



Barista Application Framework

Creating and Synchronizing Applications

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Overview

The Barista Application Framework consists of a single set of dictionary files used across applications. For databases to be recognized, their home directories must be “mounted” and, in effect, integrated into Barista using a series of *.syn definition files. The contents of the *.syn files is described elsewhere in this document. This process of integration is called “synchronizing” the databases. The Create Application and Synchronize Barista utilities are tools designed to create and integrate vertical applications.

By default, Barista looks for a specific file structure for applications developed using the framework. Any different structure may be used, but may require manual intervention when synchronizing. The recommended directory structure is shown below and is automatically created when using the Create Application utility.

Directory	Description
<application>/	Top level application directory
config/	Configuration directory
enu/	Language subdirectory. Each language file has own configuration, synchronization and menu files.
data/	Data directory.
arc/	Form files directory
enu/	Language directory containing Barista generated forms (*.arc) for this specific language.
bar/	Barista Application Resource directory. Contains a <table_id>.xml file for each definition in the Barista data dictionary. Used for synchronizing databases.
cdf/	Callpoint Definition Files directory. Contains the callpoint meta data used to build and compile user defined callpoint programs.
def/	Definition files directory
enu/	Language directory containing Barista generated definition files (*.def) for this specific language.
sync/	Synchronization record directory
prog/	Programs directory

It is recommended that third party developers use directories outside of Barista for storing configuration, program and data files. This makes the synchronization process easier and well as making the application easier to package for end users.

More information about Barista can be obtained from the Help Barista Online option in the menu bar, or by visiting the Barista documentation page at <http://www.basis.com/products/devtools/barista/documentation/>

Create Application Utility

The Create Application Utility creates the default directory structure and the necessary synchronization (.syn) files for a new application. The utility is designed to be a “wizard” and consists of six different information panels. Navigating through the panels is accomplished by pressing either the [Next] or [Back] buttons, when available.

Note the [Next] button remains disabled if data required for the selected panel is not entered. The [Create] button is enabled only that last panel only. Once entered, the information is compiled and the required files and directories are created.

The following samples forms show the creation of the examples database shipped with Barista. The Examples synchronization file is located at `basis/apps/examples/config/examples.syn`.

Application Panel

The application panel is used to enter the basic information about the application.

To modify an existing application, select “Find Records” from the main menu or toolbar, press the [Find] button to the right of the Sync File ID control.

Find and open the required `<application>.syn` file. The contents will be loaded into the wizard, and can be modified.

Field	Description
Sync File ID	The application synchronization file id is converted to lower case and used as the disk file name when creating the .syn file.
Module	Barista uses a Module table to store the status of installed applications. When creating a new vertical, this code and the following description are imported to the Modules table.
Last Sync	Read only field display the date this file was last used for a synchronization process.
Description	Used as the description when creating the Modules table record.
Directory	Specifies the top level application directory to be created when the entries are processed. The directory may be an absolute or relative path. Note all table definitions, data and associated files

	are stored in the directory structure.
Menu	The menu file to be integrated into the Barista menu system.
Copyright	Application copyright information integrated into the Barista About window.

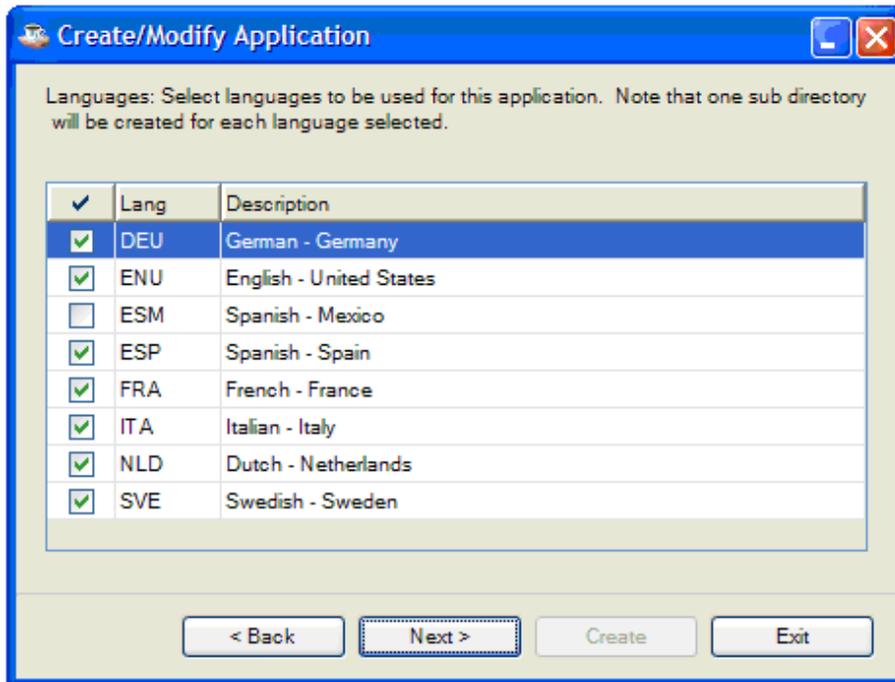
Languages Panel

The Languages panel allows selection of one or more languages to be used when creating directories and synchronization files.

Subdirectories for each language are created in the following directories:

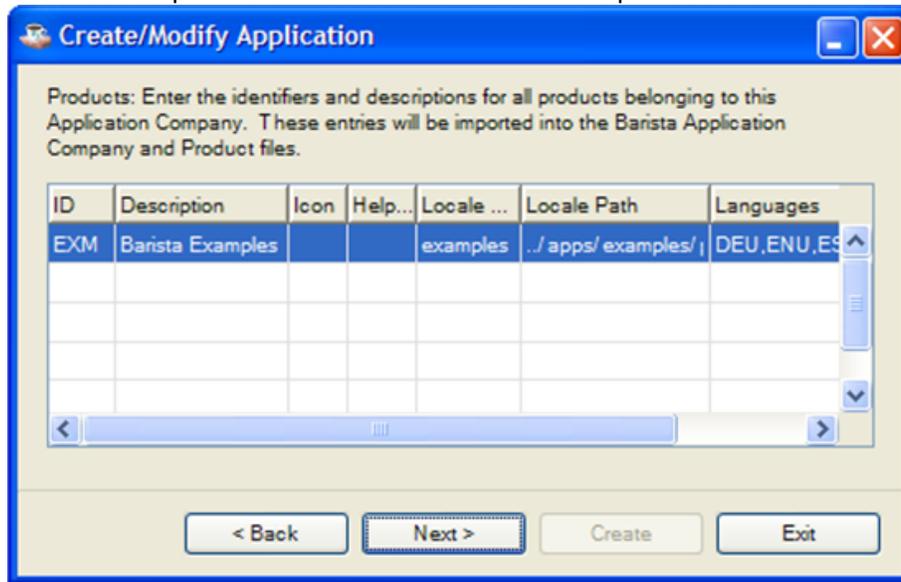
- <application>/config/<lang>
- <application>/data/arc/<lang>
- <application>/data/def/<lang>

The user's default language is automatically selected. Any number of languages may be selected, but at least one is required.

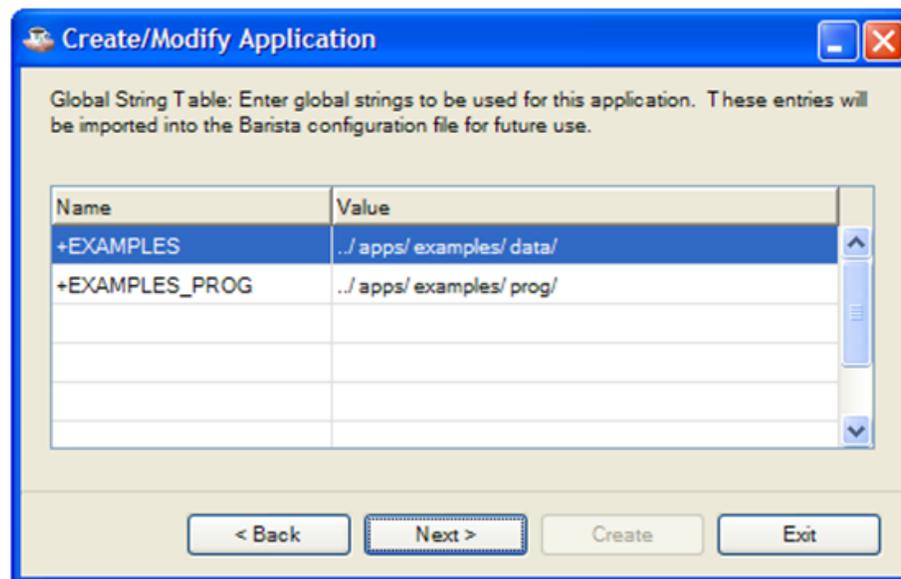


Products Panel

The Products panel allows selection of one or more products that are included in this application.



Global String Table Panel



The Global String Table panel is used to define the global string variables (STBLs) used by the application. These entries will be integrated into the Barista configuration file (barista.cfg) and will be available to all applications running through Barista. If defining directory paths, trailing slashes **must** be included.

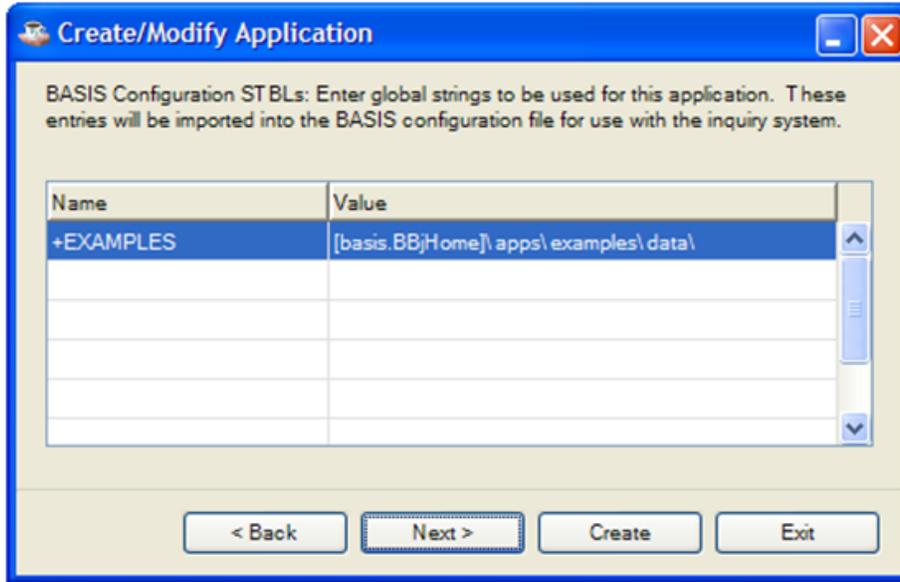
Note that when defining tables in Barista, a “Definition Path” is required during entry. This must contain a valid absolute or relative directory path:

../apps/examples/data/

or a global string variable pointing to a valid absolute or relative directory path defined here:

[+EXAMPLES]

BASIS Configuration STBLs Panel



The BASIS Configuration panel is used to define the global string variables required by the BASIS Data Dictionary when using the SQL engine during table inquiries.

These entries will be integrated into the BASIS BBj configuration file (basis/cfg/config.ini) and will be available to all applications running through Barista.

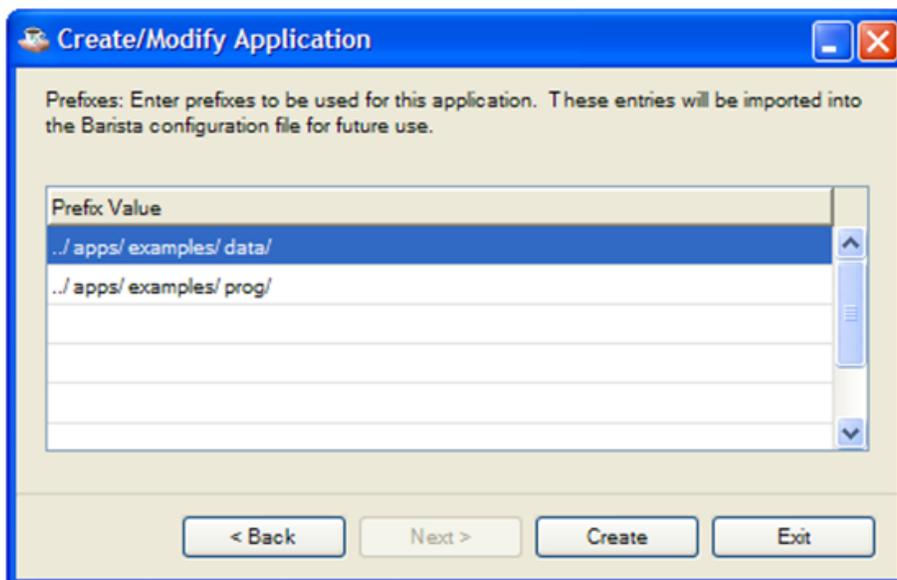
Note that a valid absolute directory path:

c:/barista/apps/examples/data/

or a global string variable pointing to a valid absolute path must be defined here:

[+EXAMPLES]

Prefixes Panel



The Prefixes panel is used to define optional additional prefixes required by the vertical application.

These entries will be integrated into the Barista configuration file (`barista.cfg`) and will be available to all applications running through Barista.

Note this utility simply creates the required directory structure and synchronization files, but does not actually perform the sync process. The Auto-Synchronize Barista Utility (Auto-Sync), described below in this document, performs that process. After the application is created, the utility will ask:

“Do you wish to run the Auto-Sync process?”

[Yes] proceeds to the Auto-Sync process.

[No] exits the utility.

Synchronizing Applications

Synchronization Procedure

This describes the synchronizing existing applications with a new release of Barista. This is specifically for syncing the Examples, though the same procedure will be followed for any other vertical application.

Prior to Barista Install

1. Copy `barista/sys/config/<lang>/barista.syn` to a safe location.
2. Copy your latest version of Barista files to be imported (from the Create Application - Barista Tables Import panel described above) into `c:\<application>\data_hold\`. Typically, these files include:

ADM_MODULES
ADS_MASKS
ADS_MESSAGES
ADS_SEQUENCES

3. Uninstall Barista. You might want to erase the `barista` directory to ensure a clean install.

Barista Install

1. Install that latest nightly build of Barista.
2. Copy the saved version of your `barista.syn` (from Step 1) and to the `barista\sys\config\enu` directory.
3. Copy any application specific menu icons or images into `c:\Program Files\basis\barista\sys\images`
4. Launch Barista and select Sync when the Auto-sync window displays.

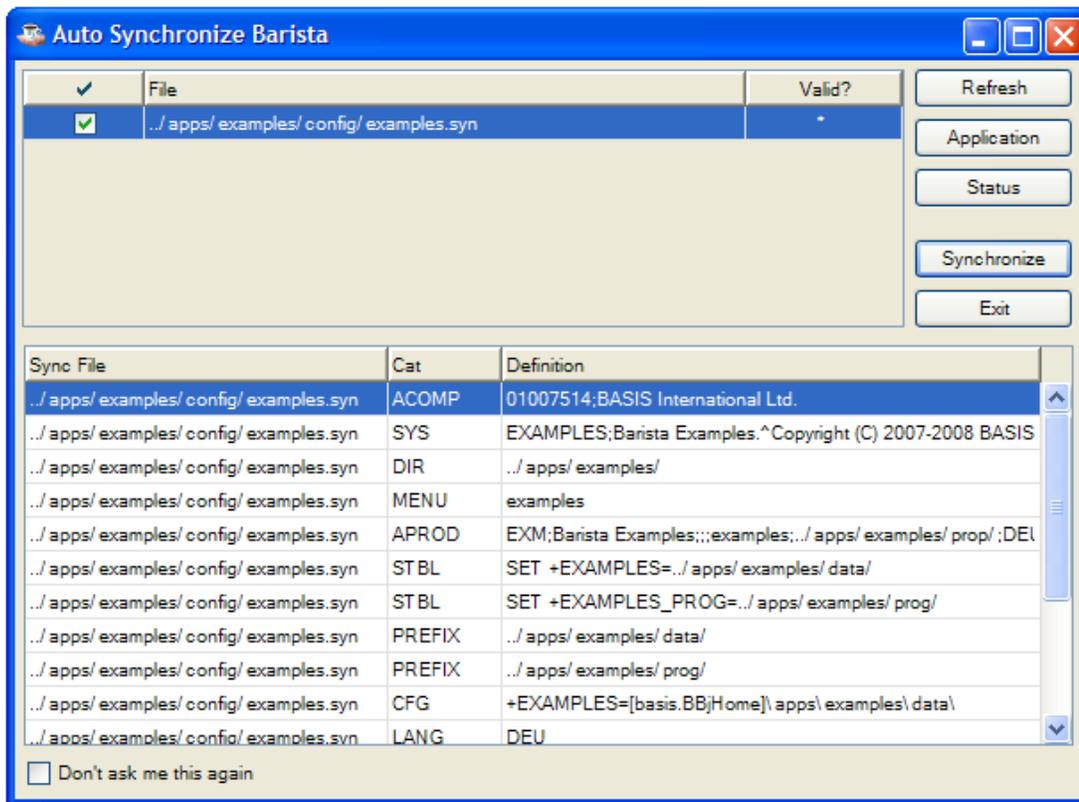
Auto-Synchronize Barista Utility

When launching Barista for the first time after installation, the Auto-Synchronize Barista (Auto-Sync) form is displayed. This utility scans both the directories specified in `barista.syn`, and the `apps/` directory hierarchy installed with Barista looking for any synchronization (`*.syn`) files.

All available files are displayed in the top grid, and the entries from each application specific `.syn` file is displayed in the lower grid.

The “Valid” column indicates if a file specified in the Barista Synchronization File (`barista.syn`) is present. All valid files are initially selected for inclusion in the sync process. Selecting/deselecting valid files in the upper grid manually modifies the Synchronize Utility to include/exclude the file, and its contents, as part of the sync process.

Note: If a file is not considered valid by the Auto-Sync, it may not be selected.



[Refresh] instructs the utility to rescan the directory structure for `*.syn` files.

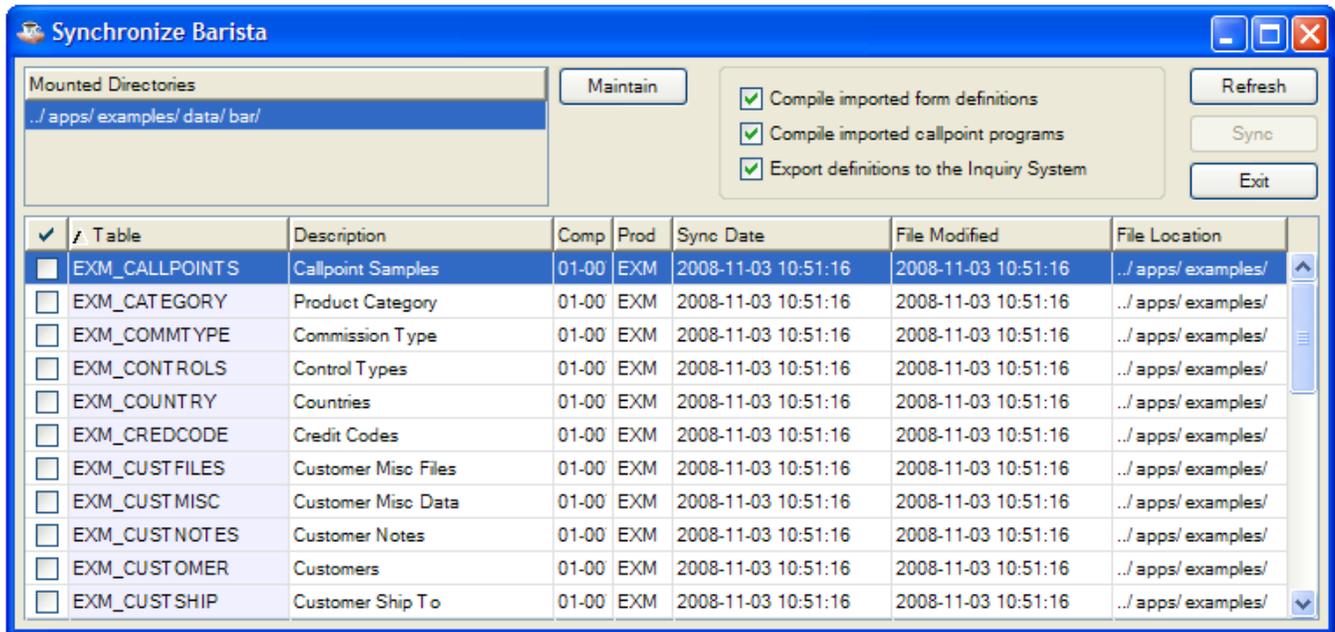
[Sync] processes the selected files.

[Exit] exits the utility without synchronizing any files. Note, the Auto-Sync Utility will display every time Barista is started, until a sync is processed. To bypass the sync process and the auto launch, check “Don’t ask me this again” before exiting the utility.

Synchronize Barista Utility

The Synchronize Barista utility provides a manual process for syncing table definitions when multiple developers are creating and maintaining Barista table definitions.

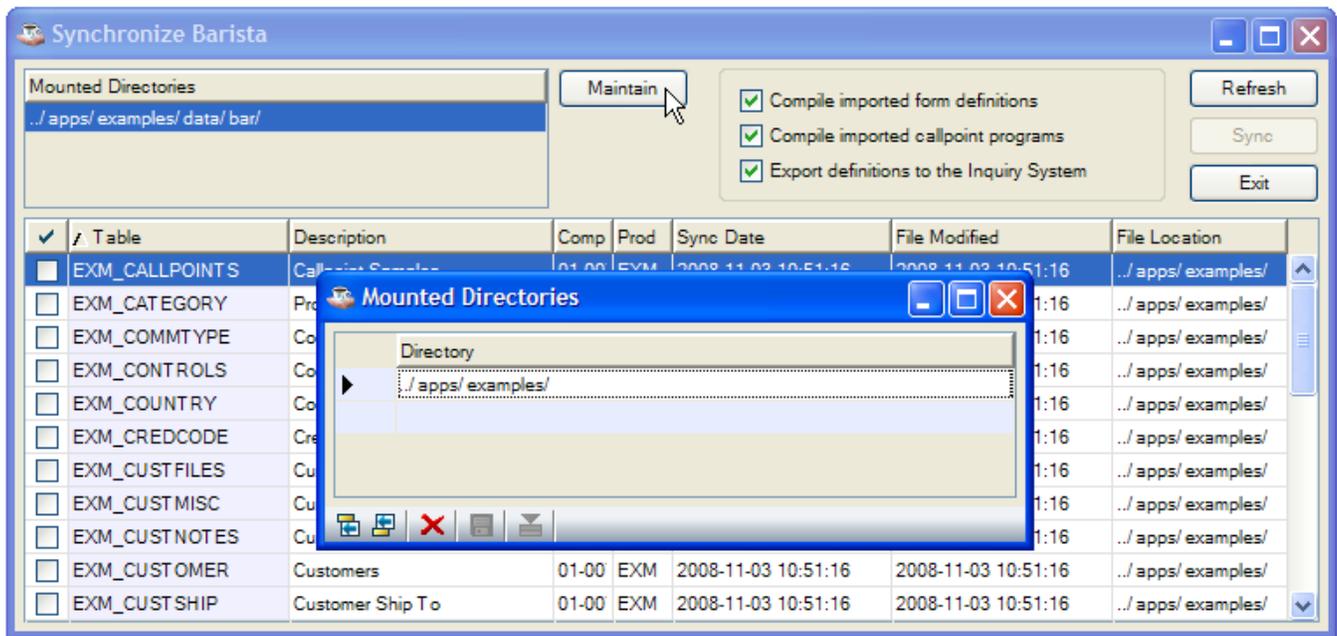
As tables are defined or maintained in Barista, the table definition record is updated with a date stamp and a `<table_id>.xml` mirror file is create in the `data/bar` directory. These text files may be packaged and sent to other developers, and their text format is specifically designed to be used as part of a version control system, if desired.



When launched, the utility scans directories listed in the “Mounted Directories” grid, searching for all `<table>.xml` files. It then compares the files found to the current Barista database.

- If the `<table>.xml` file modified date is greater than the “Sync Date” in the table definition, or the table definition is not found in Barista, the “File Modified” cell is set to bold, meaning the file will be **imported** into Barista.
- If the “Sync Date” in the table definition is greater than the `<table>.xml` file modified date, or the `<table>.xml` is not found, the “Sync Date” cell is set to bold, meaning the file will be exported from Barista to a `<table>.xml` file.

[Maintain] allows you to edit the Mounted Directories file. Once the directory list is modified, the [Refresh] button will rescan the mounted directories.



The following options specify which additional processes to perform, in addition to the import/export.

- Compile imported form definitions – Recompiles all form (.arc) and definition (*.def) files associated with the table. Note this process occurs on imported table definitions only.
- Compile imported callpoint programs - Recompiles the callpoint program associated with the table. Note this process occurs on imported table definitions only.
- Export definition to Inquiry System – Exports the table definition to BASIS Data Dictionary. Note this is required by the Barista Inquiry system, which relies on the BASIS SQL engine for searched.

[Sync] performs the synchronization process.

[Exit] exits the utility without processing.

Synchronization File Formats

Barista Synchronization File (barista.syn)

By default, Barista scans for *.syn in the apps directory associated with a BBj install (../apps) when creating a mounted directory list. The Barista Synchronization file specifies the location of applications outside of the normal apps directory hierarchy. Multiple application sync files may be specified. Example:

```
SYN=c:/examples/config/enu/examples.syn  
SYN=c:/tutorials/config/enu/tutorials.syn
```

Application Synchronization Files (*.syn)

Application Synchronization files (*.syn) instruct Barista on which actions to take for a specific application. The following sample entries outline the current format:

DESC (Application Description)

Specifies the application description. Used when creating the module record (see below).

```
DESC=Examples Subsystem
```

MOD (Module)

Barista uses a Module table to store the status of installed applications. When creating a new vertical, this two character code and the previous description are imported to the Modules table.

```
MOD=EX
```

SYS (System copyright)

Application copyright information integrated into the Barista About window. The “^” characters equal linefeed markers and allow embedded linefeeds when entering the text. These characters are converted to \$0a\$ when pulled into the about system.

```
SYS=EXAMPLES;Portions copyrighted (c) Barista Examples 1.0^Ver 1.0.0 - 10/01/  
2007^Barista Examples are protected by copyright law and international treaties.  
Unauthorized reproduction or distribution may result in severe civil and criminal  
penalties.
```

DIR (Search directory)

Specifies the top level application directory to be created when the entries are processed. The directory may be an absolute or relative path. Note all table definitions, data and associated files are stored in the directory structure. Note multiple directories may be specified.

```
DIR=../apps/examples/data/
```

MENU (Barista Integration Menu)

The menu file to be integrated into the Barista menu system. Note multiple menu files may be specified.

```
MENU=../apps/examples/config/enu/examples.men
```

STBL (Additional Global Strings)

The following entries either replace existing, or create new application specific STBLs in `barsita.cfg`. Note multiple STBL entries may be specified.

```
STBL=SET +ADDATA=../apps/apps/dist/data/  
STBL=SET +APDATA=../apps/dist/data/  
STBL=SET +ARDATA=../apps/dist/data/
```

Note: Barista will not allow modification to the following system dependent STBLs:

```
+DIR_BRA +DIR_BRD +DIR_BRE +DIR_BRP +DIR_BRS +DIR_CFG +DIR_CPE +DIR_CPS +DIR_CPP  
+DIR_DDB +DIR_DEF +DIR_FRM +DIR_IMG +DIR_LIB +DIR_SYD +DIR_SYF +DIR_SYP +DIR_SYS
```

PREFIX (Additional Prefix Paths)

The following add application specific prefixes to the default prefix list in `barsita.cfg`:

```
PREFIX=../apps/dist/ad/src/  
PREFIX=../apps/dist/ap/src/  
PREFIX=../apps/dist/ar/src/
```

CFG (BASIS Configuration Integration)

CFG entries define the global string variables required by the BASIS Data Dictionary when using the SQL engine during table inquiries. They are integrated into the BASIS BBJ configuration file (`basis/cfg/config.ini`).

```
CFG=+EXAMPLES=[+BASIS_HOME]apps/examples/data/  
CFG=+ADDATA=[+BASIS_HOME]apps/dist/data/  
CFG=+APDATA=[+BASIS_HOME]apps/dist/data/  
CFG=+ARDATA=[+BASIS_HOME]apps/dist/data/
```

Note: BBJServices will need to be restarted for the new configuration entries to take effect.

FILE (Barista Integration Files)

Certain Administration files may be modified after installation...the messages and mask files for example. The following new entries specify which data files to import into the base barista Administration system. The format is `<table_id>;<import_file>`

```
FILE=ADM_MODULES;../apps/dist/data_hold/adm_modules.dat  
FILE=ADS_MASKS;../apps/dist/data_hold/ads_masks.dat  
FILE=ADS_MESSAGES;../apps/dist/data_hold/ads_messages.dat  
FILE=ADS_SEQUENCES;../apps/dist/data_hold/ads_sequences.dat
```

Sample Synchronization File (examples.syn)

```
// Barista Application Framework - Synchronization File
// Proprietary Information. BASIS International Ltd. All rights reserved.
DESC=Barista Examples
MOD=EX
DATE=200710011023
SYS=EXAMPLES;Portions copyrighted (c) BASIS International, Ltd.^Ver 1.0.0 - 10/01/
2007^Barista examples are protected by copyright law and international treaties.
Unauthorized reproduction or distribution may result in severe civil and criminal
penalties.
DIR=../apps/examples/data/
MENU=../apps/examples/config/enu/examples.men
STBL=SET +EXAMPLES=../apps/examples/data/
STBL=SET +EXAMPLES_PROG=../apps/examples/prog/
PREFIX=../apps/examples/data/
PREFIX=../apps/examples/prog/
CFG+=EXAMPLES=../apps/examples/data/
CFG+=EXAMPLES_PROG=../apps/examples/prog/
FILE=ADM_MODULES;../apps/examples/data_hold/adm_modules.dat
FILE=ADS_MASKS;../apps/examples/data_hold/ads_masks.dat
FILE=ADS_MESSAGES;../apps/examples/data_hold/ads_messages.dat
FILE=ADS_SEQUENCES;../apps/examples/data_hold/ads_sequences.dat
```