**DXFR statement**

DXFR transfers control to another program or program. The current program ends and any open files are closed.

ÊÊ DXFR

program EZEAPP

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |  | ; |  | ÊÍ |
|  |  |  |  | record |  |  |  | (NONCSP |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |

**Attribute** **Description**

program Name of the program to be initiated.

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**DXFR**

|  |  |
| --- | --- |
| **Attribute** | **Description** |
|  |  |
| EZEAPP | Special function word used to dynamically specify the program name |
|  | on a DXFR statement. This special function word enables you to |
|  | change the transferred-to program name within a program. |
|  |  |
| record | Name of any record used in the current program. The information in |
|  | the record is used to initialize the working storage record of the |
|  | transferred-to program. The data in the record must be compatible |
|  | with the record expected by the transferred-to program. |
|  | Compatible working storage must be defined for the program that is |
|  | the object of the transfer. If a working storage record is specified on an |
|  | DXFR, only the data in the structure is transferred. Any level-77 data |
|  | items defined are not transferred. |
|  | If the receiving working storage is not the same size as the one |
|  | transferred, the smaller size is used for the transfer. If the receiving |
|  | area is larger, the primary working storage record of the transferred-to |
|  | program is initialized based on the type of data (blanks for character |
|  | data, and zero for numeric data). The initialization is done before the |
|  | transferred record, if any, is moved into the primary working storage |
|  | record. |
|  | If the definition of the record specified on the DXFR statement is not |
|  | compatible with the definition of the primary working storage record |
|  | of the transferred-to program, unpredictable results, including |
|  | abnormal termination or the display locking up, can occur in the |
|  | transferred-to program. For example, the following conditions might |
|  | cause incompatibilities between the two records to occur: |
|  | v The records differ in length |
|  | v The field boundaries of the two records do not correspond |
|  | v The type of data differs (for example, the field is defined as |
|  | character in the record used on the DXFR statement, but the |
|  | transferred-to program expects the field to be DBCS data). |
|  |  |
| NONCSP | Indicates that the target program is a non-VisualAge Generator |
|  | program. The option can be specified on the DXFR statement or in the |
|  | linkage table on a :DXFRLINK statement. The option is required when |
|  | generating the program for a COBOL environment. Transfers to |
|  | VisualAge Generator and non-VisualAge Generator programs are |
|  | generated differently in those environments. |
|  | If the NONCSP option is specified, the implementation of the DXFR |
|  | depends upon the environment. See [ªTarget environments for DXFRº](#page423) |
|  | [on page 395](#page423) for more information. |
|  |  |

**Definition considerations for DXFR**

You can specify either the name of the program or the special function word, EZEAPP. EZEAPP enables you to dynamically change the transferred-to program name in a program.

1. VisualAge Generator: Programmer's Reference

**DXFR**

DXFR is designed to transfer control to another program, but to stay in the same CICS or IMS/VS transaction. For environments that do not support transactions, DXFR provides similar function within the same run unit.

DXFR cannot be used from a called program. You cannot transfer using a DXFR to a main transaction that has a first map defined. If the transfer of control is to another program, it must be defined as main transaction or main batch.

**Generation considerations for DXFR**

A linkage table entry specifying static linkage for non-CICS MVS host environments and the target program is a generated program that calls PL/I programs and the programs are not using LE/370.

**Target environments for DXFR**

|  |  |
| --- | --- |
| **Environment** | **Compatibility Considerations** |
|  |  |
| VM CMS | Transfer to non-VisualAge Generator programs is done using the OS |
|  | XCTL macro. The record is passed as a parameter. For DXFRs to |
|  | non-VisualAge Generator programs, the maximum record size is |
|  | 32757. |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* |
|  | document for more information on transferring program control. |
|  | If you are using generated programs as saved segments, the |
|  | following restrictions apply: |
|  | v If the saved segment is an initial program then you cannot |
|  | transfer with a DXFR statement that uses an XCTL or XFER to |
|  | other programs |
|  | v You cannot transfer with a DXFR statement that uses an XCTL or |
|  | XFER to a program that is loaded as a saved segment |
|  |  |
| VM batch | Same as VM CMS. |
|  |  |
| CICS for | The DXFR is implemented using the CICS XCTL command for both |
| MVS/ESA | VisualAge Generator programs and non-VisualAge Generator |
|  | programs. The record is passed using the COMMAREA option of |
|  | XCTL. The data starts in the first byte of the common area. The |
|  | maximum record size is 32763. |
|  | In CICS environments only, a commit occurs on a DXFR when a |
|  | PSB is scheduled at the time of the DXFR. You can use the |
|  | /NOSYNCDXFR generation option to prevent a commit in CICS |
|  | when the transferring and transferred-to program use the same PSB |
|  | (have the same PSB part name specified in the program definition). |
|  | Refer to the section on generation options in the *VisualAge Generator* |
|  | *Generation Guide* document for details. |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* |
|  | document for more information on transferring program control. |
|  |  |

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**DXFR**

|  |  |  |
| --- | --- | --- |
| **Environment** | **Compatibility Considerations** | |
|  |  | |
| MVS/TSO | Transfer to non-VisualAge Generator programs is done using the OS | |
|  | XCTL macro. The record and EZEDLPSB (if a PSB was used in the | |
|  | transferring program) are passed as parameters. For DXFRs to | |
|  | non-VisualAge Generator programs, the maximum record size is | |
|  | 32757. | |
|  | All programs in the same run unit must share the same DL/I PSB. | |
|  | The PSB part definition can vary if EZEDLPCB is used to pass | |
|  | information on the CALL. | |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* | |
|  | document for more information on transferring program control. | |
|  |  | |
| MVS batch | DL/I calls and GSAM files are supported in the transferred-to | |
|  | program only if there was a PSB specified for the transferring | |
|  | program and the transferring program does at least one of the | |
|  | following: | |
|  | v | Uses CSPTDLI |
|  | v | Associates at least one file or EZEPRINT with GSAM |
|  | v | Uses EZEDLPSB or EZEDLPCB in any statement in the program |
|  | v | Has DL/I databases other than ELAWORK or ELAMSG in the |
|  |  | PSB definition |
|  | Otherwise, the same as MVS/TSO. | |
|  |  | |
| IMS/VS | A transfer using DXFR to a non-VisualAge Generator program is not | |
|  | supported. The NONCSP option is ignored. DXFRLINK with | |
|  | LINKTYPE=NONCSP in the linkage table is not supported. | |
|  | Programs that run under the same transaction using DXFR must | |
|  | share the same PSB, must have the same execution mode, and must | |
|  | use the IMS scratchpad area (SPA) in the same way. A commit point | |
|  | never occurs at DXFR. SPA use is specified as a generation option. | |
|  | If the initial program in a transaction is a main batch program, | |
|  | DXFR to a main transaction program is not supported. If the initial | |
|  | program is a main transaction, DXFR to a main batch program that | |
|  | accesses the I/O PCB as a serial file is not supported. | |
|  |  | |
| IMS BMP | Same as MVS/TSO. | |
|  |  | |
| CICS for | Same as CICS for MVS/ESA. | |
| VSE/ESA |  |  |
|  |  |  |

1. VisualAge Generator: Programmer's Reference

|  |  |
| --- | --- |
|  | **DXFR** |
|  |  |
| **Environment** | **Compatibility Considerations** |
|  |  |
| VSE batch | DXFR is not supported for non-VisualAge Generator programs. |

DL/I CALL files are supported in the transferred-to program only if there was a PSB specified for the transferring program and the transferring program does at least one of the following:

1. Uses CSPTDLI.
2. Uses EZEDLPSB or EZEDLPCB in any statement in the program
3. Has DL/I databases other than ELAWORK or ELAMSG in the PSB definition

|  |  |
| --- | --- |
|  | All programs in the same run unit must share the same PSB. |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* |
|  | document for more information on transferring program control. |
|  |  |
| CICS for OS/2 | Same as CICS for MVS/ESA. |
|  |  |
| OS/400 | Control is passed directly to the program to be initiated using the |
|  | OS/400 XCTL interface. Working storage is passed as a parameter |
|  | using a standard system argument list. The program issuing the |
|  | DXFR is removed from the program invocation stack and does not |
|  | resume control when the initiated program ends. |
|  |  |
| OS/2 (GUI) | Not supported. |
|  |  |
| Windows (GUI) | Not supported. |
|  |  |
| OS/2 (C++) | The DosExecPgm API is used to transfer control to a non-VisualAge |
|  | Generator program. The record is passed via a transfer block in |
|  | shared memory. Refer to the *VisualAge Generator Client/Server* |
|  | *Communications Guide* document for more information on how to |
|  | transfer control from a VisualAge Generator program to a |
|  | non-VisualAge Generator program. |
|  |  |
| AIX | The exec() and fork() system calls are used to transfer control to a |
|  | non-VisualAge Generator program. Refer to the *VisualAge Generator* |
|  | *Client/Server Communications Guide* document for more information |
|  | on how to transfer control from a VisualAge Generator program to a |
|  | non-VisualAge Generator program. |
|  |  |
| HP-UX | The exec() and fork() system calls are used to transfer control to a |
|  | non-VisualAge Generator program. Refer to the *VisualAge Generator* |
|  | *Client/Server Communications Guide* document for more information |
|  | on how to transfer control from a VisualAge Generator program to a |
|  | non-VisualAge Generator program. |
|  |  |
| CICS for AIX | The DXFR is implemented using the CICS XCTL command. The |
|  | record is passed using the COMMAREA option of XCTL. The data |
|  | starts in the first byte of the COMMAREA. The maximum record |
|  | size is 32763. |
|  |  |
| Windows NT | Same as OS/2 (C++). |
| (C++) |  |
|  |  |

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**DXFR**

|  |  |
| --- | --- |
| **Environment** | **Compatibility Considerations** |
|  |  |
| Windows NT | DXFR may only be used for UI records and local Java Server |
| (Java) | Programs. |
|  |  |
| CICS for | Same as CICS for AIX. |
| Windows NT |  |
|  |  |
| Solaris | The exec() and fork() system calls are used to transfer control to a |
|  | non-VisualAge Generator program. Refer to the *VisualAge Generator* |
|  | *Client/Server Communications Guide* document for more information |
|  | on how to transfer control from a VisualAge Generator program to a |
|  | non-VisualAge Generator program. |
|  |  |
| CICS for Solaris | The DXFR is implemented using the CICS XCTL command. The |
|  | record is passed using the COMMAREA option of XCTL. The data |
|  | starts in the first byte of the COMMAREA. The maximum record |
|  | size is 32763. |
|  |  |
| Test Facility | None. |
|  |  |

**Examples for DXFR**

To transfer control and pass the record MYRECD to the program called

NEWAPP1, type:

DXFR NEWAPP1 MYRECD;

To transfer control to another program called APPL2, type:

DXFR APPL2;

To use EZEAPP to specify a variable name, type:

MOVE ©APPL2© TO EZEAPP;

DXFR EZEAPP;

To pass a working storage record to a non-VisualAge Generator program, type:

MOVE ©APPL3© to EZEAPP;

DXFR EZEAPP COMMON\_DATA\_RECORD (NONCSP;