**CALL statement**

CALL transfers control to another program or non-VisualAge Generator program. When the called program or program ends, the current function continues with the statement following the CALL.

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| ÊÊ |  | CALL |  |  | *name* |  |  | » |  |
|  |  |  |  | |  |  |
|  |  |  |  |  | *service routine* | |  |  |  |
|  |  |  |  |  |  |  |  |
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1. » NOMAPS NONCSP REPLY

*character, mixed, or DBCS literal*

*record*

*map*

*data item*

*working storage structure*

EZEDLPSB

EZEDLPCB

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|  |  |
| --- | --- |
| **Attribute** | **Description** |
|  |  |
| name | The name of a VisualAge Generator called program, or the name of a |
|  | non-VisualAge Generator program. |

For more information on calling non-VisualAge Generator programs, refer to the section on transferring program control in the *VisualAge Generator Client/Server Communications Guide* manual.

service routine Service routines: AUDIT, COMMIT, CREATX, CSPTDLI, or RESET

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|  |  |
| --- | --- |
|  | **CALL** |
|  |  |
| **Attribute** | **Description** |
|  |  |
| argument | A character, mixed, or DBCS literal, record, map, data item, working |
|  | storage structure, EZEDLPSB, or EZEDLPCB. An argument name can |
|  | be qualified and/or subscripted. |
|  | If working storage is passed, the level-77 items within it are not passed |
|  | unless explicitly included in the list of arguments. |
|  | The maximum number of arguments supported is 30. The arguments |
|  | specified must match the parameters defined for the called program. |
|  |  |

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**CALL**

|  |  |
| --- | --- |
| **Attribute** | **Description** |
|  |  |
| option | For logic parts used within a GUI client, the NOMAPS on a CALL |
|  | statement is ignored. |
|  | The option can be one or all of the following: |
|  | **NOMAPS** |
|  | Use NOMAPS on CALL statements in main or called |
|  | transaction programs to indicate that the called program or |
|  | program does not use the screen. Maps displayed before the |
|  | CALL statement do not need to be refreshed. If you do not |
|  | specify NOMAPS, the screen is refreshed when control is |
|  | returned to the calling program. |
|  | If your program converses a full-screen map after the CALL, |
|  | use the NOMAPS option even if the called program might |
|  | have used the screen. This prevents the refreshing of the |
|  | screen prior to the output of a map that completely overlays |
|  | the prior map. |
|  | **Note:** Although this recommendation applies to calls to |
|  | VisualAge Generator programs, it can also be done for calls to |
|  | non-VisualAge Generator programs as long as the calling |
|  | program does not CONVERSE the same full-screen map |
|  | before and after the call. |
|  | **REPLY** Indicates the status of a call by setting a return code in |
|  | EZERT8. REPLY is effective with any of the service routines in |
|  | the CICS environments, with calls to remote server programs. |
|  | **Note:** In the IMS environments, the REPLY option is only |
|  | effective when used with CREATX. |
|  | The return code indicates why the service or remote call could |
|  | not be initiated and is available in the EZERT8 special |
|  | function word as the 8-character displayable form of the |
|  | return code. |
|  | REPLY cannot be used to test the program return code from a |
|  | called program. Program return codes should be passed back |
|  | using a parameter. |
|  | If REPLY was not specified or is not effective and an error is |
|  | detected in the service, the calling program ends with an error |
|  | message that explains the reason for the termination and |
|  | displays the return code. |
|  | Termination for GUI clients means that a walkback is |
|  | generated. |
|  |  |

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**CALL**

**Attribute** **Description**

option

**NONCSP**

(continued)

Indicates that the target program is a non-VisualAge Generator program.

When used with the CALL statement, the NONCSP option affects the passing of parameters to CICS programs defined with REMOTE or DYNAMIC linkage in the linkage table. You can use it to improve performance in the test facility as it indicates that the called program or program is not to be run from the MSL.

You can also define the characteristics of the called program in the linkage table as an alternative to coding the NONCSP option on each CALL. Refer to *VisualAge Generator Client/Server Communications Guide* for more information.

**Definition considerations for CALL**

Whenever data is passed to another program, modification of that data by the called program or program effectively modifies the storage of the calling program. Recursive calls (A calls A; or A calls B, which calls A) are not supported, except with C++ generated programs.

The type of linkage used on the CALL and the format of the parameters passed during generation or test execution varies by system. The default linkage for generated programs is described in [ªTarget environments for](#page418) [CALLº on page 390.](#page418)

You can use the linkage table to request that other types of linkage be generated for calls to specific programs. Refer to the *VisualAge Generator Client/Server Communications Guide* document for more information ontransferring program control, preparing programs for generation, and for more information regarding the linkage table.

**Calls to remote called batch programs**

At program generation, use the linkage table to specify that a CALL is a call to a remote called batch program (a called batch program that is generated to receive CALLs from a remote system).

The linkage table describes the type of linkage to be generated for both called and calling programs, including how the location of the called program is identified, and what kind of data format conversion needs to be performed on the call.

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**CALL**

The input and output arguments on a remote call are passed and returned by value, not by pointer. Arguments that overlap in storage (same argument passed more than once or multiple definitions of the same record) cannot be passed on a remote call. The total number of bytes in the data structures defined for the arguments must be less than 32567 bytes.

The REPLY option allows continuation with a nonzero system error code from the remote CALL function. The return code is available to the program in EZERT8 if REPLY is specified.

Refer to the section on implementing client/server processing using the CALL statement in *VisualAge Generator Client/Server Communications Guide* for more information on using the CALL statement for calling programs on remote systems.

**Target environments for CALL**

Any record item (not just a level 77 item) can be an argument on a string function.

|  |  |
| --- | --- |
| **Environment** | **Compatibility Considerations** |
|  |  |
| VM CMS | When default linkage is used, a CALL is implemented as a dynamic |
|  | COBOL CALL. Register 1 points to the parameter list. The return |
|  | code set in Register 15 by the called program is not passed back to |
|  | the calling program. |
|  | Calling a remote program is not supported. |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* |
|  | document for more information on transferring program control. |
|  |  |
| VM batch | Same as VM CMS. |
|  |  |

1. VisualAge Generator: Programmer's Reference

|  |  |
| --- | --- |
|  | **CALL** |
|  |  |
| **Environment** | **Compatibility Considerations** |
|  |  |
| CICS for | When default linkage is used in CICS environments, a CALL is |
| MVS/ESA | implemented using a CICS LINK. The parameter list is passed in |
|  | the CICS COMMAREA. The return code set in register 15 by the |
|  | called program is not passed back to the calling program. |
|  | When using the COMMDATA linkage convention on a CICS/ESA |
|  | system, the maximum COMMAREA length (total bytes of all |
|  | parameters passed) is 32763. The maximum COMMAREA length is |
|  | 32763 for a call to a remote program. |
|  | Calling a remote program is supported only in CICS/ESA Version 3 |
|  | Release 3 or later systems. If EZELOC is used to specify the target |
|  | system for a remote CALL, the generated program will not |
|  | precompile correctly on earlier systems. |
|  | Calling a remote called batch program running on the same system |
|  | is supported, allowing programs on a host system and programs on |
|  | workstations to share the same called program running on the host. |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* |
|  | document for more information on transferring program control. |
|  |  |
| MVS/TSO | When calling a non-VisualAge Generator program OS LINK is used. |
|  | Otherwise, same as VM CMS. |
|  |  |
| MVS batch | Same as MVS/TSO. |
|  |  |
| IMS/VS | If the initial program is a main transaction, a CALL to a batch |
|  | program that accesses the I/O PCB as a serial file is not supported. |
|  | When default linkage is used, a CALL is implemented as a dynamic |
|  | COBOL CALL. Register 1 points to the parameter list. The return |
|  | code set in register 15 by the called program is not passed back to |
|  | the calling program. |
|  | When calling a non-VisualAge Generator program OS LINK is used. |
|  | Calling a remote program is not supported. |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* |
|  | document for more information on transferring program control. |
|  | The REPLY option is only effective when used with CREATX. |
|  |  |
| IMS BMP | The REPLY option is only effective when used with CREATX. |
|  | Otherwise, same as MVS/TSO. |
|  |  |
| CICS for | Same as CICS for MVS/ESA. |
| VSE/ESA |  |
|  |  |
| VSE batch | Same as VM CMS. |
|  |  |

Chapter 10. Program processing statements **391**

**CALL**

|  |  |
| --- | --- |
| **Environment** | **Compatibility Considerations** |
|  |  |
| CICS for OS/2 | When default linkage is used in CICS environments, a CALL is |
|  | implemented using a CICS LINK. The parameter list is passed in |
|  | the CICS COMMAREA. The return code set in register 15 by the |
|  | called program is not passed back to the calling program. |
|  | The maximum COMMAREA length is 32567 for a call to a remote |
|  | program. |
|  | Refer to the *VisualAge Generator Client/Server Communications Guide* |
|  | document for more information on transferring program control. |
|  | If a program calls a remote called batch program that accesses DL/I |
|  | databases, the calling program must pass EZEDLPSB as a parameter |
|  | to the remote called batch program. The PSB is scheduled in the |
|  | first remote program and the CICS UIB address is passed back in |
|  | the EZEDLPSB parameter for use on subsequent calls to remote |
|  | DL/I programs. In a single logical unit of work, all calls to DL/I |
|  | remote called batch programs must go to the same target system. |
|  |  |
| OS/400 | If the program is a non-VisualAge Generator program, the CALL |
|  | uses the standard OS/400 CALL interface. Parameters are passed |
|  | using a standard system argument list. |
|  |  |
| OS/2 (GUI) | None. |
|  |  |
| Windows (GUI) | None. |
|  |  |
| OS/2 (C++) | Recursive calls are supported. A linkage table entry is only needed |
|  | for the calling programs. Called programs do not require a linkage |
|  | table entry. Calls to remote programs are supported as well as calls |
|  | to existing local or remote CICS programs. Refer to the *VisualAge* |
|  | *Generator Generation Guide* document for more information on |
|  | defining linkage tables. |
|  | The REPLY option is supported on calls to remote programs. |
|  |  |
| AIX | Same as OS/2 (C++) |
|  |  |
| HP-UX | Same as OS/2 (C++) |
|  |  |
| CICS for AIX | Recursive calls are supported. Default linkage is via a CICS |
|  | statement passing pointers in the CICS COMMAREA The |
|  | generation linkage table can be used to request that parameters be |
|  | passed by value in the COMMAREA or to specify that the called |
|  | program is a remote server program. |
|  | EZEDLPSB must be passed as a parameter to a remote server |
|  | program if the server program accesses DL/I databases and the unit |
|  | of work extends across multiple server calls. |
|  |  |
| Windows NT | Same as OS/2 (C++). |
| (C++) |  |
|  |  |

1. VisualAge Generator: Programmer's Reference

**CALL**

|  |  |
| --- | --- |
| **Environment** | **Compatibility Considerations** |
|  |  |
| Windows NT | Same as OS/2 (C++). |
| (Java) |  |
|  |  |
| CICS for | Same as CICS for AIX. |
| Windows NT |  |
|  |  |
| Solaris | Same as OS/2 (C++) |
|  |  |
| CICS for Solaris | Recursive calls are supported. Default linkage is via a CICS |
|  | statement passing pointers in the CICS COMMAREA The |
|  | generation linkage table can be used to request that parameters be |
|  | passed by value in the COMMAREA or to specify that the called |
|  | program is a remote server program. |
|  | EZEDLPSB must be passed as a parameter to a remote server |
|  | program if the server program accesses DL/I databases and the unit |
|  | of work extends across multiple server calls. |
|  |  |
| Test Facility | The REPLY option can be used on calls to COMMIT and RESET. |
|  | The test facility displays a message that corresponds to the value set |
|  | in EZERT8. |
|  | Recursive programs are not supported. |
|  |  |

**Examples for CALL**

To go to another program called APPL2, passing a data item called ITEM1, enter the following:

CALL APPL2 ITEM1;

or:

CALL APPL2 ITEM1 (NOMAPS;

The parenthesis preceding the option is required.