

DCAM Communication - BS2000 Administration Guide

Administration

Version 6.3.2

October 2018

This document applies to Entire Net-Work DCAM Communication - BS2000 Version 6.3.2 and all subsequent releases.

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

Copyright © 1993-2018 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: WDC-DOC-632-20181011

Table of Contents

Preface	v
1 Conventions	1
Syntax Conventions	2
Syntax Rules	3
2 About this Documentation	5
Document Conventions	6
Online Information and Support	6
Data Protection	7
3 Installing the DCAM Line Driver	9
Prerequisites	13
Contents of the Release Media	10
4 DCAM DRIVER Statement	13
DRIVER Statement Format	14
DRIVER Statement Parameters	14
5 DCAM LINK Statement	19
LINK Statement Format	20
LINK Statement Parameters	20
Example Procedures for an Entire Net-Work Node	24
6 Multiple DCAM Drivers in One Entire Net-Work	27
Special Provisions for a DCAM/VTAM Link Using TRANSIT-CD	28
Index	33

Preface

This document provides information for administrators responsible for configuring and running the Entire Net-Work DCAM line driver once Entire Net-Work is installed.



Note: The DCAM line driver is provided in the Software AG product option called the Entire Net-Work DCAM Communication - BS2000 (product code WDC), which is an add-on to the Entire Net-Work product and must be ordered separately.

The DCAM line driver documentation is organized as follows:

Installing the DCAM Line Driver

Explains how to install the DCAM line driver.

DCAM DRIVER Statement

Describes the syntax and parameters of the DCAM DRIVER statement.

DCAM LINK Statement

Describes the syntax and parameters of the DCAM LINK statement.

Multiple DCAM Drivers in One Entire Net-Work

Describes activating up to four DCAM drivers in one Entire Net-Work node.

1 Conventions

▪ Syntax Conventions	2
▪ Syntax Rules	3

Notation "*vr* SP *s*", *vrs*, or *vr*: When used in this documentation, the notation "*vr* SP *s*", *vrs*, or *vr* stands for the relevant version, release, and system maintenance level numbers. For further information on product versions, see *version* in the *Glossary*.

This document covers the following topics:

- [Syntax Conventions](#)
- [Syntax Rules](#)

Syntax Conventions

The following table describes the conventions used in syntax diagrams of Entire Net-Work statements.

Convention	Description	Example
uppercase, bold	Syntax elements appearing in uppercase and bold font are keywords. When specified, these keywords must be entered exactly as shown.	 <p>The syntax elements DRIVER, TCPI, and DRVCHAR are Entire Net-Work keywords.</p>
lowercase, italic, normal font	Syntax elements appearing in lowercase and normal, italic font identify items that you must supply.	 <p>The syntax element <i>driver-char</i> identifies and describes the kind of value you must supply. In this instance, you must supply the special character used to designate that an operator command is directed to the TCP/IP line driver, rather than to a specific link.</p>
underlining	Underlining is used for two purposes: <ol style="list-style-type: none"> 1. To identify default values, wherever appropriate. Otherwise, the defaults are explained in the accompanying parameter descriptions. 2. To identify the short form of a keyword. 	 <p>In the example above, # is the default that will be used for the DRVCHAR parameter if no other record buffer length is specified.</p> <p>Also in the example above, the short version of the DRVCHAR parameter is D.</p>

Convention	Description	Example
vertical bars ()	Vertical bars are used to separate mutually exclusive choices. Note: In more complex syntax involving the use of large brackets or braces, mutually exclusive choices are stacked instead.	<pre>DRIVER TCPI API = { BS2 CNS EZA HPS OES }</pre> <p>In the example above, you must select BS2, CNS, EZA, HPS, or OES for the API parameter. There are no defaults.</p>
brackets ([])	Brackets are used to identify optional elements. When multiple elements are stacked or separated by vertical bars within brackets, only one of the elements may be supplied.	<pre>DRIVER TCPI [DRVCHAR = driver-char #]</pre> <p>In this example, the DRVCHAR parameter is optional.</p>
braces ({ })	Braces are used to identify required elements. When multiple elements are stacked or separated by vertical bars within braces, one and only one of the elements must be supplied.	<pre>DRIVER TCPI API = { BS2 CNS EZA HPS OES }</pre> <p>In this example, one of the following values is required for the API parameter: BS2, CNS, EZA, HPS, or OES.</p>
other punctuation and symbols	All other punctuation and symbols must be entered exactly as shown.	<pre>LINK linkname TCPI [NETADDR = n1.n2.n3.n4] [,] [-]</pre> <p>In this example, the periods must be specified in the IP address.</p> <p>In addition, options must be separated by commas and dashes should be used as needed to indicate that parameter settings continue on the next line.</p>

Syntax Rules

The following rules apply when specifying Entire Net-Work parameter statements:

- Each Entire Net-Work parameter statement occupies positions 1 - 72 of at least one line.
- The statement type (NODE, LINK, TRANSDEF, or DRIVER) must be specified as the first non-blank item on the statement.
- The node name, driver name, translation definition function, or link name follows the statement type, separated by at least one blank (space).

- Keyword parameters may be specified following either the node name on NODE statements or the driver name on DRIVER and LINK statements. Keyword parameters are separated from their arguments by an equal (=) sign, and from other keyword parameters by at least one blank (space) or a comma (,).
- When the acceptable values for a parameter are Y and N (yes and no), any other value is treated as an N, unless there is a documented default, and processing continues without any warning.
- When the acceptable values for a parameter fall within a range (e.g., 1 - 2147483647) and a value outside the range is specified, the value is automatically reset to the maximum value within the range, unless documented otherwise for the parameter. Processing continues without any warning.
- A statement can be continued beginning in any column of the next line by specifying a dash (-) as the last nonblank character in any column of the current line, before column 73.
- Comment lines begin with an asterisk (*) in position 1 and can be inserted anywhere in the statement sequence.
- Some keywords may require a list of subparameters separated by commas; the list must be enclosed in parentheses () unless only the first subparameter is to be entered. Omitted ("defaulted") subparameters must be represented by placeholder commas if subsequent parameters are to be entered. The following are examples of correct subparameter strings:

```
KEYWORD=(value1,value2,value3)
KEYWORD=(value1,,value3)
KEYWORD=(,value3)
KEYWORD=(,value2)
KEYWORD=value1
```

- Hexadecimal keyword values can be entered by prefixing the value with an "X". For example:

```
LINK . . . ADJID=X0064, . . .
```

2 About this Documentation

- Document Conventions 6
- Online Information and Support 6
- Data Protection 7

Document Conventions

Convention	Description
Bold	Identifies elements on a screen.
Monospace font	Identifies service names and locations in the format <code>folder.subfolder.service</code> , APIs, Java classes, methods, properties.
<i>Italic</i>	Identifies: Variables for which you must supply values specific to your own situation or environment. New terms the first time they occur in the text. References to other documentation sources.
Monospace font	Identifies: Text you must type in. Messages displayed by the system. Program code.
{ }	Indicates a set of choices from which you must choose one. Type only the information inside the curly braces. Do not type the { } symbols.
	Separates two mutually exclusive choices in a syntax line. Type one of these choices. Do not type the symbol.
[]	Indicates one or more options. Type only the information inside the square brackets. Do not type the [] symbols.
...	Indicates that you can type multiple options of the same type. Type only the information. Do not type the ellipsis (...).

Online Information and Support

Software AG Documentation Website

You can find documentation on the Software AG Documentation website at <http://documentation.softwareag.com>. The site requires credentials for Software AG's Product Support site Empower. If you do not have Empower credentials, you must use the TECHcommunity website.

Software AG Empower Product Support Website

If you do not yet have an account for Empower, send an email to empower@softwareag.com with your name, company, and company email address and request an account.

Once you have an account, you can open Support Incidents online via the eService section of Empower at <https://empower.softwareag.com/>.

You can find product information on the Software AG Empower Product Support website at <https://empower.softwareag.com>.

To submit feature/enhancement requests, get information about product availability, and download products, go to [Products](#).

To get information about fixes and to read early warnings, technical papers, and knowledge base articles, go to the [Knowledge Center](#).

If you have any questions, you can find a local or toll-free number for your country in our Global Support Contact Directory at https://empower.softwareag.com/public_directory.asp and give us a call.

Software AG TECHcommunity

You can find documentation and other technical information on the Software AG TECHcommunity website at <http://techcommunity.softwareag.com>. You can:

- Access product documentation, if you have TECHcommunity credentials. If you do not, you will need to register and specify "Documentation" as an area of interest.
- Access articles, code samples, demos, and tutorials.
- Use the online discussion forums, moderated by Software AG professionals, to ask questions, discuss best practices, and learn how other customers are using Software AG technology.
- Link to external websites that discuss open standards and web technology.

Data Protection

Software AG products provide functionality with respect to processing of personal data according to the EU General Data Protection Regulation (GDPR). Where applicable, appropriate steps are documented in the respective administration documentation.

3 Installing the DCAM Line Driver

- Prerequisites 13
- Contents of the Release Media 10

In BS2000/OSD environments, the Entire Net-Work main task is started as a batch program. It loads the Data Communication Access Method (DCAM) line driver to perform a set of functions related to the communication method.

The DCAM line driver opens a primary DCAM application and establishes DCAM connections to other Entire Net-Work nodes.

Each connection is defined in a LINK statement using SYSDDTA or DDKARTE input parameters at startup time. However, some nodes may allow connections to be dynamically established on request from a partner node not previously defined (see the ACCEPTUI parameter in the section [DCAM DRIVER Statement](#)).

Prerequisites

The Entire Net-Work DCAM line driver is designed to run under DCAM Version 10 and above and under the BS2000/OSD Version 1.0 and above.

The host computer to which connections are to be established must be interconnected within a TRANSDATA network with the respective entries in the Resource Definition File (RDF).

DCAM Version 10 provides support for the ISO option.

When communicating with heterogeneous machines, it may be necessary to specify the transport selector in ASCII. DCAM Version 10 provides standard support for this (see the APPNAME parameter in the section [DCAM DRIVER Statement](#)).

Contents of the Release Media

The following table describes most of the libraries included on the release (installation) media. Once you have unloaded the libraries from the media, you can change these names as required by your site, but the following lists the names that are delivered when you purchase Entire Net-Work DCAM Communication - BS2000.



Note: The complete list of libraries provided with Entire Net-Work can be found in the full Entire Net-Work documentation.

Library Name	Description
WDC vrs .MOD	The load library for Entire Net-Work DCAM Communication - BS2000. The vrs in the library name represents the <i>version</i> of Entire Net-Work DCAM Communication - BS2000.

4 DCAM DRIVER Statement

- DRIVER Statement Format 14
- DRIVER Statement Parameters 14

The DCAM DRIVER statement defines the operating characteristics of the DCAM application for the Entire Net-Work communicator. The DRIVER statement must follow an Entire Net-Work NODE statement, but could be preceded by non-DCAM DRIVER and related LINK statements.

Only one DCAM DRIVER statement can be specified for a node. If more than one driver statement is needed for DCAM connections, the driver synonyms ICAM, DCM1, or DCM2 can be used. See the section [Multiple DCAM Drivers in One Entire Net-Work](#).

DRIVER Statement Format

The DRIVER statement for the DCAM driver has the following format:

```
DRIVER DCAM [ACCEPTUI = { Y | N }]  
             [APPNAME = { dcam-appname | NODE-statement-nodename }]  
             [GOSIGNAL = { Y | N }]  
             [ISO = { Y | N }]  
             [LOGPASS = logon-pswd ]  
             [MAXBLK = { buffer-size | 4096 }]  
             [MOREDATA = { Y | N }]  
             [RESTART = { interval, retries }]  
             [TRACE = { Y | N }]
```

For more information about syntax conventions and rules used in this section, read [Conventions](#).

DRIVER Statement Parameters

This section describes all of the parameters that can be used for the DCAM DRIVER statement.

- [ACCEPTUI Parameter](#)
- [APPNAME Parameter](#)
- [GOSIGNAL Parameter](#)
- [ISO Parameter](#)
- [LOGPASS Parameter](#)
- [MAXBLK Parameter](#)
- [MOREDATA Parameter](#)
- [RESTART Parameter](#)
- [TRACE Parameter](#)

For more information about syntax conventions and rules used in this section, read [Conventions](#).

ACCEPTUI Parameter

ACCEPTUI = { Y | N }

This optional parameter determines whether the line driver will accept connections from systems that have not been previously defined with LINK statements. The ACCEPTUI parameter can be modified when the line driver is open or closed.

 **Caution:** GATEWAY links must be predefined and cannot be built dynamically from an unsolicited connection request.

Valid values are "Y" (Yes) or "N" (No).

- If "Y" is specified, Entire Net-Work will accept connection requests from an undefined system and the required control blocks are built dynamically. Normal "handshaking" procedures with the new connections are performed.
- If "N" is specified, Entire Net-Work will reject incoming requests from unknown source nodes.

The default and minimum form for this parameter varies, depending on the line driver you are using, as shown in the table below:

APPNAME Parameter

APPNAME = { *dcam-appname* | NODE-statement-nodename }

This optional parameter provides the DCAM driver with the DCAM application name (*dcam-appname*) for opening the DCAM ACB. This name can be any alphanumeric string (A-Z,@,#,\$) up to 8 characters. If no name is specified, the node name taken from the NODE statement is the default value.

Heterogeneous communication partners accessible via LAN are not always able to specify the application name in EBCDIC. DCAM provides some flexibility with the /BCMAP command where an ISO transport selector can be mapped to a legal DCAM application name.

GOSIGNAL Parameter

```
GOSIGNAL = { Y | N }
```

GOSIGNAL=Y, the default, allows DCAM to stop Entire Net-Work from sending messages over a particular link whenever a shortage of DCAM buffers is detected. After the buffer jam is resolved, DCAM notifies Entire Net-Work to resume sending. If GOSIGNAL=N is specified, the DCAM driver retries sending in 5 seconds intervals (VPASS). During wait time, no Entire Net-Work action will be taken.

ISO Parameter

```
ISO = { Y | N }
```

This parameter enables the Entire Net-Work DCAM application to run in ISO mode so that message exchange conforms to the international standards of OSI transport protocols for the functions used by Entire Net-Work DCAM. If ISO and non-ISO connections are to be used in parallel, a second driver statement must be coded (DRIVER ICAM)

This parameter must be set to Y (Yes) when communicating with ASCII machines such as VAX or UNIX-based systems with WAN or LAN transport protocols. The default is N (No).



Note: ISO is an attribute of the DCAM application (that is, the DCAM driver); therefore, it is not possible to connect to non-ISO and ISO partners at the same time within one driver. However, if a mixed environment exists where ISO and non-ISO partners are to be interconnected, the DCAM driver must be doubled. For a description, see the section [Multiple DCAM Drivers in One Entire Net-Work](#).

LOGPASS Parameter

```
LOGPASS = logon-pswd
```

This optional parameter defines the alphanumeric password with a length of four bytes which must be provided by the communication partners before connecting to this application (see the LOGPW parameter in the section [DCAM LINK Statement](#)). If you specify a value of "none" for the password, this parameter is ignored.

MAXBLK Parameter

```
MAXBLK = { buffer-size | 4096 }
```

This parameter specifies the maximum block size, in bytes, accepted by the line driver. The line driver issues a DCAM YRECEIVE ANY request of this size. Be aware that messages with larger block sizes from other nodes cannot be received. Software AG recommends that you set this parameter according to the largest block size specified (MAXBLK) in the LINK statements in the network.

The default of this parameter is 4096 bytes. The maximum value you can specify for front-end processors (FEPs) or data exchange controllers (DASTs) is 32767 bytes. The recommended value for LAN-based connections is 65520 bytes, which is also the maximum that can be specified for this parameter.

If you intend to send large messages over a DCAM link, set the MAXBLK parameter to the maximum value. If you receive error messages that read "unexpected response 0C30 from YSEND", choose increasingly smaller values for MAXBLK until the YSEND error messages disappear.

MOREDATA Parameter

```
MOREDATA = { Y | N }
```

This parameter is applicable only when ISO=Y (Yes) is set. The default is N (No).

When this parameter is set to Y (Yes), the DCAM MORE DATA option is used for sending and receiving messages on a link. This allows large messages to be passed in small pieces such that DCAM saves intermediate buffering. However, this may involve more overhead since Entire Net-Work is notified more often. For example, a message of 4 KB is broken up into 4 elements on a LAN link and 8 elements on a HDLC link. Therefore, Software AG recommends that this parameter be used only when a gateway link exists in Entire Net-Work where large messages must be handled (>4KB) and segmenting cannot be performed.

RESTART Parameter

RESTART = (*interval*, *retries*)

This optional parameter specifies the retry interval in seconds (*interval*) and the number of retries (*retries*) that Entire Net-Work will attempt to reopen the access method with the API after a shutdown due to a failure. The RESTART parameter can be modified when the line driver is open or closed.

If RESTART is not specified, or *interval* is specified as zero, no retry is attempted. By specifying (*retries*) as zero, an infinite number of retries can be requested.

If RESTART is specified on the DCAM DRIVER statement, a corresponding RESTART parameter value on each related LINK statement should be specified to control restart attempts on the individual link.

The TIMER parameter on the NODE statement affects the RESTART parameter (see the section *Entire Net-Work NODE Statement* in the *Entire Net-Work Reference Guide*.) The retry interval should not be less than the TIMER parameter, and should be a multiple of this value. If a retry interval other than zero is specified that is less than the value of the TIMER parameter, the TIMER value is used instead.

TRACE Parameter

TRACE = { Y | N }

This parameter indicates whether tracing for this line driver should be active (Y) or not (N). When tracing is activated, trace information is placed in the trace table. The default is N (no). The TRACE parameter can be modified when the line driver is open or closed.

This is equivalent to specifying `TRACE=linedriver-code` or `TRON=linedriver-code` in the NODE statement (for example, `TRACE=CTCA`).

5 DCAM LINK Statement

- LINK Statement Format 20
- LINK Statement Parameters 20
- Example Procedures for an Entire Net-Work Node 24

The DCAM LINK statement defines each driver's DCAM connection to any other Entire Net-Work node. This statement is not required if ACCEPTUI=Y (Yes) is specified in the related DRIVER statement.

LINK Statement Format

The DCAM LINK statement has the following format:

```
LINK linkname DCAM ACQUIRE=N|Y, -
                   ADJNODE=adjacent-node-name|link-name, -
                   BLOCKMSG=N|Y, -
                   COMPRMSG=N|Y, -
                   CONUDATA=connection-user-data|(none), -
                   LOGPW=logon-password|(none), -
                   LOGUDATA=logon-user-data|(none), -
                   MAXBLK=n|4096, -
                   MINCMP=n|6, -
                   PRONAME=partner-processor-name, -
                   PTNNAME=partner-name|link-name, -
                   RESTART=retry interval and number retries (i,n), -
                   STATBLK=N|Y, -
                   STATCMP=N|Y, -
                   SYSCODE=N|Y, -
                   WEIGHT=n|256
```

For more information about syntax conventions and rules used in this section, read [Conventions](#).

LINK Statement Parameters

In the following syntax-example diagrams, default values are underlined. The underlined portion of the parameter keyword is the minimum abbreviation.

```
ACQUIRE = {N|Y}
```

This optional parameter instructs the line driver either to acquire the connection to the partner application (Y), or to build a LINKBLK only for the partner application and not issue DCAM YOPNCON (N). The default is N (No).

```
ADJNODE = {adjacent-node-name|link-name}
```

This parameter is required with a gateway link and specifies the node name that Entire Net-Work is to use for the adjacent node on the other side of the link.

```
BLOCKMSG = {N|Y}
```

BLOCKMSG=Y (Yes) causes messages for this link to be blocked for transmission. The default value is N, no blocking.

```
COMPRMSG = {N|Y}
```

COMPRMSG=Y (Yes) causes messages for this link to be compressed for transmission. The default value is N, no data compression.

```
CONUDATA = {connection-user-data|(none)}
```

This parameter allows you to specify the data to be sent with the connection request to the communication partner. The maximum length is 16; there is no default value.

The parameter must be set to the following value when communicating with VMS: X'FE000004E4554524449', that is, X'FE00000'+ascii('NETRDI').

```
LOGPW = {logon-password|(none)}
```

This optional parameter must match the password in **LOGPASS** used when connecting to the partner application. Otherwise, the connection request will be rejected. If you specify a value of "none" for the password, this parameter is ignored.

```
LOGUDATA = {logon-user-data|(none)}
```

This parameter allows you to specify the data to be sent with a connection request from the communication partner. If the logon data does not match this value, the LOGON is rejected. The maximum length is 16; there is no default value.

```
MAXBLK = {n|4096}
```

This optional parameter specifies the maximum transmission block size accepted by DCAM and the partner node, thus determining the size of messages sent to partner nodes. This value must not be higher than the MAXBLK parameter contained in the partner node's DRIVER statement.

The default of this parameter is 4096 bytes. The maximum value you can specify for front-end processors (FEPs) or data exchange controllers (DASTs) is 32767 bytes. The recommended value for LAN-based connections is 65520 bytes, which is also the maximum that can be specified for this parameter.

If you intend to send large messages over a DCAM link, set the MAXBLK parameter to the maximum value. If you receive error messages that read "unexpected response 0C30 from YSEND", choose increasingly smaller values for MAXBLK until the YSEND error messages disappear.

```
MINCMP = {n|6}
```

This optional parameter specifies the smallest group of identical characters that will be compressed. Values less than 6 (the default) are not accepted.

```
PRONAME = partner-processor-name
```

This required parameter provides the line driver with the TRANSDATA processor name of the session partner's processor.

```
PTNNAME = { partner-name | link-name }
```

This optional parameter provides the line driver with the DCAM application name of the session partner. If the parameter is not specified, the default is the link name.

Depending on how the partner node is defined in the TRANSDATA network, the PTNNAME can be specified as an EBCDIC string (for example, definition of a VAX node as a station of the front end), or must be specified in ASCII (for example, a UNIX node connected by means of a LAN). In the latter, the hexadecimal notation must be used:

```
ASCII 'SIN' -> X'53494E2020202020'
```

Note that the names will be printed in lower case in the DCAM line driver printout.

```
RESTART = (i,n)
```

RESTART specifies the retry interval in seconds (*i*) and number of retries (*n*) to be used if you want Entire Net-Work to attempt to reconnect the link following a shutdown due to a failure. If RESTART is not specified or (*i*) is specified as zero, no retry is attempted. By specifying (*n*) as zero, an infinite number of retries can be requested.

The `TIMER` parameter on the `NODE` statement affects the `RESTART` parameter. (See the section *Entire Net-Work NODE Statement* in the *Entire Net-Work Reference* section.) The retry interval should not be less than the `TIMER` parameter, and should be a multiple of this value. If a retry interval other than zero is specified that is less than the value of the `TIMER` parameter, the `TIMER` value is used instead.

If a `RESTART` interval and count are also specified for the `DCAM DRIVER` statement, Software AG recommends that the link restart interval and retry count be coordinated with those values to ensure that a link restart follows a `DCAM` driver restart, if it occurs.

```
STATBLK = { N | Y }
```

This optional parameter tells the transmission queue manager whether to keep blocking statistics for this link. The default value is `N`; blocking statistics are not kept. For this parameter to take effect, `BLOCKMSG=Y` must also be specified.

```
STATCMP = { N | Y }
```

This optional parameter tells the transmission queue manager whether to keep compression statistics for this link. The default value is `N`; compression statistics are not kept. For this parameter to take effect, `COMPRMSG=Y` must also be specified.

```
SYSCODE = { N | Y }
```

When this parameter is set to `Y`, messages along the link are sent and received with `PROC=SYSCODE`. This is required when the communication partner is Entire Net-Work VTAM via `TRANSIT-CD`. The default value is `N`.

```
WEIGHT = { n | 256 }
```

If more than one path to a destination is available, the `WEIGHT` parameter allows a performance- or cost-based value to be assigned to each link in order to provide Entire Net-Work with information on which to base path selection. A higher value should be used for slower links and a lower value for faster links. Values may range 1 to 999999; the default is 256.

Example Procedures for an Entire Net-Work Node

Note that these procedures are similar to those in the section *Running in BS2000/OSD Environments* in the *Entire Net-Work Installation* section, except that the TCP/IP-specific component statements have been removed for the sake of clarity.

Note that there is no need to remove the TCP/IP statements from the delivered procedures, even if you do not have the optional TCP/IP driver installed.

Job START:

```

/SET-LOGON-PARAMETERS -
/  USER-ID = *NO,-
/  ACCOUNT = *NONE,-
/  JOB-CLASS = *STD,-
/  JOB-NAME = NETWORK
/ASSIGN-SYSOUT -
/  TO = START.JNL
/CALL-PROC -
/  FROM-FILE = *LIB(LIB = WCPvrs.LIB,-
/             ELE = STARTP),-
/  PROC-PAR = (DUMP = YES,-
/             ADALIB= &(ADALIB))
/  LOGGING = *YES
ADARUN PROG=NETWRK,TARGETID=1234,IDTNAME=name,FORCE=N
ADARUN TASKCTGY=TP
/EOF
NODE SI01 BUFFERS=(128K,8K,1024K),REPLY=120,NT=128,LOG=N
DRIVER DCAM GOSIGNAL=Y,MAXBL=4096,APP=TRANSIT1
LINK LNK1 DCAM PRONAME=HOST,COMPR=N,MAXBLK=4096,ACQ=N
LINK LNK2 DCAM PRONAME=HOST,COMPR=N,MAXBLK=4096,ACQ=N
/EXIT-JOB -
/  MODE = NORMAL,-
/  SYS-OUT = NONE

```

Procedure STARTP:

```

/SET-PROCEDURE-OPTIONS -
/  IMPLICIT-DECLARATION = *YES,-          &* For SDF-BASYS
/  LOGGING-ALLOWED     = *YES,-          &*
/  SYSTEM-FIL-CONTEXT  = *SAME-AS-CAL,-   &* For ADARUN
/  JV-REPLACEMENT      = *AFTER,-        &* Allow JV for ADALIB
/  ERROR-MECHANISM     = *SPIN-OFF       &* For SDF-BASYS
/BEGIN-PARAMETER-DECLARATION
/  DECLARE-PARAM -          &* Used to form WCP

```

```

/      VERSION(INIT='571')                &* library name.
/      DECLARE-PARAM -                    &* Adabas or WAL library.
/      ADALIB                             &*
/      DECLARE-PARAM -                    &* Determines whether a dump
/      DUMP(INIT='NO')                    &* is created for errors.
/END-PARAMETER-DECLARATION
/
/ MODIFY-JOB-OPTIONS -                    &* Log messages to the system
/   OPERATOR = *YES                       &* Console.
/
/ MODIFY-TEST-OPTIONS -
/   DUMP = &DUMP
/
/ CALL-PROC -
/   FROM-FILE = *LIB(LIB = WCP&VERSION..LIB, -
/                   ELE = NEWGEN), -
/   PROC-PAR = (NET.PROTO.OUT)           &* Create the next generation
/                                           &* in this file group, then
/                                           &* direct SYSOUT to it.
/ ASSIGN-SYSOUT -
/   TO = NET.PROTO.OUT(+0)
/
/ SHOW-JOB-STATUS
/
/ SET-FILE-LINK -                         &* add WCP file link for BLS,
/   LINK-NAME = BLSLIB01, -
/   FILE-NAME = WCP&VERSION..LIB
/
/ SET-FILE-LINK -                         &* add a file link for ADARUN.
/   LINK-NAME = DDLIB, -
/   FILE-NAME = &ADALIB
/
/ SEND-MSG -
/   TO = *OPERATOR, -
/   MSG = 'STARTING ENTIRE NET-WORK (V &VERSION) '
/
/ START-PROGRAM -
/   FROM      = *MODULE(LIB = &ADALIB, ELEM = ADARUN, PROG = ANY, -
/                   RUN-MOD = ADV(ALT-LIB = YES))
/EXIT-PROC

```


6 Multiple DCAM Drivers in One Entire Net-Work

- Special Provisions for a DCAM/VTAM Link Using TRANSIT-CD 28

It is possible to activate four DCAM drivers in one Entire Net-Work node by using different driver names (DCAM, ICAM, DCM1, and DCM2). This feature can be useful if different MAXBLK values are needed; i.e., each DRIVER statement can contain a different MAXBLK value. See the following example:

```
1st driver's name DCAM
                        MAXBLK=receive-buffer-size-A
                        DCAM link statements ...
2nd driver      ICAM with APPNAME different from the one in the DCAM driver
                        MAXBLK=receive-buffer-size-B
                        ICAM link statements ...
```

Special Provisions for a DCAM/VTAM Link Using TRANSIT-CD

DCAM Provisions

The following parameter must be specified for a link to a VTAM Entire Net-Work partner application via TRANSIT-CD:

```
SYSCODE=Y
```

VTAM Provisions

The following parameters must be specified on a LINK statement:

```
LOGMODE=logmode_table_name
```

This parameter specifies a LOGMODE table that is used from VTAM Entire Net-Work as bind parameters (see TRANSIT-CD documentation).

```
LMPEO=NO
```

Example for PDN Definitions

RDF for IBM Host:

```
      XSYSP EINSATZ=HOST , PRONAM=ZE01R7          *
          PRONR=1 , REGNR=7                      *
*          SUBAREA=1 ,                          *TCD*
*          SSCPID=1 ,                            *TCD*
*          CDRMNAME=SIEGAT                      *TCD*
          ...
* XSTAT  STATNAM=NETWRK1 , STATTYP=AP ,          *TCD*
```

```
*      IBMNAM=NETWRK1,IBMTYP=AP,PACING=1 *TCD*
...

```

RDF for Fujitsu Technology Solutions Host:

```

      XSYSP  EINSATZ=HOST/BCAM,PRONAM=ZE18R6,      *
            PRONR=18,REGNR=6                      *
*          SUBAREA=19,                            *TCD*
*          SSCPID=19,                              *TCD*
*          CDRMNAME=SIEHOST                        *TCD*
*          PARTCDRM=(SIEGAT)                      *TCD*
            ...*
      XSTAT  STATNAM=NETWRK2,STATTYP=AP,          *TCD*
*          IBMNAM=NETWRK2,IBMTYP=AP,PACING=1 *TCD*
            ....

```

Example of Parameters for Entire Net-Work Node 1

```

NODE NETWRK1,BUFFERS=(16K,32K,128K)
DRIVER VTAM APP=NETWRK1,MAXRU=FB,PA=EYEAPPLE
LINK TONW2 VTAM,APP=NETWRK2,LOGMODE=LOGLUO,-
      MAXRU=FB,LMPEO=NO

```

VTAM Definitions:

```

NETWRK  VBUILD TYPE=APPL
NETWRK1 APPL  AUTH=(ACQ,NVPACE),PARSESS=YES,PRTCT=EYEAPPLE, *
          SONSCIP=YES

```

Example of Parameters for Entire Net-Work Node 2

```

NODE NETWRK2,BUFFERS=(16K,32K,128K)
DRIVER DCAM
LINK TONW1 DCAM,PTNNAME=NETWRK1,PRONAME=ZE01R7,-
      ACQUIRE=YES,SYSCODE=YES,COMPRMSG=NO

```

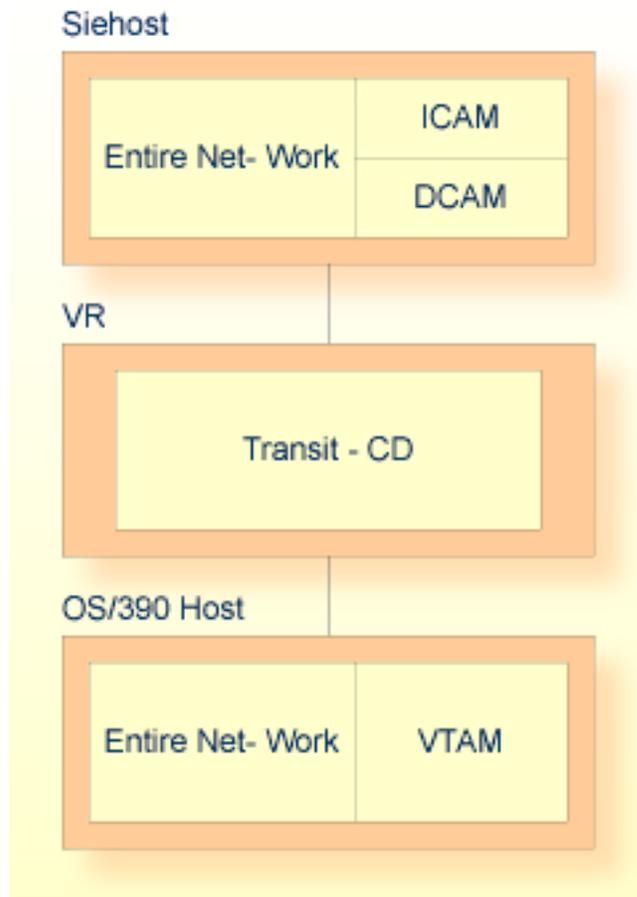


Note: The lines beginning with '*' are definitions for TRANSIT-CD.

Example for a Logmode Entry

```
MODETAB
LOGMLUO  MODEENT LOGMODE=LOGMLUO,TYPE=1,           X
          FMPROF=3,TSPROF=3,ENCR=NO,               X
          PRIPROT=X'70',SECPROT=X'70',             X
          COMPROT=X'0000',SSNDPC=0,SRVPC=0,        X
          RUSIZES=X'8989',PSNDPAC=0,               X
          PSERVIC=X'0000000000000000000000000000'
MODEEND  END
```

Example of a Heterogeneous Entire Net-Work Configuration



where:

SIEHOST	BS2000/OSD host with DCAM/ICAM driver.
OS390HOST	OS/390 or z/OS host with VTAM driver.

```

/SET-LOGON-PARAMETERS -
/  USER-ID = *NO,-
/  ACCOUNT = *NONE,-
/  JOB-CLASS = *STD,-
/  JOB-NAME = NETWORK
/MODIFY-TEST-OPTIONS -
/  DUMP = YES
/ASS-SYSOUT-
/  TO = LST-NETWORK
/ASS-SYSOUT-
/  TO = LST-NETWORK
/SET-FILE-LINK -

```

```
/ LINK-NAME = BLSLIB01, -
/ FILE-NAME = WCP&VERSION..LIB
/SET-FILE-LINK -          &* add a file link for ADARUN.
/ LINK-NAME = DDLIB, -
/ FILE-NAME = &ADALIB
/START-PROGRAM -

/ FROM      = *MODULE(LIB = &ADALIB, ELEM = ADARUN, PROG = ANY, -
/              RUN-MOD = ADV(ALT-LIB = YES))
ADARUN PROG=NETWRK,DBID=1234
/EOF
NODE SIEHOST,BUFFERS=(4K,4K,512K)
*
DRIVER DCAM,ISO=N,ACCEPTUI=N
LINK OS390HOST DCAM,PRONAME=ZE01R7,SYS CODE=Y
/EXIT-JOB -
/ MODE = NORMAL, -
/ SYS-OUT = NONE
```

Index

A

- accepting unknown requests
 - DCAM DRIVER statement, 15
- ACCEPTUI parameter
 - DCAM DRIVER statement, 15
- ACQUIRE parameter
 - DCAM LINK statement, 20
- ADJNODE parameter
 - DCAM LINK statement, 21
- APPNAME parameter
 - DCAM DRIVER statement, 15

B

- blocking
 - DCAM link message, 21
- BLOCKMSG parameter
 - DCAM LINK statement, 21
- bold, 2
- braces ({}), 3
- brackets ([]), 3

C

- choices in syntax, 3
- compression
 - DCAM identical character, 22
 - DCAM link message, 21
- COMPRMSG parameter
 - DCAM LINK statement, 21
- CONUDATA parameter
 - DCAM LINK statement, 21

D

- DCAM application name
 - DCAM DRIVER statement, 15
- DCAM application password
 - DCAM DRIVER statement, 16
- DCAM DRIVER statement
 - format, 13
 - parameters, 13-14
 - syntax, 14
- DCAM line driver
 - multiple configurations, 27
- DCAM LINK statement
 - parameters, 20

- syntax, 20
- DCAM MORE DATA option
 - DCAM DRIVER statement, 17
- DCAM/VTAM link via TRANSIT-CD, 28
- default parameter values, 2
- DRIVER statement
 - defining for DCAM, 13

G

- GOSIGNAL parameter
 - DCAM DRIVER statement, 16

I

- ISO mode, 16
- ISO parameter
 - DCAM DRIVER statement, 16
- italic, 2

L

- LINK statement
 - defining for DCAM, 19
- LOGPASS parameter
 - DCAM DRIVER statement, 16
- LOGUDATA parameter
 - DCAM LINK statement, 21
- lowercase, 2

M

- MAXBLK parameter
 - DCAM DRIVER statement, 17
 - DCAM LINK statement, 21
- maximum block size
 - DCAM DRIVER statement, 17
- MINCMP parameter
 - DCAM LINK statement, 22
- minimum keywords, 2
- MOREDATA parameter
 - DCAM DRIVER statement, 17

N

- normal font, 2

O

optional syntax elements, 3

P

parameter

- syntax conventions, 2
- syntax rules, 3

parameters

- DCAM DRIVER statement, 13
- DCAM LINK statement, 20

path selection

- DCAM LINK statement, 23

PRONAME parameter

- DCAM LINK statement, 22

PTNNNAME parameter

- DCAM LINK statement, 22

punctuation and symbols in syntax, 3

R

required syntax elements, 3

RESTART parameter

- DCAM DRIVER statement, 18
- DCAM LINK statement, 22

retries specification

- DCAM LINK statement, 22

retry interval and frequency

- DCAM DRIVER statement, 18

running DCAM application in ISO mode

- DCAM DRIVER statement, 16

S

sending messages

- DCAM DRIVER statement, 16

STATBLK parameter

- DCAM LINK statement, 23

STATCMP parameter

- DCAM LINK statement, 23

statement

- syntax conventions, 2
- syntax rules, 3

statistics

- DCAM link blocking, 23
- DCAM link compression, 23

syntax

- conventions, 2
- rules, 3

syntax conventions

- bold, 2
- braces ({}), 3
- brackets ([]), 3
- defaults, 2
- italic, 2
- lowercase, 2
- minimum keywords, 2
- mutually exclusive choices, 3
- normal font, 2
- optional elements, 3
- punctuation and symbols, 3
- required elements, 3
- underlining, 2

uppercase, 2

vertical bars (|), 3

SYSCODE parameter

- DCAM LINK statement, 23

T

trace information

- DCAM DRIVER statement, 18

TRACE parameter

- DCAM DRIVER statement, 18

tracing line driver processing, 18

TRANSDATA

- network, 10
- processor, 22

U

underlining, 2

uppercase, 2

utility control statement

- parameter values

default, 2

- syntax conventions, 2

- syntax rules, 3

V

vertical bars (|), 3

W

WEIGHT parameter

- DCAM LINK statement, 23