iWay Software
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iWay

iWay Server Release Notes
Version 5 Release 3.2

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RELEASE NOTES

iWay Server Version 5 Release 3.2

Topics:

- All Server Platforms
- Required Information for Adapter Configuration
- Server for UNIX, Windows, OpenVMS, OS/400, or OS/390 and z/OS
- Server for OS/390 and z/OS
- Server for OS/400
- Server for Windows
- Server for MVS
- DataMigrator
- FOCUS Database Server

These Release Notes provide the latest information about the iWay Server Version 5 Release 3 Maintenance Level 2. They supplement the iWay Server Version 5.x manuals.

Note: For the latest Version 5 Release 3.2 Server information and a full list of PTFs, visit http://techsupport.informationbuilders.com/iwayalert.jsp. You will need your InfoResponse login ID and password to enter the Technical Support site.

All Server Platforms

The following topics describe general issues that are not specific to an operating system:

- Security Mode for WCPROTECT
- Adapter for Informix
- SAP Query Adapter Data Retrieval
- Connector and Server Releases
- Master File Description DBA USER= Portability
- Application Paths

Security Mode for WCPROTECT

The security mode for WCPROTECT is no longer supported. It has been replaced with security mode PTH. Please see the *iWay Server Administration for UNIX, Windows, OpenVMS, OS/400, OS/390 and z/OS* manual for more information on the different security modes supported.

Adapter for Informix

As a result of integrating support for the American National Standards Institute (ANSI) standard of making all identifiers appear in double quotes, some syntax errors exist in Version 5 Release 3.

Quoted identifiers are generated around the table name in the Access File when you use CREATE SYNONYM in the Web console for Informix. For example,

```
TABLENAME=qaeda.R720530B."TNUM11"
```

To avoid the syntax errors, set the DELIMIDENT environment variable before starting the server. Refer to the *IBM Informix Guide to SQL* for the correct syntax.

Note: You can also eliminate these syntax errors on Informix by manually removing the quotes around the identifiers in the Access File.

SAP Query Adapter Data Retrieval

When an SAP request is received, either via FOCUS or ODBC SQL, it is translated into SAP Open/SQL. This SQL consists of SAP ABAP statements that perform operations on the central database in the R/3 system. The results of the operations and any error messages issued are independent of the underlying database type and operating system.

The advantage of Open/SQL is that you do not need to worry about data type conversions, fetch sizes, and other database parameters when using SAP. The SAP system does not allow direct reads against the underlying database tables, because reading a database directly would impact security.

Using SAP OPEN SQL allows all optimization and performance methods to be handled by the SAP application server, as well as any JOIN logic. This means that SAP is using its own internal JOIN logic.

The result is that the SORTMERGE and NESTED LOOP options are without meaning in an SAP context, therefore regardless of the setting in the profile, any statements are translated to SAP Open/SQL and executed against the SAP system.

The SAP Query result set is then passed to the relational interface for output processing, which may then issue warnings based on the internal algorithms present in the relational interface , but do not affect SAP data retrieval.

For more information about ABAP Open SQL, go to http://help.sap.com.

Connector and Server Releases

In order to connect to a service other than the default on a Version 5 Release 3 Server, the client environment (connector or Hub Server) needs to be at the Version 5 Release 3 level. A previous release of the connector or the server can only connect to the default service within a Version 5 Release 3 Server. The only exception to this is connecting to a service on MVS. A previous release of the connector and server can access all services of a Version 5 Release 3 Server for MVS.

Master File Description DBA USER= Portability

Often a user's actual User ID is used programatically as the SET PASS value for USER= values in the DBA section of a Master File Description. This is typically implemented as:

```
-SET &USER = GETUSER('A8');
```

or

```
SET PASS = &USER
```

The various operating system environments supported by iWay present situations where user IDs might seem the same on the surface, but are logically different as follows:

1. OS/400, OpenVMS, VM and MVS, where IDs are stored in upper case (for example, George can only be stored as GEORGE). For the purpose of logging in, the ID is treated as case insensitive.
2. UNIX, OS/390 and z/OS, where IDs are stored as entered (for example, george, GEORGE and George are three distinctly different IDs). For the purpose of logging in, the ID is treated as case sensitive.
3. Windows NT/2000/XP where IDs are stored as entered and there can be only be one ID for any given upper, lower or mixed case spelling of the same ID (for example, George can be stored as George, but then you cannot create a GEORGE ID). For the purpose of logging in, the ID is treated as case insensitive.

Some sites use the above syntax and lower case DBA USER= values in the DBA section of a Master File Description, which is perfectly valid. However, as applications are asked to become more portable these seemingly small differences become portability and logistical issues.

To ensure a more platform neutral use of GETUSER for setting SET PASS values, the following steps are recommended as general application changes to eliminate this platform differences.

1. Change Master File Description DBA USER= values to upper case.
2. Use the UPCASE function in conjunction with GETUSER. Specifically:

```
-SET &USER = UPCASE(16,GETUSER('A16'),'A16') ;
SET PASS = &USER
```

Some operating systems support user IDs longer than 8 characters and this example is coded for those longer lengths. A given site may require an even longer length than A16, but this is not the typical use.

Another use of GETUSER is when an application retrieves the ID with GETUSER, parses it to extract a portion (such as department prefix or suffix) to determine whether to issue a SET PASS value. The use of UPCASE with GETUSER in this context is also recommended to avoid overly complex case-sensitive logic.

In a pooled server environment, a user ID is retrieved using the Connected User CNCTUSR function because the traditional GETUSER function returns the server admin ID in this configuration. The CNCTUSR function is also universal across all servers configurations and is recommended for future applications or re-writes. In the same way that one might use UPCASE and GETUSER results for portability, so should the UPCASE function be used with the CNCTUSR function.

Application Paths

In Version 5.3, the server is app enabled by default. When it is app enabled, the server does not check EDAPATH. If your applications rely on EDAPATH, you can migrate to application paths. Use the Migrate option under Workspace Manager in the Web Console and specify the name of the configuration directory. This action updates not only your application paths, but any other configuration settings to bring them to 5.3 standards.

Required Information for Adapter Configuration

You must provide information to configure the adapters that you are licensed to install. Depending on which adapters you are installing:

- The installation procedure may automatically prompt you for some of this information.
- You may need to manually edit certain files to supply some of this information.

(In a future release, you will be automatically prompted for all information.)

If you are using non-APF-authorized DBMS libraries, you must allocate the libraries to the DDNAME TASKLIB in IRUNJCL. The installation routine collects the information and allocates the required libraries in STEPLIB.

After you have installed and configured the server, you will be able to further configure your adapters using a Web-based server configuration tool called the Web Console.

The following table describes what information you need to provide for each adapter that you have. (If an adapter is not listed, no information needs to be provided for it.) Note that the table refers to:

- **EDAENV.** This parameter file is a member of *qualifier*.*server_type*.DATA, where *server_type* is one of the following:

  ffs Full-Function Server
  wfs WebFOCUS Reporting Server
  dm DataMigrator Server
  wfm WebFOCUS Maintain Server
  cgw Communications Gateway

- **IRUNJCL.** This procedure starts the server, and is a member of the configuration library *qualifier*.*server_type*.DATA.

Adapter	Required Information
Adabas	**You will automatically be prompted for the:** Adabas load library data set name. This is required only for the synonym creation process. For example, in a production environment in which all synonyms already exist, you can omit this. When you configure the adapter, you will need to provide the name of the Adabas source library and the associator data set name.

CA-DATACOM	**You will automatically be prompted for the:**
	• load library data set name.
	Specify any one of the three load libraries here. Specify the other two manually, as described below.
	• URT library data set name.
	If you have more than one URT library, specify the others manually, as described below.
	You must manually:
	Add these libraries to IRUNJCL in a STEPLIB statement:
	`DSN=DATACOM.R110.CAILIB`
	`DSN=DATACOM.R110.CUSLIB`
	`DSN=CAI.CS30.CAILIB`

DB2 CAF	**You will automatically be prompted for the:** `SDSNLOAD` load library data set name (unless it's already in linklist). For security information, see *DB2 Security Exit Configuration* on page 10.
DB2 CLI	**You will automatically be prompted for the:** • `SDSNLOAD` load library data set name (unless it's already in linklist). For security information, see *DB2 Security Exit Configuration* on page 10. • `DSNAOINI` environment variable, which contains the full path and file name of the DB2 CLI ini file. For example: `/u/iadmin/db2cli.ini`

Adapter	Required Information

EJB	Select the Java adapter—in addition to the EJB adapter—in *Selecting the Java Adapter (for EJB and MS SQL)* on page 11.
	You must manually:
	If you are deploying the adapter to access an EJB on a:
	• WebLogic server, append the following value to CLASSPATH in EDAENV:
	`/.../.../.../weblogic.jar`
	• WebSphere server, append the following values to CLASSPATH in EDAENV:
	`/.../.../.../websphere.jar`
	`/.../.../.../ejbcontainer.jar` (one for each EJB container)

CA-IDMS/DB and CA-IDMS/SQL	**You will automatically be prompted for the:** • load library data set name. For example, `IDMS.LOADLIB`. • DBA load library data set name. For example, `IDMS.DBA.LOAD.LIB`. • `SYSIDMS` library data set name. • `SYSCTL` library data set name. If you will be running IDMS in local mode, add these DD statements to IRUNJCL: • `SYSJRNL DD DUMMY` • An allocation for each IDMS data set.
IMS DB	**You will automatically be prompted for the:** • `DFSPZP` load library data set name. • `DFSRESLB` load library data set name.
InfoMan	**You must manually:** Add this library to IRUNJCL in a STEPLIB statement: `DSN=INFOMAN.V7R1M0.SBLMMOD1`

Adapter	Required Information
Java	You must have JDK installed. **You will automatically be prompted for the:** Location of JDK. For example: `/usr/lpp/java/IBM/J1.3/bin` The installation procedure will append the location to LIBPATH.
Millennium	**You must manually:** Add this library to IRUNJCL in a STEPLIB statement: `DSN=GEAC.CPMILL.V1.LOAD`
MODEL 204	**You will automatically be prompted for the:** M204 load library data set name.

MQ Series	**You must manually:**
	Add these libraries to IRUNJCL in STEPLIB statements:
	`DSN=MQS.V5R2M0.SCSQAUTH`
	`DSN=MQS.V5R2M0.SCSQLOAD`

MS SQL Server	Select the Java adapter—in addition to the MS SQL Server adapter—in *Selecting the Java Adapter (for EJB and MS SQL)* on page 11.
	You must manually:
	Append the following three values to CLASSPATH in EDAENV:
	`/usr/lpp/sqluss/lib/msbase.jar:\`
	`/usr/lpp/sqluss/lib/mssqlserver.jar:\`
	`/usr/lpp/sqluss/lib/msutil.jar:\`

Adapter	Required Information
Oracle	**You will automatically be prompted for the:** • ORACLE_SID environment variable, which contains the Oracle SID. • ORACLE_HOME environment variable, which contains the Oracle home directory. • LIBPATH environment variable, which contains the Oracle lib directory's location. This is usually $ORACLE_HOME/lib. **You must manually:** Add these Oracle load libraries to IRUNJCL in STEPLIB statements. Of the following items, the ones in **bold** are always required. **DSN=ORACLE.V9R2040.CMDLOAD** DSN=ORACLE.V9R2040.MESG If the Oracle load library is APF-authorized, and the Oracle message library is not, you can point to the message library using the ddname ORA$LIB. Add these DD statements to IRUNJCL: **//ORA@ORAC DD DUMMY** //ORA$LIB DD DISP=SHR,DSN=ORACLE.V9R2040.MESG where ORA@ORAC is the Oracle anchor. Set these environment variables in EDAENV: **ORACLE_SID=ORAC** **ORACLE_HOME=/usr/lpp/oracle92** ORA_NLS33=/usr/lpp/oracle92/ocommon/nls/admin/data where ORAC is the SID, usr/lpp/oracle92 is the Oracle home directory, 33 is the number of the National Language Support (NLS) conversion routine, and /usr/lpp/oracle92/ocommon/nls/admin/data is the location of the NLS conversion routine. You can omit the ORA_NLS33 statement if you are sure that your system will never need to do any character translation. Append the following value to LIBPATH in EDAENV: **LIBPATH=...:** **/usr/lpp/oracle92**

Adapter	Required Information

Supra	**You must manually:**
	Add these libraries to IRUNJCL in STEPLIB statements:
	`DSN=supra.INTERFLM`
	`DSN=supra.ENVLIB`
	`DSN=supra.LINKLIB`
	Add these DD statements to IRUNJCL:
	`//CSIPARM DD DSN=supra.SAMPLE.CSIPARM(TXPFOCUS),DISP=SHR`
	`//CSISYSIN DD DSN=`***`qualif`***`.EDALIB.DATA(SUPRCNFG),DISP=SHR`
	`CSIPARM` points to the data set that contains the CSIPARM definition, which in turn points to the Central PDM you are accessing. For the name of this file, contact your Supra Database Administrator.

VSAM CICS	**You must manually:** Add this library to IRUNJCL in a STEPLIB statement: `DSN=CICSTS.V1R3M0.SDFHEXCI`

DB2 Security Exit Configuration

Customize the DB2 security exit to allow the Data Adapter for DB2 to run with user-level security enabled. If you do so, users will connect to DB2 with the authorization of the user ID with which they logged on to the server. The server must also be running with security turned on.

If you do not customize the DB2 security exit, all users will be assigned the connect ID to DB2 that is associated with the region, job submitter, or started task.

The changes that must be made to the IBM DB2 signon exit, DSN3SATH, differ for RACF and *e*Trust CA-Top Secret sites and *e*Trust CA-ACF2 sites.

The arrows shown in the examples indicate the lines containing the recommended modification of DSN3SATH, which calls the module FOCDSN3 the supplied exit.

Once you have finished the edits, assemble the exit into an object file.

Note:

- The positioning of these lines is appropriate, assuming that no other changes or additions have already been made to DSN3SATH. If any changes have been made, you should decide on the most appropriate location for this call to FOCDSN3.
- FOCDSN3 is used to set the proper primary (individual user ID) authorization.

- Another program, FOCDSN4, is used to set the proper secondary (group ID) authorization for RACF and *e*Trust CA-Top Secret. FOCDSN4 is not needed with *e*Trust CA-ACF2; the secondary authorization ID(s) will be set correctly without it.

Selecting the Java Adapter (for EJB and MS SQL)

1. The Data Adapter panel lists adapters that require the allocation of MVS libraries in IRUNJCL or environment variables in the EDAENV member.
2. To select specific adapters:
   a. Type *Y* next to the required adapters and press *Enter*.
   b. Supply the requested information.

      After you have finished installing and configuring the server, you can use the Web Console to finish configuring these adapters, and to configure adapters that do not have MVS JCL requirements.
   c. Press *Enter*.

      The New Century Corporation Demonstration Files panel opens.

Server for UNIX, Windows, OpenVMS, OS/400, OS/390 and z/OS

The following issues apply to the Server for UNIX, Windows, OpenVMS, OS/400 or OS/390 and z/OS:

- Server Support on Windows XP
- Designating Network Drives as APP Directories
- Controlling the Verbosity Level Using EDAHLIP

Server Support on Windows XP

The iWay Server for Release 5 Version 3 Maintenance Level 2 is now fully supported on Windows XP. Please note that with the new security defaults for XP, the server and ports must be added to the firewall and opened explicitly in order to successfully use the server (specifically for inbound connections).

Designating Network Drives as APP Directories

Users designating a network drive to access APP directories are instructed to specify the Universal Naming Convention (UNC). For example, if your APP root directory is located on a PC called Italia and is called APPROOT, the UNC path will be

```
\\Italia\APPROOT
```

Controlling the Verbosity Level Using EDAHLIP

In Version 5 Release 3, the Server Administrator can control the hliprint.log verbosity level using the EDAHLIP environment variable. The default for the hliprint.log verbosity level is "stat", which means the maximum verbosity level in hliprint.log.

The valid settings for EDAHLIP are as follows:

none	No hliprint.log is created. Turning logging off will increase performance, however, this is not recommended, because it makes it harder to diagnose sink problems.
echo	The hliprint.log is created and contains moderately verbose information (one line per transaction, line length 80 characters).
stat	The hliprint.log will get the highest verbosity level (printing 133-character line per transaction, including timing information).

Server for OS/390 and z/OS

The following issues apply to the Server for OS/390 and z/OS:

- Controlling Column Names
- Upgrading Your Server Release
- Migrating MVS Long Synonyms
- Allowing Additional Administrators to Create Metadata for Adabas Data Sources
- Adapters for Datacom, Supra Sever PDM and System 2000

Controlling Column Names

You can use the SET NOCOLUMNTITLE command to control the column names in a report when executing a DB2 stored procedure.

Syntax: How to How to Control Column Names

```
ENGINE DB2 SET NOCOLUMNTITLE {ON|OFF}
```

where:

DB2

Indicates the Adapter for DB2. You can omit this parameter value if you previously issued the SET SQLENGINE command.

ON

Uses generated column names (for example, E01, E02, and so on) instead of the column names returned by DB2.

OFF

Uses the column names returned by DB2. This is the default value.

Upgrading Your Server Release

If you are upgrading your server release from 5.2.0, 5.2.1, or 5.2.2 to release 5.2.3 or higher, you must edit the ISTART member of the MVS configuration file to add the following DD card:

```
//SYSOUT        DD     SYSOUT=*
```

Note: You can replace the * with any valid JES output queue.

Migrating MVS Long Synonyms

Long synonyms (Master Files with names longer than eight characters) are fully supported if they reside in HFS, but not if they reside in MVS PDS libraries allocated to an application name (default MVSAPP). To migrate long synonyms from MVSAPP to HFS, a procedure called MIGLSYN has been provided. It searches for long synonyms in the following applications:

- MVSAPP. Files you have allocated to DDNAMEs MASTER and ACCESS.
- MVSMETA. Files you have allocated to DDNAMEs HOLDMAST and HOLDACC.

All DDNAMEs must be allocated in the servers JCL.

Syntax: How to How to Migrate MVS Long Synonyms

You can run MIGLSYN from the Procedures page of the Web Console or by submitting a batch JCL job. For information on how to create a Batch JCL job, see *Server Installation for OS/390 and z/OS* in the *iWay Server Installation* manual. The syntax is

```
EX MIGLSYN [TARGET_APP=app_name][,][LOG_DSN=log_file_name]
```

where:

TARGET_APP=*app_name*

Specifies the application directory to which MVS long synonyms are copied. The default value is BASEAPP. If the specified directory does not exist, it will be created automatically.

Note: The migration tool does not override an existing synonym in the TARGET_APP directory. To replace an existing synonym, you must delete it first. Alternatively, you can migrate the synonym to a different TARGET_APP directory.

,

A comma separates the optional parameters TARGET_APP and LOG_DSN and is used only when both are specified.

LOG_DSN=*log_file_name*

Is the dataset name for the utility log. The default value is *user_ID*.MIGLSYN.LOG. Specifying the value HFS creates the log file under TARGET_APP as miglsyn.log.

When the job completes, the log file lists all operations performed and final statistics, including success count, warnings count, errors count, and total of files processed.

The procedure returns one of the following codes:

Code	Meaning	Required Actions
0	No Errors	
4	Warning	Look for log entries marked **WARNING**. These entries identify long synonyms for FOCUS, VSAM, or fixed-format data sources. On MVS, these synonyms required a DYNAM command with the LONGNAME option to point to the physical data source. DYNAM with LONGNAME is not supported under HFS. You must edit these synonyms to replace DYNAM commands with DATASET=*dataset*. You can edit the synonym in the Web Console's Metadata page.
8	Severe Errors	Look for log entries marked **ERROR**. Some synonyms are not copied. You will need to fix the problem and rerun.

Allowing Additional Administrators to Create Metadata for Adabas Data Sources

If you assign Server or Application Administrator privileges to user IDs other than the one used to install the server, to allow these additional administrators to create metadata for Adabas data sources, you must do one of the following:

- Include the Adabas load library in your SYS1.PARMLIB(LNKLST*nn*) member.
- Use the STEPLIBLIST feature and add the Adabas load library to the sanctioned list file. For full details on the STEPLIBLIST feature, see the IBM publication *UNIX System Services Planning Guide*.

  Tip: To locate the information in that document, search for STEPLIBLIST.

Adapters for Datacom, Supra Sever PDM and System 2000

The Adapter for Datacom, the Adapter for Supra Server PDM (formerly TOTAL) and the Adapter for System 2000, which are available in the Web Console, are not yet supported.

Server for OS/400

CREATE SYNONYM for DB2 requires a specific library if the underlying table exists in multiple libraries on the machine. For example,

```
CREATE SYNONYM ABC FOR MYLIB/ABC DBMS DB2
END
```

Note: Additionally, if MODIFY or MAINTAIN are to be used against the table, you must assign an appropriate value to the KEYS attribute in the generated Access File.

Server for Windows

The following issues apply to the Server for Windows:

- Administrative Privileges
- Adapter for Microsoft SQL Server

Administrative Privileges

Although Administrative privileges are required only during installation, a Server Administrator needs to have at least Power User privilege in order to run the server as a service.

Adapter for Microsoft SQL Server

Version 5 Release 3 of the Adapter for Microsoft SQL Server is based on OLE DB, the Microsoft-recommended API for developing high-performance components. Earlier releases of the adapter were based on the ODBC API.

Differences between adapter functionality under OLE DB and ODBC exist in the following areas

- Connection attributes.
- Cursors.
- Mapping of UNIQUEIDENTIFIER and BIT data types.

If you are using ODBC, see *Microsoft SQL Server Compatibility With ODBC* in the *Getting Started With Microsoft SQL Server* chapter in the *iWay Adapter Administration for Windows, UNIX, OpenVMS, OS/400, OS/390 and z/OS* manual.

Server for MVS

The APP CREATE command creates an application area under the approot location. Any number of applications can be created with one command. On MVS, it is a number of DSNs that are created with a common root. These DSNs now include:

```
approot.appname.MASTER.DATA
approot.appname.FOCEXEC.DATA
approot.appname.ACCESS.DATA
approot.appname.FOCSTYLE.DATA
approot.appname.GIF.DATA
approot.appname.HTML.DATA
approot.appname.MAINTAIN.DATA
approot.appname.WINFORMS.DATA
approot.appname.ETG.DATA
approot.appname.FOCCOMP.DATA
```

Note: The word HOLD cannot be used as an application name. Also, if any application namespace dataset does not exist, error message 855 Unable to Locate dataset will appear in the EDAPRINT file of the server. This is normal and, if the dataset does not exist, this message can be ignored.

DataMigrator

The run id that is associated with a *scheduled* flow is set from the iWay Web Console, Listeners page, Special Services, Scheduler as the value for sched_run_id. When sched_run_id is set to sever_admin_id, scheduled flows are run under the server administrator's ID. When set to user, scheduled flows are run under the user ID that was used to save the flow.

Flows submitted from the Data Management Console, the Web Console, or CMRUN are always run under the user ID that submitted the flow.

For more information, see the *iWay DataMigrator User's Guide*.

Prior Behavior:

In Release 5.2.0 through 5.2.4, by default, all requests are run under the server_admin_id. When set to user, all requests run under the user ID that was used to save the request.

In Release 5.1 and earlier, requests were run under the submitter's user ID, while requests initiated by the scheduler were run under the server's user ID.

FOCUS Database Server

There is no longer an FDS directory for the FOCUS Database Server. Any database in the server namespace can be put on the FOCUS Database Server by issuing the following command:

```
USE database ON FOCSU01
```

On initial startup, the FOCUS Database Server reads the global server profile, EDASPROF, and then reads SUPROF. It reads SUPROF on every FOCUS Database Server wake-up. Therefore, you do not need to recycle the server to make changes to SUPROF.