

Enabling Universal Encoding Support (UES) for Your Adabas Nucleus

Prior to Adabas Version 7, Entire Net-Work converted all data for mainframe Adabas when necessary from ASCII to EBCDIC. Starting with Version 7, Adabas is delivered with its own data conversion capability called *universal encoding support (UES)*. Entire Net-Work detects when it is connected to a target database that converts data and passes the data through to Adabas without converting it.

Universal encoding support must be activated in:

- The Adabas nucleus. The steps to implement UES in the Adabas nucleus are provided in *Installing UES Support for the Adabas Nucleus*.
- The Adabas link routines. For Adabas Version 7, UES is enabled by default for the link routines ADALNK, ADALNKR, and ADALCO. For Adabas 8, UES is enabled by default for *all* link routines. For information on altering UES enablement in the link routines read appropriate sections of *Installing Adabas With TP Monitors*, starting with the section *UES-Enabled Link Routines*.

UES-enabled databases can be connected to machines with different architectures through Com-plete, Software AG internal product software (APS), or through Entire Net-Work (WCP). Connections through Com-plete or Software AG internal product software (APS) use the Adabas Com-plete link routines; connections through Entire Net-Work use the Adabas batch link routines.

Adabas, as shipped, runs with APS 2.7.2. By relinking module ADAECS, Adabas can run with APS 3.3.1 fix pack 13 or above. The sample link job LNKAPS33.X (to support UES with APS 3.3.1) is provided in the ADAvrs.LIBR library.

Note:

Adabas modules linked using APS 3.3.1 libraries are no longer compatible with APS 2.7.2.

- The Adabas database. For more information, read *Universal Encoding Support (UES)* as well as *ADADEF Utility: Define a Database* and *ADACMP Utility: Compress-Decompress Data* for more information.

Note:

The use of UES-enabled link routines and a UES-enabled nucleus is transparent to applications, including applications that do not require universal encoding translation support. Therefore, it is not necessary to disable UES if it is already enabled.

This chapter covers the following topics:

- Installing UES Support for the Adabas Nucleus
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Installing UES Support for the Adabas Nucleus

The following LIBR sublibraries are distributed with ADABAS for UES support:

SAGLIB.ADAvrsCS

SAGLIB.APS272nn

SAGLIB.APS272

To install these libraries:

1. Create a z/VSE sublibrary for the code pages.

```
* $$ JOB JNM=CRUESL,CLASS=0,DISP=D,LDEST=(,xxxxxxx)
* $$ LST CLASS=A,DISP=D
// JOB LIBRDEF
// ASSGN SYS005,DISK,VOL=vvvvvv,SHR
// DLBL DDECSOJ,'SAG.ADABAS.LIB',2099/365,SD
// EXTENT SYS005,vvvvvv,1,0,ssss,tttt
// EXEC LIBR
DEFINE L=DDECSOJ R=Y
/*
/&
* $$ EOJ
```

2. Create a z/VSE sublibrary for APS.

```
* $$ JOB JNM=CRUAPS,CLASS=0,DISP=D,LDEST=(,xxxxxxx)
* $$ LST CLASS=A,DISP=D
// JOB LIBRDEF
// ASSGN SYS005,DISK,VOL=vvvvvv,SHR
// DLBL DDECSOJ,'SAG.APS.LIB',2099/365,SD
// EXTENT SYS005,vvvvvv,1,0,ssss,tttt
// EXEC LIBR
DEFINE L=APS272nn R=Y
DEFINE L=APS272 R=Y
/*
/&
* $$ EOJ
```

3. Restore the UES code pages sublibrary to this file. Refer to the *Report of Tape Creation* for the file positions on the distribution tape.

```
* $$ JOB JNM=RESTECS,DISP=D,CLASS=0,LDEST=(,xxxxxxx)
* $$ LST DISP=D,CLASS=A
// JOB RESTECS
// ASSGN SYS005,DISK,VOL=vvvvvv,SHR
// DLBL ADALIB,'SAG.ADABAS.LIB',2099/365,SD
// EXTENT SYS005,vvvvvv,1,0,ssss,tttt
// ASSGN SYS006,uuu
// MTC REW,SYS006
// EXEC LIBR,PARM='MSHP'
RESTORE SUBLIB=SAGLIB.ADAvrsCS:ADALIB.DDECSOJ -
TAPE=SYS006 -
LIST=YES -
REPLACE=YES
/*
// MTC REW,SYS006
// ASSGN SYS006,UA
/&
* $$ EOJ
```

4. Restore the APS sublibraries. Refer to the *Report of Tape Creation* for the file positions on the distribution tape.

```
* $$ JOB JNM=RESTAPS,DISP=D,CLASS=0,LDEST=(,xxxxxx)
  * $$ LST DISP=D,CLASS=A
  // JOB RESTAPS
  // ASSGN SYS005,DISK,VOL=vvvvvv,SHR
  // DLBL APSLIB,'SAG.APS.LIB',2099/365,SD
  // EXTENT SYS005,vvvvvv,1,0,ssss,tttt
  // ASSGN SYS006,uuu
  // MTC REW,SYS006
  // EXEC LIBR,PARM='MSHP'
RESTORE SUBLIB=SAGLIB.APS272nn:ADALIB.APS272nn -
TAPE=SYS006 -
LIST=YES -
REPLACE=YES
/*
// MTC REW,SYS006
// ASSGN SYS006,UA
/&
* $$ EOJ
```

5. Repeat the previous step for SAGLIB.APS272.

6. Modify the Adabas startup JCL, adding the UES environment section after the ADARUN parameters:

```
ADARUN .....
ADARUN ....
/*
ENVIRONMENT_VARIABLES=/DDEC SOJ/ADAvrs/ENVVARS.P
/*
/&
* $$ EOJ
```

Reference the library where the libraries were restored in your Adabas startup procedure:

```
// ASSGN SYS005,DISK,VOL=vvvvvv,SHR
// DLBL DDEC SOJ,SAG.ADABAS.LIB,2099/365,SD
// EXTENT SYS005,vvvvvv,1,0,ssss,tttt
```

And add the libraries to the LIBDEF chain:(be sure SAGLIB.APS272nn is referenced *before* SAGLIB.APS272):

```
// DLBL APSLIB,SAG.APS.LIB,2099/365,SD
// EXTENT SYS006,vvvvvv,1,0,ssss,tttt
// LIBDEF PHASE,SEARCH=(SAGLIB.USRLIB,SAGLIB.ADAvrs... X
SAGLIB.AOSvrs,SAGLIB.ADEvrs,SAGLIB.ACFvrs,...X
DDEC SOJ.DDEC SOJ, X
APSLIB.APS272nn,APSLIB.APS272)
// LIBDEF OBJ,SEARCH=(SAGLIB.USRLIB,SAGLIB.ADAvrs... X
SAGLIB.AOSvrs,SAGLIB.ADEvrs,SAGLIB.ACFvrs, X
DDEC SOJ.APS272nn,DDEC SOJ.APS272)
// LIBDEF SOURCE,SEARCH=(SAGLIB.USRLIB,SAGLIB.ADAvrs,... X
SAGLIB.AOSvrs,SAGLIB.ADEvrs,SAGLIB.ACFvrs, X
APSLIB.APS272nn,APSLIB.APS272)
// LIBDEF PHASE,CATALOG=SAGLIB.USRLIB
```

7. Modify the ENVVARS.P file, adding the following line in the APSvrs library:

```
* This member contains Environment Variables used by APS and
* APS-based applications.
*
ECSOBJDIR=FILE://DDEC SOJ/DDEC SOJ
```

8. Run the ADADEF utility setting UES=YES:

```
* $$ JOB JNM=ADADEF,CLASS=0,DISP=D,LDEST=(,xxxxxx)
* $$ LST CLASS=A,DISP=D
// JOB ADADEF EXECUTE THE ADABAS VERSION 7 UTILITY ***DEF***
// OPTION LOG,PARTDUMP
*
// EXEC PROC=ADALIB
*
// EXEC PROC=ADAFIL
*
// EXEC ADARUN,SIZE=ADARUN
*
ADARUN PROG=ADADEF,MODE=SINGLE,SVC=svc,DEVICE=ddd,DBID=nnnn
/*
ADADEF MODIFY UES=YES
/*
/&
* $$ EOJ
```

9. Start the database.

You should see the following message:

```
ENTIRE CONVERSION SERVICES INITIALIZED
```