

Con-nect

Con-form Installation

Version 3.4.3

November 2016

This document applies to Con-nect Version 3.4.3.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

Copyright © 1985-2016 Software AG, Darmstadt, Germany and/or Software AG USA, Inc., Reston, VA, USA, and/or its subsidiaries and/or its affiliates and/or their licensors.

The name Software AG and all Software AG product names are either trademarks or registered trademarks of Software AG and/or Software AG USA, Inc. and/or its subsidiaries and/or its affiliates and/or their licensors. Other company and product names mentioned herein may be trademarks of their respective owners.

Detailed information on trademarks and patents owned by Software AG and/or its subsidiaries is located at <http://softwareag.com/licenses>.

Use of this software is subject to adherence to Software AG's licensing conditions and terms. These terms are part of the product documentation, located at <http://softwareag.com/licenses/> and/or in the root installation directory of the licensed product(s).

This software may include portions of third-party products. For third-party copyright notices, license terms, additional rights or restrictions, please refer to "License Texts, Copyright Notices and Disclaimers of Third-Party Products". For certain specific third-party license restrictions, please refer to section E of the Legal Notices available under "License Terms and Conditions for Use of Software AG Products / Copyright and Trademark Notices of Software AG Products". These documents are part of the product documentation, located at <http://softwareag.com/licenses> and/or in the root installation directory of the licensed product(s).

Use, reproduction, transfer, publication or disclosure is prohibited except as specifically provided for in your License Agreement with Software AG.

Document ID: CMF-INSTALL-343-20161125

Table of Contents

Con-form Installation	v
1 General Information	1
Con-form Operating Environment	2
31-Bit Addressing	2
Installation Prerequisites	2
Installation Jobs	3
Using System Maintenance Aid	3
Data Set Names	3
2 Con-form Installation Medium	5
z/OS Installation Medium	6
z/VSE Installation Medium	8
BS2000 Installation Medium	10
3 Installation Procedures for Con-form	13
Step 1. Loading the System File (Job I050, Step 0201)	14
Step 2. Relinking Your Natural Nucleus (Job I060 for Batch Mode or Job I080 for Online Operation)	15
Step 3. Loading Error Messages (Job I061, Step 0202)	16

Con-form Installation

This documentation provides information on installing and operating Con-form in various operating system environments. It is subdivided as follows:

- | | |
|---|---|
| General Information | Describes general information that is required prior to installing Con-form. |
| Con-form Installation Medium | Describes the contents of the Con-form installation medium and how to copy the data sets to disk. |
| Installation Procedures for Con-form | Describes the installation procedures. |

1 General Information

▪ Con-form Operating Environment	2
▪ 31-Bit Addressing	2
▪ Installation Prerequisites	2
▪ Installation Jobs	3
▪ Using System Maintenance Aid	3
▪ Data Set Names	3

This section contains general information for installing Con-form.

Con-form Operating Environment

Con-form Version 3.4.3 can be used with any of the following operating systems:

- z/OS
- z/VSE
- BS2000

Con-form Version 3.4.3 can be used with any of the following teleprocessing monitors:

- Com-plete
- CICS
- TSO
- SHADOW
- IMS/DC
- TIAM and UTM (BS2000)

This documentation describes the installation of Con-form Version 3.4.3 for the above-mentioned operating systems.

31-Bit Addressing

31-bit addressing mode is enabled.

Installation Prerequisites

Before installing Con-form, ensure that the following software has been installed:

- Natural Version 8.2.2 or above, and
- Adabas (version as required for your current Natural installation).

Installation Jobs

The installation of Software AG products is performed by installation jobs. These jobs are either created "manually" or generated by System Maintenance Aid (SMA).

For each step of the installation procedure, the job number of a job performing the respective task is indicated. This job number refers to an installation job generated by SMA.

If you are not using SMA, an example installation job of the same number is provided in the job library on the Con-form installation medium; you must adapt this example job to your requirements. Note that the job numbers on the medium may be preceded by a product code (for example, CMFI061).

Using System Maintenance Aid

If you plan to use SMA for the installation process, you must set the parameter CMF-FIRST-INSTALL to either **Y** if Con-form is not installed, or **N** if you are upgrading from a previous Con-form version.

For information on using SMA for the installation process, refer to the System Maintenance Aid documentation.

Data Set Names

All references in this documentation are made to data set names. The notation *nnn* in data set names represents the version number of the product.

2 Con-form Installation Medium

■ z/OS Installation Medium	6
■ z/VSE Installation Medium	8
■ BS2000 Installation Medium	10

z/OS Installation Medium

The installation medium contains the data sets listed below. The sequence of the data sets is shown in the Software AG Product Delivery Report which accompanies the installation medium.

Data Set Name	Contents
CMF nnn .JOBS	Example installation jobs.
CMF nnn .LOAD	Con-form load library.
CMF nnn .SRCE	Con-form source library.
CMF nnn .ERRN	Con-form internal error texts (language-independent).
CMF nnn .SYS1	An unloaded copy of an empty Con-form system file. This file has the internal identification number 251.

Copying Data Sets to a z/OS Disk

Copy the data sets from the supplied installation medium to your disk before you perform the individual installation procedure for each component to be installed.

The way you copy the data sets depends on the installation method and the medium used:

- If you use System Maintenance Aid (SMA), refer to the copy job instructions provided in the *System Maintenance Aid* documentation.
- If you are not using SMA and want to copy the data sets from CD-ROM, refer to the README.TXT file on the CD-ROM.
- If you are not using SMA and want to copy the data sets from tape, follow the instructions in this section.

This section explains how to copy all data sets from tape to disk.

- [Step 1: Copy Data Set COPY.JOB from Tape to Disk](#)
- [Step 2: Modify hilev.COPY.JOB on Your Disk](#)

- **Step 3: Submit COPY.JOB**

Step 1: Copy Data Set COPY.JOB from Tape to Disk

- Modify the following sample job according to your requirements:

```
//SAGTAPE JOB SAG,CLASS=1,MSGCLASS=X
//* -----
//COPY EXEC PGM=IEBGENER
//SYSUT1 DD DSN=COPY.JOB,
// DISP=(OLD,PASS),
// UNIT=(CASS,,DEFER),
// VOL=(,RETAIN,SER=tape-volser),
// LABEL=(2,SL)
//SYSUT2 DD DSN=hilev.COPY.JOB,
// DISP=(NEW,CATLG,DELETE),
// UNIT=3390,VOL=SER=disk-volser,
// SPACE=(TRK,(1,1),RLSE),
// DCB=*.SYSUT1
//SYSPRINT DD SYSOUT=*
//SYSIN DD DUMMY
//
```

where:

tape-volser is the VOLSER of the tape, for example: T12345,
hilev is a valid high-level qualifier, and
disk-volser is the VOLSER of the disk.

- Execute the job to copy the data set COPY.JOB to your disk.

Step 2: Modify hilev.COPY.JOB on Your Disk

- Modify *hilev*.COPY.JOB according to your requirements:

Set EXPDT to a valid expiration date, for example, 99365.

Set HILEV to a valid high-level qualifier, for example, USERLIB.

Set LOCATION to a storage location, for example, STORCLAS=ABC or UNIT=3390,VOL=SER=USR123.

Step 3: Submit COPY.JOB

- Execute `hilev.COPY.JOB` to copy single, multiple, or all data sets to your disk.

z/VSE Installation Medium

The installation medium contains the data sets listed below. The sequence of the data sets is shown in the Software AG Product Delivery Report which accompanies the installation medium.

Data Set Name	Contents
CMF nnn .LIBR	Con-form relocatable and source libraries.
CMF nnn .LIBJ	Example installation jobs.
CMF nnn .ERRN	Con-form internal error texts (language-independent).
CMF nnn .SYS1	An unloaded copy of an empty Con-form system file. This file has the internal identification number 251.

Copying Data Sets to a z/VSE Disk

Copy the data sets from the supplied installation medium to your disk before you perform the individual installation procedure for each component to be installed.

The way you copy the data sets depends on the installation method and the medium used:

- If you use System Maintenance Aid (SMA), refer to the copy job instructions provided in the *System Maintenance Aid* documentation.
- If you are not using SMA and want to copy the data sets from CD-ROM, refer to the README.TXT file on the CD-ROM.
- If you are not using SMA and want to copy the data sets from tape, follow the instructions in this section.

This section explains how to copy the data sets `.LIBJ`, `.LIBR` and `.LICS` from tape to disk. All other data sets can be installed directly from the tape.

- [Step 1: Copy Data Set COPYTAPE.JOB to Disk](#)
- [Step 2: Modify COPYTAPE.JOB on Your Disk](#)

- Step 3: Submit COPYTAPE.JOB

Step 1: Copy Data Set COPYTAPE.JOB to Disk

- Modify the following sample job according to your requirements:

```
* $$ JOB JNM=LIBRCAT,CLASS=0,                                     +
* $$ DISP=D,LDEST=(*,UID),SYSID=1
* $$ LST CLASS=A,DISP=D
// JOB LIBRCAT
* *****
*     STORE COPYTAPE.JOB IN LIBRARY
* *****
// ASSGN SYS004,nnn
// MTC REW,SYS004
// MTC FSF,SYS004,4
ASSGN SYSIPT,SYS004
// TLBL IJSYSIN,'COPYTAPE.JOB'
// EXEC LIBR,PARM='MSHP; ACC S=lib.sublib'
/*
// MTC REW,SYS004
ASSGN SYSIPT,FEC
/*
/&
* $$ EOJ
```

where:

nnn is the tape address, and

lib.sublib is the library and sublibrary in which the data set COPYTAPE.JOB is to be stored.

- Execute the job to copy the data set COPYTAPE.JOB to disk.

COPYTAPE.JOB contains the JCL required to copy the data sets .LIBJ, .LIBR and .LICS from tape to disk.

Step 2: Modify COPYTAPE.JOB on Your Disk

- Modify COPYTAPE.JOB according to your requirements and set the disk space parameters as appropriate.

Step 3: Submit COPYTAPE.JOB

- Execute COPYTAPE.JOB to copy the data sets .LIBJ, .LIBR and .LICS to your disk.

BS2000 Installation Medium

The installation medium contains the files listed below. The sequence of the files is shown in the Software AG Product Delivery Report which accompanies the installation medium.

Data Set Name	Contents
CMF nnn .JOBS	Example installation jobs.
CMF nnn .MOD	Con-form load library. This file is used as input data to LMS or LMR, which produces a LMS or LMR library with the name CMF nnn .MOD. It also contains source elements and assembles language macros.
CMF nnn .ERRN	Con-form error texts (language-independent).
CMF nnn .SYS1	An unloaded copy of an empty Con-form system file. This file has the internal identification number 251.

Copying Files to a BS2000 Disk

Copy the files (data sets) from the supplied installation medium to your disk before you perform the individual installation procedure for each component to be installed.

The way you copy the files depends on the installation method and the medium used:

- If you use System Maintenance Aid (SMA), refer to the copy job instructions provided in the *System Maintenance Aid* documentation.
- If you are not using SMA and want to copy the files from CD-ROM, refer to the README.TXT file on the CD-ROM.
- If you are not using SMA and want to copy the files from tape, follow the instructions in this section.

This section explains how to copy all files from tape to disk.

- [Step 1: Copy Library SRVvrs.LIB from Tape to Disk](#)
- [Step 2: Copy the Procedure COPY.PROC from Tape to Disk](#)

- **Step 3: Copy all Product Files from Tape to Disk**

Step 1: Copy Library SRVvrs.LIB from Tape to Disk

This step is not necessary if you have already copied the library `SRVvrs.LIB` from another Software AG installation tape. For further information, refer to the element `#READ-ME` in this library. The library `SRVvrs.LIB` is stored on the tape as a sequential file named `SRVvrs.LIBS` containing LMS commands. The current version `vrs` can be obtained from the *Software AG Product Delivery Report*.

- Execute the following commands to convert `SRVvrs.LIBS` into an LMS library:

```
/IMPORT-FILE  SUPPORT=*TAPE(FILE-NAME=SRVvrs.LIBS, -
/  VOLUME=volser, DEV-TYPE=tape-device)
/ADD-FILE-LINK  LINK-NAME=EDTSAM, FILE-NAME=SRVvrs.LIBS, -
/  SUPPORT=*TAPE(FILE-SEQ=3), ACC-METH=*BY-CAT, -
/  BUF-LEN=*BY-CAT, REC-FORM=*BY-CAT, REC-SIZE=*BY-CAT
/START-EDT
@READ  '/'
@SYSTEM 'REMOVE-FILE-LINK  EDTSAM'
@SYSTEM 'EXPORT-FILE  FILE-NAME=SRVvrs.LIBS'
@WRITE  'SRVvrs.LIBS'
@HALT
/ASS-SYSDTA  SRVvrs.LIBS
/MOD-JOB-SW  ON=1
/START-PROG  $LMS
/MOD-JOB-SW  OFF=1
/ASS-SYSDTA  *PRIMARY
```

where:

`tape-device` is the device type of the tape, for example, `TAPE-C4`, and `volser` is the `VOLSER` of the tape (see the *Software AG Product Delivery Report*).

Step 2: Copy the Procedure COPY.PROC from Tape to Disk

- Call the procedure `P.COPYTAPE` in the library `SRVvrs.LIB` to copy the procedure `COPY.PROC` to disk:

```
/CALL-PROCEDURE  (SRVvrs.LIB,P.COPYTAPE), -
/  (VSNT=volser, DEVT=tape-device)
```

If you use a `TAPE-C4` device, you can omit the parameter `DEVT`.

Step 3: Copy all Product Files from Tape to Disk

- Enter the procedure `COPY.PROC` to copy all product files to disk:

```
/ENTER-PROCEDURE COPY.PROC, DEVT=tape-device
```

If you use a TAPE-C4 device, you can omit the parameter `DEVT`.

The result of this procedure is written to the file `L.REPORT.SRV`.

3 Installation Procedures for Con-form

- Step 1. Loading the System File (Job I050, Step 0201) 14
- Step 2. Relinking Your Natural Nucleus (Job I060 for Batch Mode or Job I080 for Online Operation) 15
- Step 3. Loading Error Messages (Job I061, Step 0202) 16

This section describes step by step how to install Con-form under the operating systems z/OS, z/VSE and BS2000.



Note: Before you begin the installation procedures, determine if this is the first time that Con-form is being installed or whether this version is to replace an existing Con-form version. See [Using System Maintenance Aid](#).

Step 1. Loading the System File (Job I050, Step 0201)

If you are migrating from another version of Con-form, skip this step and continue with the next step.

If this is a first time installation, proceed with this step.

One Adabas file will be used by Con-form for storage and retrieval of texts, documents and other information (this is referred to as the Con-form system file). The following procedure prepares the file for subsequent use by Con-form.

Create the new Adabas file using the Adabas utility program ADALOD. Use the data set CMF nnn .SYS1 as input. The ISN REUSE flag of the Con-form system file should be set to ON. The specifications of the NTLFILE macro call in the Natural parameter module must correspond to the file number and the DBID of the database in which this file is contained. The internal file identification number 251 refers to the Con-form system file (CMF nnn .SYS1).



Note: Whenever this file is loaded and reloaded, you must specify the USERISN option to ensure that the ISN assignments of the database records remain unchanged.

For a medium-sized installation the following ADALOD parameters can be used for the system file:

```
ADALOD LOAD FILE=16,MAXISN=350000,ASSOPFAC=5,DATAPFAC=15,  
ADALOD DSSIZE=100,TEMPSIZE=20,SORTSIZE=10,ISNREUSE=YES
```

Step 2. Relinking Your Natural Nucleus (Job I060 for Batch Mode or Job I080 for Online Operation)

2.1 Modify Parameter Modules

Generating an executable Natural/Con-form nucleus is almost identical to generating a standard Natural nucleus. The changes that must be applied are given below.

1. The keyword parameter `CSIZE=nn` must be set to a value of 70 or more. This parameter can be specified either in the `NTPRM` macro call, or dynamically when `Con-form` is invoked. If this parameter is not specified correctly, Natural error 5300 or 5319 will occur whenever `Con-form` is called.
2. The keyword parameter `MAXCL` (maximum number of program calls between successive terminal dialogue steps) should reflect the number of program calls during execution of the `COMPOSE` statement.
3. The keyword parameter `MADIO` (maximum number of DBMS calls between successive screen I/O operations) should reflect the number of times the database is accessed during execution of the `COMPOSE` statement.
4. The profile parameter `RCA` (controls dynamic loading of the `CSTATIC` programs) in the macro `NTPRM` can be set to `ON`.
5. If `Con-form` is to be link-edited as a separately loadable module, `NTALIAS` must be specified within the Natural parameter module. For example:
 - `NTALIAS NATGWCNT, load module name`
 - `NTALIAS CONFORMR, load module name`
 - `NTALIAS CONFORMA, load module name`
 - `NTALIAS CONFORME, load module name`
 - `NTALIAS CONFORMM, load module name`
 - `NTALIAS CONFORMF, load module name`
 - `NTALIAS CONFORMU, load module name`

`"NTALIAS NATGWCNT, load module name"` is specified only when the load module name is different from `NATGWCNT`.
6. An additional macro call must be specified to define the `Con-form` system file to the nucleus. The name of the macro is `NTLFILE`. The `NTLFILE` macro call must be placed after the `NTPRM` macro call.

`NTLFILE` is a keyword macro with the following parameters:

Parameter	Explanation
ID	Internal identifier. Must be set to 251 for the Con-form system file. This parameter is mandatory.
DBID	ID of the database where the Con-form system file resides. This parameter may be specified if necessary.
FNR	File number of the Con-form system file. This parameter is mandatory.
PASSW	Adabas password that may be required to gain access to the Con-form system file. This parameter may be specified if necessary.
CIPH	Adabas cipher key that may be required to encipher or decipher records in the Con-form system file. This parameter may be specified if necessary.

The NTLFILE macro is contained in the appropriate Natural source library.

As an alternative to using this macro, the dynamic parameter LFILE can be specified when Con-form is invoked. The format is:

```
LFILE=(251,dbid,fnr<,passw><,ciph>)
```

where the parameters shown in pointed brackets are optional.

2.2 Assemble and Link Parameter Module

2.3 Link-edit a Natural/Con-form Nucleus

Use the standard link procedure as described in the Natural installation documentation.

Include the load modules CONFRUN, CONFUPP, CONFLOW, CONFTRA, CONFSRT, CONDCA, CONDTR1 and CDFTTAB from the Con-form load library (for both batch and TP environments).

If Con-form is to be link-edited as a separately loadable module, those modules may form a module of their own. In this case, CONFRUN must be the first module to be included.

Step 3. Loading Error Messages (Job I061, Step 0202)

The Natural utility program ERRLODUS is used in batch mode to load the Con-form error texts into the Natural system system file (required). The data set CMF_{nnn}.ERRN must be assigned to workfile 02.

If Natural Security is not installed, use the following:

```
LOGON SYSERR  
ERRLODUS  
FIN
```

If Natural Security is installed, use the following:

```
SYSTEM,USER ID, PASSWORD  
ERRLODUS  
FIN
```

