

# **DNOS COBOL**

## ***Object Installation***

Part No. 2270542-9701 \*C  
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|
| READ THIS DOCUMENT BEFORE ATTEMPTING TO USE THIS OBJECT KIT.
| THIS DOCUMENT DESCRIBES THE 3.4.1 VERSION OF THE DNOS COBOL
| OBJECT INSTALLATION MEDIA, PART NUMBERS 2276420-1601 OR
| 2276420-1604.
|
|
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| TEXAS INSTRUMENTS ASSUMES NO RESPONSIBILITY FOR MODIFICATIONS
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```

## Section 1

## Introduction

## 1.1 GENERAL INFORMATION

Be sure to copy and/or write-protect this master. For copy procedures, refer to the DNOS Operations Guide, part number 2270502-9701.

All system command interpreter (SCI) commands in this document are given in abbreviated form and may be executed by entering the command exactly as is, or by using the interactive prompting from the SCI. For a discussion of the abbreviated command form, refer to the DNOS System Command Interpreter (SCI) Reference Manual, part number 2270503-9701.

## 1.2 FILE SECURITY

If you are installing this package on a system that uses file security, be sure to log on with a user ID that is a member of the SYSMGR access group. The proper ID allows you or the installation batch streams executing under your ID to create and delete files. Refer to the DNOS Security Manager's Guide, part number 2308954-9701, for more information on file security.

## 1.3 MEDIA DEFINITION

Product shipments are in three formats:

- \* Disk - A DS10, DS25, DS50, or DS200 disk pack, or a dual-sided, double-density diskette that contains the object
- \* Magnetic Tape - An 800 bpi or 1600 bpi magnetic tape that contains the object
- \* Add-On - A disk volume that contains both the COBOL object installation and one or more other products

The installation instructions in this document assume that the object files are accessible with a synonym. Section 2 describes how to prepare the media so that you can use a synonym to access the files.

#### 1.4 THE INSTALLATION PROCEDURE

The object media contains the files and batch streams to do the following:

- \* Install the object files
- \* Verify the installation

#### 1.5 SYSTEM REQUIREMENTS

To successfully perform this installation procedure, you must have a functioning DNOS system.

## Section 2

## Preparing for Installation

## 2.1 INTRODUCTION

Before executing the installation instructions, you must prepare the object files so that the batch stream can access them. The following paragraphs describe how to prepare each of the media.

## 2.2 DISK FORMAT

If you received the object on a disk, prepare it for installation by performing the following steps:

1. Put the installation disk in an available disk drive on a functioning DNOS 1.X system, and load it.
2. Install the disk by issuing the following command:

```
IV U=DSxx, V=CBLINSDN
```

In this command, DSxx is the disk drive on which you loaded CBLINSDN.

3. Assign the synonym COBOLINS to the disk by issuing the following command:

```
AS S=COBOLINS, V=CBLINSDN
```

Now go to Section 3 for instructions for installing the object.

### 2.3 MAGNETIC TAPE FORMAT

If you received the object on a magnetic tape, you must move the files to a disk before beginning the installation process. To do this:

1. Create a directory on a disk by issuing the following command:

```
CFDIR P=<volume name>.CBLINSDN, M=15
```

In this command, <volume name> is the name of the disk, on which you will create the directory.

2. Load the magnetic tape on an available tape drive.
3. Move the contents of the magnetic tape to the directory you created by issuing the following command:

```
RD S=MTxx, D=<volume name>.CBLINSDN, L=.LISTING,
```

In this command, MTxx is the tape drive from which you will copy the object. <volume name> is the name of the disk volume onto which you will copy the object. The file .LISTING now contains a listing of the directory restored from the magnetic tape. You can examine this file by executing a Show File (SF) or a Print File (PF) command.

4. Unload the tape.
5. Assign the synonym COBOLINS to the pathname of the restored directory by issuing the following command:

```
AS S=COBOLINS, V=<volume name>.CBLINSDN
```

In this command, <volume name> must be the volume name of the disk that received the restored directory.

Now go to Section 3 for instructions for installing the object.

## 2.4 ADD-ON FORMAT

If you received the object as an add-on package, prepare it for installation by performing the following steps:

1. Put the disk containing the add-on package in an available disk drive on a functioning DNOS 1.X system, and load it.
2. Install the disk by issuing the following command:

```
IV U=DSxx, V=<volume name>
```

In this command, DSxx is the disk drive on which you loaded the volume, and <volume name> is the volume name of the add-on disk. The volume name is marked on the disk. You can also execute a Show Volume Status (SVS) command to obtain the volume name.

3. Assign the synonym COBOLINS to the disk by issuing the following command:

```
AS S=COBOLINS, V=<volume name>.CBLINSDN
```

Now go to Section 3 for instructions for installing the object.



## Section 3

## Installing the Object

This section describes the procedure to install the COBOL compiler and run-time support on your DNOS system. The installation procedure does the following:

1. Deletes the previously installed version of DNOS COBOL
2. Installs the DNOS COBOL runtime and compile

To install the object, perform the following steps:

1. Assign the logical name S\$COBOL by issuing the following command:

```
ALN L=S$COBOL, A=.S$LANG, G=YES
```

In this command, .S\$LANG is the pathname of the program file.

Assigning the logical name in this way sets it temporarily. It will remain active only until the system is halted. In order for the logical name to be permanent, execute the following command:

```
SGND
```

This command has no parameters.

2. Assign the synonym DSC to the system disk on which you want to install COBOL by issuing the following command:

```
AS S=DSC, V=<volume name>
```

In this command, <volume name> is the name of the disk on which you will install COBOL.

3. Assign the synonym DSC2 to the disk on which you want to install the linkable run-time modules. Normally, you would assign the same value as you assigned to DSC. Assign the synonym by issuing the following command:

```
AS S=DSC2, V=<volume name>
```

In this command, <volume name> is the volume name of the disk on which you will install the linkable run-time modules.

4. Execute the batch stream by issuing the following command:

```
XB I=CBLINSDN.INSTALL, L=.LISTING
```

This process normally takes about ten minutes to execute. During this time, you may wish to check the status of the batch stream for completion and proper execution. For this purpose, execute either SCI command Show Background Status (SBS) or Wait (WAIT). When the execution is complete, the following message appears:

```
COBOL INSTALLATION COMPLETE:  ERRORS = nn
```

If nn is not equal to zero, examine the batch listing to determine the error. The following error codes are normal and should be ignored.

- \* 0118 error in a Release LUNO (RL) command.
- \* 0316 error in a Create Directory File (CFDIR) command.
- \* 0315 error in a Delete File (DF), Delete Directory (DD), or Modify File Protection (MFP) command.
- \* 1023 error in a Delete Task (DT) or Delete Procedure (DP) command.
- \* 1029 error in a DT or DP command.

During installation of COBOL, the following components of the compiler and run-time support are installed on the target disk:

Files:

Directory:

DSC.S\$CMDS

.XCP	SCI procedure - Execute COBOL Program
.XCPF	SCI procedure - Execute COBOL Program in Foreground
.XCT	SCI procedure - Execute COBOL Task
.XCTF	SCI procedure - Execute COBOL Task in Foreground

.XCTD	SCI procedure - Execute COBOL Task in Debug
.XCC	SCI procedure - Execute COBOL Compiler
.XCCF	SCI procedure - Execute COBOL Compiler in Foreground
.M\$COBOL	SCI menu - COBOL SCI commands
DSC.\$MSG.COBOLE	Run-time message file
DSC.\$MSG.COBOLEMP	Compiler message file
DSC.\$EXPMSG.COBOLE	Run-time expanded message file

## Directory:

DSC2.\$SYSLIB	
.RCBPRC	Alias pointing to RCBPRCNW
.RCBPRCNW	Standard linkable run-time reentrant procedure module. This is arranged so that it is not necessary to change link control streams to link with the COBOL PLUS version.
.RCBNOIO	Alias pointing to RCBNOION
.RCBNOION	Standard linkable run-time reentrant procedure module without I/O capabilities. This is arranged so that it is not necessary to change link control streams to link with the COBOL PLUS version.
.RCBTSK	Linkable run-time task segment without debugger
.RCBTSKD	Linkable run-time task segment with debugger
.RCBMPD	Linkable run-time main program designator
.SVERS	COBOL version indicator used for compatibility checks; do not delete
.C\$SUBS	Run-time subroutine library (Directory)
.WCS	The files contained in this directory are activated if the performance package (DPP) is installed.
.RCBPRCW	Linkable run-time reentrant procedure module
.RCBNOIOW	Linkable run-time task segment without I/O capabilities
.XCP	Installable source for the run-time task
.XCPD	Installable source for the run-time task with debugger

## Tasks:

Program file:  
DSC.\$LANG  
.COBOL  
.XCP  
.XCPD

Compiler task  
Run-time task without debugger  
Run-time task with debugger

## Procedures:

Program file:

DSC.S\$LANG

.RLOADER

Task loader

Program file:

DSC.S\$SHARED

.RCOBOL

Shared reentrant run-time  
procedure

If you wish to delete the installed runtime and compiler from your system, use the DF, DD, DT, or DP commands, as appropriate, to remove the components listed in the preceding list.

Section 4 discusses the instructions for verification of a successful installation.

## Section 4

## Verifying the Installation

A test program is provided on the DNOS COBOL disk to determine if the package is installed properly.

1. Compile the test program by issuing the following command:

```
XCCF S=CBLINSDN.TESTCASE, O=.TESTOBJ, L=ME
```

2. Execute the test program by issuing the following command:

```
XCPF O=.TESTOBJ
```

When the test program satisfactorily completes, the following message appears on the video display terminal:

```
THIS TEST PROGRAM RUNS ON A TI990 MINICOMPUTER
      IT IS WRITTEN IN TI COBOL
HIT RETURN TO COMPLETE TEST
```

3. Press the Return key to complete the test. The following message appears:

```
I COBOL-C01C COBOL STOP RUN AT: 001C IN MAIN
I COBOL-C009 END COBOL RUN
```

Press the Command key to return to SCI.

4. Delete the generated COBOL object module, as follows:

```
DF P=.TESTOBJ
```