CICS Program Control Program *PCP* manages the flow of application programs. All the application programs must have an entry in the Processing Program Table. Following are the commands which are used for program control services:

- XCTL
- Link
- Load
- Release
- Return

**Program Logical Levels**

The application programs which execute under CICS has various logical levels. The first program which is receives the control directly is at highest logical level i.e. Level 1. The Linked program is at next logical level from the linking program. The XCTL programs runs at the same level. It will be more clear when we will go through Link and XCTL, later in this module. Following image shows the logical levels:

![Program Logical Levels Diagram](image)

**XCTL**

The fundamental explanation of XCTL is as follows:

- XCTL command is used to pass the control from one program to another at same level.
• It does not expect the control back.
• It is similar to GO TO statement.
• A XCTL program can be a pseudo-conversational.

Example
Following is the example of XCTL command to pass control to another program:

```
IDENTIFICATION DIVISION.
PROGRAM-ID. PROG1.
WORKING-STORAGE SECTION.
  01 WS-COMMAREA PIC X(100).
PROCEDURE DIVISION.
  EXEC CICS XCTL
    PROGRAM ('PROG2')
    COMMAREA (WS-COMMAREA)
    LENGTH (100)
END-EXEC.
```

This command transfers the control to be passed to program 'PROG2' with 100 bytes of data. COMMAREA is an optional parameter and is the name of the area containing the data to be passed or the area to which results are to be returned.

Link
The fundamental explanation of Link is as follows:
• Link command is used to transfer the control to another program at lower level.
• It expects the control back.
• It is similar to perform and control will be passed back to the instruction following this.
• A Linked program can not be pseudo-conversational.

Example
Following is the example of Link command to pass control to another program:

```
IDENTIFICATION DIVISION.
PROGRAM-ID. PROG1.
WORKING-STORAGE SECTION.
  01 WS-COMMAREA PIC X(100).
PROCEDURE DIVISION.
  EXEC CICS LINK
    PROGRAM ('PROG2')
    COMMAREA (WS-COMMAREA)
    LENGTH (100)
END-EXEC.
```

Load
Load command is used to load a program or a table. Following is the syntax of Load command:

```
EXEC CICS LOAD
  PROGRAM ('name')
END-EXEC.
```

Release
Release command is used to release a program or a table. Following is the syntax of Release command:

```
```
Return

Return command is used to return the control to next higher logical level. Following is the syntax of Return command:

```
EXEC CICS RETURN
  PROGRAM ('name')
  COMMAREA (data-value)
  LENGTH (data-value)
END-EXEC.
```

Interval Control Operations

The interval control operations are of following two types:

**ASKTIME**

ASKTIME is used to request for current time and date or time stamp. We then move this value to working storage variable inside the program. Following is the syntax of ASKTIME command:

```
EXEC CICS ASKTIME
  [ABSTIME(WS-TIMESTAMP)]
END-EXEC.
```

**FORMATTIME**

FORMATTIME formats the time stamp into required format based on the options, which can be YYDDD, YYMMDD or YYDDMM for date. DATESEP indicates the separator for the DATE as does the TIMESEP variable for TIME. Following is the syntax of FORMATTIME command:

```
EXEC CICS FORMATTIME
  ABSTIME(WS-TIMESTAMP)
  [YYDDD(WS-DATE)]
  [YYMMDD(WS-DATE)]
  [YYDDMM(WS-DATE)]
  [DATESEP(WS-DATE-SEP)]
  [TIME(WS-TIME)]
  [TIMESEP(WS-TIME-SEP)]
END-EXEC.
```