Installing Barista Applications

DRAFT - 1/26/2012

This document describes the processes for installing additional applications into an existing instance of Barista, that is, an instance that already contains one or more applications, as well as installing a BUS update for Barista or another product. While the front end for each process is different, at their core, these processes are similar, in that Barista is analyzing a set of resource files, incorporating that information into the dictionary, and building tables, forms and callpoints.

The analysis and import are driven by a set of user-configurable rules. The basic concept is that the rules dictate what action Barista should take during the import if an incoming dictionary value differs from what is already in the dictionary. The rules are described in more detail later in the document.

Install Application Wizard

Use this wizard to install applications previously created using the Create Application Wizard. The Create Application Wizard sets up a new Barista application/project area for developing a new application, or modifying an existing application. Enter the full pathname or browse to the location of the application's .syn file to begin the Install Application Wizard, as shown in figure 1.
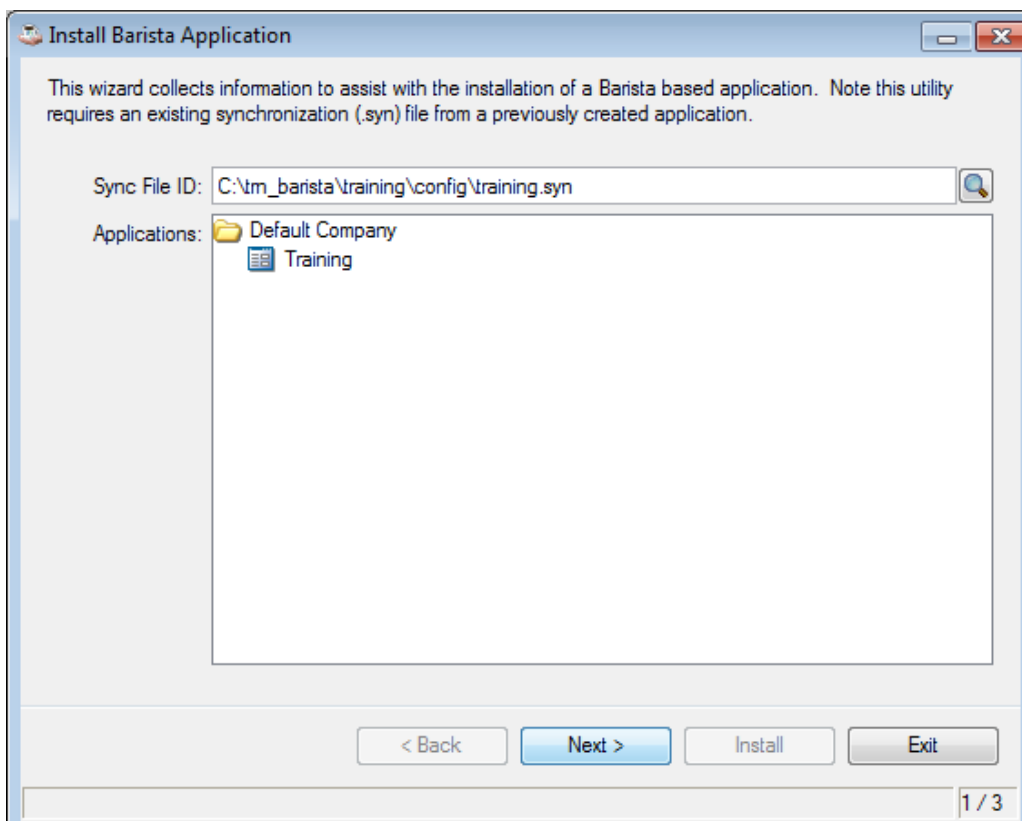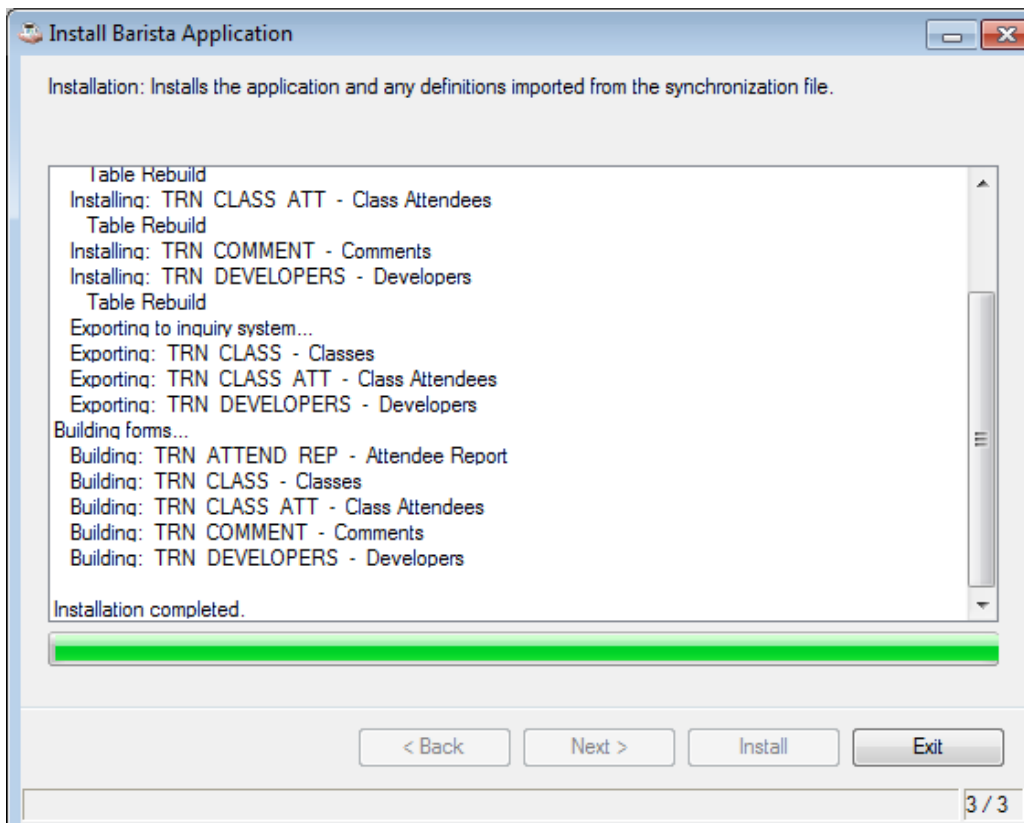

(Figure 1: Install Application Wizard)

Once the desired application is selected, Barista performs an analysis of all of the Barista resource (.xml) files in the project's data/bar directory (figure 2). Incoming values from the resource files are compared to what's currently in the Barista dictionary, and an update "roadmap" is constructed using the defined rules. Note that Barista will copy a default rule file (install_rules.txt) into the project's config directory if one doesn't yet exist. The "Actions" column shows the number of dictionary entries involved for each incoming table.
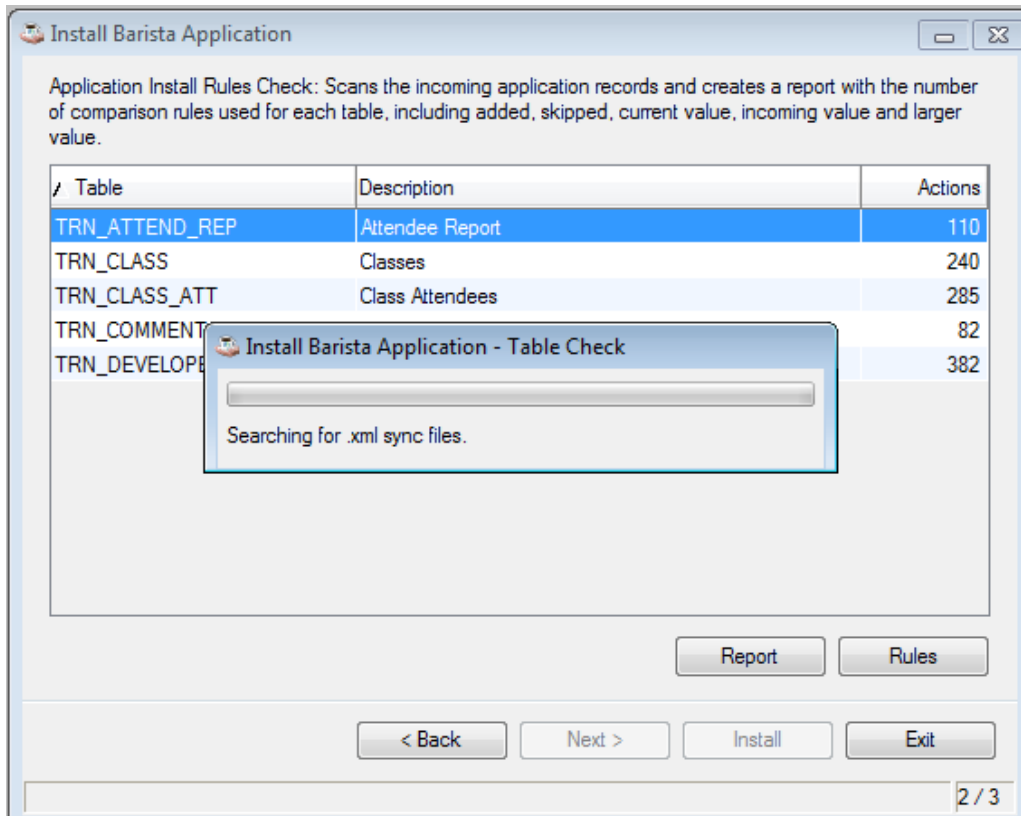
(Figure 2: Table Check performs analysis of incoming project bar/*.xml files)

Once the analysis is complete, you should view the report in order to determine if any changes should be made to the install rules. **IMPORTANT: Do not skip this step. Once the install begins, it cannot be interrupted, and the rules cannot be changed.** The install process updates the Barista dictionary based on the defined rules, rebuilds any data tables that have structural changes in the columns or keys, and builds all of the incoming forms. When the installation is complete (figure 3), all of the new and/or modified forms and programs should be fully functional and ready to go. Barista builds a log in the sys/logs directory during the install process that you can review should you encounter any issues.

(Figure 3: Completion of the Install Application Wizard)

BUS Service

The BASIS Update Service (BUS) is the mechanism used to retrieve patches for BBj applications, including Barista and AddonSoftware. Barista ships with a utility that connects to the BUS service to see if any updates are available, and if so to download and install them. Select the Check for Updates task from the Help menu in the menu bar. The grid shows the products you are searching for, and the current update status. Figure 4 lists two products, and the icon indicates that updates are available for the versions specified. **Note that while all updates can be downloaded at the same time, if updates are available for Barista, they should always be installed before installing updates for the other products.**
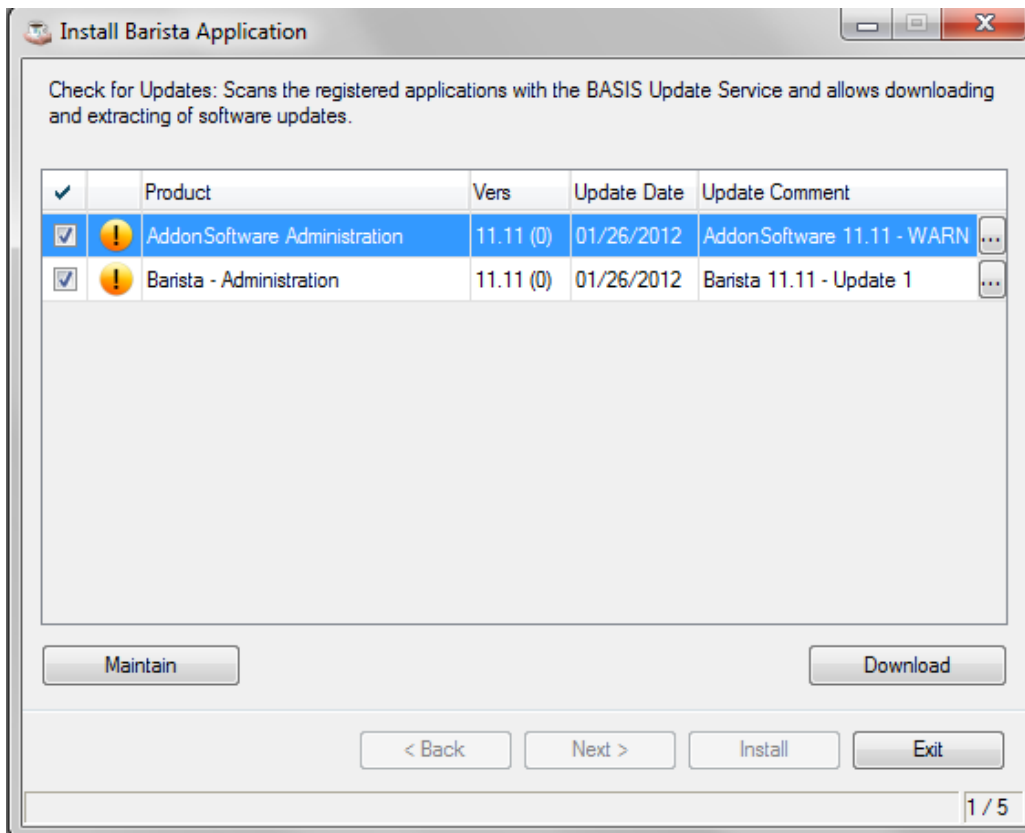
(Figure 4: BUS Check for Updates form; updates available for Barista and AddonSoftware)

The icons used for the BUS are:

|	
	An update is available for the product and version specified.
	Available update(s) have been downloaded and are ready to be installed.
	Available update(s) are installed. System is up to date.
	No updates currently available.
	Cannot connect to BUS Service.

To add products other than Barista to the BUS check, run the BUS Installation Maintenance form. In version 12.00 and later, you can launch BUS Installation Maintenance directly from the Barista Utilities menu. Prior to version 12.00, launch the Check for Updates form from the Help menu, and then click the Maintain button. Enter the company, product, and version ID for any product that makes updates available via the BUS (figure 5). The remaining information is filled in by Barista.
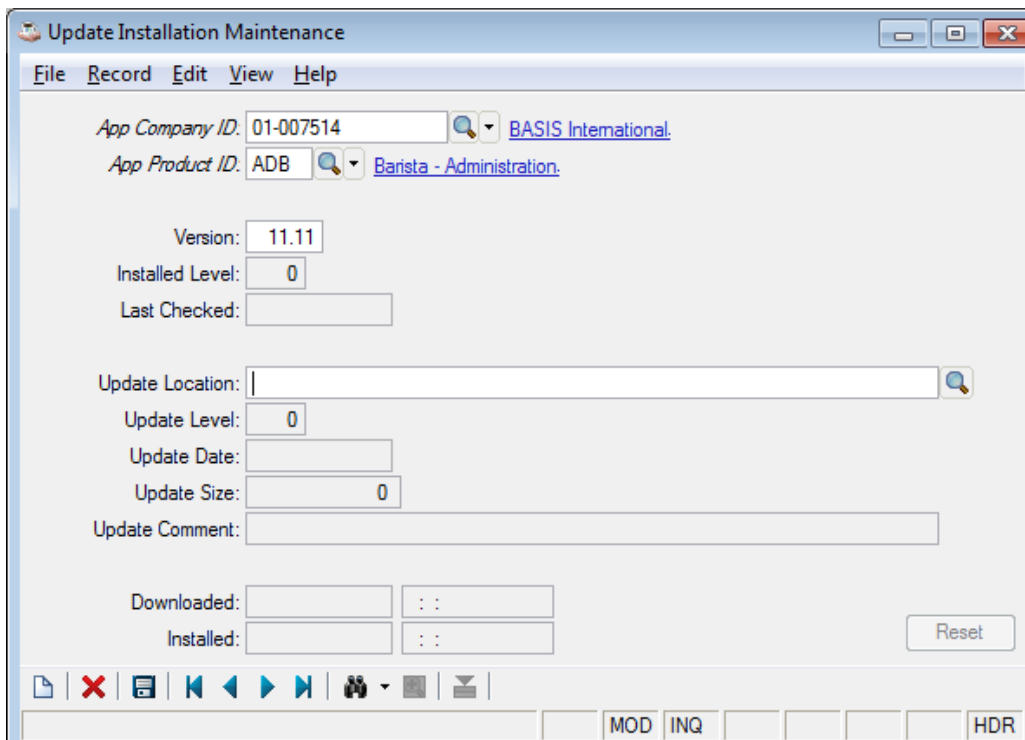
(Figure 5: BUS Installation Maintenance)

During the download, the BUS update .jar archives are placed in Barista's updates/jars directory. The .jars are then extracted under the updates/install directory into subdirectories corresponding to the company, product and version numbers on the update files.

The BUS installation must be run in a dedicated environment, so after downloading files and selecting a product to update, Barista attempts to lock most of the tables in the database. Close the MDI at this point. Barista lists any files that can't be locked, and you can retry until no files are listed and the Install button is enabled (figure 6).
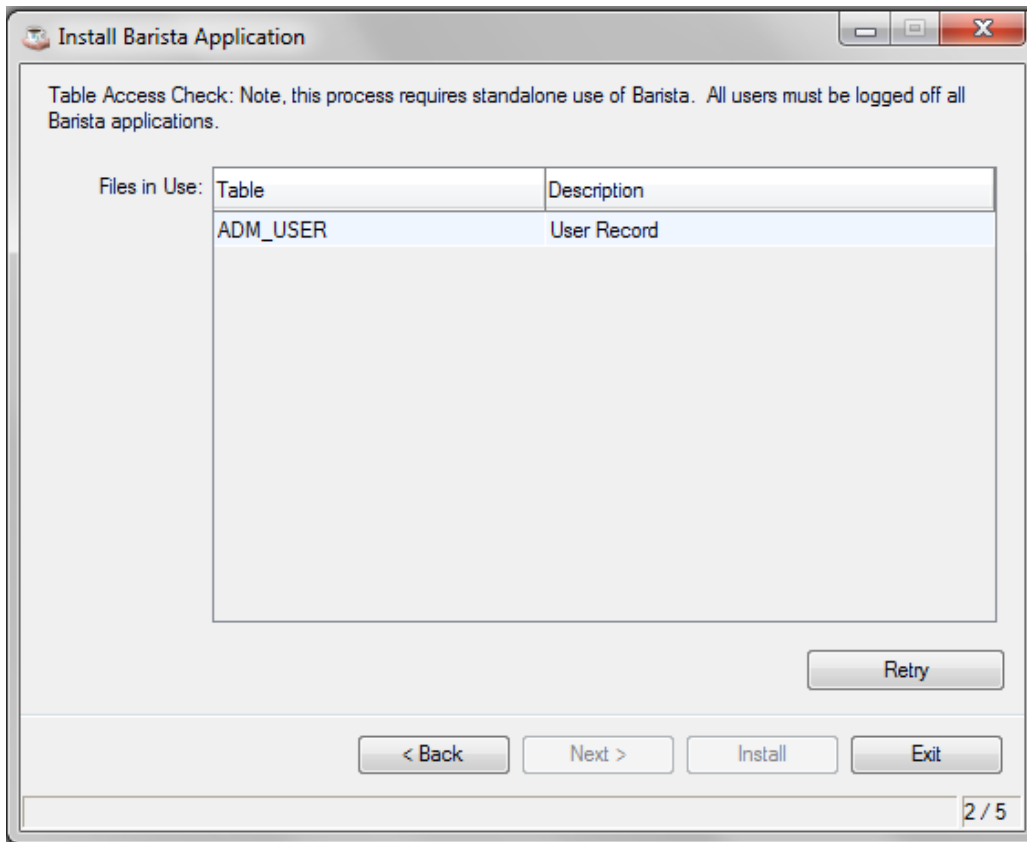
(Figure 6: BUS Table Access Check; log users out of Barista, close the MDI, and retry if files are in use)

As with the Install Application Wizard, the Barista BUS performs an analysis of all of the resource (.xml) files in the data/bar directory in the updates/install filesystem corresponding to the selected company, product and version (figure 7). Incoming values from the resource files are compared to what's currently in the Barista dictionary, and an install "roadmap" is constructed using the defined rules. Note that Barista will copy a default rule file (install_rules.txt) into the config directory under the updates/install filesystem if one doesn't yet exist.
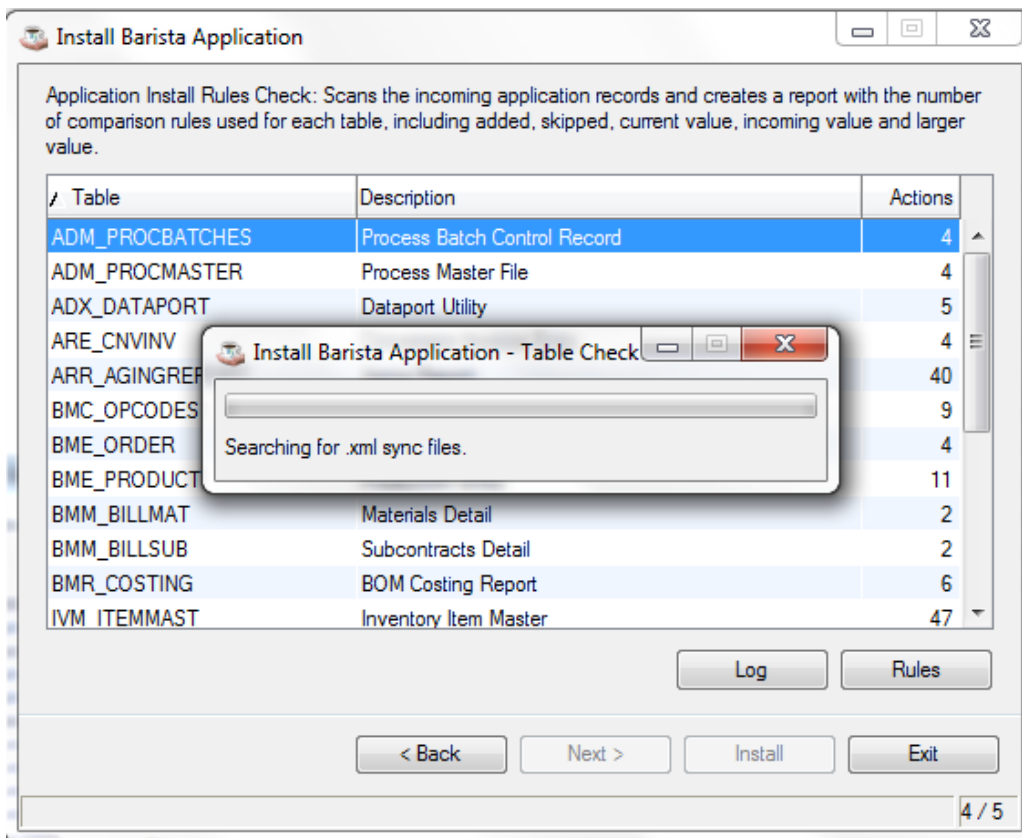
(Figure 7: BUS Installation Table Check)

Once the analysis is complete, you should view the log in order to determine if any changes should be made to the install rules. Since the BUS installation runs outside of the Barista MDI, the log is created as a .txt and served up via the integrated Jetty web server. **IMPORTANT: Do not skip this step. Once the install begins, it cannot be interrupted, and the rules cannot be changed.**

The install process first copies all of the files from the Barista updates/install filesystem to the target project, replacing files that already exist. It then updates the Barista dictionary based on the defined rules, rebuilds any data tables that have structural changes in the columns or keys, and builds all of the incoming forms. When the installation is complete, all new and/or modified forms and programs should be fully functional and ready to go. Barista builds a log in the sys/logs directory during the install process that you can review should you encounter any issues.

Install Rules

The install rules are stored in .txt files in the config directory of the project being installed. If no install_rules.txt file is present, Barista will copy a rules file into the directory prior to the table analysis. An excerpt of a rules file is shown in figure 8. Each line in the rules file contains a table.column from one of the Barista dictionary files, a warning category, and a comparison rule. If you want to establish a rule for a dictionary table.column not in the default rules file, add the rule using this format. Note that the installation process looks for a file named "install_rules.txt," so if you have multiple rules files saved, make sure to name the intended rule file appropriately prior to the install.

The warning category dictates whether or not a user who launches the Rules grid from within the installation program can or should override the stated rule:
- " " - the rule can be changed
- W - the rule can be changed, but changes aren't recommended
- X - the rule cannot be changed

The comparison rules indicate what action Barista should take during the import if an incoming dictionary value differs from what is already in the dictionary:
- Use current value: keep what's currently in the dictionary
- Use current value unless blank: use what's in the dictionary unless it is null/blank, in which case the incoming value is used
- Use incoming value: always take the value from the incoming resource file
- Use larger of current or incoming: use whichever value is larger (typically used for data length settings to ensure that data fields are never decreased in size)

```
# Installation Comparison Rules File
# Proprietary Information. BASIS International Ltd.
# Last Updated: <12/15/2011 @ 16:53:12>
#
# <column>;<warning>;<rule>
# <column>   - Barista table.column combination
# <warning> - Edit warning category
#                ' ' - Editable
#                'W' - Editable, but not recommended
#                'X' - Not editable
# <rule>     - Comparison rule for the <table>.<column>
#                'C' - Use current value
#                'B' - Use current value unless blank; in that case, use incoming
#                'I' - Use incoming value
#                'L' - Use larger of current or incoming
#
# ColumnRules
DDM_ELEMENTS.DD_CREATE_DATE;;I
DDM_ELEMENTS.DD_LSTREV_DATE;;I
DDM_ELEMENTS.ASC_COMP_ID;X;I
DDM_ELEMENTS.ASC_PROD_ID;X;I
DDM_ELEMENTS.DD_ATTR_BLNK;;I
DDM_ELEMENTS.DD_ATTR_CDAT;X;I
DDM_ELEMENTS.DD_ATTR_CTYP;;I
DDM_ELEMENTS.DD_ATTR_DCOL;;I
DDM_ELEMENTS.DD_ATTR_DCOM;;I
DDM_ELEMENTS.DD_ATTR_DEXP;;I
DDM_ELEMENTS.DD_ATTR_DFLT;;I
```
(Figure 8: install_rules.txt file)

How these rules are configured will likely differ depending on the situation. For example, when installing a BUS update for a standard product, or installing a new product/application into Barista, the incoming values will typically always be used. If installing into an application that has been modified, however, the rules will tend to be more varied, sometimes taking an incoming value and sometimes keeping what's currently in the dictionary. It is crucial that you review the results of the table analysis before continuing with the installation. Barista creates a detailed list of every incoming key, the rule in effect, the incoming value, and the corresponding value currently in the dictionary.

From the Install Application Wizard, pressing the Report button creates a DocOut report. As with any DocOut report, you can save a copy, or use the Output Selection options to export it to a format such as .xls (figure 9). When installing a BUS update, the Barista MDI must be closed. In this case, a textual log is created, and pressing the Log button serves the file up via the Jetty web server integrated with BBj.

Table ID	Record Key	Column	Rule	Current Value	New Value
DDM_TABLES	TRN_ATTEND_REP	DD_TABLE_ALIAS	None		TRN_ATTEND_REP
DDM_TABLES	TRN_ATTEND_REP	DD_ALIAS_DESC	None		Attendee Report
DDM_TABLES	TRN_ATTEND_REP	DD_TABLE_PATH	Incoming		[TRAINING]
DDM_TABLES	TRN_ATTEND_REP	DD_ALIAS_TYPE	Incoming		P
DDM_TABLES	TRN_ATTEND_REP	DD_KEY_LENGTH	Incoming		0
DDM_TABLES	TRN_ATTEND_REP	DD_NBR_RECORD	None		0
DDM_TABLES	TRN_ATTEND_REP	DD_RECORD_LEN	None		0
DDM_TABLES	TRN_ATTEND_REP	RESTRICT_CREATE	Incoming		Y
DDM_TABLES	TRN_ATTEND_REP	RESTRICT_REBUILD	Incoming		Y
DDM_TABLES	TRN_ATTEND_REP	RESTRICT_AUTOADD	Incoming		Y
DDM_TABLES	TRN_ATTEND_REP	ASC_COMP_ID	Incoming		00000000
DDM_TABLES	TRN_ATTEND_REP	ASC_PROD_ID	Incoming		TRN
DDM_TABLES	TRN_ATTEND_REP	ASC_VERSION_ID	None		1.0
DDM_TABLES	TRN_ATTEND_REP	DD_EXPORT_DATA	Incoming		N
DDM_TABLES	TRN_ATTEND_REP	DD_CREATE_DATE	Incoming		20110609
DDM_TABLES	TRN_ATTEND_REP	DD_LSTREV_DATE	Incoming		20110609
DDM_TABLES	TRN_ATTEND_REP	DD_LSTSYNC_DATE	Incoming		20110609
DDM_TABLES	TRN_ATTEND_REP	DD_LSTSYNC_TIME	Incoming		071410
DDM_TABLES	TRN_ATTEND_REP	DD_ATTR_FTYP	Incoming		S
DDM_TABLES	TRN_ATTEND_REP	DD_ATTR_PRUN	Incoming		[TRAINING_PROG]trn_attend_rep.src
DDM_TABLES	TRN_ATTEND_REP	DD_ATTR_WINT	Incoming		Attendee Report
DDM_TABLE_TPLS	TRN_ATTEND_REP	DD_TABLE_ALIAS	None		TRN_ATTEND_REP
DDM_TABLE_TPLS	TRN_ATTEND_REP	DD_TABLE_TPL	None		trn_class_id:c(8*),trn_dev_id_01:c(4*),trn_dev_id_02:c(4*)
DDM_TABLE_COLS	TRN_ATTEND_REP 001	DD_TABLE_ALIAS	None		TRN_ATTEND_REP
DDM_TABLE_COLS	TRN_ATTEND_REP 001	DD_SEQUENCE	None		001
DDM_TABLE_COLS	TRN_ATTEND_REP 001	DD_DATA_NAME	Incoming		TRN_CLASS_ID
DDM_TABLE_COLS	TRN_ATTEND_REP 001	DD_DVAR_NAME	Incoming		TRN_CLASS_ID
DDM_TABLE_COLS	TRN_ATTEND_REP 001	DD_FIELD_DELIM	None		Y
DDM_TABLE_COLS	TRN_ATTEND_REP 001	DD_DELIM_CHAR	None		0A

(Figure 9: Use DocOut Output Selection to export the report to other formats such as .xls.)

Launch the Rules grid If you want to adjust any of the existing rules (figure 10). The warning category established for each rule controls the background shade of the rule cell, providing a visual indication as to whether a given rule can or should be changed.

If you make any changes to the rules, Barista automatically re-runs the table analysis when you close the Rules grid. You can view the report again, make more adjustments to the rules, etc., until you are satisfied with the rule set you have in place.

(Figure 10: Rules grid for viewing/adjusting installation rules)