version 3.8.6, or later.

Business Automation Assets in Businss Central [↗](#)

The following table focuses on business automation assets no longer supported in the new tools but available in Business Central. The table indicates how to manage assets in the absence of Business

Central.

Table 1. Business Central Asset Types

Asset Name	Asset Type	Description	Version {VERSION} Supported Tools	Additional Info.
Business Process	Process (.bpmn)	Modeled as Business Process & Notation (BPMN) diagrams	BAMOE Developer Tools BAMOE Canvas	Also used for straight-through-processing (STP) as well as rule-flow
Decision Model	Decision (.dmn)	Modeled as Decision Modeling & Notation (DMN) diagrams	BAMOE Developer Tools BAMOE Canvas	
Technical Rule	Decision (.drl)	Drools Rule Language, used for technical rules	BAMOE Developer Tools	
Decision Table (Spreadsheet)	Decision (.xls)	DRL-based decision table, modeled as an Excel spreadsheet	BAMOE Developer Tools MS Excel Online	
Test Scenario	Decision (.scesim)	Test scenario used for decision unit testing. <i>Currently only DMN testing is available. DRL testing will be available too in future.</i>	BAMOE Developer Tools	
Data Object	Model (.java)	Java data object used by rules and processes	BAMOE Developer Tools	Define as separate Maven dependency project
Global Variable(s)	Decision (.drl)	Vocabulary definition	BAMOE Developer Tools	Managed directly in .drl files

Asset Name	Asset Type	Description	Version {VERSION} Supported Tools	Additional Info.
Domain Specific Language Definition	Decision (.dsl)	Vocabulary definition	Deprecated	
Enumeration	Model	Vocabulary definition	BAMOE Developer Tools	Managed directly in .drl files
Form	Forms (.frm)	Human Form	Deprecated	New form builder in future release
Guided Decision Table	Decision (.gdst)	Guided Decisison Table	Deprecated	Export from BC to Decision Table Spreadsheet (XLS)
Guided Decision Table Graph	Decision (.gdst-set)	Guided Decision Table Graph	Deprecated	
Guided Rule	Decision (.rdrl)	Guided Technical Rule	BAMOE Developer Tools	Copy source from BC to new Technical Rule (.drl) file
Guided Rule Template	Decision (.template)	Template for guided rules		BAMOE Developer Tools
Copy source from BC to new Technical Rule (.drl) file	Test Scenario (Legacy)	Decision (.scenario)	Legacy (guided) test scenario used for rule unit testing	Deprecated

Note

At this time **Test Scenarios** are not directly supported in BAMOE Canvas, as it has its own test scenario asset. There will be compatibility between test scenarios included in a future release of IBM BAMOE.

Migration of Deprecated Assets [↗](#)

Though all the guided editors are deprecated in IBM BAMOE version {VERSION}, you do not lose all your effort into building those assets.

It is possible to convert certain guided assets to their non-guided and supported form. The following table indicates the mapping from guided to non-guided form:

Table 2. Business Central Guided Asset Types

Asset Name & Type	Description	v9 Non-Guided Form
Guided Decision Table (.gdst)	Guided Decision Table	Export from BC to Decision Table Spreadsheet (.xls)
Guided Rule (.rdrl)	Technical Rule (.drl)	Copy source from BC to new Technical Rule (.drl) file

How to **Copy** the Asset Source from Business Central [↗](#)

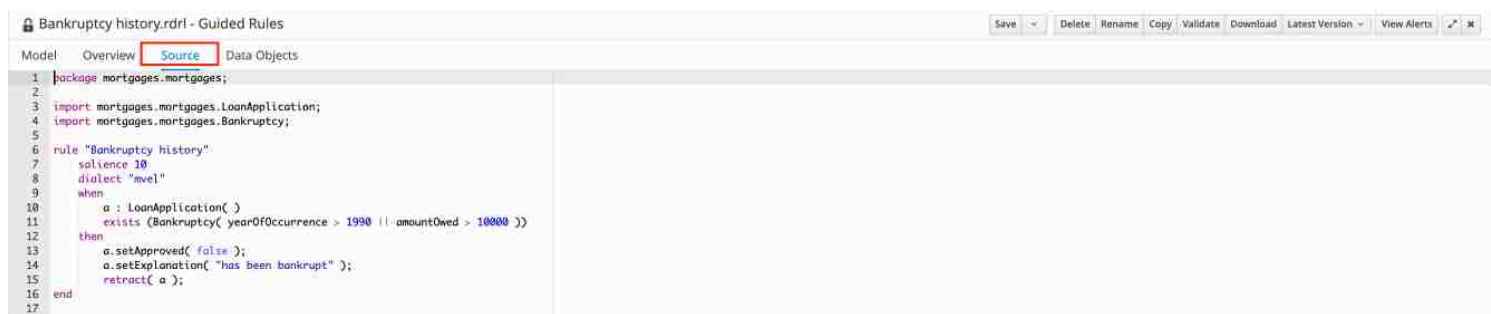
It is important to keep in mind that all guided assets are Drools Rule Language (.drl) files under the covers. In most situations a guided asset can be refactored into a non-guided asset by copying the source from the source tab in Business Central into a file with the file extension of `.drl`. With that in mind, here is an example of how to accomplish this, using a **Guided Rule** as an example:

Examples

The screenshot displays the 'Bankruptcy history.rdrl - Guided Rules' interface. At the top, there are tabs for 'Model', 'Overview', 'Source', and 'Data Objects', with 'Source' currently selected. Below the tabs, there's a dropdown menu set to 'None'. The main area is divided into 'EXTENDS' and 'WHEN' sections. The 'WHEN' section contains two conditions: 1. 'There is a LoanApplication [a]' and 2. 'There is a Bankruptcy with: any of the following: yearOfOccurrence greater than 1990, amountOwed greater than 10000'. The 'THEN' section contains two actions: 1. 'Set value of LoanApplication [a] approved' and 2. 'delete: LoanApplication [a]'. The interface also includes a toolbar at the top with buttons for 'Save', 'Delete', 'Rename', 'Copy', 'Validate', 'Download', 'Latest Version', and 'View Alerts'.

Figure 1. Guided Rule in Business Central

As you can see this is the default tab (Model) in Business Central's guided rule editor. If you navigate to the Source tab, you can see that the guided rule is an editor view on top of a standard technical rule written using Drools Rule Language (DLR), as in the following example:



```
1 package mortgages.mortgages;
2
3 import mortgages.mortgages.LoanApplication;
4 import mortgages.mortgages.Bankruptcy;
5
6 rule "Bankruptcy history"
7   salience 10
8   dialect "mvel"
9   when
10     a : LoanApplication( )
11     exists (Bankruptcy( yearOfOccurrence > 1990 || amountOwed > 10000 ))
12   then
13     a.setApproved( false );
14     a.setExplanation( "has been bankrupt" );
15     retract( a );
16   end
17
```

Figure 2. Guided Rule in Business Central (Source Tab)

To turn this rule into non-guided form so that it can be modified by BAMOE Developer Tools, follow these steps:

1. Copy the contents of the rule in the Source tab
2. Create a new text file, using proper naming conventions, and paste the contents from the Source tab into the new file
3. Give this file an extension of .drl
4. Add this file to the src/main/resources folder of your Maven project.

Note

Some guided rules when authored with the guided rule editor create additional rule attributes which may or may not continue to be relevant to your rule execution pattern. Examples of these types of attributes are salience, dialect, no-loop, & lock-on-active. While these attributes play a unique role in guided rules, they may impact the overall behavior of your ruleset.

At this point you are free to modify the new technical rule to your liking, such as updating to use rule units, using OOPATH syntax vs mvel, and so on.

How to Export the asset from Business Central

Guided Decision Tables are a wizard-led alternative to uploaded decision table spreadsheets for defining business rules in a tabular format. With guided decision tables, you are led by a UI-based wizard in Business Central that helps you define rule attributes, metadata, conditions, and actions

based on specified data objects in your project. After you create the guided decision tables, the rules you defined are compiled into Drools Rule Language (DRL) rules as with all other rule assets. Since the `Guided Decision Table` editor in Business Central is deprecated, users will need to export guided decision tables to Excel format. With that in mind, here is an example of how to accomplish this, using a `Guided Decision Table` as an example:

Examples

Pricing loans.gdst - Guided Decision Tables

SaveDeleteRenameCopyValidateEditViewInsertLatest VersionDownloadConvert to XLSView Alerts

ModelColumnsOverviewSourceData Objects

Pricing loans		application : LoanApplication				time : IncomeSou	application		
#	Description	amount min	amount max	period	deposit max	income	Loan approved	LMI	rate
1		131000	200000	30	20000	Asset	true	0	2
2		10000	100000	20	2000	job	true	0	4
3		100001	130000	20	3000	job	true	10	6

Figure 3. Guided Decision Table in Business Central

In order to turn this decision table into non-guided form so that it can be modified by BAMOE Developer Tools, follow these steps:

- 1. Convert to XLS using the Business Central option on the button bar
- 2. Select the newly created `.xls` file in the Project Explorer
- 3. Select one of the `Download` options on the button bar
- 4. Add this file to the `src/main/resources` folder of your Maven project.

As you can see in the diagram, this is the default tab `(Model)` in Business Central’s guided decision table editor. If you navigate over to the `Source` tab, you will quickly see that the guided decision table is simply a editor view on top of a standard `technical rule` written using `Drools Rule Language (DRL)` , as in the following example:

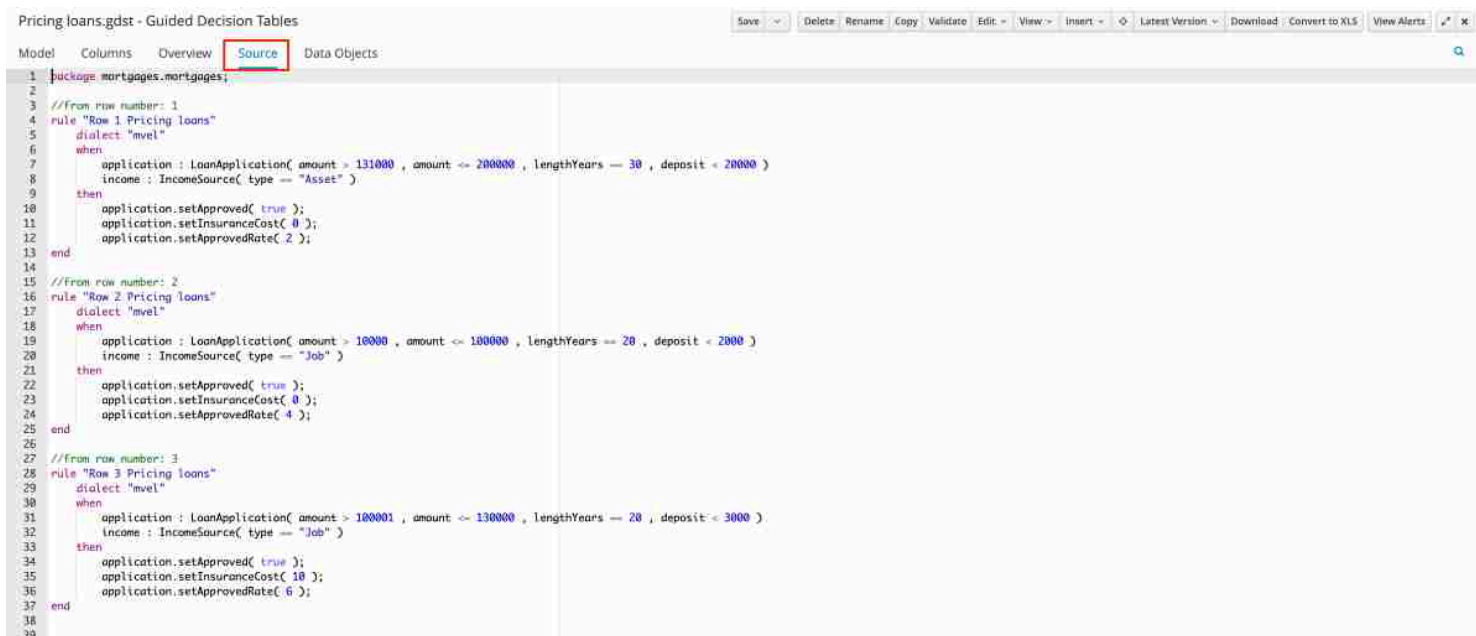


Figure 4. Guided Decision Table in Business Central (Source Tab)

At this point the user has a choice, they can either take the same approach as with guided rules or they can export this table to Excel format, simply by clicking a button (**Convert to XLS**), as in the following example:



Figure 5. Exporting a Guided Decision Table in Business Central

After the table is converted to XLS format, the new file is added to the Business Central Project Explorer view.

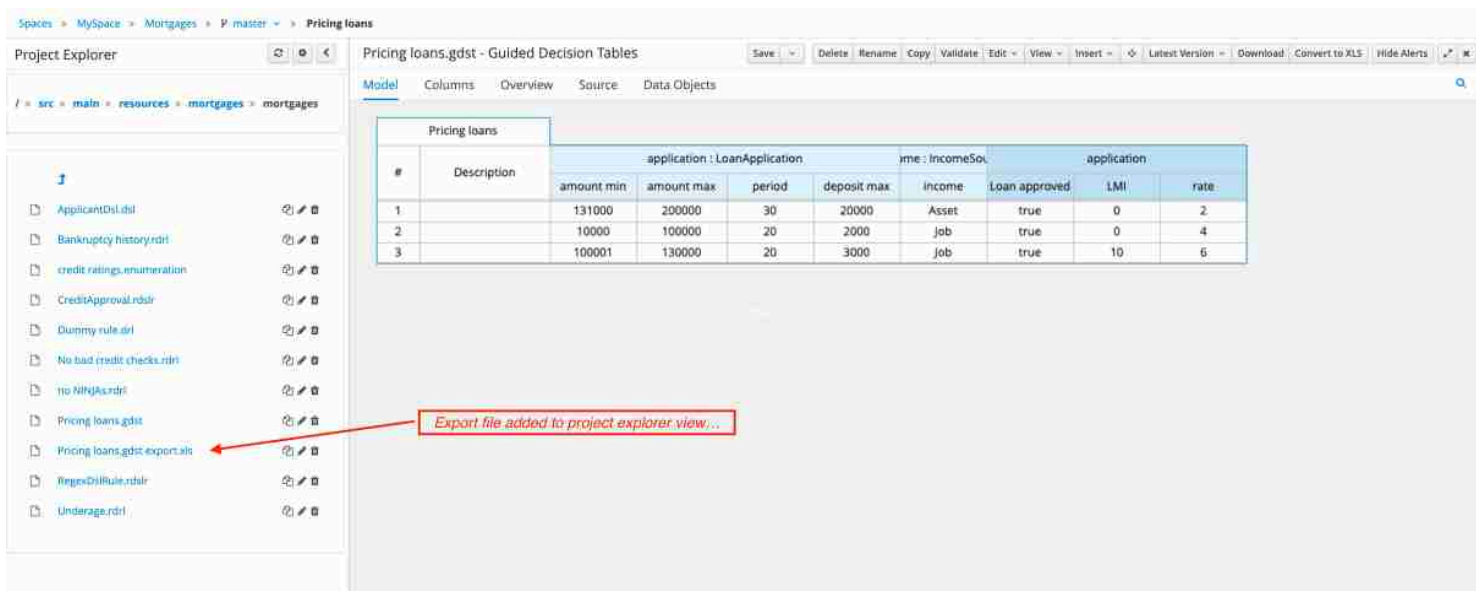


Figure 6. Converted Guided Decision Table in Business Central

Select the converted file and choose one of the Download buttons in Business Central, which downloads the converted spreadsheet file to your local machine. You can add this file to src/main/resources folder of your Maven project.

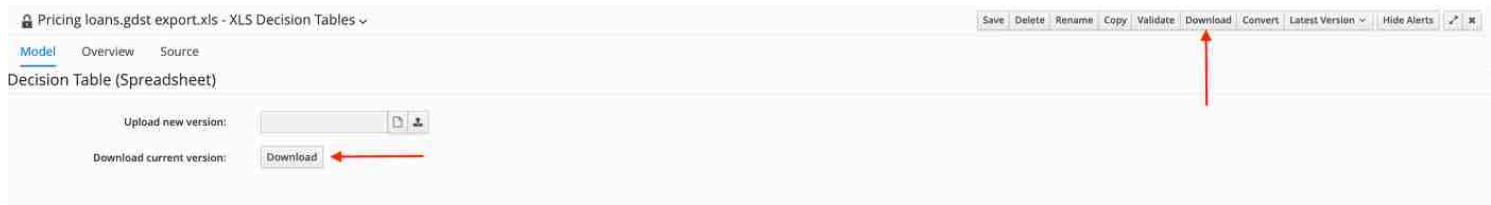


Figure 7. Converted Guided Decision Table in Business Central

Note

Guided decision tables are, under the covers, a collection of technical rules generated using .DRL syntax. The number of rows in a decision table will equal the number of individual technical rules generated, one for each row. Rules make use of `salience` in order to orchestrate the execution of each `row` of the decision table. It is possible replace a decision table directly with technical rules vs exporting to Excel format, provided you follow the pattern that the rules were generated to.