

JDEdwards®

Complementary Products Group

Electronic Burst! & Bind!

Reference Guide
Version 3.1

**J. D. Edwards & Company
7601 Technology Way
Denver, CO 80237
USA**

**©J.D. Edwards & Company
All Rights Reserved**

Information in this guide is subject to change without notice and does not represent a commitment on the part of J.D. Edwards & Company. The software described in this guide is furnished under license agreement and can be used or copied only in accordance with the terms of the agreement..

Table of Contents

1.0 Introduction	1
1.1 Understanding Electronic BURST! & BIND! (EBB)	1
1.2 User Support	3
1.3 System Flow	4
2.0 Installation and Setup.....	5
2.1 Essential Installation Considerations.....	5
2.2 Technical Specifications.....	5
2.2.1 SYSTEM RESOURCES.....	5
2.2.2 SOFTWARE REQUIREMENTS.....	6
2.3 Plan the Installation.....	7
2.4 Install the Software.....	11
2.5 Modify the JDE User Profiles	15
2.6 Modify the JDE User Library Lists.....	16
2.7 Customize the EBB Processing Environment.....	17
3.0 Signon to EBB & Maintaining EBB Setup File.....	19
3.1 Sign On to EBB	19
3.2 Maintain the EBB Setup File	19
4.0 Electronic BURST! & BIND! Versions	22
4.1 About EBB Versions.....	22
4.2 About Model Versions.....	22
5.0 Selected Reports for BURST! & BIND!.....	23
5.1 About Spool files.....	23
6.0 Selected Reports for BURST! & BIND!.....	25
6.1 About Burst Areas	25
6.2 About Binding.....	25

7.0 Select Keys	27
7.1 About Select Keys.....	27
7.2 About Substitute Select Keys.....	27
8.0 EBB Routing Functions	29
8.1 About Routing Functions.....	29
8.2 CL Command String Requirements.....	29
8.3 Print Entity/Functions Report.....	30
9.0 EBB Monitor	33
9.1 About the Monitor	33
9.2 Automated Processing by the Monitor	34
9.3 Monitor Flag Reset.....	34
9.4 EBB Message Queue	35
10.0 Upgrades	37
10.1 EBB Releases.....	37
10.2 EBB PTf's.....	37
11.0 Common Questions – Tips and Tricks	38
Appendix A	41
Appendix B.....	43

Introduction

1.1 Understanding Electronic BURST! & BIND! (EBB)

Electronic BURST! & BIND! is an innovative program that eliminates much of the cost and effort normally required when manually compiling, collating and distributing reports and documents. EBB is designed to seamlessly work with J D Edwards software as well as other reports and documents created on the AS/400®*. EBB allows you to manipulate print files to aid in the separation and collation of documents and reports for transmittal to employees, customers, vendors or archival storage. Electronic BURST! & BIND! Is composed of three features: Bursting, Binding and Routing.

To illustrate the concepts of Bursting, Binding and Routing, consider the following example where two reports, an Income Statement and a Balance Sheet, have been run by Company number. These reports now exist as two separate spool files:

Beginning Spool File 1		
Income Statement Co. 001	Income Statement Co. 002	Income Statement Co. 003
Balance Sheet Co. 001	Balance Sheet Co. 002	Balance Sheet Co. 003

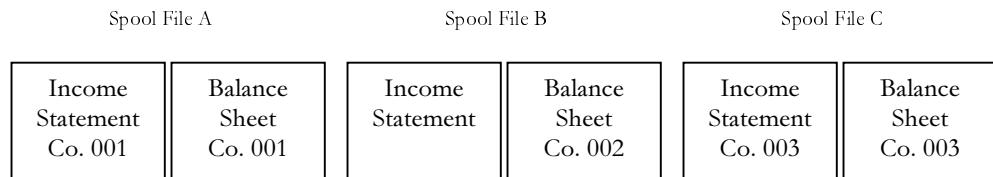
BURSTING! This feature separates a single spooled report into several spool files. You can designate the specific burst criteria. This can reduce the need to run multiple DREAM Writer reports, where several reports are run in order to separate them: The burst criteria in this example is the Company Number.

Income Statement Co. 001	Income Statement	Income Statement Co. 003
Balance Sheet Co. 001	Balance Sheet Co. 002	Balance Sheet Co. 003

* AS/400 is a registered trademark of the International Business Machines Corporation.

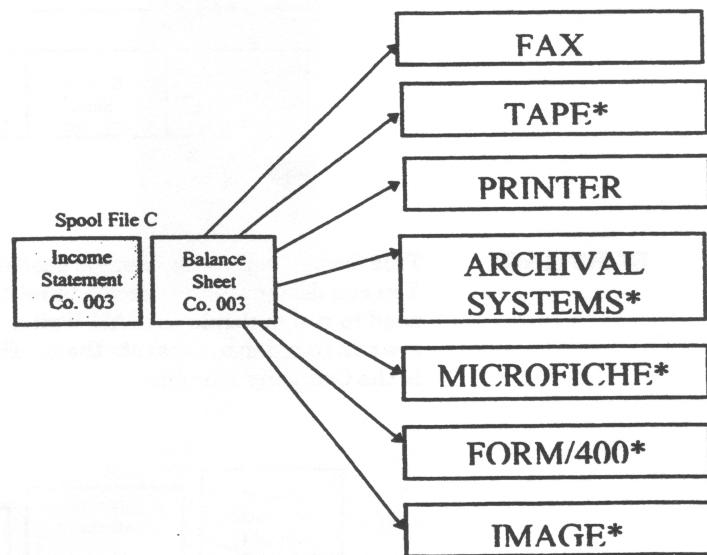
BINDING! This feature selects pages from the original reports or documents in multiple spool files. It then collates them into a designated printing order and creates new spool files in the specified outq.

In this example, the Balance Sheet and Income Statement for each Company have been bound together.



ROUTING! This feature allows for each output spool file to be automatically routed to one or more destinations. Many other functions may be performed against the output spool file.

In this example the output Balance Sheet and Income Statement for Company 003 is routed to multiple destinations.



Electronic BURST! & BIND! Any of these functions may be used either singly or in conjunction with other functions to provide a full-featured document processing environment.

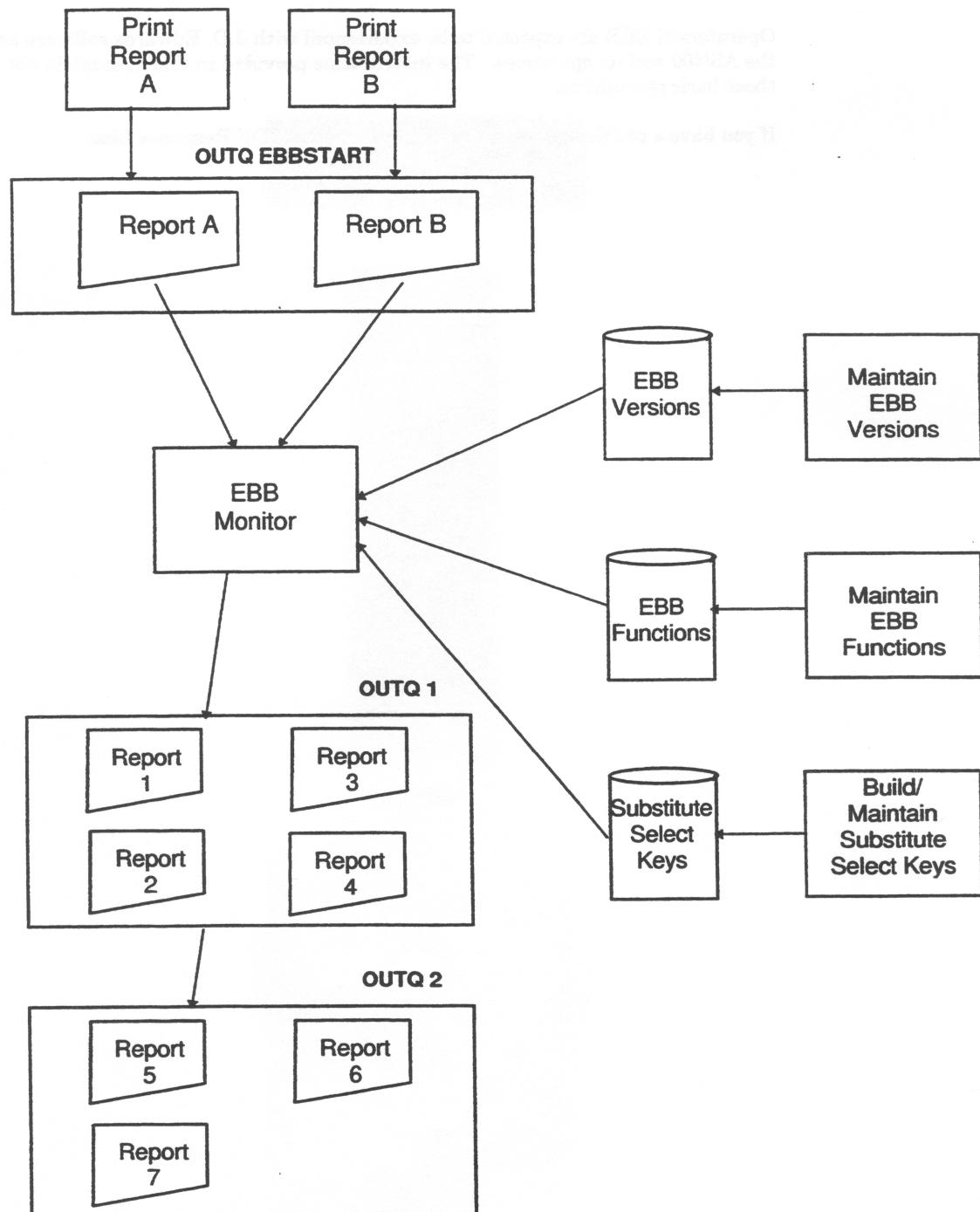
* Add-on feature.

1.2 User Support

Operators of EBB are expected to be experienced with J.D. Edwards software as well as the AS/400 and its operations. The instructions provided in this manual do not include those basic procedures.

If you have a problem, question or request, contact JDE Response Line.

1.3 System Flow



2.0 Installation and Setup

2.1 Essential Installation Considerations

Before installing EBB, check to be sure these prerequisites are met:

- *Electronic BURST! & BIND!* was developed to operate on OS/400 V2R2MO or later and for JDE AS.2 or higher.
- *Electronic BURST! & BIND!* uses System Code 60. If you are currently using System Code 60, *Electronic BURST! & BIND!* could overlay the help messages and member masters. Carefully read the section of this manual on the Install to a Separate Environment option in the install procedures
- In order to install and operate *Electronic BURST! & BIND!* you must be an experienced JDE and AS/400 operator.
- EBB requires about 5 megabytes for storing programs. File storage requirements vary widely from one installation to another, but a reasonable minimum is 2 megabytes.

2.2 Technical Specifications

Installing *Electronic BURST! & BIND!* on your system involves specific resource requirements as well as some initial planning. These guidelines are provided to help with your preparation for the installation process.

2.2.1 SYSTEM RESOURCES

Main Memory: The EBB Monitor requires 1 MB of allocated memory while in the wait state and while running. There are no memory requirements when the Monitor is inactive.

DASD Storage: For EBBLIB and EBBDTA as shipped, 5.5 MB of DASD is required. Additional storage requirements are:

Per EBB Version	99 bytes
You will set up one EBB Version per report group and routing distribution.	
Average	50
Average Total	4,900 bytes

Per EBB Function	923 bytes
There will be one function per action you take on spool files.	
Average	25
Average Total	23,075 bytes
Per Select Key Area per Version	49 bytes
There will normally be fewer than 10 Select Key Areas per EBB Version.	
Average	3 per Version
Average Total	7,350 bytes
Per Select Key	117 bytes
There is one Select Key for each unique data occurrence found in any Select Key Area.	
Average	500
Average Total	58,500 bytes
Per Select Key per Version	91 bytes
There is one Select Key record for each unique Select Key Area found in an EBB Version.	
Average	50 per Version
Average Total	227,500 bytes
Per Function after the first:	
per Select Key per Version	250 bytes
There will normally be only 1-2 functions specified per Select Key per Version.	
Average	1.5 per Select Key per Version
Average Total	937,500 bytes
Total Average Usage	1,258,875 bytes

2.2.2 SOFTWARE REQUIREMENTS

EBB requires OS/400 V2R2M0 or higher.

- a. To check your version of OS/400, go to the IBM 'Work with Licensed Programs' menu by typing the following command:

GO LICPGM

- b. Take option 10 - Display installed licensed programs. Look at the 'Installed Release' column at the right of the screen.

The JDE release should be AS.2 or higher. To verify,

- a. Take option 25 from any JDE menu.
- b. Look at the Version ID displayed at the lower right.

2.3 Plan the Installation

The time required for EBB software installation is estimated at approximately one hour. The time necessary to set up reports will vary, depending on the number of reports and the complexity of the burst criteria and routing functions. Installation planning, however, requires more than just scheduling a time to install the software. You will need to make decisions about how and when you will want the EBB Monitor to run, what outqs to route reports to, where error reports should go, etc.

NOTE: The user installing EBB must have the proper authority to restore, create and delete files. It is recommended that the QSECOFR or equivalent signon be used. EBB users must have *CHANGE authority to all objects they will use in EBB (e.g. spool files, output queues and job queues).

It is strongly recommended that you read through the Reference and User manuals before installing the software.

STEP 1

Check to be sure that you have the required versions of JDE and OS/400. EBB requires: JDE VERSION A52 or higher and OS/400 V2R2M0 or higher. If you do not have either of these software releases installed on your system, call J. D. Edwards **BEFORE** attempting to install EBB.

STEP 2

Determine who will install the software. The user installing the software must have proper authority to restore, create and delete files, etc. It is recommended that a user with *SECADM and *ALLOBJ authority (such as QSECOFR) run the install program. This user ID must also have access to a JDE environment, and have JDE security administration authority.

STEP 3

Fill out this installation check list:

a. Is this a first-time installation? _____

To see if the EBB software has already been loaded on your system, enter the following command:

WRKOBJ OBJ(*ALL/60) OBJTYPE(*PGM)

If this program is found on your system, then System Code 60 is in use. If it is in use by a system other than EBB, you will need to contact JDE **BEFORE** continuing with this installation.

In addition to the use of System Code 60, EBB requires the use of a library named 'EBBLIB'. If there is a library by this name currently on your system, you will need to contact J. D. Edwards before continuing with this installation.

b. If this is a re-installation do you want to back up current files/programs?

If you respond yes to this question, the re-install process will copy your current EBB files and programs to SAVE files on the AS/400. Once you have verified that the new programs are running properly, you should remove these SAVE files from the disk. The SAVE files are created in the libraries where the data files are found and have a name ending with 'PRV'.

Determine the library names in which EBB will be used. This would include both test and production environments.

Libraries to contain EBB Data files:

You should specify one library name for EACH J. D. Edwards environment in which EBB will be used. This will normally include at least a test and production environment.

Libraries containing JDE Common Files:

You should specify the library name for EACH library which contains one or more of the following files:

A5.2

Library Name(S)

F0020	Vocabulary Overrides Master	_____
F0090	Menu Master	_____
F96011	Function Key Master	_____
F9611	Function Key Master	_____
F9620	Cursor Control'	_____
F9621	Cursor Control Format	_____
F9800	Data Dictionary	_____
F9861	Software Versions (Optional)	_____
F98301	DREAM Writer Master Parameters	_____

A6**Library Name(S)**

F0090	Menu Master
F9200	Data Dictionary
F9220	Vocabulary Overrides Master
F9601	Function Key Master
F9611	Function Key Master
F9620	Cursor Control
F9621	Cursor Control Format
F9801	Software Versions (Optional)
F9816	Data Dictionary Generic Test
F98163	Data Dictionary Generic Key Index
F98301	DREAM Writer Master Parameters

A7.1**Library Name(S)**

F0090	Menu Master
F9200	Data Dictionary
F9220	Vocabulary Overrides Master
F9601	Function Key Master
F9611	Function Key Master
F9620	Cursor Control
F9621	Cursor Control Format
F9801	Software Versions (Optional)
F9816	Data Dictionary Generic Test
F98163	Data Dictionary Generic Key Index
F98301	DREAM Writer Master Parameters

If you are not sure which libraries contain these files, enter the following command for each file:

WRKOBJ OBJ(*ALL/Fxxxxx) OBJTYPE(*FILE)

where 'Fxxxxx' is the file name. The system will display all libraries which contain this file. Enter each library name in the list of libraries containing JDE Common Files. Any library name need only be listed once.

Library containing JDE object code: _____

Usually this library will be named JDFOBJ, unless you have changed the name for your installation.

STEP 4

Determine the processing environment for EBB:

The EBB Monitor runs in batch and is designed to wait for reports to appear in a specified outq, then take action automatically. The Monitor should therefore run in a subsystem which will not interfere with normal processing. (QBATCH is usually set up to run one job at a time in IDE installations.)

You may want to set up a separate User ID, such as EBBUSER, for the EBB Monitor to use. This can make it easier to manage EBB operations.

STEP 5

Schedule a time for the installation. The installation should not be done when other users are active on any J. D. Edwards environments. Average install time is approximately 45 minutes. No other users should be on the IDE environment because changes will be made to common files such as the Menu Master and Vocabulary Overrides.

2.4 Install the Software

STEP 1

Load the software distribution tape.

STEP 2

Sign on with the user ID you determined in the installation planning phase.

STEP 3

Be certain you will be notified of any messages sent to QSYSOPR. Either run the install program from the console, or enter the following command:

CHGMSGQ QSYSOPR *BREAK

STEP 4

Execute the EBB installation program by entering the following command on the AS/400 command line:

LDRUN DEV(xxxx)

where 'xxxx' is the name of the tape device. (Usually this name will be T APO I, if you only have one tape drive).

NOTE: At this time, the install program will restore the EBB installation library to your system. This process may take 5 to 20 minutes, depending on your system.

STEP 5

Enter the installation parameters, when screen 6093 appears at your display. These responses should be taken from the installation check list you prepared in the Installation Planning Section. After you have entered the responses, press ENTER to validate your responses. If your responses are OK, press F10 to continue with the installation. If you do not want to continue with the installation at this time, press F3 and the installation program will cancel.

A sample of the installation screen 6093 follows:

6093

EBB Software Installation Parameters

Is this a first-time installation	<input type="checkbox"/> (Y or N)		
If Re-install, backup current EBB	<input type="checkbox"/> (Y or N)		
Install EBB to separate environment:	<input type="checkbox"/> (Y or N)		
Libraries to contain EBB data files -----	-----	-----	-----
	-----	-----	-----
	-----	-----	-----
Libraries containing J.D. Edwards -----	-----	-----	-----
Vocabulary Override, menu, ----- and other Common Library files: -----	-----	-----	-----
	-----	-----	-----
Library with JDE object programs: -----	-----	-----	-----
Install to Auxiliary Storage Space: : -----	-----	-----	-----

Enter=Validate Parameters F3=Cancel Installation F10=Continue Installation

Installation Notes:

- If this is a first-time installation, there must not be a library named EBBLIB presently on the disk.
- After you press F10 to continue, the install program may run for 10 to 30 minutes, depending on your system.
- It is necessary that the libraries listed contain all of the required common files. When you press ENTER, the install program will check for the existence of each of the required files in at least one of the common libraries. If a particular file is not found, an error message will be displayed and the installation will not be allowed to continue. Either revise the common library list to include a library(s) containing the missing file(s) or cancel the install in order to correct the data base.

V6093 Prompts:**Is this a first time installation?**

- Enter a 'Y' if EBB does not exist on your AS/400. (Installs only)
- Enter a 'N' if you are upgrading or reinstalling EBB.

If Re-Instal, backup current EBB?

- Enter a 'T' if you want your current EBBLIB saved under the name EBBLIBPRV on your AS/400.
- Enter a 'N' if you do not want to save your current EBBLIB library.

Install EBB to Separate Environment?

- Enter a 'Y' if you want the installation to modify the JDE common files to a separate EBB data library (EBBDATA).
- Enter a 'N' if you want the installation to modify the JDE common files in the JDE Data Libraries. (JDFDATA).

Note: Answering "Y" to this option will result in copies of your common files being placed in the EBB data libraries. This will require you to perform maintenance on two sets of common files. You should answer yes to this option only if you are using System Code 60 and the installation of EBB would result in overlaying information already in the common files from your custom software.

Libraries to contain EBB data files:

- Enter your EBB data library that you will be using. You can enter up to 10 library names. Example: EBBDATA

Libraries containing JDE Common Files:

- Enter the JDE Data library that contains the JDE Common files (Data Dictionary, Menu Master, Vocabulary Overrides, DREAM Writer, UDC. You can enter up to 10 library names. You must enter at least one library for each of the common files listed previously. Example: JDFDATA

Library with JDE object programs:

- Enter the JDE Object Library name. Example: JDFOBJ

Install to Auxiliary Storage Pool (ASP):

- Enter the ASP you want the libraries to be restored to. ASP 1 is the system ASP, and the most common to use. Use ASP 1 if you do not use Auxiliary Storage Pools.

STEP 6

During the install, the program may send messages to you, stating that one or more JDE Common Files were not found in a library that you specified as a Common Files library in the installation parameters. An example of a message of this type is:

Library XXXXXXXX does not contain the F0020 Vocabulary Overrides Master File. Please check the library values you requested, and contact software support services if this library should contain F0020.

These messages are for your information only, and they DO NOT cancel the installation program. Simply note the library and file name, and press ENTER to allow the installation program to continue. After the installation program has finished, you will need to review your setup of common library files, to be sure all of the JDE Common files were found IN AT LEAST ONE of the libraries you specified.

STEP 7

Be sure the installation program finishes successfully. When the installation program finishes, it will send a message to you stating that the install completed successfully. If the installation program cancels, or you do not receive the 'completed successfully' message, call J. D. Edwards IMMEDIATELY - **DO NOT CANCEL THE PROGRAM MANUALLY.** Canceling the program will delete the active job log and make the diagnosis procedures more difficult.

STEP 8

When the tape installation has completed, one or more jobs (job name either MRGJDEFILE or MRGSEPENV) will have been submitted to the JOBQ for the user profile which is running the install (usually QSECOFR). In order to view these jobs key WRKSBMJOB userid.

When everyone has signed off of any JDE profiles which contain the common libraries listed on the 6093 screen, these jobs may be released one at a time from the jobq. These are the programs which will update the common files such as Vocabulary Overrides and Menu Master. When the released jobs complete the program/file installation is finished and you may continue on to the next section.

2.5 Modify the JDE User Profiles

Use this process if you have one JDE environment per User ID. If you use multiple environments per User ID, go to section 2.6. These modifications are only required for users which will be either creating/modifying EBB Versions or Functions or starting and stopping the EBB monitor.

STEP 1

Sign on to a JDE environment, if you are not already in one. This environment must be the one where JDE security administration is performed.

STEP 2

Go to menu A94 and select option 2 – User information (User Keys).

STEP 3

Inquire on the user information for each person who will need to have access to the EBB programs for maintaining versions or starting and stopping the monitor.

STEP 4

For each person, change the library list as follows:

Library QTEMP must be the first library in the list. If library QTEMP is already in the library list, be sure to eliminate the existing entry after you have added QTEMP to the front of the list.

Add any new EBB data file libraries ahead of the JDE data file libraries. Refer to the EBB data file libraries you recorded previously in Section 2.1.

Add EBBLIB ahead of the JDE object programs library.

2.6 Modify the JDE User Library Lists

Use this process if you have multiple JDE environments per USER ID. If you use one JDE environment per User ID, use section 2.5 instead of this process. These modifications are only required for users which will be either creating/modifying EBB Versions or Functions or starting and stopping the EBB monitor.

STEP 1

Sign on to a JDE environment, if you are not already in one. This environment must be the one where security administration is performed.

STEP 2

Go to menu A944 and select option 5 - Library List Revisions.

STEP 3

For each environment, modify the user library list. The modifications are:

- a. Library QTEMP must be the first library in the list. If library QTEMP is already in the library list, be sure to eliminate the existing entry after you have added
- b. QTEMP to the front of the list.
- c. Add any new EBB data file libraries ahead of the JDE data file libraries.
- d. Add EBBLIB ahead of the JDE object programs library.

2.7 Customize the EBB Processing Environment

STEP 1

Add the EBB jobq entry to the subsystem where EBB will run:

- a. End the subsystem where EBB will run.
- b. Add the EBB jobq to the subsystem by typing the following command.

**ADDJOBQE SBSD(*LIBL/xxxxxx) JOBQ(EBBLIB/EBBJOBQ)
SEQNBR(##)**

where: xxxxxx = the name of the subsystem and ## = the next available number for the subsystem. To see the next available sequence number, type the following command:

DSPSBSD SBSD(xxxxxx)

Take option 6 - Job Queue Entries. Sequence numbers are displayed to the left of each jobq entry.

- c. Restart the subsystem where EBB will run.

STEP 2

If you have decided to run EBB using a special user profile, this profile must be active and given the proper JDE authorizations.

STEP 3

Install creates an EBBJOBD in each data file library. The EBBJOBD is used by the Monitor submit program. You may wish to customize this job description for your environment. For example, if you are using a special user

profile as mentioned in section 2.4, you may customize the job description by putting the special user profile on EBBJOBD.

3.0 Signon to EBB & Maintaining EBB Setup File

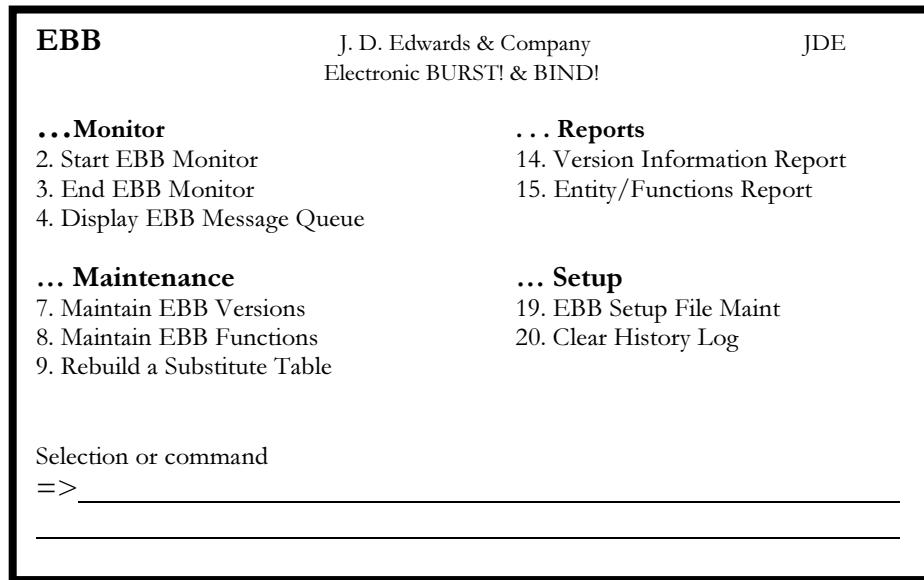
3.1 Sign On to EBB

STEP 1

Sign on to the ASI400 as an authorized user with the necessary authorities for Electronic BURST! & BIND!.

STEP 2

At the command line, type EBB. The following menu should appear. (If it does not, contact J.D. Edwards.)



3.2 Maintain the EBB Setup File

The EBB Setup File contains the default job and output queues which EBB will use. It also stores other default information, such as the Monitor delay time (see section 9) and the location of J.D. Edwards source.

STEP 1

Select option 19 (EBB Setup File Maint.) from the EBB Main Menu. Press ENTER. The EBB Setup File Maintenance screen (screen 6099) appears.

6099	EBB Setup File Maintenance Version 3.0	DEMO 2/15/94
Monitor Delay Time.: <u>60</u> (In Seconds)		
Jobq to run EBB Monitor In: <u>EBBJOBQ</u>		
Defaults:		
OUTQ to Receive Bound Output .. : <u>EBBFINAL</u>		
OUTQ to Receive Error Output . . : <u>EBBERRO</u>		
Function: <u>PRINT</u>		
Want a banner page to Print.: <u>Y</u> (Y/N)		
Keep Spool Files.: <u>Y</u> (Y/N)		
JDE Dream Writer Source File. .. : <u>JDESRC</u>		
Source Library. : <u>JDESRC</u>		
Write Audit Log Records?: <u>N</u>		
ENTER=Validate F3=Cancel F10=Update		

Step 2

Fill in the fields on the screen and press ENTER. Suggested responses on this screen are:

Monitor Delay Time (In Seconds)

Enter the delay time, or time between successive runs of the EBB Monitor. A time of 300 seconds (5 minutes) to 900 seconds (15 minutes) is suggested. This will not put undue processing requirements on the system, yet the Monitor will respond fairly quickly when a report arrives to be burst.

JOBQ to RUD EBB Monitor In

This will normally be 'EBBJOBQ' unless you changed the name during installation.

OUTQ to Receive Output Reports*

This is the name of the default outq where you want to send the burst and/or bound reports, after the Monitor has generated them. The name EBBFINAL is suggested if you are going to send these reports into a separate outq.

OUTQ to Receive Error Output*

Error output occurs when the Monitor runs and does not find new Select Keys. (We recommend you name the error outq EBBERRQ.)

Function *

This is the default function performed by the Monitor on each burst report. Currently the default must be .PRINT'. PRINT must be the first function for each Select Key.

Want a banner page to Print*

This is a (Y) Yes or (N) No response for the default on whether the Monitor should generate a banner page on each burst report. Banner pages are useful if you will be specifying routing ID's on the Select Keys. A sample of an EBB banner page is in section 7.5 of the Users Manual.

Keep Spool files *

This is a (Y) YES or (N) No response for the default on whether the Monitor should keep the original sp00l file entries (the unburst reports) after bursting. 'N' will delete them. We recommend setting this response to 'Y' initially.

* These defaults may be overridden on each EBB version. In the file maintenance screen, you should set the values for what would be true in the majority of versions.

STEP 3

Press F3 to return to the Main Menu.

4.0 Electronic BURST! & BIND! Versions

4.1 About EBB Versions

An EBB Version is a collection of instructions related to bursting and binding one or more reports using a set burst criteria and routing distribution. Different reports, burst criteria and routing requirements necessitate the use of additional EBB versions. There is effectively no limit on the number of EBB versions you may set up. Also, there are several facilities to reduce the maintenance effort for these versions.

Each EBB Version names one or more reports to be burst, or burst and bound. The binding process occurs whenever two or more reports are specified for a particular EBB Version. Each EBB Version, unless it uses a Model Version, also has a set of attached select keys. These select keys may use the default routing or may have attached routing functions.

4.2 About Model Versions

A Model Version is an EBB Version which other versions may refer to for select keys and routing functions. A Model Version is a fully functional version, set up in exactly the same manner as any other version. An EBB Version which refers to the Model Version is set up like any other version, except that there is no need to run 'Preload Select Keys'. The Model Version provides the select keys. Using a model also eliminates the need to set up all the routing functions needed on a new version. Other versions refer to the model by naming the model on the EBB Version Information Screen.

5.0 Selected Reports for BURST! & BIND!

5.1 About Sp00l files

A version can contain a single report or multiple reports which you intend to combine in a different order. Since a version will not run until all reports are present, be careful about combining reports which don't run on the same frequency or which may not be produced if no reported activity occurs.

You may bind multiple reports by selecting key areas that are EXACTLY the same length on each report selected in the Version ID. Up to 999 reports can bind together at one time. If the select key in one report matches the select key in another report, the reports will be bound into one sp00l file. If the key information is not exactly the same but you want to bind them together, see the Substitute Select Key section.

Reports used to select burst areas should not be run with cover pages or displaying print instructions. EBB only displays the first page of a report for your use in the selection process.

If more than one report is selected for an EBB Version ID, each report will be assigned a sequence number as it is selected. This is the order in which the bound reports will appear in the output file. You may change the sequence number by typing the new number in the field "change Seq." You cannot use sequence numbers that are already in use. For example, you have two reports numbered 001 and 002. You wish to change the sequence of these but you cannot change 002 to 001 because that number is in use. Therefore, change 002 to 003, and change 001 to 004.

% MENUS

% means produce reports with identical sp00l file names. EBB cannot differentiate between these and will not know which to process. **It is an EBB requirement that sp00l file names be unique.**

To do this, you must use printer overrides on the individual reports to specify a unique "sp00l file name."

REPORT LIMITATIONS

You may link up to 999 reports to a version. Make sure that each report has a unique name within the version. This ensures that EBB processes the correct reports; in addition, if a report is deleted from the version, all reports with the same sp00l file name will be deleted.

The form length of a report can be up to 100 lines. A report can be up to 198 characters wide. **If there are reports of different widths, the widest report must be placed first in the version report sequence.** The monitor will generate new sp001 files based on the width of the first report and if following reports are wider, data will be truncated.

6.0 Selected Reports for BURST! & BIND!

6.1 About Burst Areas

You are selecting an area on the report, not the actual data or data values. When the data within this area does not match the data in the same area on a subsequent page, the pages will burst. You are selecting an area where particular data will appear. For instance, a header may appear as “001 – A Model Accounting Company” whereas in the same area on another page it may be “007 – A Model Payroll Company”. You should select the longest possible field length for that area to include the complete header text. For instance, if the field selected is a manager’s name, be sure that the burst area is as long as the longest name.

You may select more than one area to burst on. However, each row must be selected separately. The total key length for all areas must not exceed 90 characters. If your selection is on both the left and right areas of the screen, keep in mind that the highlighted area extends lower than the actual area selected. This is because the control characters are not recognized for the beginning and end of Select Keys unless they appear on the same screen.

6.2 About Binding

When more than one report is in an EBB Version, bursting occurs on the first report. EBB then looks for another report in the same version. That report is then burst on the same criteria. This process is continued until reports tied to the version have been burst. The burst reports are then bound into one sp001 file; thus ‘binding’ occurs.

When you select more than one report for an EBB version, AND the data in the area selected matches the data in two or more reports (the data in the area selected must be exactly the same but the areas do not need to be in the same row or column), the reports are burst and the merged into one sp001 file. If you select more than one area on a report and wish to bind with another report(s), the bind occurs only if the data in ALL selected areas match EXACTLY.

BURST AREA LIMITATIONS

The area selected cannot be greater than 90 characters. If multiple areas are selected, the combined length cannot exceed 90 characters.

ROUTING ONLY

You may wish to use EBB to rout existing sp00l files to multiple areas or perform additional functions on them. You can use the headings or blank areas for the burst area, because the information contained within the header is normally fixed. Since the area that EBB is scanning is blank or never changes, then the sp00l file will never burst.

The routing functions (discussed in another section) would be performed automatically by EBB.

The burst area must be located no lower than line 50 within the report. It must be located in the same place on every page. In other words, the data area you are bursting on cannot float to different lines of the report.

7.0 Select Keys

7.1 About Select Keys

A Select Key is the actual data found within the burst area when ebb scans the original sp00l file. It is the actual text contained in the burst areas you selected on the reports tied to the Version ID. Each time EBB finds different data (except blanks which are treated as the previous key read) in the burst area during the preloading process, a new select key is created.

A select key is tied directly to a version and not to the reports from which they're derived. Each select key is assigned a unique Entity Number, which is used internally by EBB.

There are two methods of adding new select keys. Preloading select keys will scan the report (which has been generated more recently and contains data not present when the version was set up), find the new data and add the select key. The second method allows you to type in the new key (exactly the way the data for all burst areas is present on the report) using the option on screen 6020.

Deleting a report within an EBB Version ID does not delete the select keys attached to the Version ID. To delete the select keys, delete the Version ID from screen 6010 or type '9' next to a select key (from the 6020 screen).

7.2 About Substitute Select Keys

The option to use Substitute Select keys allows the user to burst and bind reports using information not contained on the sp00led reports. This option is helpful in situations where the information that a user would like to burst on is not printed on the report or where related but not identical information between two reports needs to be matched in order to bind the reports together.

Reports which are to be burst using this option will have two select keys: the 'Original Select Key', which is the select key set up on the report (using instructions in section 5 of the user manual), and a 'Substitute Select Key', which is information that does not appear on the report.

In order to use substitute Select Keys, you need to build a cross-reference file between the field which will represent the original select key and the field that will be the substitute select key. This can be done anytime prior to

running the EBB Version. EBB will then use the substitute select key for bursting and binding the report as if it appeared on the report originally.

A cross-reference (or Table Number) between the original select key and the substitute select key is built prior to bursting the report. A DEREAM Writer form, P6008, is used to input the instructions for building the cross reference. Any EBB Version can refer to any Table Number and a Table Number can be referred by any number of reports.

Any report which is to use Substitute Select keys must be linked to the appropriate cross reference. To be able to easily distinguish one burst report from another, you may print the Substitute Select Key on the burst reports.

When determining the substitute select keys to be used, keep in mind that the values in the data of the substitute select key should be unique for each value of the original select key. Multiple original select key values can point to the same substitute select key value. For example, many companies may cross reference to division 001. However, if all records for company 007 don't contain 001 as the division number, the reports may not burst as expected.

8.0 EBB Routing Functions

8.1 About Routing Functions

A routing function is primarily a print or output instruction but can be any CL command you type on the command line. Functions can be created and attached to individual Select Key(s) or may be globally attached to all Select keys for a version. A number of demo routing functions are included in this version of EBB. (A brief description of the routing functions which are included in the current release is located in Appendix D.) During the installation process for the current release, the names of the demo functions are compared to any existing functions created during an earlier release of EBB. If the name of an earlier routing function matches that of a new function, the earlier routing function will **not** be replaced.

The default function is PRINT and is assumed for each Select Key. **This function must always be the first function.** You may make modifications on the PRINT function (the outq and number of copies may be changed) and assign additional routing functions. The section on functions and Parameters will explain more about assigning functions.

Name additional printing functions any name you wish except 'PRINT', such as 'PRINT1', 'PRINT2', etc. when making global changes, you may differentiate between the various PRINT functions and apply modifications to the proper routing function. If multiple functions are attached to a Select Key, the reports will be routed successfully; but if a Global delete of a PRINT function is done, all PRINT functions will be deleted.

Several routing functions, in addition to the PRINT function, are included in the EBB installation tape. You may wish to use or modify these samples.

8.2 CL Command String Requirements

Routing functions are limited to ten parameters. Some of the CL commands include more than one variable. There is no limitation on the number of CL variables, only the parameters. Four lines are provided for keying in the CL command.

The command should be keyed in the same manner as it would be keyed on a command line, with three exceptions:

1. The special character ‘&’ is used to tell EBB where to insert a parameter. Parameters are inserted from left to right, starting with parameter 1.

2. The special character ‘%’ is used to identify the end of the CL command (‘%’ is not necessary on the ‘PRINT’ function).
3. Do not key more than one blank space between one keyword/parameter combination and the next.
4. The special character ‘?’ is used to denote blank spaces in commands which require a blank between two parameters: e.g., The TOUSRID keyword in the SNDNETSPLF command requires that there be a blank between the user id and the address.

Many functions have parameters that use special keywords. Do not change these keywords, because they are used to identify a sp00l file to the function.

EBB has five reserved keywords, which identify a sp00l file. They are:

*SPLNUM	- Sp00l file number
*SPLNAM	- Sp00l file name
*USER	- User ID
*JOBNUM	- Job Number
*JOBNAME	- Job Name

Some or all of these parameters are often needed for any CL command which operates on sp00l files.

Some commands such as change sp00l file attribute, CHGSPLFA, will not work if the sp00l file to be changed is at a writing status. If you are routing burst or bound reports to an outq which is linked to an active writer, you may see that some of the reports will not reflect any functions except for the first PRINT function. In order for following functions to take effect, direct your PRINT function to a non-printing outq and then use the OUTQ parameter on the CHGSPLFA command to move it to a printing outq after you have performed any other required changes.

8.3 Print Entity/Functions Report

The entity/Functions Report supplies you with information about all the Version IDs that have been set up. It displays the entity keys, Select Keys and the routing Functions which are attached to the Select Keys. A sample page of the report is displayed on the next page.

From the main EBB menu, type option 15 to print the report. The report request will be submitted to batch.

Entity/Functions Report

EBB Version : EBB DEMO VERSION							2/15/94	Page:		
Entity #	Select Key	Routing ID	Seq #	Banr	Function	Parms 1/6	Parms 2/7	Parms 3/8	Parms 4/9	Parms 5/10
0000002605						Y * Uses Default Functions *				
0000002825	00002006	00002006		N	PRINT	EBBFINAL				
		00002006	2	Y	PRINT2	EBBSTART				
0000002840	00002022	00002022		Y	* Uses Default Functions *					
0000002841	00002049	00002049		Y	PRINT	EBBFINAL				
		00002049	2	Y	COPYF	*SPLNAM *SPLNUM	XXXXXX	*JOBNAM	*USER	*JOBNAM
0000002842	00002129	00002129		Y	* Uses Default Functions *					
0000002843	00006010	00006010		Y	* Uses Default Functions *					
0000002844	00001347	00001347		Y	* Uses Default Functions *					
0000002845	00001901	00001901		Y	* Uses Default Functions *					
0000002846	00002065	00002065		Y	* Uses Default Functions *					
0000002847	00002073	00002073		Y	* Uses Default Functions *					

9.0 EBB Monitor

9.1 About the Monitor

The Monitor is the program that bursts, binds and routes print files using the information in the versions you set up. Even if the program is running continually, it is not always active. It has a delay built in during which time it appears to sleep. After the defined interval (which is usually 60 seconds), it wakes up and checks all sp00l files in the EBBSTART outq to determine if it should be processed by EBB. If all the criteria is met, it will process. If not, a message is generated. These messages are viewed I the EBB Message Queue.

You may wish to review the section on “Maintain EBB Setup File” (section 3.4 in this manual). The Setup File governs basic guidelines for all EBB versions on your system. This file sets the Monitor delay time as well as jobq, outqs, and other default information. It is verified during the installation of EBB and can be modified as necessary.

The following points review the necessary considerations that allow the Monitor to successfully BURS! And BIND! your reports.

- A sp00l file must exist in the EBBSTART outq for EBB to process a report.
- If multiple reports are tied to a version, all of the reports for the version must be present before the Monitor will process them.
- The User Data attribute on the sp00l file must be identical to the Version ID name.
- The sp00l file(s) must be in “RDY” status prior to being processed by EBB.
- The burst selection criteria have been limited to 90 characters and preload has been done.

When the Monitor is running, it will process files that are in the EBBSTART outqu, in RDY status, with user data attribute that matches the Version ID. It is possible, at this point, that the Monitor will attempt to process files on which you have not yet preloaded Select Keys. For this reason, we recommend tha the Monitor be started only when reports and versions are ready to process.

9.2 Automated Processing by the Monitor

When the Monitor is active, it periodically wakes up at the delay time set on the EBB Setup File Maintenance (option 19). It 100ks at the EBBSTART outq for sp00l files. If sp00l files are present, the Monitor 100ks at the attributes of STATUS and USER DATA. The STATUS must be RDY and the USERDATA must be identical to the EBB Version ID name left-justified and uppercase).

By selecting a sp00l file through EBB, the USER DATA attribute is automatically loaded with the EBB Version ID name. In order to automate EBB, so that no manual intervention is required each time reports need to be processed, the Monitor may be kept active at all times. Each time a report is run, it must go to EBBSTART outq in the RDY status, the user data attribute must match the EBB Version ID and preloading of select keys should be set up.

There are circumstances that you will need to control and will not want the sp00l files to be processed automatically. For instance, if a report is to be burst and bound using more than one version, you would need to control the process manually. Or there may be updates to the version or related information (such as select keys or routing functions) that are in progress. Take the appropriate action to generate the report in an outq other than EBBSTART or without the proper Version ID.

There are also situations during which the Monitor should be ended.

- The when the system is to be IPL'd.
- During backup procedures affecting any files used by EBB.
- When you want to do maintenance or versions or select keys and want to be sure the Monitor doesn't process until you're ready.

When the Monitor is ended, EBB is not active and sp00l files in EBBSTART will not be processed until the Monitor has been restarted.

9.3 Monitor Flag Reset

When the EBB Monitor awakens from the delay state, it checks a data area named QEBC in EBBLIB. A flag at position 25, length of 1, is set at 'Y' to indicate that the Monitor should end, or 'N' to indicate that the Monitor should process reports when it wakes up. Presently, you must turn off the Monitor with the main menu option 3 to reset that flag. If not, the Monitor will not process the sp00l files correctly.

If you leave the Monitor running continuously and the system is IPL'd for whatever reason or another process ends the EBB Monitor, the flag will not be reset. If a problem occurs and the Monitor is ended other than the option from the main Menu, the flag will not be reset.

The flag may be reset by ending the Monitor using option 3, even though it is not active. The flag can also be reset through a CL command to change the monitor flag.

CHGDTARRA DTAARA(QEBB (25 1)) VALUE(Y)

9.4 EBB Message Queue

The Monitor writes messages to this message queue under various circumstances. If all sp00l files in the version are not in the EBBSTART outq and in the Ready Status, or burst criteria have not been selected, a message is written to the EBBMSGQ. Reports in EBBSTART without a valid version ID will also cause a message to be written.

The following are examples of Monitor messages

- EBB monitor started at 14:54:52 on OS/29/98 by JDEU.
- No EBB version found for sp00l file with userdata: (Version ID)
- EBB monitor ended at 16:28:12 on OS/29/98 By JDEU

The following are examples of error messages:

- All reports for version: (Version Id), must be in OUTQ EBBSTART and in Ready Status
- EBB Sp00l File Not In Ready Status For Version ID: (Version ID)

The following are examples of Monitor messages

Each message is written only once. If the Monitor "wakes up" after a delay, it will not write the same message twice. It checks the message queue to see if the message exists prior to writing it again.

A filter governs the severity level of the messages displayed when you take option 4. This allows you to determine the messages you will see each time you check the queue although using FIO will cause all messages to be displayed. A default severity level of 10 is recommended. At this level, Monitor starts and ends are not displayed. Change to a severity level of 00 if you always want to see all of your messages.

It is possible for this message queue to fill up. Periodic maintenance to remove messages from the EBBMSGQ is recommended because when the message queue is full, the system will halt the processing of reports. The

maintenance interval varies with each site and is dependent upon the Monitor delay time and the number of reports processed. If you have written a CL program to remove aged messages from message queues on your system at IPL, we recommend that you include the EBBMSGQ in this process.

10.0 Upgrades

10.1 EBB Releases

New versions of the Electronic BURST! & BIND! software will be released periodically to provide additional functionality in the product. These upgrades are free of extra charges and are covered under your Response Line/Software Update agreement. It is not possible to separate maintenance for EBB. from the rest of the standard JDE software.

10.2 EBB PTf's

Between releases of EBB, problems occasionally become apparent that should be corrected as soon as possible. Program fixes are provided to our customers who have a continuing support agreement as soon as they are available.

11.0 Common Questions – Tips and Tricks

To display the JDE release level, type DSPJDELVL and press ENTER.

%MENU.

EBB need uniquely named sp00l files. On batch job submissions, such as %menu, use the Printer File Override and the 'Sp00l File Name' option to override the identical sp00l file names these batch jobs produce.

INCONSISTENT PAGE BREAKS ON F ASTR REPORTS:

Some F ASTR reports may not display consistent page header areas on which EBB is to compare data to burst and/or bind. JDE solved this problem in one instance by coding two programs: P83410 and P83500 to display the page break data on the top left of each page of a report. The source code is available to you through J. D. Edwards if you are affected by this problem.

Please be aware that differences in software versions may necessitate further assistance in applying these program changes.

ROUTING FUNCTION EXAMPLES

To print and hold a sp00l file, set up the command string for the additional routing function to be called HOLDFILE in the following manner.

HLDSPLF FILE(&) JOB(&/&/&) SPLNBR(*ONLY) OPTION(*IMMED)%

To change the form type, set up the command string for the additional routing function to be called CHGFORMTYPE as follows:

CHGSPLFA FILE(&) JOB(&/&/&) SPLNBR(&) FORMTYPE(&)%

FORMTYPE can be hardcoded in Parm 6. The first five parms are reserved. Similarly, you can change the User Data attribute on the output with CHGUSRDT A

DUPLEX printing may also be added to a PRINT function by adding the DUPLEX routing function to the Select Key.

CHGSPLFA FILE(&) JOB(&/&/&) SPLNBR(&) DUPLEX(*YES)%

EBB can be used to send sp00l files from one AS/400 in a network to another AS/400. This is accomplished with a SeND NET SP00L File command. The question mark between the two positional parameters for the TOUSRID keyword is a place hold to reserve a blank space which is required for the keyword format.

SNDNETSPLF FILE(&) TOUSRID(&?&) JOB(&/&/&)%

Appendix A Glossary

Based On File	The file name specified in the definition of the cross reference that contains the fields used as the Original and Substitute Select Keys. Both of the key fields must be located in the same file.
Bind	Creation of a new sp001 file from one or more where common data in the Burst Area is found. When more than one report is included in a Version 10, each report is burst and a bind is intended. A bind occurs when identical data appears on the following report(s).
Bind Criteria	The matching of Select Keys used to combine burst reports contained in a Version ID.
Burst	The separation to a new page within a sp001 file when data in a chosen area is unlike data on the previous page in the same area of the report. A burst creates a new sp001 file from a portion of the original one each time unlike data appears.
Burst Area	The physical location (line number, column number and length) on the report that contains the Select Key data.
Cross Reference	The file (F6008) which links Original Select Keys to Substitute Select Keys based on the data in the 'Based On' File.
Duplicate Version	An EBB Version that uses a Model Version for its Select Keys and Routing Functions.
Entity Number	An internally-assigned number used by the system to uniquely identify a Select Key.
Function	The routing instruction, including number of copies, routing id text on the banner page, and other changes and additions to the default setup, applied to an individual sp001 file after it is burst and/or bound. It is a CL command string which must follow certain criteria (i.e. cannot use reserved words and must end with a "%") See Routing Function.
Monitor	The program running in batch (submitted as the "wake up" period designates) that checks for sp001 files in the EBBST ART outq. When all sp001 files for a version are found and certain criteria is met (all sp001 files defined in the version are in EBBSTART, in ROY status, and the preload information is correct for those reports in the version), bursting/binding occurs.
Original Select Key	The Select Key set up on a report which is linked to a Substitute Select Key. This key represents data that is printed on the report.
Preload	The process of recording the Select Key text appearing in the burst area which is located when the selected sp001 file is scanned. The Select Keys

Routing Function	are unique, never duplicated, during the preload process. A print or output destination instruction or CL command, such as a Copy, used to process the output of burst and bind reports. See Function.
Select Key	The unique text found in the total of all burst areas on a report. The key is a 1-90 byte area (or total of multiple areas) of report text used by the Monitor for comparison during the burst process. A sp00l file page is burst when the text in the selected criteria does not match the same Select Key on the following page. It is also used to bind multiple reports in a version together.
Substitute Select Key	The field to be used in lieu of the (Original) Select Key defined on a report, for Burst and Bind Criteria when a cross reference is linked to a report in a version. This key is a field that is not printed on the report.
Table Number	The name assigned to the cross reference used to link Original and Substitute Select Keys. The table number is defined using DREAM Writer form P_8 and referenced in the Version ID setup.
User Data Attribute	An attribute of a sp00l file which identifies an EBB Version ID to the Monitor when it is in EBBST ART outq and in Ready status. It must match the EBB version name; it must be upper case and left-justified. The attribute can be changed by the user (with WRKSPLF) or by Printer Overrides on JDE reports.
Version ID	A unique name used in the EBB system to identify a specific set of instructions for bursting, binding and/or routing a sp00l file or a number of sp00l files. It also identifies the selected burst criteria and routing functions assigned to the Select Keys.

Appendix B Message Severity Levels

Message ID	Severity	Message Text
EBB0002	0	Last Record is Displayed
EBB0003	0	First Record is Displayed
EBB0004	10	Invalid Library, File, or Member Name
EBB0005	10	Valid Library Name Required
EBB0006	10	Valid Source File Name Required
EBB0007	10	Valid Member Name Required
EBB0008	10	Valid Output Queue Required
EBB0009	0	Parameters OK - press F10 to continue
EBB0010	10	AS/400 Model Number not found in program table
EBB0011	10	AS/400 Model Serial Number contains an invalid character.
EBB0013	10	Customer Number not found on Address B00k
EBB0014	0	Software Authorization has been logged
EBB0016	10	First-Time Installation must be Y or N
EBB0017	10	At least one library must be specified to contain EBB data files
EBB0018	10	At least one library must be specified containing the J. D. Edwards setup files
EBB0019	0	Report Finished Successfully
EBB0020	10	Report DID NOT FINISH
EBB0021	0	Report Cancelled at User Request
EBB0022	10	Alpha or Date Sequence must be A or D
EBB0023	10	Re-install Backup response must be Y or yes or N for no.
EBB0024	10	JDE Object Library must be specified.
EBB0026	10	Target Release is not valid.
EBB0027	10	Invalid Row. Row must be between 1 and 57.
EBB0028	10	Invalid Column. Column must be between 1 and 198.
EBB0029	10	Routing Description Invalid
EBB0030	10	Invalid Length Entered. Length Must be Greater Than Zero For An ADD
EBB0031	10	Total Key Length Cannot Exceed 90 Positions
EBB0032	10	Invalid Delete, There are no records to be deleted.
EBB0033	10	Sequence number already in use. You may not duplicate sequence numbers.
EBB0034	10	The key length selected can not be less than zero
EBB0035	10	Burst criteria must be on the same row
EBB0040	0	Preload Select Keys Is Running. Please be patient.
EBB0041	0	Pre Load Select Keys Has Completed, And Found xxx New Select Keys

EBB0042	10	Version xxx report xxx was not found in this OUTQ.
EBB0043	10	Select Key Can Not Be Blank
EBB0044	10	Install to Separate Environment must be 'Y' or 'N'
EBB0045	10	Library not found. Please check.
EBB0046	10	EBB object library was found, and an initial install was requested. Please check.
EBB0047	10	EBB object library was not found, and are-install was requested. Please check.
EBB8000	10	All reports for version: xxx must be in OUTQ EBBST ART and in Ready Status
EBB800 I	20	No Functions Found For Version 10: xxx
EBB8003	10	EBB Sp00l File Not In Ready Status For Version 10:
EBB8004	0	No EBB version found for sp00l file with userdata:
EBB8005	10	Error in the Substitute Select Key process (See second level text).
EBB8006	10	Error in the Substitute Select Key process (See second level text).
EBB8007	10	Error in the Substitute Select Key process (See second level text).
EBB8008	10	Rebuild Cross Reference must be 'V' or 'N'.
EBB8009	10	If Rebuild is yes, a DREAM Writer Version must be entered
EBB8010	10	Table Name must be entered.
EBB8011	10	Enter a 'V' or 'N' in the Print Key field.
EBB8012	10	Print Row must be between 1 and 99.
EBB8013	10	Print Position must be between 1 and 191.
EB88014	10	Print Length must be between 1 and 191.
E88801S	10	Date is not valid. Please check.
EB88900	10	Invalid Version 10 entered.
E889000	0	E88 monitor started at - time- on -date- by xxx
E889001	0	EBB monitor ended at -time- on -date- by xxx
E889002	10	The E8B Monitor is Already Active
E889801	20	F0090 was not found in any of the selected common libraries.
E889802	20	F9200 was not found in any of the selected common libraries.
E889803	20	F9220 was not found in any of the selected common libraries.
E8898O4	20	F9601 was not found in any of the selected common libraries.
E8B980S	20	F9611 was not found in any of the selected common libraries.
E8898O6	20	F9620 was not found in any of the selected common libraries.
E889807	20	F9621 was not found in any of the selected common libraries.
EB89808	20	F9801 was not found in any of the selected common libraries.
E8B9809	20	F9830 I was not found in any of the selected common libraries.
EBB9810	20	F0020 was not found in any of the selected common libraries.
EBB9811	20	F9800 was not found in any of the selected common libraries.

E8B9900	0	EBB Software Installation Completed Successfully
EBB9904	10	Library EBBLIB already exists - re-install not requested.
EBB9905	10	Library EBBLIB does not exist - re-install requested
EBB9906	0	EBB Create Demo Tape finished successfully
EBB9907	10	EBB Demo Tape Create DID NOT COMPLETE
EBB9908	0	EBB Create Demo Tape cancelled by user request
EBB9909	10	Library specified for the JDE object library does not exist.
EBB9910	10	System Code 60 is already in use on your system.
EBB9912	10	Delay Time may not be zero or negative
EBB9913	10	EBB JOBQ Name may not be left blank
EBB9914	10	Invalid JOBQ Specified
EBB9915	10	Invalid Receiving OUTQ
EBB9916	10	Invalid Error OUTQ

**J.D. Edwards & Company
8055 East Tufts Ave.
Suite 1331
Denver, CO 80237
USA**

**©J.D. Edwards & Company
All Rights Reserved**

Information in this guide is subject to change without notice and does not represent a commitment on the part of J.D. Edwards & Company. The software described in this guide is furnished under license agreement and canbe used or copied only in accordance with the terms of the agreement.