



# Database Update Wizard

**A** very common problem for application developers to consider is how to update an older installation so that it is compatible with a new version of the software. If it were a simple application such as a word processor or spreadsheet application, they could just install the new application files and everything is ready to go. However, with database-driven applications, this is not usually enough; developers must also update the database to hold new data required by the new version and the addition of new tables to the database. To further complicate things, the database used with the old version may have customizations that make it difficult to simply copy data from the old tables to the new ones.



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Using the new Database Update Wizard, developers can save time and energy creating an update solution for their applications. The wizard takes a source database, new data dictionary, and destination for the new data files, and builds an online copy job that copies the contents of the existing database into data files that match the definition of the new dictionary. The administrator has the opportunity to propagate any modifications in the old dictionary that are not present in the new dictionary.

## Using the Wizard

The Database Update Wizard, located in the BBj® Enterprise Manager, uses a very simple interface. To access the wizard, select the source database (your existing application's database) from the list of databases in the Enterprise Manager. On the database "Information" tab, click the [Update Wizard] button at the bottom to launch the wizard.

The first panel of the wizard prompts for an optional database name, destination

dictionary, and location for the newly created or modified data files.

1. If specifying a database name, a new database is added to the Enterprise Manager that points to the new dictionary files.
2. Specify the
  - a. Location of the new data dictionary that is defined for the new application.
  - b. Location in which the new data files will be created that match the new dictionary definition.

The next panels show any tables, views, stored procedures, columns, etc. that are present in the old dictionary but not present in the new dictionary. This gives the administrator the opportunity to move over any modifications from the old database that still need to be available to the new application. Select those items that should be brought into the new database. >>

```

declare com.basis.api.admin.BBjAdminBase adminBase!
declare com.basis.api.admin.BBjAdminList adminList!

dbserver$ = "localhost"
dbport = 2002
dbssl = 0
user$ = "admin"
password$ = "admin123"

adminBase! = com.basis.api.admin.BBjAdminFactory.getBBjAdmin(
: java.net.InetAddress.getByName(rd_dbserver$),
: dbport,
: dbssl,
: user$,
: password$)

db! = adminBase!.getDatabase("ChileCompany")

REM Specify the location of the new dictionary and the destination
REM for the data files. The returned object will contain all the
REM info to perform an update job. It will contain all of the missing
REM database items, so you will probably want to clear that out or
REM remove items you do not want migrated. See below for that.
info! = db!.getDictionaryMigrationInfo(
: "C:\databases\chiledd-new\bbdict",
: "C:\databases\chiledd-new\data")

REM Start the update process on the server.
db!.updateDatabase(info!)

```

Figure 1. Example of launching a simple update operation from a BBj application

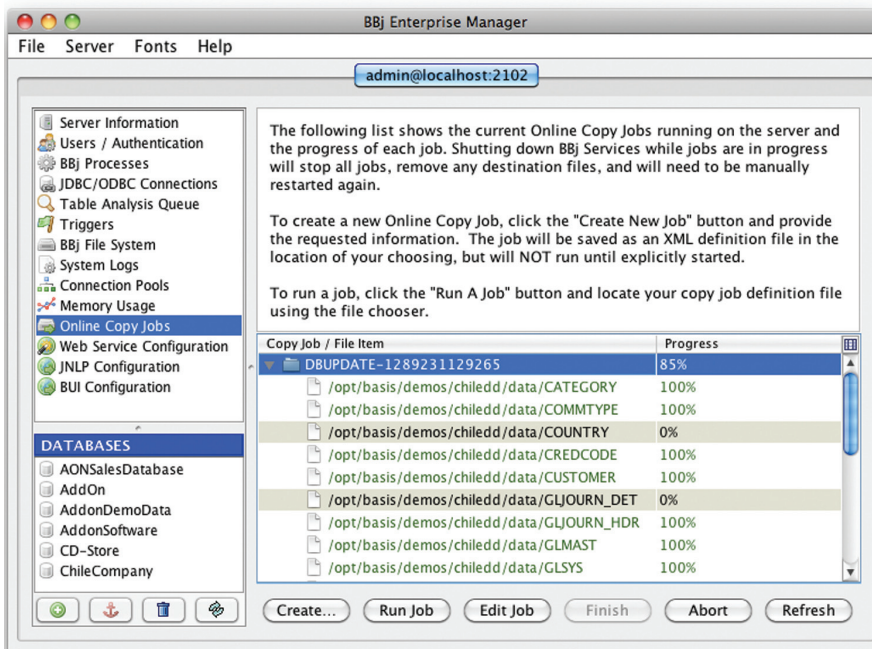


Figure 2. The Online Copy Job performing the Database Update



When the wizard is complete, an online copy job begins and creates the new data files that match the new dictionary definition, and then copies the existing data into these new data files. To monitor the progress of the online copy job, select the "Online Copy Jobs" node in the Enterprise Manager navigator area. When the job reaches 100%, select it, and then click the [Finish] button to perform the final cleanup and closing of files.

### But Wait, There's More!

Not only can an administrator use the handy wizard found in the Enterprise Manager, but developers can also perform a database update operation programmatically using the new BBj® Admin API. The example in Figure 1 shows how to perform a simple update operation from a BBj application.

Figure 2 shows the Online Copy Job in Enterprise Manager.

### Summary

Using the Database Update Wizard or the equivalent Admin API calls, an administrator or developer can make the process of updating the structure of their database to a new structure less arduous. Administrators can perform this operation manually and monitor and select each piece as they go along. An application developer can initiate this operation without the need for any human interaction. This flexibility makes this new feature very powerful for administrators and developers alike. ■



- Read the online documentation for Admin API Javadocs at [links.basis.com/iocgg](http://links.basis.com/iocgg)
- Try the sample at [links.basis.com/dbcode](http://links.basis.com/dbcode)

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