

CONTROL-M Parameter Guide



Supporting

CONTROL-M/Enterprise Manager version 6.4.01
CONTROL-M/Desktop 6.4.01
CONTROL-M/Forecast version 6.3.01
CONTROL-M/Server version 6.3.01
CONTROL-M/Agent version 6.3.01
CONTROL-M/CM for SAP version 6.3.01
BMC® CONTROL-M/CM for Oracle E-Business Suite version 6.2.01
CONTROL-M/CM for Advanced File Transfer version 6.3.01
CONTROL-M/CM for PeopleSoft version 6.1.02
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September, 2008

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 - serial numbers
 - related software (database, application, and communication) including type, version, and service pack or maintenance level
- sequence of events leading to the issue
- commands and options that you used
- messages received (and the time and date that you received them)
 - product error messages
 - messages from the operating system, such as file system full
 - messages from related software

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About this book

This book contains detailed information about parameters and variables that can be used in CONTROL-M job processing definitions.

Use this book to determine usage and syntax of job parameters and variables for the latest version of all CONTROL-M products.

How this book is organized

This book is organized as follows. In addition, an index appears at the end of the book.

Chapter	Description
Chapter 1	Introduction Introduces the various types of job parameters and AutoEdit variables described in the rest of the book.
Chapter 2	General parameters Parameters that identify the job and describe its function.
Chapter 3	Scheduling parameters Parameters that enable you to specify when and how often a job should be scheduled for submission to CONTROL-M/Server.
Chapter 4	Execution parameters Parameters that enable you to specify runtime characteristics of the job, pertaining to reruns of the job, in particular.
Chapter 5	Condition parameters Parameters that enable you to specify interdependent relationships between jobs, using prerequisite conditions.
Chapter 6	Resource parameters Parameters that enable you to make the availability of system resources a prerequisite for job submission to CONTROL-M/Server.
Chapter 7	Post-processing parameters Specify how the job's results should be analyzed and what subsequent actions should be taken.
Chapter 8	Job Output parameters Describes actions that CONTROL-M and CONTROL-M/EM perform when the job has finished running.

Chapter	Description
Chapter 9	Status parameters Describes runtime information about the job.
Chapter 10	SAP parameters Describes the parameters used to create and run a SAP job.
Chapter 11	Oracle E-Business Suite parameters Describes the parameters used to create and run an Oracle Business Suite job.
Chapter 12	Advanced File Transfer parameters Describes the parameters used to create and run an FTP job.
Chapter 13	PeopleSoft parameters Describes the parameters used to create and run a PeopleSoft job.
Chapter 14	Microsoft Windows parameters Describes the parameters used to create and run a Microsoft Windows 2000 job.
Chapter 15	AutoEdit facility Describes special variables and functions that can be used to make job processing definitions more dynamic.
Chapter 16	CONTROL-M Business Process Integration Suite parameters Describes the parameters used to create and run a CONTROL-M BPI Suite job (Java Applications, Web Services or Messaging).
Chapter 17	BMC Batch Impact Manager parameters Describes the parameters used to create and run BMC Batch Impact Manager jobs for defining critical batch services.

Related Documentation

The following list describes other BMC publications that are relevant to the parameters and variables described in this book.

- **CONTROL-M User Guide** describes CONTROL-M/EM concepts, features, facilities, and operating instructions. In addition, it describes CONTROL-M/Desktop used to define and manage CONTROL-M job processing definitions, scheduling tables, and calendars. It can be used as a learning guide as well as a reference guide.
- **CONTROL-M Administrator Guide** describes the tasks that the CONTROL-M/EM administrator must perform to define, monitor, and maintain the CONTROL-M/EM environment.
- **CONTROL-M Utility Guide** describes the utilities used for creating and managing objects in the job production environment and maintaining various aspects of CONTROL-M/Enterprise Manager.

- **CONTROL-M Administrator Guides** are supplied for servers, agents, and Control Modules for various CONTROL-M computers (for example, UNIX, iSeries (AS/400) and Microsoft Windows). These guides describe setup, security, and utilities.
- **CONTROL-M Installation Guide** describes the installation processes for implementing CONTROL-M/EM and CONTROL-M/Server environments on Microsoft Windows and UNIX computers.
- **CONTROL-M for z/OS User Guide** is a complete guide to the CONTROL-M Production Control System in a mainframe environment.
- **CONTROL-M/Enterprise Manager API Developers Guide** describes how to enable your applications to submit requests to CONTROL-M/EM.
- **CONTROL-M Business Service Management Solution User Guide** describes BMC Batch Impact Manager, BMC CONTROL-M/Forecast, and BMC Batch Discovery concepts, features, facilities, installation, and operating instructions. It can be used as a learning guide, as well as a reference guide.
- **CONTROL-M/Control Module for ORACLE E-Business Suite Administrator Guide** explains how to define and monitor jobs using the Oracle E-Business Suite Panel of the Job Editing form.
- **CONTROL-M/Control Module for PeopleSoft Administrator Guide** explains how to define and monitor jobs using the PS8 Panel of the Job Editing form.
- **CONTROL-M/Control Module for SAP Administrator Guide** describes BMC Software's batch management solution for SAP.
- **CONTROL-M Messages Manual** describes messages that are displayed on the server computer as well as those recorded in the CONTROL-M log.

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Introduction

In the CONTROL-M job scheduling environment, jobs are tasks that can be performed by a computer. These tasks are handled according to parameters. The parameters specified for a particular job are collectively referred to as a *job processing definition*.



NOTE
The term *job* as used in this manual refers to any task that can be performed by a script or command that is handled by CONTROL-M/Server.

Job processing parameters only need to be defined once for each job. CONTROL-M uses the job processing definition each time a job is ordered. Definitions can be modified at any time using various CONTROL-M/EM facilities.

These definitions are created using CONTROL-M/Desktop and are stored in scheduling tables (job directories) according to various criteria that you determine. The scheduling tables are uploaded to CONTROL-M/EM. When the scheduling criteria of the table are met, the jobs are passed to the CONTROL-M/Server database.

Job parameters are composed primarily of static information. However, a job processing definition may need to include information that is subject to change or was not available when the definition was created (such as the time at which a job was submitted, or the name of the batch queue to which the job was submitted.). CONTROL-M/EM enables you to replace that data with AutoEdit variables. You can use both pre-defined AutoEdit variables and those that you create.

Defining job processing parameters

This guide assumes that your primary point of access for creating job processing definitions is the Job Editing form. Nonetheless, information is also provided for creating definitions using other CONTROL-M components.

Job processing definitions can be created using any of the following methods:

- CONTROL-M/Desktop. Use the Job Editing form or the Mass Creation facility to create definitions offline. You can then upload the jobs to the CONTROL-M/EM database.
- CONTROL-M/EM. Use the Job Editing form to modify parameters for jobs that have already been scheduled for submission on the current day. For more information about the Job Editing form, see the *CONTROL-M User Guide*.
- CONTROL-M/EM. Use various CONTROL-M/EM utilities to define or modify job processing definitions. For more information, see the *CONTROL-M Utility Guide*.
- CONTROL-M/Server, CONTROL-M for z/OS, and CONTROL-M/Agent. Use CONTROL-M batch utilities or the online facility [z/OS or iSeries (AS/400)] to define or modify job processing definitions.

If you are using CONTROL-M batch utilities and want to use a special character, such as >, <, or |, when setting the value of a job parameter, you must enclose the entire expression in double quotation marks, for example ">9".

NOTE

All job processing definitions are stored in the CONTROL-M/EM database and are uploaded to the CONTROL-M/Server database.



The parameters of job processing definitions can also be used as selection criteria

- To determine the content of the ViewPoints that indicate which nodes are displayed in the CONTROL-M/Desktop window and the CONTROL-M/EM flow diagram
- To determine which jobs are included in a report created using the Reporting facility

Job parameter and variable access

The Job Editing form is divided into panels, as shown in [Table 1](#). Each panel contains parameters that have similar functions.

The division of the chapters in this book reflects the division of the job processing parameters in the CONTROL-M/EM Job Editing form. For example, to learn about a parameter that is displayed on the General panel of the Job Editing form, see [Chapter 2, “General parameters.”](#)

Table 1 Access to job parameters and variables (part 1 of 2)

Panel	Contents
General Panel	Contains General parameters. These parameters provide information about the job and explain what the job does. In addition, they include miscellaneous parameters that relate to how the job is executed and preparations that are performed before the job is executed. For more information, see Chapter 2, “General parameters.”
Scheduling Panel	Contains Scheduling parameters. These parameters determine the time period (days, months, and hours) during which the job can be submitted for execution. If a job is a candidate for execution, it is placed in the Active Jobs file. For more information, see Chapter 3, “Scheduling parameters.” Note: For more information about original scheduling dates, see the description of using system parameters in the <i>CONTROL-M Administrator Guide</i> .
Application Panel	Contains parameters for the specified application on which the job runs (for example, SAP or Oracle E-Business Suite). The title and content of the Application panel change depending on which application is specified. For more information, see Chapter 10, “SAP parameters,” Chapter 11, “Oracle E-Business Suite parameters,” and Chapter 14, “Microsoft Windows parameters.”
Execution Panel	Contains Execution parameters. These parameters determine where, how often, and with what priority the job is executed, after it has been submitted for processing. For more information, see Chapter 4, “Execution parameters.”

Table 1 Access to job parameters and variables (part 2 of 2)

Panel	Contents
Conditions Panel	Contains Condition parameters. These parameters specify information about the time period (days, months, and hours) which must be satisfied before determining when the job can be submitted for execution. These parameters also determine whether conditions are to be added or deleted after the job run is successfully completed. For more information, see Chapter 5, “Condition parameters.”
Resources Panel	Contains Resource parameters. These parameters specify information about physical and logical requirements that must be met before the job can be submitted for execution. For more information, see Chapter 6, “Resource parameters.”
Set Panel	Contains facilities for defining and specifying AutoEdit variables. AutoEdit variables are used to insert dynamic information into the values of job processing parameters. For more information, see Chapter 15, “AutoEdit facility.”
Steps Panel	Contains Post Processing parameters. These parameters specify actions that should be performed by CONTROL-M when the job is finished executing or has failed to run. For more information, see Chapter 7, “Post-processing parameters.”
PostProc Panel	Contains Job Output parameters. These parameters specify actions that CONTROL-M and CONTROL-M/EM perform that are a direct result of the output of the job. For more information, see Chapter 7, “Post-processing parameters.”
Active Panel	Contains Status parameters. These parameters describe scheduling, status, and statistical information that was collected during job runtime. The values for these parameters are supplied by CONTROL-M. The Active panel is displayed only in the CONTROL-M/EM Job Editing form, because the data displayed in it is based on previous runs of the job. For more information, see Chapter 9, “Status parameters.”

AutoEdit variables are also described in this guide.

Language support

Western European language special characters can be specified for most parameters in which free text can be entered. A list of all parameters that can contain these characters is provided in the *CONTROL-M Language Customization Guide*.

In this guide, the term “non-English characters” in the Invalid Characters section of each parameter description indicates that the parameter only supports Western characters.

The following characters are not supported for any parameter under any circumstances:

Abbreviations and conventions

The following abbreviations are used in this guide:

Abbreviation	Description
CONTROL-M/EM	CONTROL-M/Enterprise Manager
CONTROL-M/CM	CONTROL-M Control Module

The following conventions are used in this guide:

key	When describing keystrokes, boldface type is used for the name of a key (for example, F1). When two keys are joined with “+” as in Shift+F1 , hold down Shift while pressing F1 .
Menu => Option	This represents an option selection sequence. For example, Users and Groups => Groups => Add means that you first select Users and Groups from the menu bar. Select the Groups option from the submenu. Finally, select the Add option from the Groups submenu.
{ } (braces)	Braces indicate that at least one of the enclosed elements is required. For example: {fileName deviceName mediaType} means that you must specify one of the variables.

{Option A Option B}	The vertical bar is used to separate choices. For example: {AND OR} means that you specify either AND or OR.
[Option]	Square brackets are used to enclose parameters that are optional.
Code Samples	Format syntax, operating system terms, examples, and JCL scripts are presented in this typeface.
Messages	Messages are presented in this typeface.
Boldface	In instructions, boldface type highlights information that you enter. File names, directory names and paths, parameter names, and options are also in boldface.
Option Symbol	A vertical bar () separating items indicates that you must choose one item. In the following example, you would choose a, b, or c: a b c

Conventions for parameter descriptions

The following terms are used to describe the format of parameters in this guide:

- **Usage**

Indicates whether a parameter is mandatory or optional.

Some parameters are mandatory only when CONTROL-M is installed on a certain computer. Some parameters are mandatory only when a related parameter is specified (for example, **PDS** and **Minimum** must be specified together).

- **Case sensitive**

Indicates that CONTROL-M differentiates between values specified using various combinations of uppercase and lowercase letters.

For example, the prerequisite condition **JOB_ENDED_OK** is different from the prerequisite condition **Job_Ended_OK**. A job waiting for **JOB_ENDED_OK** is not submitted if only **Job_Ended_OK** is found.

- **Invalid Characters**

Indicates, when specifying the parameter, whether

- there are any special characters that cannot be used
- embedded blanks (spaces) can be used

Trailing blanks (after the specified value) are ignored.

- **AutoEdit Support**

Indicates whether AutoEdit variables can be included in the value of the specified parameter.

General parameters

The parameters described in this chapter contain basic information that identifies the job, describes what it does, and gives the location of the job script.

Table 2 General parameters – summary (part 1 of 2)

Parameter	Description
Application	Name of the application to which the job's group belongs. Used as a descriptive name for related groups of jobs.
Application Type	Indicates the type of external application (for example, SAP or Oracle E-Business Suite) on which the job runs.
Application Version	Indicates the version of the external application (for example, SAP or Oracle E-Business Suite) on which the job runs.
Author	CONTROL-M/EM user who defined the job. This parameter is used by the CONTROL-M security mechanism.
AutoEdit	Used to assign values to user variables to be referenced in the job script or in other parameters of the job. It is also called Set Var .
Command	Operating system command line to be issued. This parameter can be specified only when Command is specified for the Task Type parameter.
Control Module (CM) Version	Indicates the version of the external application (for example, SAP or Oracle E-Business Suite) Control Module (CM) that is installed in the CONTROL-M installation (that is, that runs the job).
CONTROL-M	Name of the CONTROL-M/Server to which the job belongs.
Description	Free text description of the job.
Doc Lib	Name of a library or directory containing the job documentation file.
Doc Mem	Name of the file containing job documentation.
Embedded Scripts/JCL	A scheduled script that is part of the job definition.
File Name/Mem Name	Name of the file that contains the job script, or (for z/OS jobs only) name of a member that contains one of the following in relation to the job to be executed: <ul style="list-style-type: none"> ■ the JCL of the job ■ the started task procedure ■ warning messages

Table 2 General parameters – summary (part 2 of 2)

Parameter	Description
Form Name	Type of form used for entering external application data.
Group	Name of the group to which the job belongs.
Job Name	Name of the job.
Job Type	Generally, an identifier name indicating the type of external application (for example, SAP...). In this case, the parameter represents a combination of the following parameters: Application Type , Application Version , CM Version , and Form Name . Jobs not belonging to an external application have a job type of either CONTROL-M BIM (for Batch Impact Manager jobs), or OS (for all other jobs).
Over Lib	Name of an alternate library/directory. CONTROL-M searches for the file specified in the File Name parameter in the Over Lib library before searching for it in the Path library.
Owner	Owner (user ID) associated with the job. This parameter is used by the CONTROL-M security mechanism.
Path/Mem Lib	Name of the directory in which the job script resides, or (for z/OS jobs only) name of the library in which the member described in the Mem Name parameter is located.
PIPE	Indicates a data set to be replaced by a pipe with the same name. Displayed only if MAINVIEW® Batch Optimizer is installed. [For z/OS jobs only.]
Scheduling Table Lib	Name of the library that contains the scheduling table. [For z/OS jobs only.]
Table	Name of the scheduling table to which the job belongs.
Task Type	Type of the job (task) to be performed by CONTROL-M.

Application

Provides a logical name for sorting groups of jobs. This parameter is used to supply a common descriptive name to a set of related groups of jobs.

Format

Usage	Mandatory z/OS: Optional
Default	None
Length	1-20 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ Single quotation marks.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter. However, the value of Application can be specified using the %%APPL and %%APPLIC AutoEdit variables.

Related parameters

Parameter	Description
Group	Group is also a logical name. Both the Application and Group parameters can be used to create logical groupings of jobs. Neither parameter has a direct effect on job execution.

General information

The Application parameter facilitates more convenient and orderly management of groups of production jobs.

The value assigned to the Application parameter can be used to determine the placement of jobs in the *CONTROL-M* flow diagram. It can also be used as a criterion for building a ViewPoint.

Aliases in other CONTROL-M components

Alternate names for the Application parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	APPLICATION
Reporting Facility	APPLICATION
CONTROL-M/Server Utilities	-application
CONTROL-M for z/OS	APPL
CONTROL-M/EM API	application

Example: Identifying jobs by business department

To identify all jobs created by the accounting department:

Application: ACCT

Application Type

Indicates the application (for example, SAP or Oracle Applications) that runs the job.



NOTE

In the job editing form prior to CONTROL-M/EM version 6.3.01, the **Application Node Group** parameter was tightly linked to the **Application Type** parameter. Beginning with CONTROL-M/EM version 6.3.01, you select the application node group in the **Node ID/Group** field (in the Execution tab of the job editing form).

Format

Usage	Optional
Default	OS (Indicates that the job is run by the operating system.)
Length	1-10 characters
Case Sensitive	No
Invalid Characters	Blanks; single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Application Version	Indicates the version of the application that is specified with the Application Type parameter.
Control Module (CM) Version	Indicates the version of the Control Module (CM) that is used to run the job.
Form Name	Type of form used for entering external application data.
Job Type	Identifier name indicating the type of external application (for example, SAP...). This parameter represents a combination of the following parameters: Application Type , Application Version , CM Version , and Form Name .
Node ID/Group	Name of a CONTROL-M/Agent computer, remote host computer, or node group to which the job should be submitted.

General information

The control module of the application specified in this parameter must be installed in the Node Group where the job will run.

Availability

This parameter is supported by CONTROL-M/Server versions 6.1.xx and later, and CONTROL-M for z/OS versions 6.2.xx and later.

Aliases in other CONTROL-M components

Alternate names for the Application Type parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	APPL_TYPE
e-Trigger	Application Type
CONTROL-M/Server Utilities	-appltype
CONTROL-M/EM API	application_type

Example: Submit a job to an Oracle E-Business Suite

Specify the following information in the CONTROL-M/Server ctmcreate utility to schedule CONTROL-M/Agent **everest** to submit a job to Oracle E-Business Suite (OEBS).

```
ctmcreate -tasktype external  
-appl i cati on ORACLE  
-nodegrp everest  
-appl type OAP
```

Application Version

Indicates the version of the application (for example, SAP or Oracle E-Business Suite) on which the job runs.

Format

Usage	Optional
Length	1-10 characters
Default	None
Case Sensitive	Yes
Invalid Characters	Blanks; single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Availability

This parameter is supported by CONTROL-M/Server versions 6.1.xx and later, and CONTROL-M for z/OS versions 6.2.xx and later.

Related parameters

Parameter	Description
Application Type	The type of application whose version is specified by the Application Version parameter.
Control Module (CM) Version	Control Module for the application that runs the job.
Form Name	Type of form used for entering external application data.
Job Type	Identifier name indicating the type of external application (for example, SAP ...). This parameter represents a combination of the following parameters: Application Type , Application Version , CM Version , and Form Name .
Node ID/Group	Name of a CONTROL-M/Agent computer, remote host computer, or node group to which the job should be submitted.

General information

For a list of supported versions, see the Administrator Guide for the appropriate CONTROL-M/Control Module.

Aliases in other CONTROL-M components

Alternate names for the Application Version parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	APPL_VER
e-Trigger	Application Version
CONTROL-M/Server Utilities	-applver
CONTROL-M/EM API	application_version

Author

Indicates the CONTROL-M/EM user who defined the job.



NOTE

This parameter is not relevant in z/OS environments.

Format

Usage	Mandatory.
Default	Name of the CONTROL-M/EM user that created the job.
Length	1-30 characters
Case Sensitive	Yes
Invalid Characters	Blanks; single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.



NOTE

Depending on the value of the AuthorSecurity system variable, this parameter may be disabled.

General information

The CONTROL-M/EM user specified by this parameter must possess a valid user ID registered in the CONTROL-M installation. Authority to perform actions is verified by CONTROL-M/Server security exits.

This parameter is used by the CONTROL-M/Server for verifying if the owner of the job has authorization to submit the job processing definition during the submission of jobs by the New Day Procedure. If the AuthorSecurity system parameter is set to author security mode 2 or 3 (restricted), you cannot edit the Author field unless you are a CONTROL-M/EM administrator and are online (that is, connected to a GUI server). For more information, see the Security chapter and the description of the AuthorSecurity system parameter in the *CONTROL-M Administrator Guide*.

Computer-specific information

For more information, see the Security chapter of the *CONTROL-M Administrator Guide* for the appropriate computer.

Aliases in other CONTROL-M components

Alternate names for the Author parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	AUTHOR
Reporting Facility	AUTHOR
CONTROL-M/Server Utilities	-author

AutoEdit

Assigns a value to an AutoEdit variable. AutoEdit variables can be used to pass values to job submission parameters or to control other aspects of job submission. It is also called **Set Var**.

Format

Usage	Optional																	
Format		The format for each AutoEdit is: %%variable-name=value variable-name has the following characteristics: <table border="1"> <tr> <td>Length</td><td>Up to 40 characters (including the %% prefix).</td></tr> <tr> <td>Case Sensitive</td><td>Yes</td></tr> <tr> <td>Invalid Characters</td><td>Blanks and the following characters: < > [] { } () = ; ' ~ : ? . + - * / & ^ # @ ! , " '</td></tr> <tr> <td>AutoEdit Support</td><td>Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.</td></tr> </table> value has the following characteristics: <table border="1"> <tr> <td>Length</td><td>Up to 4,000 characters.</td></tr> <tr> <td>Case Sensitive</td><td>Yes</td></tr> <tr> <td>Invalid Characters</td><td>Embedded blanks (leading blanks are valid)</td></tr> <tr> <td>AutoEdit Support</td><td>Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.</td></tr> </table>	Length	Up to 40 characters (including the %% prefix).	Case Sensitive	Yes	Invalid Characters	Blanks and the following characters: < > [] { } () = ; ' ~ : ? . + - * / & ^ # @ ! , " '	AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.	Length	Up to 4,000 characters.	Case Sensitive	Yes	Invalid Characters	Embedded blanks (leading blanks are valid)	AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.
Length	Up to 40 characters (including the %% prefix).																	
Case Sensitive	Yes																	
Invalid Characters	Blanks and the following characters: < > [] { } () = ; ' ~ : ? . + - * / & ^ # @ ! , " '																	
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.																	
Length	Up to 4,000 characters.																	
Case Sensitive	Yes																	
Invalid Characters	Embedded blanks (leading blanks are valid)																	
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.																	
z/OS: AutoEdit (and both variable-name, and value) have the following characteristics:																		
		<table border="1"> <tr> <td>Length</td><td>The total length of AutoEdit must not exceed 55 characters, including the %% prefix, variable-name, value, and the = sign.</td></tr> <tr> <td>Case Sensitive</td><td>Yes</td></tr> <tr> <td>Invalid Characters</td><td>Blanks</td></tr> <tr> <td>AutoEdit Support</td><td>Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.</td></tr> </table>	Length	The total length of AutoEdit must not exceed 55 characters, including the %% prefix, variable-name, value, and the = sign.	Case Sensitive	Yes	Invalid Characters	Blanks	AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.								
Length	The total length of AutoEdit must not exceed 55 characters, including the %% prefix, variable-name, value, and the = sign.																	
Case Sensitive	Yes																	
Invalid Characters	Blanks																	
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.																	

Related parameters

Do AutoEdit	Indicates an AutoEdit expression that depends on how the job ended (OK or NOTOK) and can be used to influence other jobs, or subsequent runs of the current job.
--------------------	--

General information

AutoEdit variables are special variables that have a prefix of %. They can be used to

- pass parameters to, or influence the environment of a job when it is submitted
- define variables to be used in Shout messages or in Do AutoEdit parameters when the job terminates

Parameters that accept AutoEdit variables

AutoEdit variables can be specified as values for any of the following job processing parameters. These variables are resolved to actual values at time of job submission.

- Command
- Do Mail (the To and Message fields)
- Do Shout (the Destination and Message fields)
- Do Sysout (Prm field)
- File Name
- In Condition (system variables can be specified as the entire value)
- Mem Lib
- Mem Name
- Out Condition (system variables can be specified as the entire value)
- Over Lib
- Path
- Quantitative Resource (system variables can be specified as the entire value)
- Shout (the Destination and Message fields)
- Step Range
- Sysout (Prm parameter)

NOTE

CONTROL-M/CM fields can also contain AutoEdit variables.



For more information about AutoEdit variables and how they can be used, see [Chapter 15, “AutoEdit facility.”](#)

Aliases in other CONTROL-M components

Alternate names for the AutoEdit parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	AUTOEDIT
Reporting Facility	Setvar
CONTROL-M/Server Utilities	-autoedit
CONTROL-M for z/OS	SET VAR
CONTROL-M/EM API	autoedit_assignment

Alternate formats in other CONTROL-M components

Alternate formats for the AutoEdit parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	The value of the AUTOEDIT parameter is contained in the EXP subparameter. Example: <AUTOEDIT EXP="%%PARM1=%%TIME"/>

Example 1: OpenVMS

An OpenVMS job has the following job processing parameters and values:

Parameter	Value
File Name (Mem Name)	MTJOB.COM
Path (Mem Lib)	DUA0:[SALARY.JAN]
AutoEdit	%%PARM1=%CALCDATE %%ODATE -2 %%PARM2="TRacct124"

If %%ODATE is **051203** (for December 3, 2005), the parameters described above would cause CONTROL-M to invoke the command file using the following OpenVMS command:

```
SUBMIT DUA0:[SALARY.JAN]MTJOB.COM/ PARAM = (051201, "TRacct124")
```



NOTE

To submit a DCL file that uses logical names that should be translated before submission, define a job (with Task Type parameter **Command**) that performs the required ASSIGN or DEFINE command (OpenVMS command).

Example 2: UNIX

A UNIX job has the following job processing parameters:

Parameter	Value
File Name (Mem Name)	mtjob.sh
Path (Mem Lib)	\$HOME/jobs
AutoEdit Assignment	%%PARM1=%%CALCDATE %%ODATE -2 %%PARM2="TRacct124"

If %%ODATE is **051203** (for December 3, 2005), the parameters described above would cause CONTROL-M to invoke the script using the following UNIX command:

```
$HOME/j obs/mtj ob. sh 051201 "TRacct124"
```

Example 3: iSeries (AS/400)

An **iSeries (AS/400)** job has the following job processing parameters:

Parameter	Value
Job Name	EODJOB
File Name (Mem Name)	EODJOB
Path (Mem Lib)	ACCOUNTING
AutoEdit	%%PARM1=%%ODATE %%PARM2=%%TIME %%LDA_1_6=%%ODATE %%LDA_7_2=%%ODAY %%SWS=00000001 %%LIBL=QTEMP ACCLIB

If %%ODATE is **060127** (for Jan. 27, 2006), the parameters described above would cause CONTROL-M to submit the job using the following **iSeries (AS/400)** commands:

```
CHGDTAARA *LDA(1 6) VALUE(060127)
CHGDTAARA *LDA(7 2) VALUE (27)
SBMJOB JOB (EODJOB) RQSDATA (CALL PGM (ACCOUNTING/EODJOB)
PARM (060127 110312)) SWS (00000001) INLLIBL (QTEMP ACCLIB)
```

Command

Indicates an operating system command line entry to be submitted as a job.



NOTE

This parameter is not relevant in z/OS environments.

Format

Usage	This parameter can be used only if the Task Type parameter is Command. In this case, the Command parameter is required.
Length	1 through 512 characters
Case Sensitive	<ul style="list-style-type: none"> ■ Microsoft Windows: No ■ UNIX: Yes
Invalid Characters	None
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

General information

Use this parameter to specify an operating system command to be executed by CONTROL-M. The command should be specified exactly as it would be specified in a terminal for the specific computer.

CONTROL-M creates a temporary file that contains the command. This file is submitted for execution, and is monitored and analyzed in the same manner as a regular job.

The command can include any combination of text and AutoEdit variables. However, the length of the command after resolution of AutoEdit variables must not exceed **999** characters. For more information about AutoEdit variables, see [Chapter 15, “AutoEdit facility.”](#)

Computer-specific information

- Commands submitted to a UNIX computer are executed using the Bourne shell.
- For CONTROL-M for **iSeries (AS/400)** version 2.1.3, commands must not include single quotation marks (' '). If quotation marks are necessary, use double quotation marks (" ") only.

Aliases in other CONTROL-M components

Alternate names for the Command parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	CMDLINE
Reporting Facility	CMD LINE
CONTROL-M/Server Utilities	-cmdline
CONTROL-M/EM API	command

Example 1: OpenVMS

```
BACKUP DUAO: [000000. . . ] MUAO: M0NBKP/SAVE
```

Example 2: UNIX

```
tar cvf /dev/rmt0 -c /home
```

Example 3: iSeries (AS/400)

```
SAVLIB LIB(LIB_1 LIB_2) DEV(TAP02)
```

Example 4: Using AutoEdit variables in a command

The command in this job uses the CONTROL-M ctmcontb utility to delete all prerequisite conditions that are more than five days old.

AutoEdit	%%A=%%CALCDATE %%DATE -365
Assignment	%%B=%%CALCDATE %%DATE -5
Command	ctmcontb deletefrom %%A %%B

NOTE

For Windows agents: When specifying AutoEdit variables in the **CMDLINE** or **COMMAND** parameters on CONTROL-M/Agent for Windows, the AutoEdit prefix must be specified as **%%%%** instead of **%%**.



Control Module (CM) Version

Indicates the version number of the Control Module (CM) that is used to run the job.

Format

Usage	Optional
Length	1-10 characters
Default	None
Case Sensitive	No
Invalid Characters	Blanks; single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Availability

- This parameter is not supported by CONTROL-M versions earlier than 6.1.00.
- This parameter is not supported by CONTROL-M for z/OS.

Aliases in other CONTROL-M components

Alternate names for the CONTROL Module Version parameter are listed in the table below.

Component	Parameter Name
CONTROL-M/EM Utilities	CM_VER
CONTROL-M/Server Utilities	-cmver
Reporting Facility	CM VER
e-Trigger	CM Version
CONTROL-M/EM API	application_cm_version

CONTROL-M

Name of the CONTROL-M installation that processes the job.

Format

Usage	Mandatory
Length	1 through 20 characters
Default	None
Case Sensitive	Yes
Invalid Characters	Blanks; single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

CONTROL-M names are specified for each data center when creating the CONTROL-M definition in CONTROL-M/EM and CONTROL-M/Desktop. The name should describe the specified CONTROL-M installation and be easily recognized by users.

In the Job Editing form, select the CONTROL-M installation instance from the list.

Aliases in other CONTROL-M components

Alternate names for the CONTROL-M parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DATACENTER
Reporting Facility	DATA CENTER
CONTROL-M/Server Utilities	Not supported. Jobs created with a CONTROL-M/Server utility are submitted to the local CONTROL-M/Server installation.
CONTROL-M for z/OS	When a job is created, it is submitted to the local CONTROL-M for z/OS installation.
CONTROL-M/EM API	control-m

Description

Provides a description of the job in free text.

Format

Usage	Optional
Length	1-4,000 characters
Case sensitive	Yes
Invalid Characters	None
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The Description parameter is used to describe the job. A well written description can help you determine why the job was defined and how it fits into your business environment.



NOTE

Special characters, such as single quotation marks, double quotation marks, left or right brackets ([]), left or right parentheses(()), and asterisks(*), should not be used in the description text string.

Computer-specific information

CONTROL-M for z/OS

For conversion customers prior to version 6.0.00, if the current job was converted from another job scheduling product, such as CA-7, the SCHEDULE-PREV-DAY or SCHEDULE-PREV-ONLY string may appear in the DESC field for the job group. This string causes all scheduled runs of the job to be shifted back one day. (For version 6.0.00 and later, the SAC parameter is used instead.)

Aliases in other CONTROL-M components

Alternate names for the Description parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DESCRIPTION
Reporting Facility	DESCRIPTION
CONTROL-M/Server Utilities	-description
CONTROL-M for z/OS	DESC
CONTROL-M/EM API	description

Example: Description of a job for producing a yearly report

The description of a report detailing the year's revenues and expenditures.

Yearly Financial Report for 2005

Doc Lib

Name of the library/directory containing the job documentation file (specified in the Doc Mem parameter).

Format

Usage	Optional
Length	<ul style="list-style-type: none"> ■ Microsoft Windows and UNIX: 1-255 characters ■ iSeries (AS/400): 1-21 characters ■ OpenVMS: 1-60 characters ■ z/OS: 1-44 characters
Case Sensitive	Yes
Invalid Characters	z/OS: Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Doc Mem	Name of the file containing job documentation. This file is located in the library specified in the Doc Lib parameter.

General information

The library or directory specified by this parameter, and the file specified in the Doc Mem parameter, do not have to exist when the job processing parameters are defined.

If you specify this parameter, you must also specify a value for the Doc Mem parameter.



NOTE

To access the documentation, the user must be defined and have authorization on the CONTROL-M where the documentation resides.

Computer-specific information

Computer	Format
UNIX	Specify the name of the directory and subdirectories (if any). One of the following symbols can be used in place of or as part of the directory or subdirectory name (these symbols are resolved at the time the job is ordered or forced): <ul style="list-style-type: none"> ■ \$HOME resolves to the home directory of the job owner. ■ ~<username> resolves to the home directory of the specified UNIX user.
iSeries (AS/400)	You must specify one of the following: <ul style="list-style-type: none"> ■ Name of an iSeries (AS/400) library ■ Library / File ■ *LIBL (library list) ■ *CURLIB (current library)
OpenVMS	The directory can be specified as the physical path or as an OpenVMS logical name.

Aliases in other CONTROL-M components

Alternate names for the Doc Lib parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOCLIB
Reporting Facility	DOC LIB
CONTROL-M/Server Utilities	-doclib
CONTROL-M for z/OS	DOCLIB
CONTROL-M/EM API	doc_lib

Example 1: OpenVMS

```
DUAO: [ACCOUNT. DOC], ACCDOC$DI R
```

Example 2: UNIX

```
$HOME/ctm/account/doc
```

Doc Mem

Name of the file in which the job documentation is stored.

Format

Usage	Optional
Length	1-64 characters z/OS: 1-8 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ z/OS: Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter

Related parameters

Parameter	Description
Doc Lib	Provides the name of the library or directory in which a member described in the Doc Mem parameter is located.

General information

The Doc Mem parameter is normally specified together with the Doc Lib parameter.



NOTE

To access the documentation, the user must be defined and have authorization on the CONTROL-M where the documentation resides.

Computer-specific information

■ iSeries (AS/400)

Doc Mem indicates the name of the member in the **Libl** file. On this computer, the Doc Mem parameter is optional even if a value is supplied for Doc Lib. If a library and file name are specified in Doc Lib but no value is specified for Doc Mem, the ***FILE** default member name is used (for example, the member name is the same as the file name).

Aliases in other CONTROL-M components

Alternate names for the Doc Mem parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOCMEM
Reporting Facility	DOCMEM
CONTROL-M/Server Utilities	-docmem
CONTROL-M for z/OS	DOCMEM
CONTROL-M/EM API	doc_member

Embedded Scripts/JCL

A scheduled script that is part of the job definition.

Format

Usage	Optional
Default	None
Length	Script size: 64000 B z/OS: 62 KB
Case Sensitive	Yes
Auto Edit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter. Instead %%PARM can be used to pass parameters to the embedded script. See “ Job submission variables ” on page 499.

Subparameters

Use Embedded Script/JCL	Check box: <ul style="list-style-type: none"> ■ Selected - The job will be submitted from the embedded script./JCL ■ Clear - The job will be submitted from the file name/member specified in the Path/Mem Lib parameter.
--------------------------------	--

Related parameters

Parameter	Description
File Name/Mem Name	File name extension determines how the script will run.
Path/Mem Lib	The Path field is ignored when attaching an embedded script. z/OS: Indicates the name of the library where the member containing JCL required for the job is located.
Over Lib	This field is ignored when attaching an embedded script.

General information

The Use Embedded JCL, previously called In-Stream JCL, is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later. It enables you to create and edit a JCL stream. This stream is saved as part of the job scheduling definition. When the job runs, the stream is submitted from the job scheduling definition, without having to retrieve the JCL from the member identified in the MEMLIB parameter.

The Use Embedded Script is relevant only for jobs running on non CONTROL-M for z/OS platforms. It enables the script to be manually entered or copied from the local file system and saved in the job definition. After loading the script, if a file name has not already been selected, the selected script's file name appears in the File Name field. If an embedded script has been selected, the Path and Over Lib fields are ignored.

In Windows, the file's extension determines how the embedded script runs. In UNIX, the script runs according to the interpreter entered in the first line of the embedded script. Examples of an interpreter shell are Bourne Shell (/bin/sh), Korn Shell (/bin/ksh), and C-Shell (/bin/csh).

Aliases in other CONTROL-M components

Alternate names for the Use Embedded Script/JCL (flag) parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	USE_INSTREAM_JCL
Reporting Facility	Use In-stream Jcl
CONTROL-M/Server Utilities	(none)
CONTROL-M for z/OS	INSTREAM JCL
CONTROL-M/EM API	use_instream_jcl

Alternate names for the Embedded Script/JCL parameters are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	INSTREAM_JCL
Reporting Facility	In-stream Jcl
CONTROL-M/Server Utilities	embedded_script
CONTROL-M for z/OS	INSTREAM JCL
CONTROL-M/EM API	instream_jcl

File Name/Mem Name

Indicates the name of a file containing the control language statements for the job (or detached process) to be executed.

Format

Usage	Mandatory if Task Type is Job or Detached or External
Length	<ul style="list-style-type: none"> ■ Microsoft Windows, UNIX, OpenVMS: 1-64 characters ■ iSeries (AS/400): 1-21 characters ■ z/OS: 1-8 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ z/OS: Non-English characters
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Path/Mem Lib	Indicates the name of the library or directory in which the file described in the File Name parameter is located.
Over Lib	Provides the name of an alternate library or directory. CONTROL-M searches for the file specified in the File Name parameter in the Over Lib directory before searching for it in the Path library.
Task Type	Specifies the type of task of the job performs. Determines the value of the Mem Name (MEMNAME) parameter for z/OS jobs.

General information

The File Name parameter should contain only the name of the file, not the full path. The Path parameter is used to specify the remainder of the path.

The File Name can be the same as or different from the job name. Each member contains only one job.

The File Name may appear in the job node displayed in the CONTROL-M/EM window (depending on options specified in the CONTROL-M/EM Options dialog box).

The File Name extension determines how an Embedded Script/JCL runs. For more information, see “[Embedded Scripts/JCL](#)” on page 48.

NOTE

Character masks are not supported (for example, a job with a **FR*.EXE** File Name value is not executed).

Computer-specific information

The command must conform to the following conventions:

Computer	Information
Microsoft Windows	Name of a command file or an executable file.
UNIX	Name of a UNIX shell script file.
OpenVMS	<p>Name of the command file. It can be specified using one of the following formats:</p> <ul style="list-style-type: none"> ■ Without file extension (for example, JOBFILE): CONTROL-M adds the appropriate extension according to the Task Type parameter: .COM for job (batch job), .EXE for Detached (detached process). When the file name is specified without a version specification, the last version of the file is executed. ■ With full file extension, including the version specification (for example, JOBFILE.COM;2 or JOBFILE.EXE;5). <p>Note: Using the full file extension format, it is possible to select a specific file extension and version of the command file or detached process to be executed.</p>
iSeries (AS/400)	An executable program object.
z/OS	<p>Name of a member whose contents are determined by the Task Type parameter.</p> <ul style="list-style-type: none"> ■ JCL of the job ■ Started task procedure ■ Warning messages

Aliases in other CONTROL-M components

Alternate names for the File Name parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	MEMNAME
Reporting Facility	MEMNAME
CONTROL-M/Server Utilities	-memname
CONTROL-M for z/OS	MEMNAME
CONTROL-M/EM API	mem_name

Example 1: Microsoft Windows

myj ob. bat, myj ob. cmd, myj ob. exe

Example 2: UNIX

myj ob

Example 3: OpenVMS

MYJOB, MYJOB. COM, MYJOB. COM; 2, MYJOB. EXE, MYJOB. EXE; 4.

Example 4: iSeries (AS/400)

MYJOB

Form Name

Type of form used for entering external application data.

Format

Usage	Mandatory for External Application jobs
Length	1-30 characters
Case Sensitive	Yes
Invalid Characters	Blanks; single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Application Type	Indicates external application server types communicating with CONTROL-M/Agent.
Application Version	Indicates the version of the external application server communicating with CONTROL-M/Agent.
Control Module (CM) Version	Indicates the version of Control Module (CM) supported by CONTROL-M/Agent.
Job Type	Identifier name indicating the type of external application (for example, SAP ...). This parameter represents a combination of the following parameters: Application Type , Application Version , CM Version , and Form Name .
Node ID/Group	Name of a CONTROL-M/Agent computer, remote host computer, or node group to which the job should be submitted.

General information

Beginning with CONTROL-M/EM versions 6.3.01, this parameter is no longer used in the job editing form, but is used in other locations such as utilities. (In the job editing form, the **Job Type** field determines which application type, version and CM Version are used, and which form is displayed as a job editing form tab.)

Availability

This parameter is supported by CONTROL-M/Server versions 6.1.xx and later, and CONTROL-M for z/OS versions 6.2.xx and later.

Aliases in other CONTROL-M components

Alternate names for the Form Name parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	APPL_FORM
CONTROL-M/Server Utilities	-applform
CONTROL-M/EM API	application_form

Example 1: Default form for SAP job

Default SAP 4.6

Example 2: Alternate form for SAP job

SAP 4.7

Group

Indicates the name of the group to which the job belongs.

Format

Usage	Mandatory
Length	1-64 characters
Case Sensitive	Yes
Invalid Characters	Blanks; single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Application	Application is also a logical name. Both the Application and Group parameters can be used to create logical groupings of jobs. Neither parameter has a direct effect on job execution.

General information

The Group parameter facilitates more convenient and orderly management of groups of production jobs.

The value assigned to the Group parameter determines the job's placement in the structure of the CONTROL-M/EM network ViewPoint displayed in the CONTROL-M/EM flow diagram. This window is described in the *CONTROL-M User Guide*.

Aliases in other CONTROL-M components

Alternate names for the Group parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	GROUP
Reporting Facility	GROUP NAME
CONTROL-M/Server Utilities	-group
CONTROL-M for z/OS	GROUP
CONTROL-M/EM API	group

Example 1: Accounting department groups

ACCOUNTING

Example 2: Group of jobs run at the end of the day

END_OF_DAY

Example 3: Group name for associated jobs that create sales reports

SALES_REPORT

Job Name

Name of the job.

Format

Usage	■ Mandatory
Length	1-64 characters z/OS: 1-8 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ Single quotation marks ■ If the job runs on any version of Microsoft Windows 2000, prohibited filename characters (such as \, /, or *)
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The Job Name parameter appears along with the File Name parameter in various job definition and job tracking windows.

The Job Name can also be displayed in the job node displayed in the CONTROL-M/EM window (depending upon options specified in the Display Net window).

This parameter is used when ordering or forcing a job, either using the Do Forcejob parameter or when using the Order/Force windows. You can define a job without a job name in ctmcreate and ctmdefine.

The Job Name parameter does not have to be unique in the scheduling table.

Accessing/modifying the Job Name in AutoEdit expressions

The value of the Job Name parameter can be accessed using the %%JOBNAME AutoEdit variable. For example, this name can be included in a messages that is sent using the Do Shout or Do Mail parameters.

The job name parameter can also be overridden when the job is ordered, for example, by using the following statement in the command line of the ctmorder utility for CONTROL-M/Server.

-autoedi t %%JOBNAME newjobname

Computer-specific information

Parameter	Information
z/OS	The Job Name parameter must be unique in the scheduling table.
iSeries (AS/400)	<p>The value specified for this parameter is the actual job name to be used by iSeries (AS/400). It is part of the job submission command.</p> <p>Note: For jobs on an iSeries (AS/400) computer, the value specified for the Job Name parameter must conform to iSeries (AS/400) conventions for job names.</p>

Aliases in other CONTROL-M components

Alternate names for the Job Name parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	JOBNAME
Reporting Facility	JOB NAME
CONTROL-M/Server Utilities	-jobname
CONTROL-M for z/OS	JOB NAME
CONTROL-M/EM API	job_name

Job Type

Generally, an identifier name indicating the type of external application (for example, SAP ...). In this case, the parameter represents a combination of the following parameters: **Application Type**, **Application Version**, **CM Version**, and **Form Name**.

Jobs not belonging to an external application have a job type of either **CONTROL-M BIM** (for Batch Impact Manager jobs), or **OS** (for all other jobs).

Format

Usage	Mandatory for jobs that run on external applications such as SAP or Oracle. Note: The relevant Control Module must be installed and the relevant form must be imported.
Format	Select the required value from the list.

Related parameters

Parameter	Description
Application Type	The type of application whose version is specified by the Application Version parameter.
Application Version	Indicates the version of the application that is specified with the Application Type parameter.
Control Module (CM) Version	Indicates the version of the Control Module (CM) that is used to run the job.
Form Name	Type of form used for entering external application data.
Node ID/Group	Name of a CONTROL-M/Agent computer, remote host computer, or node group to which the job should be submitted.

General information

For jobs running under external applications, the appropriate job type must be selected in the job editing form. **Job type** identifies the relevant form for the particular application type, application version and Control Module (CM) version.

The Control Module must be installed and the relevant form must be imported:

- For a list of application types, application versions, and Control Module versions, available in the CONTROL-M/Server, click **Load** next to the **Node Id/Group** field, in the job (or template) editing form. (Click **Load** to also include the Node Group in the list.)

- To import Application forms, choose **Tools => Import Application Form** and browse to and select the form.

When you select an external job type, a tab with relevant parameters is automatically added as the second tab in the job editing form.

For more information on importing application forms or filling in the application form parameters in the job editing form, see the relevant Control Module documentation.

Availability

This parameter is supported in the job editing form only, beginning with CONTROL-M/EM version 6.3.01.

Over Lib

Name of an alternate library or directory for the file specified with the File Name parameter. CONTROL-M searches for the file specified in the File Name parameter in the Over Lib directory before searching for it in the Path library.

Format

Usage	Optional
Length	<ul style="list-style-type: none"> ■ Microsoft Windows, UNIX, OpenVMS: 1 through 255 characters ■ iSeries (AS/400): 1 through 10 characters ■ z/OS: 1 through 44 characters <p>For additional formatting information, see “Format” on page 65.</p>
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks. ■ If the job runs on any version of Microsoft Windows 2000, prohibited filename characters (such as \, /, or *) ■ z/OS: Non-English characters. The contents of this field must not begin with the following strings: <ul style="list-style-type: none"> — GENERAL — USER=
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Path/Mem Lib	Indicates the name of the library or directory in which the file described in the Path parameter is located.
File Name/Mem Name	Indicates the name of a file containing the control language statements for the job (or detached process) to be executed.

General information

The Over Lib parameter enables the user to submit a temporarily-modified job script file without changing the original script file in the Path library and without changing the scheduling order of a table.

When to use

The library containing the job's regular script file is specified in the Path parameter. When temporary modifications are required, the modified script file is placed in the location indicated by the Over Lib parameter.

If the file specified by the File Name parameter is found in the Over Lib location, this file is submitted instead of the job script file with the same name that resides in the Path location.

Cancelling override

The override can be canceled by one of the following methods:

- Delete the file specified in the File Name parameter from the Over Lib location. If the job script file is not found in Over Lib, it is automatically taken from the Path location.
-or-
- Delete the Over Lib specification from the job definition.

NOTE



For a description of the values allowed with this parameter, see “[Computer-specific information](#)” on page 66.

AutoEdit support

As of this version, the Over Lib value can be extracted and passed to another part of the job processing definition using the %%OVERLIB parameter.

Aliases in other CONTROL-M components

Alternate names for the Over Lib parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	OVERLIB
Reporting Facility	OVER LIB
CONTROL-M/Server Utilities	-overlib
CONTROL-M for z/OS	OVERLIB
CONTROL-M/EM API	over_lib

Owner

Identifies the owner (user name) for whom the job is executed. This parameter is used by the CONTROL-M security mechanism.

Format

Usage	Mandatory
Default	User name of the current CONTROL-M/EM user
Length	1-30 characters z/OS: 1-8 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ Computers other than z/OS: Single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The Owner parameter is used by the CONTROL-M internal security mechanism to determine operations that each user is authorized to perform. For more information, refer to the Security chapter in the *CONTROL-M Administrator Guide* for the appropriate computer.

Aliases in other CONTROL-M components

Alternate names for the Owner parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	OWNER
Reporting Facility	OWNER
CONTROL-M/Server Utilities	-owner
CONTROL-M for z/OS	OWNER
CONTROL-M/EM API	owner

Path/Mem Lib

Indicates the name of the directory or library in which the file described in the Path parameter is located.

Format

Usage	This parameter is mandatory if the specified Task Type is Job or Detached or External. Note: The format for this parameter depends on the job computer. For more information, see “ Computer-specific information ” on page 66.
Length	<ul style="list-style-type: none"> ■ Microsoft Windows, UNIX, OpenVMS: 1-255 characters ■ iSeries (AS/400): 1-10 characters ■ z/OS: 1-44 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ z/OS: Non-English characters ■ If the job runs on any version of Microsoft Windows 2000, prohibited filename characters (such as \, /, or *)
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
File Name/Mem Name	Name of the job script file kept in the directory or library specified in Path/Mem Lib.
Over Lib	Name of an alternate library for the file specified in the File Name parameter. The original copy of the file is kept in the directory specified in Path.

General information

The library or directory specified in the Path parameter and the accompanying File Name file do not have to exist when the job processing parameters are defined. CONTROL-M searches for them only before actual submission of the job.

Computer-specific information

Computer	Information	
Microsoft Windows	The Path parameter indicates the drive ID, and the names of the directory and subdirectories (if any).	
UNIX	<p>The Path parameter indicates the names of the directory and subdirectories (if any).</p> <p>One of the following symbols can be used in place of or as part of the directory and sub-directory names (these symbols are resolved at the time the job is ordered or forced):</p> <ul style="list-style-type: none"> ■ \$HOME resolves to the home directory of the job owner. ■ ~<username> resolves to the home directory of the specified UNIX user. 	
OpenVMS	The Path parameter contains the (device: [directory]) that can be specified as the physical path or as an OpenVMS logical name.	
iSeries (AS/400)	Specify one of the following: <ul style="list-style-type: none"> ■ Name of an iSeries (AS/400) library ■ *LIBL (library list) ■ *CURLIB (current library) 	
z/OS	Format of the parameter depends on whether the job processing definition applies to a job (or warning messages) or a started task:	
	<table border="1"> <tr> <td>Job</td> <td>Valid values: a valid data set name of 1-44 characters or one of the following reserved values: <ul style="list-style-type: none"> ■ DUMMY - for dummy jobs ■ USER= name - for user-defined libraries ■ GENERAL - specifies the library referenced by DD statement DALIB in the CONTROL-M procedure. </td> </tr> </table>	Job
Job	Valid values: a valid data set name of 1-44 characters or one of the following reserved values: <ul style="list-style-type: none"> ■ DUMMY - for dummy jobs ■ USER= name - for user-defined libraries ■ GENERAL - specifies the library referenced by DD statement DALIB in the CONTROL-M procedure. 	
<table border="1"> <tr> <td>Started Task</td> <td> Any of the following formats can be used for the value of Mem Lib: <ul style="list-style-type: none"> ■ *. taskid, where taskid is the ID of the task The started task is activated in the computer in which the CONTROL-M monitor is active. ■ cpuid, stparms, where: <ul style="list-style-type: none"> — cpuid is the ID of the computer in which the started task is to be activated — stparms is started task parameters ■ cpuid, where cpuid is the ID of the computer in which the started task is to be activated. Valid values for cpuid are: <ul style="list-style-type: none"> ■ * – The computer where the CONTROL-M monitor is active. </td> </tr> </table>	Started Task	Any of the following formats can be used for the value of Mem Lib: <ul style="list-style-type: none"> ■ *. taskid, where taskid is the ID of the task The started task is activated in the computer in which the CONTROL-M monitor is active. ■ cpuid, stparms, where: <ul style="list-style-type: none"> — cpuid is the ID of the computer in which the started task is to be activated — stparms is started task parameters ■ cpuid, where cpuid is the ID of the computer in which the started task is to be activated. Valid values for cpuid are: <ul style="list-style-type: none"> ■ * – The computer where the CONTROL-M monitor is active.
Started Task	Any of the following formats can be used for the value of Mem Lib: <ul style="list-style-type: none"> ■ *. taskid, where taskid is the ID of the task The started task is activated in the computer in which the CONTROL-M monitor is active. ■ cpuid, stparms, where: <ul style="list-style-type: none"> — cpuid is the ID of the computer in which the started task is to be activated — stparms is started task parameters ■ cpuid, where cpuid is the ID of the computer in which the started task is to be activated. Valid values for cpuid are: <ul style="list-style-type: none"> ■ * – The computer where the CONTROL-M monitor is active. 	

Computer	Information	
z/OS <i>(Continued)</i>	Started Task <i>(Continued)</i>	<p>Under JES2</p> <ul style="list-style-type: none"> ■ Nn – where n is the JES/NJE node ID. ■ Mm – where m is the computer ID. ■ NnMm – where n is the JES/NJE node ID, and m is the computer ID. <p>Under JES3</p> <p>Lname – where name is the logical JES name of the computer, that is, the name as used in the JES3 command *T, not the SMF system ID.</p>

AutoEdit support

As of version 6.1.03, the Path value can be extracted and passed to another part of the job processing definition using the %%MEMLIB parameter.

Aliases in other CONTROL-M components

Alternate names for the Path parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	MEMLIB
Reporting Facility	MEM LIB
CONTROL-M/Server Utilities	-memlib
CONTROL-M for z/OS	MEMLIB
CONTROL-M/EM API	mem_lib

Alternate formats in other CONTROL-M components

Alternate formats for the Path parameter are listed in “Computer-specific information” on page 66.

Example 1: Microsoft Windows

D:\ACCOUNT\SALARY

Example 2: UNIX

\$HOME/ctm/salary

Example 3: OpenVMS

DUAO: [SALARY. JAN. ARCH], SALARY\$DI R

Example 4: iSeries (AS/400)

MYLI B

Example 5: z/OS

GENERAL

PIPE

Indicates a data set to be replaced by a pipe with the same name. Displayed only if MAINVIEW Batch Optimizer is installed.

NOTE



The PIPE parameter is used only with jobs run in CONTROL-M for z/OS installations in which MAINVIEW Batch Optimizer (MVBO) is installed.

Format

Usage	Optional
Format	Each time a data set or pipe name is specified and Enter is pressed, a new empty line is displayed to enable specification of an additional data set or pipe name.
Length	1 - 44 characters
Case Sensitive	No
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

NOTE



PIPE can be modified only by using CONTROL-M for z/OS directly. This parameter is not available from the CONTROL-M/EM GUI or utilities.

Pipes are storage buffers that are used to replace data sets. Pipes are defined in, and used by, MAINVIEW Batch Optimizer to replace sequential processing with parallel processing.

For example, normally (without pipes) if JOB1 writes to data set DS1 and then JOB2 reads data set DS1, JOB2 waits until JOB1 is terminated before reading the data set. However, if a pipe is used to replace data set DS1, then as JOB1 writes data to pipe DS1, JOB2 can use the data without waiting for termination of JOB1.

Each pipe and its relevant parameters are defined in a MAINVIEW Batch Optimizer rule. Each pipe must be defined with the same name as the data set it is replacing.

When a job is to use a pipe instead of a data set, the name of the data set or pipe must be specified in the Pipe parameter of the CONTROL-M job processing definition for the job.

For more information about Pipe processing, see the *CONTROL-M for z/OS User Guide*.

Example: Two job processing definitions

This example consists of two job scheduling definitions.

In job CTLIVPWR and job CTLIVPRD, the CTL.IVP.FILE data set is replaced by a pipe of the same name. Jobs of this type are called a Collection because they are participants in the same pipe.

Figure 1 PIPE parameter example – job CTLIVPWR

```

JOB: CTLI VPWR LI B CTMT. PROD. SCHEDULE      TABLE: CTLI VP
COMMAND ==>                                     SCROLL==> CRSR
-----
MEMNAME CTLI VPWR     MEMLB CTM. I VP. JCL
OWNER   EO2A          TASKTYPE JOB    PREVENT-NCT2 DFLT N
APPL
DESC    CONTROL-M/WORKLOAD VERIFICATION - WRITER JOB
OVERLIB
SET VAR
CTB STEP AT           NAME        TYPE
DOCMEM CTLI VPWR     DOCLI B   CTMT. PROD. DOC
=====
DAYS                                         DCAL
AND/OR
WDAYS                                         WCAL
MONTHS 1- Y 2- Y 3- Y 4- Y 5- Y 6- Y 7- Y 8- Y 9- Y 10- Y 11- Y 12- Y
DATES
CONFICAL        SHIFT       RETRO N MAXWAIT 00  D-CAT.
MINIMUM         PDS
=====
IN      CTLI VPWR-IN      ODAT
CONTROL
RESOURCE
PIPE    CTL. I VP. FILE ESOURCE
PIPE
TIME: FROM        UNTIL       PRI ORI TY      DUE OUT      SAC      CONFIRM
COMMANDS: EDIT, DOC, PLAN, JOBSTAT             13, 18, 25

```

Figure 2 PIPE parameter example – job CTLIVPRD

```
JOB: CTLI VPRD LI B CTMT. PROD. SCHEDULE TABLE: CTLI VP
COMMAND ===> SCROLL====> CRSR
-----
MEMNAME CTLI VPRD MEMLIB CTM. I VP. JCL
OWNER EO2A TASKTYPE JOB PREVENT-NCT2 DFLT N
APPL GROUP
DESC CONTROL-M/WORKLOAD VERIFICATION - READER JOB
OVERLIB
SET VAR
CTB STEP AT NAME TYPE
DOCMEM CTLI VPRD DOCLI B CTMT. PROD. DOC
=====
DAYS DCAL
AND/OR
WDAYS WCAL
MONTHS 1- Y 2- Y 3- Y 4- Y 5- Y 6- Y 7- Y 8- Y 9- Y 10- Y 11- Y 12- Y
DATES
CONFICAL SHIFT RETRO N MAXWAIT 00 D-CAT
MINIMUM PDS
=====
IN CTLI VPWR-OUT ODAT
CONTROL
RESOURCE
PIPE CTL. I VP. FILE
PIPE
TIME: FROM UNTIL PRIORITY DUE OUT SAC CONFIRM
COMMANDS: EDIT, DOC, PLAN, JOBSTAT 13. 22. 07
```

Scheduling Table Lib

Name of the library that contains the job's scheduling table.

NOTE

This field is displayed only for z/OS jobs.



Format

Usage	Mandatory
Length	1-44 characters
Case Sensitive	No
Invalid Characters	Blanks z/OS: Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Aliases in other CONTROL-M components

Alternate names for the Scheduling Table Lib parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	TABLE_DSN
CONTROL-M for z/OS	Scheduling Library
CONTROL-M/EM API	table_library

Table

Name of the scheduling table to which the job belongs.



NOTE

For CONTROL-M for z/OS jobs, this parameter is displayed as Scheduling Table Name in the CONTROL-M/EM GUI.

Format

Usage	Mandatory, if values are specified for the Job Name and Date parameters.
Length	1-64 characters z/OS: 1-8 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ Single quotation marks ■ z/OS: Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

Together with the CONTROL-M JOBNAMES parameter, the Table parameter determines the position of the job in the CONTROL-M Scheduling Table hierarchy.

Aliases in other CONTROL-M components

Alternate names for the Table parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	TABLE_NAME
Reporting Facility	TABLE_ID
CONTROL-M/Server Utilities	-schedtab
CONTROL-M for z/OS	TABLE NAME
CONTROL-M/EM API	table_name

Example 1: Scheduling table name including a user-assigned serial number.

SchTbl03

Example 2: Scheduling table name including a time period.

SeptOctTbl2

Task Type

Specifies the type of task of the job performs.

Format

Usage	Usage is computer-dependent. For more information, see “ Computer-specific information ” on page 76.
Format	Specific terms are valid for each CONTROL-M computer. For more information, see “ Computer-specific information ” on page 76.
Invalid Characters	Blanks; Single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

Each Task Type can be defined as cyclic or non-cyclic (regular). For more information, see “[Cyclic](#)” on page 150.

For z/OS jobs, the specified task type is combined with the values of the Cyclic and Emergency parameters.



NOTE

In CONTROL-M/EM versions earlier than version 6.1.00, the format for TASKTYPE contained critical and cyclic information also. CONTROL-M/EM version 6.1.03 can still run jobs whose TASKTYPE is specified in the old format. However, BMC Software recommends that you specify this type of information using the CYCLIC and CRITICAL parameters when creating new job processing definitions.

Computer-specific information

Computer	Task Types	
■ Microsoft Windows ■ UNIX	Job	A regular job submitted to CONTROL-M for execution as a background process. The results of the job (the output) are analyzed by the post-processing subsystem.
	Detached	This type is similar to Job but also includes .EXE type files.
	Command	Operating system command (defined in the Command parameter) sent to the operating system to be executed as a job. For more information, see “Command” on page 39 .
	Dummy	CONTROL-M internal job. This is a dummy job which is not executed, but that can be used to execute the Out Conditions and Shout post-processing actions. Its completion status is always OK .
	External	Enables CONTROL-M to track jobs whose status changes are determined outside CONTROL-M (that is, jobs run on external applications).
OpenVMS	Job	A regular job submitted to the operating system batch queue. The job results in the job log are analyzed by the CONTROL-M/Server post-processing subsystem. Note: For the purposes of the following discussion, <i>node</i> refers to an individual computer in an OpenVMS cluster.
		In a OpenVMS cluster environment, a job with the Job Task Type parameter can be executed on a node other than the node on which CONTROL-M is running. To do this, assign the %%QUEUE variable of the job a queue name that is a regular queue on another node of the cluster.
		To let OpenVMS select the node on which to run the job, use the Generic queue mechanism: <ol style="list-style-type: none"> 1. Define a generic batch queue on the node running CONTROL-M. 2. On each of the other nodes, initialize (create) regular batch queues, and associate each queue with the generic batch queue referred to above. 3. Assign the generic queue name to the %%QUEUE variable for that job.

Computer	Task Types	
OpenVMS, continued	Job, continued	Tracking is exactly the same as if the job were executing on a local queue. The job's log file can be found in the same location as if the job executed on the local node.
	Detached	<p>A detached process that is executed directly by the operating system (without passing through the operating system batch queue).</p> <p>The results of the Detached task are not analyzed by the post-processing subsystem.</p> <p>The detached task has the following properties:</p> <ul style="list-style-type: none"> ■ Although the process is not executed by the operating system batch queue, the process is executed asynchronously as a OpenVMS detached process. ■ It can only be executed on the LOCAL node, where it is also tracked. <p>A detached process is always assumed to have terminated successfully.</p>
	Command	If a program to be executed as a detached process requires input (or parameters supplied through the CONTROL-M/Server SYSSINPUT default). You can supply these as regular parameters. If the program requires parameters as part of the execution command statement (such as the RUN interactive command), it cannot be run as a detached process. Instead, use Task Type: Command .
	Dummy	CONTROL-M internal job. This is a dummy job that is not executed, but that can be used to execute the post-processing actions Out Conditions and Shout. Its completion status is always OK .

Computer	Task Types	
iSeries (AS/400)	Job	A job submitted to an operating system job queue. After submission, the job may start executing immediately or wait in the queue. The log is analyzed by the post-processing subsystem.
	Detached	A detached job is submitted to a no-wait job queue and is executed immediately by the operating system. The results of a detached job are analyzed by the post-processing subsystem. Although the job is not executed by the operating system batch queue, the job is executed asynchronously.
	Command	Operating system command (defined in the Command parameter) sent to the operating system to be executed as a job. For more information, see “Command” on page 39 .
	Dummy	CONTROL-M internal job. This is a dummy job that is not executed, but that can be used to execute the post-processing actions Out Conditions and Shout. Its completion status is always OK .
z/OS	JOB	Batch job. Default.
	STC	Started task.

Aliases in other CONTROL-M components

Alternate names for the Task Type parameter are listed below.

Component	Parameter name
CONTROL-M/EM Utilities	TASKTYPE
Reporting Facility	TASK_TYPE
CONTROL-M/Server Utilities	-tasktype
CONTROL-M for z/OS	TASKTYPE
CONTROL-M/EM API	task_type

Alternate formats in other CONTROL-M components

Alternate formats for the Task Type parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	<p>Example TASKTYPE=" Detached" /></p> <p>Valid values are:</p> <p>For non-z/OS computers:</p> <ul style="list-style-type: none"> ■ Job ■ Detached ■ Command ■ Dummy ■ External <p>For z/OS (as of version 6.1.03):</p> <ul style="list-style-type: none"> ■ Job ■ Started_Task <p>These values are used in conjunction with the values specified in the Cyclic and Critical parameters.</p>
Reporting Facility	String.
CONTROL-M/ Server Utilities	<p>Valid values:</p> <ul style="list-style-type: none"> ■ JOB ■ DETACHED ■ COMMAND ■ DUMMY ■ DETACHED ■ EXTERNAL ■ GROUP (for group scheduling tables, only)

Example: Creating a SAP job with the CONTROL-M/Server ctmcreate utility

```
ctmcreate -tasktype job -application SAP -nodegrp chef1 -appltype SAP
-memlib ddd -memname ffff -autoedit %%SAPR3-ACCOUNT DV1 -autoedit
%%SAPR3-JOBNAME SAPCM -autoedit %%SAPR3-JOBCOUNT 09495501 -autoedit
%%SAPR3-JOB_MODE EXTERNAL -applver 46C/46D -applform "SAP R3" -cmver
610 -jobname xxxx.
```

Task Type

Scheduling parameters

The parameters in this chapter determine when and/or how often a job should be scheduled for submission.

Table 3 Scheduling parameters – summary (part 1 of 2)

Parameter	Description
Active	Date range during which the job or group scheduling table can be ordered or the Scheduling Tag can be used.
Adjust Condition	Indicates whether to ignore prerequisite conditions normally set by predecessor jobs if the relevant predecessor jobs are not scheduled. This parameter is relevant only for jobs in a group scheduling table.
And/Or	Indicates the relationship between specified Days values and Weekdays values.
Confcal	Use to specify a that is used to validate all specified days and dates on which to schedule the job.
Dates	Specific dates on which to order the job.
Days	Days of the month on which to order the job.
Days Calendar	Name of a user-defined calendar used to specify a set of days (for example, working days).
Minimum	Minimum number of free partitioned data set tracks required by the library specified for the PDS parameter.
Months	Months in which to order the job.
PDS	Name of a partitioned data set (PDS) to be checked for free space.
Relationship	The relationship (And/Or) between the specified Scheduling Tag criteria and the job's own basic scheduling criteria. This parameter is relevant only for jobs in a group scheduling table.
Retro	Whether the job should be scheduled for possible execution after its original scheduling date (odate) has passed.

Table 3 Scheduling parameters – summary (part 2 of 2)

Parameter	Description
SAC	Whether to adjust the logical date for a job converted from a scheduling product other than CONTROL-M. This parameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.
Scheduling Tag	Identifier for a set of scheduling criteria in a group scheduling table. One or more Scheduling Tags can be specified in each job processing definition in a group scheduling table.[z/OS] This parameter is relevant only for jobs in a group scheduling table.
Statistics Calendar	Name of the CONTROL-M periodic calendar in which statistics relating to the job are collected. This parameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.
Statistics Period	Identifier of the actual days within the CONTROL-M periodic calendar in relation to which statistics relating to the job are calculated. This parameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.
Time Zone	Indicates the global time zone used to calculate the interval for time-related conditions.
Week Days	Days of the week on which to order the job.
Weeks Calendar	Indicates the name of a calendar to be used to validate specified weekdays on which to order the job.

Active

Date range during which the job or group scheduling table can be ordered or the Scheduling Tag can be used. During the period that the job or group scheduling is outside the active range (that is, inactive), it is not eligible to be ordered.

Format

Usage	Optional
Format	Dates, in <i>yyyymmdd</i> format.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Dates	Other scheduling criterion. Indicates specific dates (month and day) on which the job should be scheduled.
Days Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified days. This parameter may be mandatory for certain Days value formats. Also known as: DCAL and dayscal
And/Or	Indicates the relationship between specified Days values and Weekdays values.
Week Days	Indicates days of the week on which the job should be scheduled.
Weeks Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified weekdays.
Confcal	Indicates the name of a CONTROL-M calendar that is used to validate scheduling dates. A specified shift value can be used to indicate how to handle jobs that are scheduled for a non-working day in the calendar.
Months	Indicates the months in which the job should be scheduled. Only days in the specified months are considered valid for scheduling the job.
Dates	Indicates specific dates on which the job can be scheduled. Note: This parameter cannot be specified if a value has been specified for the Days parameter.
Scheduling Tag	Identifies a set of scheduling criteria defined for a group. This parameter is only relevant to jobs in a group scheduling table.

General information

The Active parameter allows you to define a date range during which a job or group scheduling table can be ordered or a Scheduling Tag can be used.

You can use the Active parameters to define either of the following:

- An active period. The dates before this period and the dates after this period each constitute an inactive period:
(inactive-period1 > defined-active-period > inactive-period2)
- An inactive period. Technically you define two active periods, an earlier active period, and a later active period, and everything in-between is the inactive period:
(active-period1 > defined-inactive-period > active-period2)

You can use this parameter with multiple copies of a job or group scheduling table definition to create date ranges during which the job or group scheduling table definition is run with alternate values, to eliminate the necessity of making last-minute changes to a job processing definition for a fixed period of time.

NOTE



The Active parameter appears as a single parameter with several subparameters in the job editing form and the group editing form in CONTROL-M/Desktop. In all other CONTROL-M components, the Active parameter appears as two separate parameters that function together — the Active From Date parameter, and the Active To Date parameter. Despite this difference in appearance, which is only a user interface issue, the processing functionality remains the same in all CONTROL-M components.

Defining an Active period

For a defined period to be an Active period, the From date must be less than or equal to the To date.

- In the job editing form or group editing form in CONTROL-M/Desktop:
 1. In the first Active field, select **From**.
 2. In the accompanying define the **From** and **To** fields, select the date range. Ensure that the **From** date is less than or equal to the **To** date.
- In all other CONTROL-M components, ensure that the **Active From Date** is less than or equal to the **Active To Date**.

No matter which component you use to define the Active period, you can leave either the **From** date or the **To** date blank:

- If only a **From** date is specified, the job can be scheduled on or after that date.
- If only a **To** date is specified, the job can be scheduled on or before that date.

Defining an Inactive period

As noted earlier, when you define an inactive period, it is preceded by an active period and followed by an active period (*active-period1 > defined-inactive-period > active-period2*).

When you define an Inactive period:

- the **To** date identifies the last date of the earlier active period (*active-period1*)
- the **From** date identifies the first date of the later active period (*active-period2*)

Therefore, the **To** date must be less than the **From** date.

When using the job editing form or group editing form, the Active subparameters are **Until** (instead of **Active To Date**) and **And From** (instead of **Active From Date**).

- In the job editing form or group editing form in CONTROL-M/Desktop:
 1. In the first Active field, select **Until**.
 2. In the accompanying define the **Until** and **And From** fields, select the date range. Ensure that the **Until** date is less than or equal to the **And From** date.
- In all other CONTROL-M components, ensure that the **Active To Date** is less than the **Active From Date**.

When defining an inactive period, you must specify both parameters in the date range; you cannot either of them blank.

Aliases in other CONTROL-M components

Alternate names for the Active From Date parameters are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	ACTIVE_FROM_DATE
CONTROL-M/Server Utilities	-DATEFROM <YYYYMMDD> Example: -DATEFROM 20060315
CONTROL-M for z/OS	DEFINITION ACTIVE FROM or SCHEDULE TAG ACTIVE FROM
CONTROL-M/EM API	active_from

Alternate names for the Active To Date parameters are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	ACTIVE_To_DATE
CONTROL-M/Server Utilities	-DATEUNTIL <YYYYMMDD> Example: -DATEUNTIL 20050315
CONTROL-M for z/OS	DEFINITION ACTIVE UNTIL or SCHEDULE TAG ACTIVE UNTIL
CONTROL-M/EM API	active_till or active_until

Alternate formats in other CONTROL-M components

Alternate formats for the Active From Date parameters are listed below.

Component	Format
CONTROL-M/EM Utilities	String for date. According to site standard (<i>ddmm/yyyy, mmddyyyy, yyyyymmdd</i>). Example: <ACTIVE_FROM="15032006"/>
CONTROL-M for z/OS	6-integer string for date. According to site standard (<i>ddmmyy, mmddyy, yymmd</i>).

Alternate formats for the Active To Date parameters are listed below.

Component	Format
CONTROL-M/EM Utilities	String for date. According to site standard (<i>ddmmmyyyy, mmddyyyy, yyymmdd</i>). Example <ACTIVE_TILL="15032006"/>
CONTROL-M for z/OS	6-integer string for date. According to site standard (<i>ddmmyy, mmddyy, yyymmdd</i>). Default: blank.

Example: Seasonal changes

JOB_A is a job processing definition for scheduling food shipments.

- In the summer, the company ships on Mondays and Wednesdays.
- In the fall, the company ships only on Mondays.
- In winter, the company ships on Mondays, Wednesdays, and Fridays.
- In the spring, the company ships on Mondays and Wednesdays.

Four copies of the JOB_A job processing definition are created. The Days parameter must be changed seasonally to allow for variations in shipping frequency. Different Active From Date and Active To Date parameters are used in each definition to specify the season in which the job is active. Other job processing criteria remain unchanged.

Job_A, Copy_1: Summer

Days: 1, 3
Active From Date: June 1, 2005
Active To Date: August 31, 2005

Job_A, Copy_2: Fall

Days: 1
Active From Date: September 1, 2005
Active To Date: November 30, 2005

Job_A, Copy_3: Winter

Days: 1, 3, 6
Active From Date: December 1, 2005
Active To Date: March 1, 2006

Job_A, Copy_4: Spring

Days: 1, 3
Active From Date: March 2, 2006
Active To Date: May 30, 2006

Adjust Condition

Indicates whether to ignore prerequisite conditions normally set by predecessor jobs if the relevant predecessor jobs are not scheduled.

NOTE



This parameter is relevant only for group scheduling tables.

Format

Usage	Optional
Format	<p>Valid values are:</p> <ul style="list-style-type: none"> ■ Yes – Ignore relevant prerequisite conditions. ■ No – Do not ignore relevant prerequisite conditions. ■ Dummy <ul style="list-style-type: none"> ■ [CONTROL-M for z/OS as of version 6.2.xx only]. Order as a PSEUDO job any job with scheduling criteria that are not satisfied on the current ODATE, with the MEMLIB parameter of the job set to DUMMY. For more information, see ADJUST CONDITIONS in the job production parameters chapter in the <i>CONTROL-M for z/OS User Guide</i>. ■ [CONTROL-M/Server] The CTM_GROUP_ADJUST_DUMMY configuration parameter controls the creation of dummy jobs that run in place of unscheduled prerequisite jobs. This parameter is relevant only when Adjust Condition is set to Y. <p>Note: The CONTROL-M/Server CTM_ADJUST_COND_SCOPE configuration parameter controls whether jobs in the Group Scheduling table must ignore conditions set by jobs in the active jobs file that are not scheduled, or to ignore conditions set by jobs in the Group Scheduling table that are not scheduled. In the latter case, the missing conditions are removed from the job at order time. This parameter is relevant only when Adjust Condition is set to Y.</p>
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The Adjust Condition parameter is applied to all jobs in a group scheduling table. It defines job dependencies in the group as being either conditional or absolute.

Conditional and absolute dependencies

■ Absolute job dependency

Each job in a group scheduling table runs only after all the predecessor jobs in the group have run. All prerequisites In conditions for a job must exist in the Conditions/Resources table before the job can run.

Select No in the **Adjust Condition** list in the CONTROL-M/EM Job Editing form.

■ Conditional job dependency

Each job in the group waits for its predecessor jobs to run only if the predecessor jobs in the group are scheduled. Prerequisite condition requirements are ignored and the successor job runs if a predecessor job is not scheduled. The other runtime scheduling criteria for the job must be satisfied.

Select Yes in the **Adjust Condition** list in the CONTROL-M/EM Job Editing form.

Aliases in other CONTROL-M components

Alternate names for the Adjust Condition parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	ADJUST_COND
Reporting Facility	ADJUST CONDITION
CONTROL-M/Server Utilities	-adjust_cond
CONTROL-M for z/OS Utilities	Adjust Conditions
CONTROL-M/EM API	adjust_condition

Alternate formats in other CONTROL-M components

Alternate formats in other CONTROL-M components are listed below.

Component	Format
CONTROL-M/EM Utilities	String. Example: <ADJUST_COND="Y"/>
CONTROL-M/Server Utilities	<ul style="list-style-type: none"> ■ Y – ignore the relevant prerequisite conditions ■ N – utilize prerequisite conditions normally set by predecessor jobs. Default.
CONTROL-M for z/OS	<ul style="list-style-type: none"> ■ Y – ignore the relevant prerequisite conditions ■ N – utilize prerequisite conditions normally set by predecessor jobs. Default.

And/Or

Indicates the relationship between specified Days parameter values and Weekdays parameter values.

Format

Usage	Optional
Format	Valid values are: ■ and ■ or (default)
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Confcal	Indicates the name of a CONTROL-M calendar that is used to validate scheduling dates. A specified shift value can be used to indicate how to handle jobs that are scheduled for a non-working day in the calendar.
Dates	Indicates specific dates (month and day) on which the job should be scheduled.
Date From	Indicates the start of a period of time during which the job or group scheduling table can be ordered or the Scheduling Tag can be used.
Date Until	Indicates the end of a period of time during which the job or group scheduling table can be ordered or the Scheduling Tag can be used.
Days	Days of the month on which to order the job.
Days Calendar	Indicates the name of a calendar containing a list of working days on which the job can be scheduled for execution.
Week Days	Indicates the days of the week on which the job should be scheduled for processing.
Weeks Calendar	Indicates the name of a calendar to be used to validate specified weekdays on which to order the job.

General information

If **And** is specified, both the Days/Days Calendar criteria and Week Days/Weeks Calendar criteria must be satisfied for a job to be scheduled.

If **Or** is specified, either the Days/Days Calendar criteria or Week Days/Weeks Calendar criteria must be satisfied for a job to be scheduled.

Aliases in other CONTROL-M components

Alternate names for the And/Or parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DAYS_AND_OR
Reporting Facility	DAYS_AND_OR
CONTROL-M/Server Utilities	-cal_andor
CONTROL-M for z/OS	And/Or
CONTROL-M/EM API	and_or

Confcal

Indicates the name of a CONTROL-M calendar that is used to validate scheduling dates. A shift value can be used to indicate how to handle jobs that are scheduled for a non-working day in the calendar.

Format

Usage	Optional
Length	Valid calendar name, up to 30 characters in length. z/OS: 1-8 characters
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ z/OS: Non-English characters ■ Computers other than z/OS: Single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Active	Indicates the start of a period of time during which the job or group scheduling table can be ordered or the Scheduling Tag can be used.
And/Or	The relationship between specified Days parameter values and Weekdays parameter values.
Days	Days of the month on which to order the job.
Days Calendar	The name of a calendar containing a list of working days on which the job can be scheduled for execution.
Minimum	Minimum number of free partitioned data set tracks required by the library specified for the PDS parameter.
Months	Name of a partitioned data set (PDS) to be checked for free space. If the PDS has fewer than the minimum number of required free tracks (as specified for the Minimum parameter), the job is executed.
Week Days	The days of the week on which the job should be scheduled for processing.
Weeks Calendar	The name of a calendar to be used to validate specified weekdays on which to order the job.



NOTE

The Confcal parameter cannot be specified together with the DATES parameter.

Subparameter

Subparameter	Description
Shift	Determines when to schedule the job if the current day is not a valid working in the specified calendar. Optional.
Shift Num	Determines how many days to shift the job if the current day is not a valid working day.

NOTE

For z/OS jobs: The **Confcal** parameter cannot be specified together with the **PDS** and **Minimum** parameters.

General information

The Calendar specified for Confcal must be a regular Calendar (not a periodic calendar). This calendar is used for:

- Validating scheduling dates
- Determining the scheduled work day.

Jobs to be scheduled on a given day are checked against the Confcal calendar:

- If the day is a working day in the Confcal calendar, the job is scheduled on that day. (This day is referred to as the original scheduling date.)
- If the day is not a working day in the Confcal calendar, the Shift and Shiftnum parameters are checked. Depending on the Shift value, the job may be scheduled on an earlier day, a later day, on the original scheduling date, or it may be cancelled.

If the job's scheduling criteria also include the day to which it is shifted, it runs only once on that date (not once for regular scheduling, and once to make up for the shifted day).

NOTE

If no Confcal calendar is specified, no value can be specified for the Shift subparameter, and this field has no effect on job scheduling.

Aliases in other CONTROL-M components

Alternate names for the Confcal parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	CONFICAL
Reporting Facility	CONF_CAL
CONTROL-M/Server Utilities	-confcal
CONTROL-M for z/OS	CONFICAL
CONTROL-M/EM API	conf_cal

Alternate formats in other CONTROL-M components

Alternate formats for the Confcal parameter are listed below.

Component	Format		
CONTROL-M/EM Utilities	String. SHIFT and SHIFTNUM are included as related parameters (not as subparameters of CONFICAL).		
Reporting Facility	Example <CONFICAL="Cal1"/>		
	SHIFT	Valid values: <ul style="list-style-type: none">■ IGNOREJOB■ NEXTDAY■ PREVDAY■ NOCONFICAL	CONTROL-M/Server equivalent: <ul style="list-style-type: none">■ No value■ >■ <■ @ For more information, see " SHIFT " on page 96.
	SHIFTNUM	Number from -62 to 62.	
	SHIFT	Valid values: <ul style="list-style-type: none">■ Ignore Job■ Next Day■ Prev Day■ No Confcal	
	SHIFTNUM	String. Number from -62 to 62.	

Component	Format
CONTROL-M/Server Utilities	<p>SHIFT is specified as a separate parameter (not a subparameter of CONFCAL). Do not specify this parameter unless you want to shift the scheduling of a job. SHIFT has up to four characters (xyyy). If you specify SHIFT, you must specify a value for x, or a value for yyy, or values for both x and yyy.</p> <p>SHIFT</p> <p>The first character (x) indicates how to shift scheduling of the job if the original scheduling day of the job is not a working day in the CONFCAL calendar. Valid values are:</p> <ul style="list-style-type: none"> ■ No value (for x) – No shifting occurs, unless a value is inserted for yyy. Default. ■ > – Job scheduling is shifted to the next working day in the CONFCAL calendar. Additional shifting may be performed, depending on the yyy value, described below. ■ < – Job scheduling is shifted to the previous working day in the CONFCAL calendar. Additional shifting may or may not be performed, depending on the yyy value, described below. ■ @ – Tentatively schedule the job for the current day, even if the current day is not a working day in the CONFCAL calendar. Additional shifting may or may not be performed, depending on the yyy value, described below. <p><i>The remaining three characters (yyy) shift scheduling of the job forward or backward the specified number of working days, as defined in the CONFCAL calendar. Valid values are:</i></p> <ul style="list-style-type: none"> ■ No value (for yyy) – Only the shifting specified by the x value occurs. ■ -nn or +nn shifts the job forward or backward nn working days in the CONFCAL calendar. nn can be any value from 0 to 62. <p>Note the following points:</p> <ul style="list-style-type: none"> ■ If the result of shifting by yyy days is a day that is not allowed (-n was entered for that day in the DAYS parameter), the job is shifted to the next working day (for a forward shift), or to the previous working day (for a backward shift).

Component	Format
CONTROL-M/Server Utilities <i>continued</i>	<ul style="list-style-type: none"> ■ If the original scheduling day of the job is a working day in the CONFCAL calendar, the x value is ignored and the yyy value determines when the job is scheduled. ■ If the original scheduling day of the job is not a working day in the CONFCAL calendar, job scheduling is shifted according to the x value and then shifted again according to the yyy value (if specified) to determine when the job is scheduled. ■ If the original scheduling day of the job is not a working day in the CONFCAL calendar, and no value (blank) is specified for the x value, the job is not scheduled, and the yyy value (if specified) is ignored. ■ Confcal and Shift parameters are applied to a scheduling date only if that date already satisfies the Basic Scheduling criteria as specified in the Days, Months, Dates, and Weekdays parameters.
CONTROL-M for z/OS	1-8 character string. SHIFT is specified as a separate parameter (not a subparameter of CONFCAL).
	SHIFT 4-character value including the Shift Num value. For more information, see the <i>CONTROL-M for z/OS User Manual</i> .

Dates

Indicates specific dates (month and day) on which the job should be scheduled.

Format

Usage	Optional Note: The Dates parameter cannot be used together with the Days parameter.
Format	<ul style="list-style-type: none">■ The Dates parameter is specified in either mmdd or ddmm format, depending on the site standard.■ Multiple values can be expressed, separated by commas, in any order (for example, 1211,1212).
Invalid Characters	Blanks; single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The job is scheduled for execution only on the dates specified in the dates list.

In z/OS environments, only 12 days can be specified for the Dates parameter. To specify more than twelve dates for one job, the dates should be defined in a calendar, and the calendar specified in the Days Calendar parameter.

The Dates parameter should be used with:

-MONTH ALL N

You can use the CTMRPLN utility to generate a report describing when the job runs based on its currently specified scheduling dates. For more information, see the description of this utility in the *CONTROL-M Administrator Guide* for your computer.

The Dates parameter cannot be specified together with the Weeks Calendar parameter.

Aliases in other CONTROL-M components

Alternate names for the Dates parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DATE
Reporting Facility	DATES_STR
CONTROL-M/Server Utilities	-date
CONTROL-M for z/OS	DATES
CONTROL-M/EM API	dates

Example: Schedule a job to run on a specific date

The following examples presume that the site standard for specifying dates is **mmdd**:

- Schedule a job for the 4th of April:

Dates 0404

- Schedule a job for the 21st of December and the 21st of June:

Dates 1221,0621

Days

Days of the month on which to order the job.

Format

Usage	Optional Note: The Days parameter cannot be used together with the Dates parameter.
Length	1-160 characters
Invalid Characters	Blanks; single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Valid formats for the Days parameter vary depending on whether a periodic calendar is specified as the Days Calendar. Formats for non-periodic and periodic calendars are specified separately below. (For more information about Calendar types, see the *CONTROL-M User Guide*.)

NOTE

The term *working days* in the following format descriptions refers to days marked in the calendar specified for the Days Calendar parameter.



Non-periodic (regular) calendar format

Format	Description
Rules	<ul style="list-style-type: none"> ■ n is any integer from 1 to 31. ■ Multiple values can be expressed (separated by commas) in any order.
Values	<ul style="list-style-type: none"> ■ ALL, All days of the month. ■ n, Specific days of the month. ■ +n, Specific days of the month in addition to working days in the Days Calendar.

Format	Description
Values cont.	<ul style="list-style-type: none"> ■ -n, Days of the month on which the job should not run, even if they are working days in the Days Calendar. ■ >n, Order the job on the indicated day if it is a working day; otherwise, order the job on the next working day. This format is frequently used for holiday handling. ■ <n, Order the job on the indicated day if it is a working day; otherwise, order the job on the closest preceding working day. This format is frequently used for holiday handling. ■ Dn, Order the job on the <i>n</i>th working day from the beginning of the month. ■ -Dn, Order the job on all working days except the <i>n</i>th working day from the beginning of the month. ■ Ln, Order the job on the <i>n</i>th calendar day (or <i>n</i>th working day, if the Days Calendar parameter is specified) from the end of the month. L1 represents the last day of the month (or last working day of the month if a Days Calendar is specified). ■ -Ln, Order the job on all days except the <i>n</i>th calendar day from the end of the month. If the Days Calendar parameter is specified, order the job on all working days except the <i>n</i>th working day from the end of the month. <p>Note: A calendar must be specified for the Days Calendar parameter if the +n, -n, >n, <n, Dn or -Dn format is used for the Days parameter.</p>

Periodic calendar format

Format	Description
Rules	<p>In the following periodic scheduling formats:</p> <ul style="list-style-type: none"> ■ n is any integer from 1 through 255. ■ i is any valid period identifier. Valid values are: <ul style="list-style-type: none"> — any integer from 1 through 9 — any uppercase letter except N and Y — * (asterisk) – all periods ■ If the number of days between periods with the same identifier is more than 33 (this value can be changed by the administrator), it is considered a new period. ■ The name of a periodic calendar must be specified in the Days Calendar. A maximum of eight periodic values (separated by commas) can be designated in any order.

Format	Description
Values	<ul style="list-style-type: none"> ■ DnPi, Order the job on the <i>n</i>th day of period i from the beginning of the period. An * can be specified as the value of <ul style="list-style-type: none"> — n to represent all days — I to represent all periods ■ -DnPi, Order the job on all days of period i except the <i>n</i>th day of period i from the beginning of the period. An * can be specified as the i value to represent all periods. ■ LnPi, Order the job on the <i>n</i>th day of period i counting backward from the last day of the period. An * can be specified as the i value to represent all periods. ■ -LnPi, Order the job on all days of period i except the <i>n</i>th day of period i counting backward from the last day of the period. An * can be specified as the i value to represent all periods.

Related parameters

CONTROL-M combines the value of the Days parameter with certain other parameters in order to determine the scheduling days for the job.

Days Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified days. This parameter may be mandatory for certain Days value formats.
And/Or	Indicates the relationship between specified Days values and Weekdays values.
Week Days	Indicates days of the week on which the job should be scheduled.
Weeks Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified weekdays.
Confcal	Indicates the name of a CONTROL-M calendar that is used to validate scheduling dates. A specified shift value can be used to indicate how to handle jobs that are scheduled for a non-working day in the calendar.
Months	Indicates the months in which the job should be scheduled. Only days in the specified months are considered valid for scheduling the job.

General information

The job is ordered only on the days marked in the Days list and in the months specified in the Months parameter.

Rules

- When **ALL** is specified, no other values should be specified for the Days parameter.

- Negative values take precedence over positive values when determining whether a job should be scheduled on a certain date. If a negative value (-n, -Dn, -Ln, DnP_i, or -LnP_i) in either the **Days** or **Week Days** parameter prevents a job from being scheduled on a date, the job is not scheduled on that date.
- Identical negative and positive values (for example, -Dn, Dn) cannot be specified together.
- If periodic and non-periodic values are mixed when specifying Days, processing depends on the calendar type specified in parameter Days Calendar.
- If a non-periodic calendar is specified in Days Calendar, only non-periodic values are processed; periodic values are ignored.
- If a periodic calendar is specified in Days Calendar, all periodic values and all negative non-periodic values (for example, -n) are processed; non-negative non-periodic values are ignored.
- **For z/OS environments**, the Months parameter is ignored when periodic values are specified for the Days parameter.



NOTE

If the **And** option is selected (Month Days and Weekdays), and no criteria are specified for either the Month Days or the Week Days parameter, CONTROL-M/EM assumes that **ALL** has been specified for the empty parameter. For example, if Monday is selected, and no days of the month are selected, the job is scheduled on all Mondays of the month.

Use with the CONTROL-M/Server CTMRPLN Utility

You can use the CTMRPLN utility to generate a report describing when the job runs based on its currently-specified scheduling dates. For more information, see the description of this utility in the *CONTROL-M Administrator Guide* for your computer.

Computer-specific information for z/OS

The Months parameter is ignored when periodic values are specified for the Days parameter.

Aliases in other CONTROL-M components

Alternate names for the Days parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DAYS
Reporting Facility	DAY_STR
CONTROL-M/Server Utilities	-days
CONTROL-M for z/OS	DAYS
CONTROL-M/EM API	month_days

Example 1: Schedule a job on the 1st of March and the 1st of September

Days	01
Months	Jan. <input type="checkbox"/> Feb. <input type="checkbox"/> Mar. <input checked="" type="checkbox"/> Apr. <input type="checkbox"/> May. <input type="checkbox"/> Jun. <input type="checkbox"/> Jul. <input type="checkbox"/> Aug. <input type="checkbox"/> Sep. <input checked="" type="checkbox"/> Oct. <input type="checkbox"/> Nov. <input type="checkbox"/> Dec. <input type="checkbox"/>

Example 2: Schedule a job on both the 1st and 15th day of each month

Days	01,15
Months	Jan. <input checked="" type="checkbox"/> Feb. <input checked="" type="checkbox"/> Mar. <input checked="" type="checkbox"/> Apr. <input checked="" type="checkbox"/> May. <input checked="" type="checkbox"/> Jun. <input checked="" type="checkbox"/> Jul. <input checked="" type="checkbox"/> Aug. <input checked="" type="checkbox"/> Sep. <input checked="" type="checkbox"/> Oct. <input checked="" type="checkbox"/> Nov. <input checked="" type="checkbox"/> Dec. <input checked="" type="checkbox"/>

Example 3: Schedule a job on every day in December

Days	ALL
Months	Jan. <input type="checkbox"/> Feb. <input type="checkbox"/> Mar. <input type="checkbox"/> Apr. <input type="checkbox"/> May. <input type="checkbox"/> Jun. <input type="checkbox"/> Jul. <input type="checkbox"/> Aug. <input type="checkbox"/> Sep. <input type="checkbox"/> Oct. <input type="checkbox"/> Nov. <input type="checkbox"/> Dec. <input checked="" type="checkbox"/>

Example 4: Complex scheduling using a periodic calendar

Schedule the job on the 1st day of period A, and on all days, except the 2nd day, of period B. Do not schedule the job on the 5th day of the month.

Days -5,D1PA,-D2PB
Days Calendar PERIDAYS

Periodic calendar PERIDAYS contains the following definitions:

	M	T	W	T	F	S	S
						1	2
3	B	C	A	A	B	8	9
10	B	C	A	A	B	15	16
17	B	C	A	A	B	22	23
24	B	C	A	A	B	29	30
31	B						

The job is scheduled on the following days:

3rd, 10th, 14th, 17th, 21st, 24th, 27th, 31st.

Days Calendar

Indicates the name of a calendar containing a list of working days on which the job can be scheduled for execution.

Format

Usage	Optional Note: The Days Calendar parameter cannot be used together with the Dates parameter.
Length	1-30 characters z/OS: 1-8 characters, or the asterisk (*) character
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Computers other than z/OS: Blanks; single quotation marks ■ z/OS: Blanks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

And/Or	Indicates the relationship between specified Days values and Weekdays values.
Confcal	Indicates the name of a CONTROL-M calendar that is used to validate scheduling dates. A specified shift value can be used to indicate how to handle jobs that are scheduled for a non-working day in the calendar.
Days	Indicates the Days of the month on which to order the job.
Months	Indicates the months in which the job should be scheduled. Months must be indicated when the Days Calendar parameter is used.
Week Days	Indicates days of the week on which the job should be scheduled.
Weeks Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified weekdays. Also known as: WCAL and weekscal

General information

A calendar contains a list of user-defined days that can be used as a basis for scheduling jobs. For example, the days included in the calendar can be working days, accounting days, or holidays.

- Any number of calendars can be defined, where each one corresponds to a different set of dates.

- Calendars are usually defined for the entire installation, though each user can define calendars according to personal preference. One calendar can be shared by many job processing definitions.
- The calendar does not have to exist when the job processing parameters are defined. Its existence is checked during New Day Processing.

How this parameter works

- If no values are specified for the Days parameter, all working days in the specified Days Calendar are considered valid for job scheduling.
- If no Days Calendar is specified, all specified Days values are considered valid working days.
- When the Days Calendar parameter is specified with the Days parameter, the job is scheduled for execution only if all the indicated Days are also marked in the calendar.
- If the Days Calendar parameter is specified with a Days parameter that includes the + symbol, the job is scheduled for execution on those dates marked with a + (in the Days parameter), in addition to the dates marked in the calendar.
- If the Days Calendar parameter is specified with a Days parameter that includes the - symbol, the job is not scheduled for execution on those dates even if the date is marked in the calendar.
- The appropriate Months parameters must be checked.
- The and/or relationship between Days and Weekdays is analyzed. For more information about And/Or, see the description on [page 91](#).

You can use the CTMRPLN utility to generate a report describing when the job runs based on its currently specified scheduling dates. For more information, see the description of this utility in the *CONTROL-M Administrator Guide* for your computer.



NOTE

The following examples presume that the first day of the week at your site is defined as **Sunday**.

Aliases in other CONTROL-M components

Alternate names for the Days Calendar parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DAYSCAL
Reporting Facility	DAYS_CAL
CONTROL-M/Server Utilities	-dayscal
CONTROL-M for z/OS	DCAL
CONTROL-M/EM API	days_cal

Example 1: Schedule the job on all workdays throughout the year

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input checked="" type="checkbox"/>											
Days Calendar	WORKDAYS											

Example 2: Schedule the job on all workdays in July

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									
Days Calendar	WORKDAYS											

Example 3: Schedule the job on every Monday in July and August that is a workday

Week Days	2
Months	Jan. Feb. Mar. Apr. May. Jun. Jul. Aug. Sep. Oct. Nov. Dec.
	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
Days Calendar	WORKDAYS

Example 4: Schedule a job on a regular basis

Schedule the job on every Monday in July, regardless of whether it is a workday, and each Tuesday in July that is a workday.

Week Days +2,3

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									

Days WORKDAYS
Calendar

Example 5: Complex scheduling

Schedule the job on the 1st of June, July and August, regardless of whether it is a banking day, and on every banking day in June, July and August:

Days +1

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

Days BANKDAYS
Calendar

Example 6: Schedule the job on every Friday in June, July and August that is a "half day"

Week Days 6

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

Days HALFDAYS
Calendar

Minimum

Minimum number of free partitioned data set tracks required by the library specified for the PDS parameter.

NOTE

This parameter is available for z/OS jobs only.



Format

Usage	Mandatory, if a value is specified for the PDS parameter.
Format	A positive 3-digit number (leading zeros are required)
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Confcal	Confcal and Minimum cannot be specified together.
Dates	Dates and Minimum cannot be specified together.
Days	Days and Minimum cannot be specified together.
Months	Months and Minimum cannot be specified together.
PDS	Name of a partitioned data set (PDS) to be checked for free space. If the PDS has fewer than the minimum number of required free tracks (as specified for the Minimum parameter), the job is executed. When PDS is specified, Minimum is mandatory.
Retro	Retro and Minimum cannot be specified together.
Week Days	Week Days and Minimum cannot be specified together.
Weeks Calendar	Weeks Calendar and Minimum cannot be specified together.

General information

The PDS parameter specifies a library, and the Minimum parameter specifies the minimum number of free tracks required by that library.

The Minimum and PDS parameters are always used together and are never used with other Basic Scheduling parameters (For more information, see “[Related parameters](#)” on page 110).

When to use

The Minimum and PDS parameters are intended for use in jobs and started tasks that compress, clean, and/or enlarge libraries. They are also specified for tasks that issue a warning message to the IOA Log file if the minimum number of free tracks is not available.

If Minimum and PDS parameters are defined for a job, the scheduling of the job is not related to or depends on any date criteria. Instead, the job is scheduled if the actual number of free tracks available in the specified library is below the specified minimum at time of daily job ordering. The job or started task can then compress, clean, or enlarge the library (or issue the appropriate warning).

NOTE



Minimum does not work with PDSE-type libraries because they always appear to be 100 percent full. Minimum only checks current extents.

Aliases in other CONTROL-M components

Alternate names for the Minimum parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	MIN
Reporting Facility	MIN PDS TRAC
CONTROL-M for z/OS	MINIMUM
CONTROL-M/EM API	min_pds_tracks

Months

Indicates the months during which the job can be scheduled for processing.

Format

Usage	Optional
Format	A check box is displayed corresponding to each month of the year. When selected, the job is scheduled for that month. Default: The job is scheduled for all months.
Invalid Characters	Blanks; single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Dates	You cannot specify a value for Months when a value is specified for the Dates parameter.
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General information

The Months parameter cannot be used together with the Dates parameter.

On CONTROL-M/Server

To see a job's schedule plan, run the CTMRPLN report. This report indicates when selected jobs in a selected scheduling table are scheduled to run. For more information regarding CTMRPLN, see the utility section of the *CONTROL-M Administrator Guide* for your computer.

Aliases in other CONTROL-M components

Alternate names for the Months parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	Indicate the specific month: <ul style="list-style-type: none"> ■ JAN ■ FEB ■ MAR ■ APR ■ MAY ■ JUN ■ JUL ■ AUG ■ SEP ■ OCT ■ NOV ■ DEC
Reporting Facility	Specify the specific month: <ul style="list-style-type: none"> ■ MONTH_1 (January) ■ MONTH_2 (February) and so on... <ul style="list-style-type: none"> ■ MONTH_12 (December)
CONTROL-M/Server Utilities	-month
CONTROL-M for z/OS	MONTHS
CONTROL-M/EM API	Indicate the specific month: <ul style="list-style-type: none"> ■ JAN ■ FEB ■ MAR ■ APR ■ MAY ■ JUN ■ JUL ■ AUG ■ SEP ■ OCT ■ NOV ■ DEC

Alternate formats in other CONTROL-M components

Alternate formats for the Months parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	<p>Indicate for each month.</p> <ul style="list-style-type: none">■ 0 (Do not schedule for this month. Default)■ 1 (Schedule for this month.) <p>Example</p> <p><JAN="1"/></p>

Examples

For examples that use the Months parameter, see the Days Calendar ([page 106](#)) and Days parameters ([page 100](#)).

PDS

Name of a partitioned data set (PDS) to be checked for free space. If the PDS has fewer than the minimum number of required free tracks (as specified for the Minimum parameter), the job is executed.



NOTE

This parameter is available for z/OS jobs only.

The PDS and Minimum parameters must be specified together.

Format

Usage	Mandatory, when a value is specified for the Minimum parameter
Length	1-44 characters
Case Sensitive	No
Invalid Characters	Blanks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Confcal	Confcal and PDS cannot be specified together.
Dates	Dates and PDS cannot be specified together.
Days	Days and PDS cannot be specified together.
Minimum	Number of available tracks. When PDS is specified, Minimum is mandatory.
Months	Months and PDS cannot be specified together.
Retro	Retro and PDS cannot be specified together.
Week Days	Week Days and PDS cannot be specified together.

General information

The data set must be cataloged, and it must be a partitioned data set.

Parameters Minimum and PDS are always used together and are never used with other Scheduling parameters.

The PDS parameter identifies a library. The Minimum parameter specifies the minimum number of free tracks required by that library.

These parameters are intended for use (that is, definition) in jobs or started tasks that compress, clean and/or enlarge libraries, or which issue a warning message to the IOA Log file.

If the Minimum and PDS parameters are defined for a job, the scheduling of the job is not related to or depends on any date criteria. Instead, the job is scheduled if the actual number of free tracks available in the specified library is below the specified minimum when the New Day procedure is run.

The job or started task can then compress, clean, or enlarge the library (or issue the appropriate warning).

NOTE

This parameter is not supported for PDSE-type libraries because they always appear to be 100 percent full.

Aliases in other CONTROL-M components

Alternate names for the PDS parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	PDSNAME
Reporting Facility	PDS Name
CONTROL-M for z/OS	PDS
CONTROL-M/EM API	pds

Relationship

Indicates the relationship (AND/OR) between Scheduling Tag criteria and basic scheduling criteria in the job processing definition (that is, whether either set of criteria, or both sets of criteria, must be satisfied).



NOTE

This parameter is relevant only to the job processing definitions of jobs that are in group scheduling tables.

Format

Usage	For jobs that are in group scheduling tables.
Format	Option buttons. <ul style="list-style-type: none"> ■ When or is selected, if either set of criteria (a specified Scheduling Tag or the job's basic scheduling criteria) is satisfied, the job is scheduled. Default. ■ When and is selected, both a specified Scheduling Tag and the job's basic scheduling criteria must be satisfied for the job to be scheduled.
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameter

Scheduling Tag	Identifies a set of scheduling criteria defined for a group. If the Relationship parameter value is AND and no Scheduling tag is defined, the job is not scheduled.
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General information

For jobs in group scheduling tables, two types of basic scheduling criteria can be specified:

- **Scheduling Tags.** Pointers to sets of scheduling criteria defined in the group scheduling table.
- **Basic Scheduling Criteria.** Defined in each job processing definition.

In some cases, both sets of criteria must be satisfied for the job to be scheduled. In other cases, it is sufficient if either set of criteria is satisfied. The AND-OR option enables you to specify the required combination:

- When either set of criteria is sufficient choose **OR**.
- When both sets of criteria are required, choose **AND**.

NOTE

If an AND relationship is specified and no Scheduling Tags are defined in the job, the job is not scheduled.

Aliases in other CONTROL-M components

Alternate names for the Relationship parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	TAG_RELATIONSHIP
Reporting Facility	TAG_RELATIONSHIP
CONTROL-M/Server Utilities	-relationship
CONTROL-M for z/OS	RELATIONSHIP
CONTROL-M for z/OS Utilities	RELATION
CONTROL-M/EM API	tag_relationship

Retro

Indicates if the job should be scheduled for possible execution after its original scheduling date has passed (retroactively).

Format

Usage	Optional
Format	<p>Check box</p> <p>Select the Retro check box to indicate that the job should be scheduled retroactively. Clear the check box to indicate that the job should not be scheduled retroactively.</p> <p>Default: Clear</p>
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Minimum	Minimum cannot be specified together with Retro.
PDS	PDS cannot be specified together with Retro.

General information

The Retro parameter is used to control situations where the computer has not been working for a day or more (for example, due to a weekend, a holiday or a hardware failure). The Retro parameter indicates to the New Day procedure or User Daily if the job should be retroactively scheduled for days the computer (or CONTROL-M) was inactive.

- If Retro is specified, CONTROL-M/Server places job orders in the Active Jobs file for all days that the job should have been scheduled. The scheduling dates for which job orders are issued range from the day following the last running date of the New Day procedure or User Daily to the current working date, provided that those dates satisfy criteria specified in one of the scheduling parameters (Days, Days Calendar, and so on). Each job order placed in the Active Jobs file uses a date in the range as its original scheduling date.
- If Retro is not specified, the job is scheduled only for the current working date (provided that this date satisfies the job's scheduling criteria).

For more information, see the description of the Date Control Record (UDLAST) in the overview chapter of the *CONTROL-M Administrator Guide*.

If Retro is specified for a User Daily Job, only the last (most recent) order of the User Daily Job actually orders jobs. It also performs Retro ordering for all included jobs. As a general rule, there is no need to specify Retro in the job processing definition of a User Daily job.

You can use the ctmrplan CONTROL-M/Server utility to determine when selected jobs in a scheduling table are scheduled to run. For more information, see the Utilities chapter in the *CONTROL-M Administrator Guide*.

NOTE

Retro cannot be used with the Minimum and PDS parameters.



No group scheduling tables support

The Retro parameter is not supported for group scheduling tables. If this parameter is selected for a group scheduling table (in the Group Editing form), it is ignored.

The Retro parameter can be selected for individual jobs in a group scheduling table.

Aliases in other CONTROL-M components

Alternate names for the Retro parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	RETRO
Reporting Facility	RETRO
CONTROL-M/Server Utilities	-retro
CONTROL-M for z/OS	RETRO
CONTROL-M/EM API	retro

Alternate formats in other CONTROL-M components

Alternate formats for the Retro parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	RETRO has two possible values: <ul style="list-style-type: none"> ■ 0 (No) – Do not allow scheduling of the job after its original scheduling date has passed. Default. ■ 1 (Yes) – Allow scheduling of the job after its original scheduling date has passed. Example <RETRO="1"/>
CONTROL-M/Server Utilities	RETRO has two possible values: <ul style="list-style-type: none"> ■ N (No) – Do not allow scheduling of the job after its original scheduling date has passed. Default. ■ Y (Yes) – Allow scheduling of the job after its original scheduling date has passed.

Example 1: Schedule a job on a specific day of the month

Schedule the job on specific days in the month. If the day has passed, do not schedule the job.

Days 15, 16, 18, 19, 20
Retro No

Assume the computer was down from the 16th to (and including) the 18th. The 15th is the last date on which the job was scheduled for execution. Today is the 19th. Therefore, the job is only scheduled for execution on the 19th.

Example 2: Schedule a job for every workday

Schedule the job for every workday, whether the computer is active:

Days Calendar WORKDAYS
Retro Yes

Given the following circumstances

- the Work Days calendar contains the dates 15, 16, 18, and 19
- the computer was down from the 16th up to (and including) the 18th
- the 15th was the last date that the job was scheduled for execution
- today is the 19th

The job is scheduled three times with the original scheduling dates: 16, 18, and 19 (that is, three job orders are added to the Active Jobs file).

SAC

Whether to adjust the logical date for a job converted from a scheduling product other than CONTROL-M.

NOTE

This parameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.

Format

Usage	Optional
Format	<p>The following options are available:</p> <ul style="list-style-type: none"> ■ Blank – No adjustment is made. The group and all the jobs in it are scheduled according to the regular criteria. This is the default. ■ P (Previous) – The operation of this value depends on whether it is in a group or a job scheduling definition. <ul style="list-style-type: none"> — If this value is set for a group, the group is scheduled both on the day indicated by the regular scheduling criteria and on the day preceding that day. — If this value is set for a job, the job is scheduled on the day preceding that indicated by the regular scheduling criteria. ■ N (Next) – The operation of this value depends on whether it is in a group or a job scheduling definition. <ul style="list-style-type: none"> — If this value is set for a group, the group is scheduled both on the day indicated by the regular scheduling criteria and on the day following that day. — If this value is set for a job, the job is scheduled on the day following that indicated by the regular scheduling criteria. ■ + (Plus) – [For group scheduling definitions only] The scheduling of the group is adjusted to the next logical date. ■ - (Minus) – [For group scheduling definitions only] The scheduling of the group is adjusted to the previous logical date.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

Use this parameter if one of the following is true:

- You have migrated to CONTROL-M/EM from another job scheduling product that did not enable you to select the New Day time.
- You have selected a New Day time that is different from the time at which the logical date changed under your old product.

In such circumstances, jobs may be scheduled at a time that falls between the time at which the logical date changed under your former product and the CONTROL-M New Day time. This may cause jobs to be scheduled on the wrong date. The SAC parameter enables the logical date to be automatically adjusted in the case of such jobs, so that they run on the required date.

Aliases in other CONTROL-M components

Alternate names for the SAC parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	PREV_DAY
Reporting Facility	Prev Day
CONTROL-M/Server Utilities	(none)
CONTROL-M for z/OS	SAC
CONTROL-M/EM API	sac

Example 1

In the MIXEDGRP group, the JOBA, JOBB, and JOBC jobs in a group have the SAC parameter set to P and the JOBX, JOBY, and JOBZ jobs have the SAC parameter left blank. In such a case, the group must be scheduled on both the regular scheduling day for the group and on the previous day, so that both types of jobs can run.

Set the SAC parameter of the MIXEDGRP group to P.

Example 2

In the ONEVAL group, all the jobs have the SAC parameter set to P. In such a case, the group must be scheduled on the day preceding the regular scheduling day only.

Set the SAC parameter of the ONVAL group to -.

Scheduling Tag

Identifies a set of scheduling criteria defined for a group. This parameter only appears for jobs in group scheduling tables. The scheduling criteria referenced by each Scheduling Tag are defined in the group scheduling table.

Format

Usage	Optional Note: Only relevant to jobs in a group scheduling table.
Length	1 through 20 alphanumeric characters
Format	This parameter must contain either the name of a Scheduling Tag that is defined for the group scheduling table, or an asterisk (*), indicating all Scheduling Tags.
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ Computers other than z/OS: Single quotation marks. ■ z/OS: The following characters must not be used in Scheduling Tag definitions in group scheduling tables: <ul style="list-style-type: none"> — * (asterisk) — ? (question mark) — Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameter

Active	Indicates the start of a period of time during which the job or group scheduling table can be ordered or the Scheduling Tag can be used.
---------------	--

Related parameters

Parameter	Description
Relationship	Indicates the relationship (AND/OR) between Scheduling Tag criteria and basic scheduling criteria in the job processing definition (that is, whether either set of criteria, or both sets of criteria, must be satisfied).

General information

Each group scheduling table contains one or more sets of basic scheduling criteria that can be applied to job processing definitions of jobs in the table. Each set of basic scheduling criteria is assigned a unique name, specified in the Scheduling Tag field, which is used for referencing that set of criteria.

To apply a set of scheduling criteria in a group scheduling table to a job processing definition, specify the Scheduling Tag name of the desired criteria in the Scheduling Tag field of the Job Processing form.

If multiple Scheduling Tag names are specified in the job processing definition, the tags are checked sequentially (according to the order in which they are defined for the group scheduling table) during job scheduling to determine if the criteria are satisfied. The first set of Scheduling Tag criteria that is satisfied is applied to the job. Subsequent Scheduling Tags specified for the job are not checked.

If an asterisk (*) is specified as a Scheduling Tag name, all Scheduling Tags in the group scheduling table are applied to the job.

Each job processing definition can have its own basic scheduling criteria defined, independent of the Scheduling Tag criteria in the group scheduling table.

Scheduling jobs in a group scheduling table

Jobs in a group scheduling table are eligible for scheduling on a particular day only if at least one Scheduling Tag in the group scheduling table is satisfied.

If a group scheduling table is eligible for scheduling on a particular day, a job in the table is scheduled in either of the following cases:

- The value of the Relationship parameter is **OR**. The basic scheduling criteria of the job or a specified Scheduling Tag (or both) are satisfied.
- The value of the Relationship parameter is **AND**. Both the basic scheduling criteria of the job and a specified Scheduling Tag are satisfied.

Aliases in other CONTROL-M components

Alternate names for the Scheduling Tag parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	TAG_NAME
CONTROL-M/Server Utilities	-tag
CONTROL-M for z/OS	SCHEDULE TAG
CONTROL-M/EM API	sched_tag

Alternate formats in other CONTROL-M components

Alternate formats for the Scheduling Tag parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	TAG_NAME parameters are contained in the TAG_NAMES parameter. The TAG_NAME value is a string. TAG_NAMES cannot have a value. Example <TAG_NAMES TAG_NAME="T1" TAG_NAME="T2"/>

Example: Two sets of scheduling tags

Group scheduling table ACCOUNTS for group ACCOUNTS_GROUP contains two sets of scheduling criteria Scheduling Tags).

One set is identified by the **ALL_DAYS** Scheduling Tag, and the other set is identified by the **SUNDAYS** Scheduling Tag.

The following information is specified for **ALL_DAYS** Scheduling Tag:

Week DaysALL

The following information is specified for **SUNDAYS** Scheduling Tag:

Week Days1

For jobs that should run on any day, specify:

Schedule TagALL-DAYS

For jobs that should only run on Sundays, specify:

Schedule TagSUNDAYS

Statistics Calendar

Name of the CONTROL-M periodic calendar within which statistics relating to the job are collected.



NOTE

This parameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.

Format

Usage	Optional
Format	A valid period calendar name consisting of from 1 through 8 alphanumeric characters.
Case Sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Blanks ■ Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Statistics Period	The 1-character identifier of the actual days within the CONTROL-M periodic calendar in relation to which statistics relating to the job are calculated.

General information

As part of the post-processing for each job, CONTROL-M for z/OS determines the elapsed run time of the job. All accumulated information regarding job execution, including the elapsed run time, is written to the IOA Log file.

Periodically, a statistics utility may be used to scan and analyze the IOA Log file. This utility gathers information about the start time of each job, its elapsed run time, CPU utilization time, and so on. The utility places this information in the Statistics file, where averages of these values can be maintained for each job.

If the Statistics Calendar parameter is not used to specify a periodic calendar, the statistics relating to a job are based on all run times of the job.

The Statistics Calendar parameter identifies the periodic calendar that is used to gather average runtime statistics for the job. The information displayed in the Statistics Period field identifies the specific days within that calendar that are used as the basis of the runtime statistics.

By using the Statistics Calendar parameter together with the information displayed in the Statistics Period field, you can obtain more precise statistical information about the running of the job, as shown in the following example.

Example

Assume that a job runs daily, weekly, and monthly, and that the Statistics Calendar parameter identifies a periodic calendar that contains a number of months each specified in a manner similar to the following:

-----S-----	-----S-----	-----S-----	-----S-----	-----S-----
1 2 3 4 5 6 7 8 9 +	1 2 3 4 5 6 7 8 9 +	1 2 3 4 5 6 7 8 9 +	1 2 3 4 5 6 7 8 9 +	1 2 3 4 5 6 7 8 9 +
09 D D W D D D D D W D D D D D W D D D D M				

In this example, the job runs daily in Period D, weekly in Period W, and monthly in Period M.

If the job runs on the 3rd of the month, its statistics are collected for Period W. If it runs on the 6th of the month, its statistics are collected for Period D, and so on.

Aliases in other CONTROL-M components

Alternate names for the Statistics Calendar parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	STAT_CAL
Reporting Facility	Stat Calendar
CONTROL-M/Server Utilities	(none)
CONTROL-M for z/OS	STAT CAL
CONTROL-M/EM API	statistic_cal

Statistics Period

Identifier of the actual days within the CONTROL-M periodic calendar in relation to which statistics relating to the job are calculated.

NOTE

This parameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.

Format

Format	1 alphabetic character, display only
--------	--------------------------------------

Related parameters

Parameter	Description
Statistics Calendar	Name of the CONTROL-M periodic calendar within which statistics relating to the job are collected.

General information

This parameter provides more precise statistical information relating to z/OS jobs.

For full information, see “[Statistics Calendar](#)” on page 127.

Time Zone

Indicates the time zone according to which the job should be scheduled.

Format

Usage	Optional		
Format	Three-character value		
The following values are supplied with CONTROL-M:			
HNL	Honolulu		GMT-10.00
HAW	Hawaii		GMT-10:00
Note: HAW is maintained for backward compatibility purposes			
ANC	Anchorage Standard Time		GMT-09:00
PST	Pacific Standard Time		GMT-08:00
MST	Mountain Standard Time		GMT-07:00
CST	Central Standard Time		GMT-06:00
EST	Eastern Standard Time		GMT-05:00
ATL	Atlantic Standard Time		GMT-04:00
RIO	Rio de Janeiro		GMT-03:00
GMT	Greenwich Mean Time		GMT+00:00
WET	Western European Time		GMT+01:00
CET	Central European Time		GMT+02:00
EET	Eastern European Time		GMT+03:00
DXB	Abu Dhabi		GMT+04:00
KHI	Karachi		GMT+05:00
DAC	Dacca		GMT+06:00
BKK	Bangkok		GMT+07:00
HKG	Hong Kong		GMT+08:00

	TYO	Tokyo	GMT+09.00
	TOK	Tokyo	GMT+09:00
	Note: TOK is maintained for backward compatibility purposes		
	SYD	Sydney	GMT+10.00
	MEL	Melbourne	GMT+10:00
	NOU	Noumea	GMT+11.00
	AKL	Auckland	GMT+12.00
	If necessary, these default values can be modified, and new values can be defined. For more information, see the description of time zone support in the maintenance chapter of the <i>CONTROL-M Administrator Guide</i> .		
Default	If no value is specified for this parameter, the job runs with the time zone of the CONTROL-M/Server that ordered the job.		
Invalid Characters	Non-English characters		
AutoEdit Support	No. AutoEdit variables or expressions cannot be specified as values for this parameter.		

General information

- Newly defined jobs with specified time zones must be saved at least 48 hours before their intended execution dates (in order to ensure that they are ordered automatically by the appropriate New Day Procedure or User Daily).

If they must run “today” they should be ordered manually (for example, using the ctmorder utility).
- Specified Odates are calculated according to the working date (not the actual date). This means that if a job is defined as working on the 5th of the month at 3:00 A.M., and the working day begins at 5:00 A.M., then the job is actually run at 3:00 A.M. on the morning of the 6th (which is still part of the working day of the 5th).
- In addition to time zones, you can also order a job that is intended for execution on a future date. For more information, see the odate and odate_option parameters in any of the following CONTROL-M/Server utilities:
 - ctmudly
 - ctmudchk
 - ctmorder
 - ctmcreate

For more information about these utilities, see the *CONTROL-M Administrator Guide*.

- BMC Software recommends that you do not combine jobs that have time zone specifications with jobs that do not specify a time zone in the same scheduling table or group scheduling table.
- When a job is considered for ordering by the New Day procedure, it is ordered if its scheduling date occurs within the next 48 hours. When a job is ordered by a User Daily job, it is ordered only if its scheduling criteria are satisfied for the current working date. For this reason, BMC Software recommends that you arrange the jobs for each time zone in a separate table. For more information, see the description of time zone support in the maintenance chapter of the *CONTROL-M Administrator Guide*.

Aliases in other CONTROL-M components

Alternate names for the Time Zone parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	TIMEZONE
CONTROL-M/Server Utilities	-timezone
CONTROL-M for z/OS	TIMEZONE
CONTROL-M/EM API	time_zone

Example

Use the following parameters to schedule a job that runs at 5 P.M. Tokyo time:

```
Tasktype job  
time from 17:00  
Time Zone TOK
```

Week Days

Indicates the days of the week on which the job should be scheduled for processing.

Format

Usage	Optional
Format	<p>In the Job Editing form, this parameter can be specified using either a series of check boxes or a text box immediately below these check boxes. The information below is relevant for entry of Week Days information in the text box.</p> <p>The number used to represent each weekday depends upon a CONTROL-M system parameter that specifies whether 1= Sunday, or 1= Monday. Consult your CONTROL-M administrator to determine which standard is used at your site.</p> <p>Note: All examples shown below assume that 1=Sunday, 2=Monday, and so on, at your site.</p> <p>Note: The term <i>working days</i> in the following format descriptions refers to days marked in the calendar specified for the Weeks Calendar parameter.</p> <p>Valid formats for the Week Days parameter vary depending on whether a periodic calendar is specified as the Weeks Calendar.</p> <p>Formats for each type of calendar are specified separately, as described in “Periodic calendar format” on page 134 and “Non-periodic (regular) calendar Format” on page 135.</p>
Length	1-50 characters
Case sensitive	Yes
Invalid Characters	Blanks; single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Periodic calendar format

Format	Description
Rules	<p>In the following periodic scheduling formats:</p> <ul style="list-style-type: none"> ■ n is any integer from 0 through 6. ■ i is any valid period identifier. Valid values are: <ul style="list-style-type: none"> — any integer from 1 through 9 — any uppercase letter except N and Y — * (asterisk) – all periods ■ Week Days periodic identifiers are counted on a week-by-week basis. Calculations do not cross week boundaries (unlike Days periodic boundaries, which can cross month boundaries). ■ The name of a periodic calendar must be specified in the Weeks Calendar. ■ A maximum of eight periodic values can be designated, in any desired order:
Values	<ul style="list-style-type: none"> ■ DnPi,... – Order the job on the nth day of period i in each week from the beginning of the week. An * can be specified as: <ul style="list-style-type: none"> — the n value to represent all days — the i value to represent all periods ■ -DnPi,... – Order the job on all days of period i except the nth day of period i in each week from the beginning of the week. An * can be specified as the i value to represent all periods. ■ LnPi,... – Order the job on the nth day of period i in each week counting backward from the last periodic day of the week. An * can be specified as the i value to represent all periods. ■ -LnPi,... – Order the job on all days of period i except the nth day of period i in each week counting backward from the last periodic day of the week. An * can be specified as the i value to represent all periods.

Non-periodic (regular) calendar Format

Format	Description
Rules	<ul style="list-style-type: none"> ■ n – Any integer from 0 through 6, representing the days of the week. ■ Multiple values can be expressed in any order (separated by commas).
Values	<ul style="list-style-type: none"> ■ ALL – All days of the week. Do not specify any other value with ALL. ■ n,... – Specific days of the week. ■ +n,... – Specific day of the week in addition to working days. ■ -n,... – Days of the week on which a job cannot be ordered, even if they are working days. ■ >n, – Order the job on the indicated day if it is a working day; otherwise, order the job on the next working day. This format is frequently used for holiday handling. ■ <n, – Order the job on the indicated day if it is a working day; otherwise, order the job on the previous working day. This format is frequently used for holiday handling. <p>In the following Week Days formats, n represents a number of working days. n can be any integer from 0 through 6.</p> <ul style="list-style-type: none"> ■ Dn, – Order the job on the nth working day from the beginning of the week. ■ -Dn, – Order the job on all working days except the nth working day from the beginning of the week. ■ Ln, – Order the job on the nth working day from the end of the week (L1 represents the last working day of the week). ■ -Ln, – Order the job on all working days except the nth working day from the end of the week (L1 represents the last working day of the week). ■ DnWm, – (Where m is any integer from 1 through 6) If Weeks Calendar is defined, order the job on the nth working day of the mth week (partial or full) of the month. If Weeks Calendar is not defined, order the job on the mth occurrence of weekday n during the month. A maximum of 11DnWm specifications can be designated. <p>Note: A calendar must be specified for the Weeks Calendar parameter if the +n, -n, >n, <n, Dn, -Dn, Ln, or -Ln format is used for the Week Days parameter.</p>

Related parameters

Parameter	Description
Active	Indicates the start of a period of time during which the job or group scheduling table can be ordered or the Scheduling Tag can be used.
Days	Days of the month on which to order the job.
Days Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified days. This parameter may be mandatory for certain Days value formats.
And/Or	Indicates the relationship between specified Days values and Weekdays values.
Weeks Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified weekdays.
Confcal	Indicates the name of a CONTROL-M calendar that is used to validate scheduling dates. A specified shift value can be used to indicate how to handle jobs that are scheduled for a non-working day in the calendar.
Months	Indicates the months in which the job should be scheduled. Only days in the specified months are considered valid for scheduling the job.

General information

The job is ordered only on the days of the week marked in the list, and in the months specified in the Months parameter.

Negative values take precedence over positive values when determining whether a job should be scheduled on a certain date. If a negative value (-n, -Dn, -L, DnPi, or -LnPi) in either the Days or Week Days parameter prevents a job from being scheduled on a date, the job is not scheduled on that date even if a positive value (for example, Ln) would otherwise result in the job being scheduled on that date.

Identical negative and positive values (for example, -Dn, Dn) cannot be specified together.

NOTE

If the **And** option is selected (Month Days and Week Days), and no criteria are specified for either the Month Days or the Week Days parameter, CONTROL-M/EM assumes that **ALL** has been specified for the empty parameter. For example, if Monday is selected, and no days of the month are selected, the job is scheduled on all Mondays of the month.

If periodic and non-periodic values are mixed when specifying Week Days, processing depends upon the type of calendar specified in the Weeks Calendar parameter.

- If a non-periodic calendar is specified in the Weeks Calendar parameter, only non-periodic values are processed; periodic values are ignored.

- If a periodic calendar is specified in Weeks Calendar parameter, all periodic values and all negative non-periodic values (for example, -n) are processed; non-negative non-periodic values are ignored.



NOTE

You can use the CTMRPLN utility to generate a report describing when the job runs based on its currently specified scheduling dates. For more information, see the description of this utility in the *CONTROL-M Administrator Guide* for your computer.

Computer-specific information for z/OS

The Months parameter is ignored when periodic values (values containing a P character) are specified in parameter Week Days.

Aliases in other CONTROL-M components

Alternate names for the Week Days parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	WEEKDAYS
Reporting Facility	W_DAY_STR
CONTROL-M/Server Utilities	-weekdays
CONTROL-M for z/OS	WDAYS
CONTROL-M/EM API	week_days



NOTE

The following examples assume that the first day of the week in the installation is Sunday.

Example 1: Job scheduled on each Monday in March and September

Week Days 2

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Example 2: Job scheduled on every Saturday and Sunday of each month

Week Days 0,1

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input checked="" type="checkbox"/>											

Example 3: Schedule a job on each day in December

Week Days ALL

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>										

Example 4: Alter scheduling for different user-defined periods (z/OS format)

- Each week, schedule the job on the first day of period A, and on all days, except the 2nd day, of period B, in that week.

Week Days D1PA, -D2PB
 Weeks Calendar PERIDAYS

Periodic calendar PERIDAYS contains the following definitions:

--S-----	S-----	S-----	S-----	S-----	S-----
1 2 3 4 5 6 7 8 9 + 1 2 3 4 5 6 7 8 9 + 1 2 3 4 5 6 7 8 9 + 1	B C A A B B C A A B B C A A B B C A A B B				

The job is scheduled on the days of the month indicated by an asterisk:

--S-----	S-----	S-----	S-----	S-----	S-----
1 2 3 4 5 6 7 8 9 + 1 2 3 4 5 6 7 8 9 + 1 2 3 4 5 6 7 8 9 + 1	* *				

Weeks Calendar

Indicates the name of a calendar to be used to validate specified weekdays on which to order the job.

Format

Usage	Optional
Length	1-30 characters z/OS: 1-8 characters
Case sensitive	Yes
Invalid Characters	<ul style="list-style-type: none"> ■ Computers other than z/OS: Blanks; single quotation marks ■ z/OS: Blanks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Active	Indicates the start of a period of time during which the job or group scheduling table can be ordered or the Scheduling Tag can be used.
Days Calendar	Indicates the name of a CONTROL-M calendar that is used to validate specified days. This parameter may be mandatory for certain Days value formats.
And/Or	Indicates the relationship between specified Days values and Weekdays values.
Months	Indicates the months in which the job should be scheduled. Only days in the specified months are considered valid for scheduling the job.

General information

A calendar contains a list of days that can be used as a basis for scheduling jobs. For example, the days in the calendar can be working days, accounting days, or holidays.

- Any number of calendars can be defined, where each one corresponds to a different set of dates.
- Calendars are usually defined for the entire installation, though each user can define calendars for his/her own use. One calendar can be shared by many job processing definitions.
- The calendar does not have to exist when the job processing parameters are defined. Its actual existence is checked during New Day Processing.

NOTE

The Weeks Calendar parameter cannot be used together with the Dates parameter.



How this parameter works

- If no values are specified for the Week Days parameter, all working days in the specified Weeks Calendar are considered valid for job scheduling.
- If no Weeks Calendar is specified, all specified Week Days values are considered valid working days.
- When the Weeks Calendar parameter is specified with the Week Days parameter, the job is scheduled for execution only if all the indicated Week Days are also marked in the calendar.
- If the Weeks Calendar parameter is specified with a Week Days parameter that includes the + symbol, the job is scheduled for execution on those dates marked with a + (in the Week Days parameter), in addition to the dates marked in the calendar.
- If the Weeks Calendar parameter is specified with a Week Days parameter that includes the - symbol, the job is not scheduled for execution on those dates even if the date is marked in the calendar.
- The appropriate Months parameters must be checked.
- The And/Or relationship between Days and Weekdays is analyzed.

You can use the CONTROL-M CTMRPLN utility to generate a report describing when the job runs based on its currently specified scheduling dates. For more information, see the description of this utility in the *CONTROL-M Administrator Guide* for your computer.

Aliases in other CONTROL-M components

Alternate names for the Weeks Calendar parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	WEEKSCAL
Reporting Facility	WEEKS_CAL
CONTROL-M/Server	-weekcal
CONTROL-M for z/OS	WCAL
CONTROL-M/EM API	weeks_cal

Example 1: Schedule the job on every Monday in July and August that is a workday



NOTE

The following examples presume that the first day of the week is defined as Sunday at your site.

Week Days 2

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>					

Days WORKDAYS
Calendar

Example 2: Schedule the job on every Monday in July, whether it is workday, and each Tuesday in July that is a workday

Week Days +2,3

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>									

Days WORKDAYS
Calendar

Example 3: Schedule the job on every Friday in June, July and August that is a "half day"

Week Days 6

Months	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				

Days HALFDAYS
Calendar

Execution parameters

The parameters in this chapter are related to the execution of the job and the processes that accompany execution.

Table 4 Execution parameters - summary (part 1 of 2)

Parameter	Description
Confirm	A job in which the Confirm parameter is checked is not considered for submission until manually confirmed by the CONTROL-M/EM user.
Critical	When selected, indicates that the job is a critical-path job in CONTROL-M.
Cyclic	Indicates that the job will run at a designated time or interval of time.
Due Out	Time by which the job must finish executing. + num Days – The day by which the job must finish executing. The + num Days subparameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.
Max Wait	Specifies the number of extra days (beyond the original scheduling date) that the job is allowed to remain in the Active Jobs file awaiting execution.
Maximum Reruns	Specifies the maximum number of reruns that can be performed for the job.
Multi Agent	Specifies that job submission details be broadcast to all agents within a defined Node Group.
Node Group	Host name of a node group to which the job should be submitted. For more information, see Node ID/Group below.
Node ID	Name of a CONTROL-M/Agent or remote host computer to which a job was submitted. For more information, see Node ID/Group below.
Node ID/Group	Name of a CONTROL-M/Agent computer, remote host computer, or node group to which the job should be submitted. This parameter is used only for installations in which CONTROL-M/Agent technology is implemented. Note: Node groups can be specified only for certain CONTROL-M computers with CONTROL-M version 2.2.0 and later.

Table 4 Execution parameters - summary (part 2 of 2)

Parameter	Description
Prevent NCT2	Performs data set cleanup before the original job run.
Priority	Indicates CONTROL-M job priority.
Request NJE Node	Identifies the node in the JES network on which the job is to execute.
Rerun From	Indicates whether the interval between further runs of a cyclic job is counted from the start or the end of the previous job run.
Rerun Member	Name of the JCL member to use when the job is automatically rerun.
Scheduling Environment	Indicates the JES2 workload management scheduling environment that is to be associated with the job.
System Affinity	Indicates the identity of the system in which the job must be initiated and executed (in JES2). Indicates the identity of the processor on which the job must execute (in JES3).
Time From, Time Until	From sets the earliest date and time for submitting the job. Until sets the latest date and time for submitting the job.
Units	Specifies a unit of time for the numerical value indicated by the Interval parameter.

Confirm

Specifies whether user confirmation is required before the job is submitted for execution.

Format

Usage	Optional
Format	Select the Confirm check box to indicate that confirmation is required. The job's submission criteria are not evaluated until CONTROL-M receives manual confirmation from the user (using the Confirm/Restart option in the CONTROL-M/EM window). Clear the check box to indicate that confirmation is not required. The job's submission criteria are evaluated when the job is placed in the Active Jobs file, without the need for user confirmation.
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

If Confirm is selected, a status of WAIT USER is assigned to the job when it is placed in the Active Jobs file. When you confirm the job, it is submitted after the remaining submission criteria are satisfied.

Aliases in other CONTROL-M components

Alternate names for the Confirm parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	CONFIRM
CONTROL-M/Server Utilities	-confirm
CONTROL-M for z/OS	CONFIRM
CONTROL-M/EM API	confirm_flag

Alternate formats in other CONTROL-M components

Alternate formats for the Confirm parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	Valid values: ■ 0 - No confirmation required. Default ■ 1 - Confirmation required. Example <CONFIRM="1"/>
CONTROL-M/Server Utilities	Valid values: ■ N - No confirmation required. Default ■ Y - Confirmation required.
CONTROL-M for z/OS	Valid values: ■ N - No confirmation required. Default ■ Y - Confirmation required.

Critical

When selected, indicates that the job is a critical-path job in CONTROL-M.

Format

Usage	Optional
Format	Check box Selected – job is critical Cleared – job is not critical
Invalid Characters	Non-English characters

Related parameters

Priority	The Critical parameter takes precedence over the Priority parameter, when both are specified.
-----------------	---

General information

For non-z/OS computers

Defining a job as critical ensures that a job that requires resources is submitted as soon as possible after all its In Conditions parameters are satisfied. As a result of a job being defined as critical, any Quantitative resources or Control resources that the job requires exclusively are reserved for the job as they become available.

The preferential treatment given to a critical job is applied only after all the job's In Conditions parameters are satisfied.

The Critical parameter takes precedence over the Priority parameter (a low-priority job defined as critical is given preferential treatment over a non-critical high-priority job). However, if two critical jobs are awaiting execution at the same time, the higher-priority job receives resources before the lower-priority job.

Critical path priority applies to contention between Quantitative resources and between Control resources with Exclusive status. The critical path priority does not apply to contention with Control resources with Shared status.

For more information about the Priority parameter, see “[Priority](#)” on page 174.

For z/OS computers

The Critical parameter check box is replaced with a check box labeled **Emergency**. When selected, this marks the z/OS job as an Emergency job task type.

NOTE

[For z/OS jobs] The **Emergency** check box is marked if the job definition is created as a result of a CONTROL-M/EM utility and the Critical parameter was set to '1' (see below).

Availability

For non-z/OS computers, critical is available for jobs whose statuses are not Executing when editing details in the active environment.

Aliases in other CONTROL-M components

Alternate names for the Critical parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	CRITICAL
Reporting Facility	CRITICAL
CONTROL-M/Server Utilities	-critical
CONTROL-M/EM API	critical

Alternate formats for other CONTROL-M components

Alternate formats for the Critical parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	Valid values: ■ 1 - Job is critical. ■ 0 - Job is not critical. Default. Example <CRITICAL="1"/>
CONTROL-M/Server Utilities	Valid values: ■ Y - Job is critical. ■ N - Job is not critical. Default.

Example 1: Resource availability overrides critical status

If one tape drive is available, neither job is submitted. When two tape drives become available, job EBDUPDT is submitted.

Job EBDUPDT's priority level is 50, Critical is selected, and it requires two tape drives.

Item	Value
Mem Name	EBDUPDT
Quantitative Resources	TAPE 0002
Priority	50
Critical	Y

Job EBDEXEC's priority level is 04, and it requires one tape drive. It is not a Critical job.

Item	Value
Mem Name	EBDEXEC
Quantitative Resources	TAPE 0001
Priority	04
Critical	N

Example 2: Resource availability determines job submission

If one or two tape drives are available, neither job is submitted. When three tape drives become available, job EBDBKP is submitted.

Job EBDBKP's priority level is 8A, Critical is selected, and it requires three tape drives.

Item	Value
Mem Name	EBDBKP
Quantitative Resources	TAPE 0003
Priority	8A
Critical	Y

Job EBDMAINT's priority level is 70, Critical is selected, and it requires one tape drive.

Item	Contents
Mem Name	EBDMAINT
Quantitative Resources	TAPE 0001
Priority	70
Critical	Y

Cyclic

Indicates that the job will run at a designated time or interval of time.

Format

Usage	Optional
Format	Check box <ul style="list-style-type: none"> ■ Selected – job is cyclic ■ Clear – job is not cyclic

Subparameters

Parameter	Description
Run Interval	Fixed interval values to rerun a job: <ul style="list-style-type: none"> ■ Minutes: 0-64,800 ■ Hours: 0-1080 ■ Days: 0-45
Interval Sequence	List of time intervals (e.g. +30M,+2h,+1D) up to 4000 characters including commas. Value range: <ul style="list-style-type: none"> ■ Minutes: 0-64,800 ■ Hours: 0-1080 ■ Days: 0-45
Specific Times	A list of specific times, separated by commas, for the job to run (e.g. 0700,0945,1005,2300). 4000 characters including commas Note: This parameter supports time synonym.
Tolerance	Maximum delay in minutes permitted for a late submission when selecting a specific time (e.g. 5 minutes). Valid range: 0-999

Related parameters

Parameter	Description
Cyclic Type	Determines the type of cyclic job: <ul style="list-style-type: none"> ■ Rerun Interval ■ Interval Sequence ■ Specific Times
Rerun From	Determines from where the interval is counted when rerunning a cyclic job.
Do Stop Cyclic	Do Stop Cyclic overrides the Cyclic specification.

Parameter	Description
Maximum Reruns	Determines the maximum number of runs that are performed. This value overrides the number of runs specified in the Interval Sequence and Specific Times fields. For example, if the specific times are 07:00, 11:30, and 21:30, and the maximum rerun is 2, the job runs only twice.
Max Wait	Determines the maximum number of days a cyclic job can wait for submission.
Task Type	In z/OS environments, Cyclic is a value of the Task Type parameter, not a unique parameter.

General information

A non-cyclic job is a job that, if its scheduling criteria are satisfied, is ordered once by CONTROL-M on a given day (discounting reruns caused by a Do Rerun parameter or manual reruns).

A cyclic job is rescheduled after execution for an additional possible execution. The job executes again only when the following circumstances occur:

- The first run has completed.
- The runtime schedule and execution parameters are still satisfied.
- A specified number of minutes has elapsed since the last completion of the job or the next specified runtime has been reached.

The cyclic job runs at the time designated according to the time or time intervals selected. The Specific Time and the Tolerance parameters can be set to enable a job to run after the specified time. If the job being executed runs over the proceeding job's specified time, the proceeding job's execution time window is extended to the number of minutes set in the Tolerance field. For example, if the Tolerance field is set to 15 minutes, the proceeding job can still be executed 0-15 minutes after the specified time. If the tolerance time interval has passed, the proceeding job will not be performed.



NOTE

The Specific Time option is relevant for one odate only. Specific times are sorted from each new day time to the next.

Ordering a cyclic job as "non-cyclic"

The %%CYCLIC AutoEdit variable can be used to override the Cyclic parameter for a job, or for all jobs in a scheduling table.

This variable is normally used when ordering a cyclic job for a single run.

— EXAMPLE —

To indicate that all jobs ordered by the ctmorder utility (in CONTROL-M/Server) should run as non-cyclic jobs, include the following statement in the command line of the ctmorder utility.

```
-autoedi t %%CYCLIC N
```

Maximum number of days to wait for submission

The CYCLIC_MAXWAIT parameter for CONTROL-M/Server determines when cyclic jobs, which have executed at least once, should be removed from the Active Jobs file by the New Day procedure.

Valid values are:

- **KEEP** – Jobs are removed from the Active Jobs file when **MAXWAIT** days have passed regardless of whether the job ended **OK**. Default.
- **NOT_KEEP** – Jobs (non-cyclic and cyclic) are removed from the Active Jobs file at the next run of the New Day procedure. Cyclic jobs are not removed if they are executing when the New Day procedure begins. Instead, they are removed at the run of the following New Day procedure.

For more information about CONTROL-M/Server parameters, see the *CONTROL-M Administrator Guide*.

Special care should be taken when specifying a cyclic job. If not defined appropriately it may cause an endless loop in which the job is continually resubmitted for execution.

If a cyclic job is executing when the New Day procedure is run, the job is changed to non-cyclic and an appropriate message is written to the CONTROL-M log. It is the user's responsibility to review these messages and handle them accordingly.

Terminating a cyclic job

You can prevent subsequent iterations of a cyclic job by using the Do Stop Cyclic parameter. For more information, see “[Do Stop Cyclic](#)” on page 252.

If a cyclic job is terminated by a **Do Stop Cyclic** parameter, the View Details screen displayed by option Z in the **ctmpsm** utility contains **Cyclic:T** where T indicates “Terminated”.

Availability

For z/OS jobs

- Cyclic jobs cannot contain Do Rerun parameters or Shout When Rerun parameters.

Aliases in other CONTROL-M components

Alternate names for the Cyclic parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	CYCLIC
Reporting Facility	CYCLIC
CONTROL-M/Server Utilities	-cyclic
CONTROL-M for z/OS	Cyclic is a Task Type parameter value, not a unique parameter. For more information, see “Task Type” on page 75.
CONTROL-M/EM API	cyclic

Due Out

Sets the time by which, and the day by which, the job must finish executing.

Format

Usage	Optional
Format	A 4-digit number in the format hhmm, where <ul style="list-style-type: none"> ■ hh is the hour the job is due out, based on the 24-hour clock ■ mm is the minute the job is due out
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameter

+ **num Days** sets the number of days that job execution can be extended after the ODAT. In this subparameter, *num* is a 3-digit number from 0 through 120, or is blank.

NOTE

The + **num Days** subparameter is relevant only for jobs running in CONTROL-M for z/OS version 6.2.00 or later.



General information

If two jobs with the same priority are available for submission, CONTROL-M submits the job with the earlier Due Out date and time first.

If the Due Out field is left blank, and + *num* Days is not used to set an offset date, the default Due Out time is the last minute of the working day.

If + *num* Days is used to set an offset date and the Due Out field is left blank, the default Due Out time is the last minute of the working day of the offset date.

Examples

1. Assume the following:

- The original scheduling date (Odate) is January 20.
- The Due Out field is blank.
- The + *num* Days field is blank.

The job must finish executing by the last minute before the New Day procedure runs at the end of the January 20 working day.

2. Assume the following:

- The Odate is January 20.
- Due Out is set to 1700.
- + *num* Days is blank.

The job must finish executing by 5 P.M. on January 20.

3. Assume the following:

- The Odate is January 20
- Due Out is set to 1700
- + *num* Days is set to + 3 days.

The job must finish executing by 5 P.M. on January 23.

Interval

Specifies the length of time to wait between reruns of a job or between cyclic runs of a job.

Format

Usage	Optional Note: When defining a cyclic job with an Interval parameter with the default value of 0 , if the default is not changed, the job runs continuously when submitted for execution.
Format	Valid values: <ul style="list-style-type: none"> ■ 0 to 64800 (for minutes) ■ 0 to 1080 (for hours) ■ 0 to 45 (for days) Default: 0 Note: The unit of measurement is determined by the Units parameter, described on page 194 . If no Units parameter value is specified, the default is Minutes .
Case sensitive	No
Invalid Characters	Blanks; single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Cyclic	Indicates if the job is cyclic (to be rerun at regular intervals).
Units	Indicates units of measurement (minutes, hours, and days) the amount of which is determined by the Interval parameter.

General information

A From field can be included in the Interval specification. This field indicates if the time for the next run of the job should be calculated from the beginning or from the end of the previous run of the job.

A job can be run more than once from a given job order when

- the job's completion status was set to Rerun using a Do Rerun parameter
 - or-
- the job is defined as Cyclic

CONTROL-M waits at least the number of minutes specified by the Interval parameter before it attempts the next rerun of the job or before the next run of a cyclic job.

The Interval period can be calculated from either the start or the end of the previous job run, as determined by the Rerun From parameter. For more information, see ["Rerun From" on page 179](#).

The job is re-submitted after

- the specified number of minutes have elapsed from the last rerun, or from the start or end of the last run of a cyclic job
 - and-
- all submission criteria are satisfied

Availability

For CONTROL-M/Server version 2.2.4 and 2.2.5 Jobs

- Interval is relevant only when Cyclic is selected. However a value can be specified in CONTROL-M/EM and CONTROL-M/Desktop for the Interval parameter even for non-cyclic jobs. In this case, the interval is ignored.
- The From subparameter not displayed in CONTROL-M/EM or CONTROL-M/Desktop.

For z/OS version 6.0.0x, and 6.1.03 jobs

- The From subparameter is relevant
 - for cyclic jobs
 - for non-cyclic jobs with a MAXRERUN parameter specified

For z/OS version 5.1.4x jobs

- The From subparameter is not displayed in CONTROL-M/EM or CONTROL-M/Desktop.

Aliases in other CONTROL-M components

Alternate names for the Interval parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	INTERVAL
Reporting Facility	INTERVAL
CONTROL-M/Server Utilities	-interval
CONTROL-M for z/OS	INTERVAL
CONTROL-M/EM API	rerun_interval

Alternate formats for other CONTROL-M components

Alternate formats for the Interval parameter are listed below.

Component	Format
CONTROL-M for z/OS	<p>INTERVAL combines the functionality of the Interval, Rerun From, and Units parameters.</p> <p><interval-number> Valid values: <ul style="list-style-type: none"> ■ 0 to 64800 (for minutes) ■ 0 to 1080 (for hours) ■ 0 to 45 (for days) </p> <p><interval-type></p> <p>A single character describing the type of data specified in the INTERVAL field. Valid values are: <ul style="list-style-type: none"> ■ D - (Days) – Maximum INTERVAL value is 45. ■ H - (Hours) – Maximum INTERVAL value is 1080. ■ M - (Minutes) – Maximum INTERVAL value is 64800. Default. </p> <p>FROM</p> <p>Similar to the Rerun From parameter. Valid values. <ul style="list-style-type: none"> ■ STRT – Measures the interval from the start of the current job run. Default. ■ END – Measures the interval from the end of the current job run. ■ TRGT – Measures the interval before the next cycle of the job from when the current job run is scheduled. </p>

Max Wait

Specifies the number of extra days (beyond the original scheduling date) that the job is allowed to remain in the Active Jobs file awaiting execution. If the job still has not run after the specified number of days, the job is removed from the Active Jobs file.

Format

Usage	Optional
Format	An integer from 0 through 98 (days), or 99 (no limit) For more information, see Table 5 on page 160 .
Default	0
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The Max Wait parameter is used to handle the following types of occurrences:

For non-cyclic jobs

- A job that is scheduled for execution on a specific day is not always submitted that same day. This may be due to any number of reasons, such as a heavy production workload, a problem in one of the job's predecessors causing a process to stop, or a hardware failure. When Max Wait is assigned a value greater than zero, the job is retained in the Active Jobs file up to the specified number of days, allowing the job additional opportunities to be submitted.
- A job that ends **NOTOK** during the night can be deleted from the Active Jobs file during the execution of the New Day procedure the next morning. Using the Max Wait parameter, the user can retain an overnight job that ends **NOTOK** in the Active Jobs file for a number of days, allowing the operator an opportunity to correct the problem and rerun the job without the need to re-order the job.

For cyclic jobs

- If **CYCLIC_MAXWAIT** (CONTROL-M parameter) is set to **KEEP** (default), the Max Wait parameter does not depend on whether the job ended **OK** or **NOTOK**. Cyclic jobs are only deleted from the Active Jobs file after the expiration of the Max Wait parameter.

- If CYCLIC_MAXWAIT is NOT_KEEP, Cyclic jobs are removed from the Active Jobs file at the next run of the New Day procedure, unless they are executing when the New Day procedure begins. In this case, they are removed at the run of the following New Day procedure.

Max Wait parameter effects

The effect of the value specified for the Max Wait parameter is described in [Table 5](#):

Table 5 Max Wait parameter values

Max Wait 0	The job is deleted from the Active Jobs file if it did not execute on its scheduling date.
Max Wait n (n = 1-98)	The job is retained in the Active Jobs file for the stated number of additional days beyond its original scheduling date (Odate) or until submitted for execution (and execution ends OK).
Max Wait 99	The job remains in the Active Jobs file indefinitely (or until it is manually deleted), even if it finishes executing.

Computer-specific information for z/OS

If a non-cyclic job that was run on a CONTROL-M installation on an z/OS computer was rerun by the operator and ended NOTOK, it is deleted from the Active Jobs file when the New Day procedure runs, regardless of the value specified in the Max Wait parameter.

Aliases in other CONTROL-M components

Alternate names for the Max Wait parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	MAXWAIT
Reporting Facility	MAX WAIT
CONTROL-M/Server Utilities	-maxwait
CONTROL-M for z/OS	MAXWAIT
CONTROL-M/EM API	max_wait

Example 1: Retain job until resources available

Retain a scheduled job indefinitely, until the runtime resources required for the job are available:

Max Wait 99

Example 2: Retain job beyond original scheduling date

Retain a job for an extra three days beyond its original scheduling date:

Days 02, 04, 06
Max Wait 03

Assume that the job does not run due to the absence of the required runtime resources. The job that is scheduled for day 2 of the month waits from the second through the fifth to be executed.

On the sixth of the month, CONTROL-M “gives up,” and the job that was originally scheduled for day 2 is deleted. The jobs scheduled for days 4 and 6 wait until as late as days 7 and 9 respectively to be executed.

Example 3: Schedule a job for periods when the computer is inactive

Schedule the job for every working day, whether the computer is active. Allow each scheduled job three extra days to execute:

Days Calendar WORKDAYS
Retro Y
Max Wait 03

Given the following circumstances:

- The WORKDAYS calendar, specified in the Days Calendar parameter, contains the values 15, 16, 17, and 19.
- The computer was off-line from day 15 up to and including day 18.

When the computer is brought back online on day 19, the job is scheduled four times, with original scheduling dates (Odate) of the 15, 16, 17 and 19, respectively. Each scheduled job that does not execute successfully (, either not submitted or did not end OK) is handled as follows by CONTROL-M:

- The job with Odate 15 is retained on day 19 and deleted from the Active Jobs file on day 20 even though the Max Wait period of three days has already passed since each job with Retro Y is given at least one day to run.
- The job with Odate 16 is deleted on day 20 since day 19 is the last day of the Max Wait period of three days.

- The job with Odate 17 is deleted on day 21 since day 20 is the last day of the Max Wait period of three days.

The job with Odate 19 is deleted on day 23 since day 22 is the last day of the Max Wait period of three days.

Maximum Reruns

Specifies the maximum number of reruns that can be performed for the job.

Format

Usage	Optional
Length	An integer from 0 through 99 . z/OS: There is a difference between cyclic jobs and regular jobs: <ul style="list-style-type: none">■ Cyclic jobs – an integer from 0 through 9999■ Regular jobs – an integer from 0 through 255.
Default	0
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Do Remedy	Specifies when a job is to be rerun.
Cyclic	Indicates that the job is rerun on a regular basis.

General information

When the job's completion status is set to Rerun using the Do Rerun parameter, CONTROL-M checks the number of reruns specified in the Maximum parameter. If the number in the Maximum parameter is greater than the number of reruns that have already been performed for the job, a rerun (automatic rerun) process is performed for the job.



NOTE

This parameter cannot be specified for a cyclic job running on a version of CONTROL-M earlier than 6.1.00. This parameter can be specified for a cyclic job running on CONTROL-M version 6.1.00 or later.

When a job is assigned **Rerun** status, the job is not rerun if either

- **maximum = 0**
- or*-
- the number of reruns specified in this parameter has already been performed

CONTROL-M waits at least the number of minutes specified by the Interval parameter before it attempts the next rerun of the job.

The job is re-submitted after

- The specified number of minutes has elapsed from the last rerun
-and-
- all submission criteria are satisfied

A rerun counter is displayed on the Active panel of the Job Editing form, indicating how many times the job has been rerun from the current job order.

Computer-specific information for z/OS

When a job is first run, the MAXRERUN field in the Active environment, that is, in the Zoom screen, contains the same value as the MAXRERUN parameter in the job scheduling definition. However, in the Active environment MAXRERUN works as a “reverse-counter” of automatic reruns. Each time the job is automatically rerun, the value is decreased by one until the field contains a value of zero.

The automatic rerun process works as follows:

1. CONTROL-M determines that automatic rerun is possible only if the job ENDS NOTOK and a specified DO RERUN statement is activated during post-processing. If the monitor determines that automatic rerun is possible, it sets the status of the job to ENDED NOTOK – RERUN NEEDED.
2. The monitor then checks the value of MAXRERUN in the Active environment. If the value is zero, automatic rerun is not possible and the job is not submitted for rerun. If the value is greater than zero, rerun is possible and the monitor submits the job for rerun when all runtime criteria are satisfied.
3. The JCL for the rerun job is taken from the member specified in the RERUNMEM parameter. If no RERUNMEM value is specified, the JCL for the rerun is taken from the regular JCL member of the job that is specified in the MEMNAME parameter.

MAXRERUN applies only to automatic reruns. The MAXRERUN counter is not affected by reruns performed manually using the Rerun option in the CONTROL-M for z/OS Active Environment screen.

If a job is defined as cyclic, the MAXRERUN parameter can be used to specify the number of iterations. This number excludes the initial run of the job.

Availability

For CONTROL-M/Server version 2.2.4, 2.2.5, 6.0.05 and z/OS version 5.1.4x jobs

- The Maximum (MAXRERUN) parameter is available for non-cyclic jobs only in both CONTROL-M/EM and CONTROL-M/Desktop.

Aliases in other CONTROL-M components

Alternate names for the Maximum parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	MAXRERUN
Reporting Facility	MAX RERUN
CONTROL-M/Server Utilities	-maxrerun
CONTROL-M for z/OS	MAXRERUN
CONTROL-M/EM API	rerun_max

Multi Agent

Specifies that job submission details be broadcast to all agents within a defined Node Group. All available agents in the Node Group run an identical job, and each such job has a unique Order ID.

NOTE

Multi Agent cannot be specified for z/OS jobs.



Format

Usage	Optional
Default	No
Format	Check box <input type="checkbox"/> Selected – Multi Agent job <input type="checkbox"/> Cleared – Not a Multi Agent job
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Node Group	Specifies the CONTROL-M/Agent node group to which the job is submitted. The job is submitted to only one agent in the specified node group, instead of submitting it to all agents in the node group (as when Multi Agent is selected).
Node ID/Group	Specifies the CONTROL-M/Agent node ID or node group to which the job is submitted. The job is submitted to only the specified node ID or one agent in the specified node group, instead of submitting it to all agents in the node group (as when Multi Agent is selected).

General information

The job is processed by all the agents specified for the Node ID/Group parameter or the Node group parameter (in the Active environment, only). A node group must be specified for the Node ID/Group parameter or the Node Group parameter. For more details, see “[Node ID/Group](#)” on page 168.

For example, you can run a job that detects the amount of disk space available on the computer on which the job was run. By specifying Yes Multi Agent, the job checks the available disk space on every agent computer in the specified Node Group.

Computer-specific issues

This parameter does not work with z/OS jobs.

Aliases in other CONTROL-M components

Alternate names for the Multi Agent parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	MULTY_AGENT
Reporting Facility	MULTY AGENT
CONTROL-M/Server Utilities	-multiagent
CONTROL-M/EM API	multiagent

Example: Submit a job to all agents in a node group

Specify the following parameter in CONTROL-M/Server ctmcreate utility to submit a job for processing by all agents in the Group **PRODUCTION**.

```
ctmcreate -tasktype job  
-multiagent y  
-nodegrp PRODUCTION
```

Node ID/Group

Name of a CONTROL-M/Agent computer, remote host computer, or node group to which the job should be submitted.

This parameter is used only for installations in which CONTROL-M Agent technology is implemented, for certain computers with CONTROL-M version 2.2.0 or later. It is not relevant in z/OS environments.

NOTE



In the job editing form prior to CONTROL-M/EM version 6.3.01, the **Application Node Group** parameter was tightly linked to the **Application** parameter. Beginning with CONTROL-M/EM version 6.3.01, you select the application node group in the **Node ID/Group** field (in the Execution tab of the job editing form).

Format

Usage	Optional Note: If this parameter is left blank, the job is submitted for execution on the CONTROL-M/Server computer.
Length	1 through 50 characters
Case Sensitive	No
Invalid Characters	Blanks; single quotation marks.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

- To submit the job to CONTROL-M/Agent or remote host on a specific computer, specify the host name of the computer.
- To submit the job on the server computer, leave this parameter blank.
- To submit the job using the load balancing mechanism, specify the group name representing the collection of computers that are capable of executing the job. The group name must be defined in the installation.

NOTE



Node groups can be specified only for certain CONTROL-M computers with CONTROL-M version 2.2.0 and later.

**NOTE**

When moving from primary to secondary server or from secondary to primary server, jobs that are in executing state on the default local agent are not recognized by the other server. If there are jobs without an owner, both the primary and the secondary server must have the same account name.

To avoid this situation from occurring, define a specific nodeid for a job. For more information about failover, see the *CONTROL-M Administrator Guide*.

Node ID/Group in the active environment

The Node/ID/Group parameter is divided into two separate parameters in the Job Editing form in the CONTROL-M/EM GUI. These parameters are Node ID and Node Group.

Table 6 Node ID and Node Group parameter descriptions

Parameter	Description
Node ID	Displays the name of the node on which the job was most recently run. This field is not user-configurable.
Node Group	Name of the node or node group on which following iterations of a job is run. Note: This feature is available only in the active environment.

**NOTE**

The Node ID and Node Group parameters are not available for jobs on CONTROL-M for z/OS.

Aliases in other CONTROL-M components

Alternate names for the Node ID/Group parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	NODEID
Reporting Facility	<ul style="list-style-type: none"> ■ NODE_ID ■ NODEGROUP
CONTROL-M/Server Utilities	-nodegrp
CONTROL-M/EM API	node_group

Example: Enable CONTROL-M/Server to determine the most suitable agent

Assuming that a node group called **UNIX_group** contains agent computers **bill** and **diana**.

The following parameter causes CONTROL-M/Server to determine which of the two agent computers in the group is best suited to execute the job when it is submitted for execution:

Node ID/Group UNI X_group

Prevent NCT2

Performs data set cleanup before the original job run.

 **NOTE**

For z/OS jobs only.

Format

Usage	Optional
Format	Select one of the following from the Prevent NCT2 list box: <ul style="list-style-type: none"> ■ Blank – Do not perform data set cleanup before the original job run. Default. ■ N (No) – Do not perform data set cleanup before the original job run. ■ Y (Yes) – Perform data set cleanup before the original job run. This value is not valid for started tasks. ■ L (List) – Do not perform data set cleanup before the original job run; but generate the messages that would be required for GDG adjustment during restart. ■ F (Flush) – Halt processing of the job if any data set cleanup error is detected (even if z/OS would not have stopped processing the job).
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

If a job tries to create a data set that already exists, the job may fail with a DUPLICATE DATA SET ON VOLUME error. If a job tries to create a data set whose name is already cataloged, the job may fail with an error message that indicates a reason of NOT CATLGD for reason code 2 (the CONTROL-M/Restart term PREVENT-NCT2 is derived from this error situation).

These problems can be avoided by performing data set cleanup. During data set cleanup, CONTROL-M/Restart does the following:

- Deletes and uncatalogs the old data sets. This prevents DUPLICATE DATSET ON VOLUME and NOT CATLGD 2 errors.
- Performs Generation Dataset (GDG) Adjustment, which is described in the *CONTROL-M/Restart User Manual*.

CONTROL-M/Restart automatically performs data set cleanup prior to restarts and reruns. However, it may be desirable to perform data set cleanup before the original job run, because data sets accessed by the job can have file-related errors that were generated by an entirely different job.

When data set cleanup is performed as part of the original job request, it is called PREVENT-NCT2 processing.

The site-defined default in parameter NCT2 in member CTRPARM determines whether data set cleanup is to be performed before the original job run.

The Prevent NCT2 parameter can be used to override this default to determine what data set cleanup instructions are provided to the original job run. Possible values, and their effects, are described below:

- When **N** is specified, No special action is taken by CONTROL-M/Restart. Data set cleanup is not performed.
- When **Y** is specified, CONTROL-M/Restart performs data set cleanup before the original job run. It deletes and uncatalogs all data sets that can cause NCT2 and duplicate data set errors during execution, and performs GDG adjustment if necessary.
- When **L** is specified, data set cleanup is not performed for the original run, but messages that would be required for GDG adjustment during restart are generated. Without these messages, GDG adjustment might not be properly performed during restart. In addition to the GDG adjustment messages, the same messages that are generated during simulation of data set cleanup are also generated.

- When **F** is specified, If a file catalog error is detected, processing is halted (even if normal z/OS processing would not handle the problems as a fatal error) and an appropriate error message is generated.

NOTE



If you would normally specify **N** (that is, CONTROL-M/Restart processing is not desired for the original run), but the JCL requires GDG processing, BMC Software recommends that you specify value **L** instead of value **N**.

If a value of **Y**, **L**, or **F** is specified (that is, if some kind of special NCT2 processing is desired), a CONTROLR step is automatically added as a first step of the submitted job.

The PREVENT NCT2 parameter has no impact on restarts, because CONTROL-M/Restart automatically performs data set cleanup prior to restarts.

Aliases in other CONTROL-M components

Alternate names for the Prevent NCT2 parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	PREVENTNCT2
Reporting Facility	PREVENT NCT2
CONTROL-M for z/OS	PREVENT-NCT2
CONTROL-M/EM API	prevent_nct2

Alternate formats for other CONTROL-M components

Alternate formats for the Prevent NCT2 parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	Valid values: <ul style="list-style-type: none"> ■ 0 - No. Does not prevent data set cleanup. ■ 1 - Yes. Prevents data set cleanup. Example <code><PREVENTNCT2="1"/></code>

Component	Format	
CONTROL-M for z/OS	PREVENT-NCT2 is composed of two parameters: PREVENT-NCT2 Valid values: <ul style="list-style-type: none"> ■ N - No ■ Y - Yes ■ L - List ■ F - Flush These values are described in “Format” on page 170.	
	DFLT	Protected field indicating the PREVENT-NCT2 default value for the CONTROL-M for z/OS site. The default is set in parameter NCAT2 in the CTRPARM member in the IOA PARM library. A value specified in the PREVENT-NCT2 parameter overrides the site default.

Example: Prevent NOT CATLGD 2 errors for job PRDKPL01

```

JOB: PRDKPL01 LIB CTM. PROD. SCHEDULE TABLE: PRODKPL
COMMAND ==> SCROLL==> CRSR
+-----+
-----+
MEMNAME PRDKPL01 MEMLIB CTM. PROD. JCL
OWNER SYS1 TASKTYPE JOB PREVENT-NCT2 Y DFLT N
APPL KPL GROUP PROD-KPL
DESC DAILY PRODUCTI ON - START OF APPL-PROD-KPL
OVERLIB
SET VAR
CTB STEP AT NAME TYPE
DOCMEM PRDKPL01 DOCLIB CTM. PROD. DOC
=====
=====
DAYS 01 DCAL
AND/OR
WDAYS WCAL
MONTHS 1- Y 2- Y 3- Y 4- Y 5- Y 6- Y 7- Y 8- Y 9- Y 10- Y 11- Y 12- Y
DATES
CONFICAL SHIFT RETRO Y MAXWAIT 00 D-CAT
MINIMUM PDS
=====
=====
IN START-DAI LY-PROD-KPL ODAT
CONTROL DB2-MAIN-FILE E
RESOURCE INIT 0001 CARTRIDGE 0001
COMMANDS: EDIT, DOC, PLAN, JOBSTAT 11.17.00

```

Priority

Indicates CONTROL-M job priority.

Usage	Optional
Format	2 alphanumeric characters
Default	Blank, which is the lowest priority
Case Sensitive	No.
Invalid Characters	Single quotation marks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

Priority determines the order of job processing by CONTROL-M in the Active Jobs file.

- Priority order is such that **9 > 0 > Z > A**. The characters are not case sensitive.
- The value for the priority parameter is a 2-character string. AA is the lowest priority. 99 is the highest. If a single character is specified, the uppercase letter **A is automatically inserted as the first character**. For example, **priority 1** is treated as **priority A1**.
- The next line shows priority values from the lowest (on the left) to the highest (on the right):

AA-A9 . . . ZA-Z9, OA-OZ, 01-09, 1A-19 . . . 9A-99

If a job that is waiting to be submitted because Quantitative resources are not available, has a higher priority than a job that has all the Quantitative resources available, the lower priority job is submitted. However, by defining a job as critical, the user can force CONTROL-M to reserve resources for the job, thus assuring that it is submitted as soon as possible (for additional details, see “[Critical](#)” on page 147.).

Consult authorities at your installation for information about your priority usage standards.

For z/OS computers

A job may be so important that lower priority jobs must not be submitted until the important job has executed. Such a job is called a critical path job. If the first character of Priority in z/OS jobs is set to * (Asterisk), the job is marked as a critical path job.

There is no relationship between the Critical parameter and the Priority parameter.

Aliases in other CONTROL-M components

Alternate names for the Priority parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	PRIORITY
Reporting Facility	PRIORITY
CONTROL-M/Server Utilities	-priority
CONTROL-M for z/OS Utilities	PRIORITY
CONTROL-M/EM API	priority

Example

The priority level of the job named RNDIN001 is 08; the priority level of the job named RNDIN002 is 04. Each job requires 60% of the CPU.

Mem Name	RNDIN001
Quanti tative Resources	CPU 60
Pri ority	08
Mem Name	RNDIN002
Quanti tative Resources	CPU 60
Pri ority	04

The two jobs cannot run simultaneously. Therefore, the job named RNDIN001 is submitted first because it has a higher priority.

Request NJE Node

Specifies the node in the JES network on which the job is to execute.

NOTE

This field is relevant only for z/OS jobs.



Format

Usage	Optional
Length	1-8 characters
Case Sensitive	No
Invalid Characters	Blanks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The Request NJE Node parameter is used to specify the node in the JES network on which the job is to execute.

If a value is specified for the Request NJE Node parameter, a JCL statement is generated. The precise form of the statement depends on whether CONTROL-M is running under JES2 or JES3.

NOTE

If a value is specified for the Request NJE Node parameter, it does not override any node name specified in the job statement unless the OVERJCLM parameter in the CTMPARM library is set to Y.



Under JES2

If CONTROL-M is running under JES2, the Request NJE parameter generates the following JCL statement:

```
/*ROUTE XEQ node_name
```

Under JES3

If CONTROL-M is running under JES3, the JCL statement generated by the Request NJE parameter differs slightly, taking the following form:

```
//ROUTE XEQ node_name
```

Aliases in other CONTROL-M components

Alternate names for the Request NJE Node parameter are listed below.

Component	Parameter Name
CONTROL-M for z/OS	NJE NODE
CONTROL-M/EM API	request_nje

Example1: Under JES2

The following values are entered to the job processing definition:

```
DESC
OVERLIB
SCHENV SYSTEM ID NJE NODE OS35
```

The following statement is added to the JCL of the job:

```
/*ROUTE XEQ OS35
```

The job is executed at node **OS35**.

Example 2: Under JES3

The following values are entered to the job processing definition:

```
DESC
OVERLIB
SCHENV SYSTEM ID NJE NODE OS35
```

The following statement is added to the JCL of the job:

```
/*ROUTE XEQ OS35
```

The job is executed at node OS35.

Rerun From

Indicates whether the interval between runs of a cyclic job or until the start of a rerun job is measured from the start or the end of the previous job run.

Table 7 Format - Rerun From Parameter

Usage	Optional
Format	List box Valid values: ■ Start (Default) ■ End ■ Target
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The interval between job runs is specified in the Interval parameter.

- When the value of Rerun From is **Start**, the time until the next job run is counted from the moment that the current job run begins.
- When the value of Rerun From is **End**, the time until the next job run is counted from the moment that the current job run is complete.
- When the value of Rerun From is **Target**, the interval is measured from the scheduling time of the current job run.

Aliases in other CONTROL-M components

Alternate names for the Rerun From parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	IND_CYCLIC
Reporting Facility	IND CYCLIC
CONTROL-M/Server Utilities	-intervalfrom (Default value: START)
CONTROL-M/EM API	count_cyclic_from

Example 1: Calculate the interval between cyclic jobs when Rerun From is Start

Job_A is a cyclic job. The value specified for Interval is 60 seconds. The **Rerun From** value is **Start**.

If Job_A job run takes 15 seconds, the next run of Job_A begins 45 seconds after the first run is complete.

Example 2: Calculate the interval between cyclic jobs when Rerun From is End

Job_B is a cyclic job. The value specified for Interval is 60 seconds. The Rerun From value is **End**.

When the Job_B job run is complete, the next run of Job_B begins 60 seconds after the first run is complete. The length of time that it takes to run Job_B does not affect the period of time between job runs.

Rerun Member

Name of the JCL member to use when the job is automatically rerun.



NOTE

This field is relevant only for z/OS jobs.

Format

Usage	Optional.
Length	1-8 characters
Case Sensitive	Yes
Invalid Characters	Blanks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Do Forcejob	The Do Forcejob parameter is a more flexible alternative to the Rerun Member parameter.
Do If Rerun	CONTROL-M/Rerun users can restart a failed job using the Do If Rerun parameter instead of Rerun Member. Do If Rerun and Rerun Member cannot be specified together.
File Name/Mem Name	When specified, the Rerun Member value overrides the Mem Name value.

General information

Although the Rerun Member parameter can be used to specify the name of a JCL member to use for automatic rerun, note the following points:

- The Do Forcejob parameter provides a more flexible alternative to the Rerun Member parameter.
- CONTROL-M/Rerun users can use the Do If Rerun parameter to restart the failed job instead of using the Rerun Member parameter to rerun the job.

The automatic rerun process works as follows:

- CONTROL-M determines that automatic rerun is possible only if the job ends NOTOK and a specified Do Rerun statement is activated during post-processing. If CONTROL-M determines that automatic rerun is possible, it sets the job's status to ended NOTOK – RERUN NEEDED.
- CONTROL-M then checks the value of MAXRERUN in the Active environment. If the value is zero (or no MAXRERUN value was specified), automatic rerun is not possible and the job is not submitted for rerun. If the value is greater than zero, rerun is possible and the monitor submits the job for rerun when all runtime criteria are satisfied. Runtime criteria include not only the Runtime Scheduling parameters, but also the Interval parameter, which specifies the minimum allowable interval between runs of the same job.
- The JCL for the rerun job is taken from the member specified in the Rerun Member parameter. If no Rerun Member value is specified, the JCL for the rerun is taken from the job's regular JCL member specified in the Mem Name parameter.

Rerun Member has additional characteristics:

- The member name can be the same as, or different from, the job name.
- The member specified in the Rerun Member parameter must be in the library specified in the Mem Lib parameter.
- The Rerun Member parameter overrides the Mem Name parameter value in the JCL, and the Mem Name parameter value becomes irrelevant for reruns.

Availability

- This parameter is relevant only for z/OS jobs.
- The Do If Rerun and Rerun Member parameters cannot be specified together.
- The Rerun Member parameter cannot be specified for cyclic jobs and cyclic started tasks.

Aliases in other CONTROL-M components

Alternate names for the Rerun Member parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	RERUNMEM
Reporting Facility	RERUN MEM
CONTROL-M for z/OS Utilities	RERUNMEM
CONTROL-M/EM API	rerun_member

Scheduling Environment

Indicates the JES2 workload management scheduling environment that is to be associated with the job.

NOTE

This field is relevant only for z/OS jobs.



Format

Usage	Optional
Length	1 through 16 characters
Case Sensitive	Yes
Invalid Characters	Blanks; non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The Scheduling Environment parameter can only be used when CONTROL-M is running under JES2. If CONTROL-M is running under JES3, any value specified for the Scheduling Environment parameter is ignored.

If a value is specified for the Scheduling Environment parameter, the JCL job statement is modified by the addition of a statement in the following form:

```
// SCHENV=schedule_environment
```

NOTE

If a value is specified for the Scheduling Environment parameter, it does not override any scheduling environment specified in the job statement unless the OVERJCLM parameter in the CTMPARM library is set to Y.



Aliases in other CONTROL-M components

Alternate names for the Scheduling Environment parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	SCHEDULING_ENVIRONMENT
Reporting Facility	SCHEDULE ENV
CONTROL-M for z/OS	SCHENV
CONTROL-M/EM API	schedule_environment

Example: Specifying a scheduling environment

If the scheduling environment of job ACCT01 is to be SCHD2, specify the following:

```
DESC
OVERLIB
SCHENV SCHD2 SYSTEM ID NJE NODE
```

The job statement is modified as follows:

```
//ACCT01 JOB ,PROD1,CLASS=A,MSGCLASS=X,
// MSGLEVEL=(1, 1),
// SCHENV=SCHD2
```

System Affinity

Indicates the identity of the system in which the job must be initiated and executed (in JES2).

Indicates the identity of the processor on which the job must execute (in JES3).

NOTE

This field is relevant only for z/OS jobs.



Format

Usage	Optional
Length	1-4 characters
Case Sensitive	No
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

General information

The System Affinity parameter has different effects, depending on which release of JES is in use.

NOTE

If a value is specified for the System Affinity parameter, it does not override any system identity specified in the job statement unless the OVERJCLM parameter in the CTMPARM library is set to Y.



Under JES2

If CONTROL-M is running under JES2, the System Affinity parameter is used to specify the JES2 system on which the job is to be initiated and executed.

If a value is specified for the System Affinity parameter, the following JCL statement is generated:

```
/*JOBPARM SYSAFF=sys_id
```

Under JES3

If CONTROL-M is running under JES3, the System Affinity parameter is used to specify the JES3 processor that is to execute the job.

If a value is specified for the System Affinity parameter, the following JCL statement is generated:

```
///*MAI N SYSTEM=processor_i d
```

Aliases in other CONTROL-M components

Alternate names for the System Affinity parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	SYSTEM_AFFINITY
Reporting Facility	SYS AFFINITY
CONTROL-M for z/OS	SYSTEM ID
CONTROL-M/EM API	system_affinity

Example1: Under JES2

The following values are entered to the job processing definition:

```
DESC
OVERLI B
SCHENV SYSTEM ID SYS3 NJE NODE
```

The following statement is added to the JCL of the job:

```
/* JOBPARM SYSAFF=SYS3
```

The job is executed on the JES2 system **SYS3**.

Example2: Under JES3

The following values are entered to the job processing definition:

```
DESC
OVERLI B
SCHENV SYSTEM ID PRC3 NJE NODE
```

The following statement is added to the JCL of the job:

```
//*MAIN SYSTEM=PRC3
```

The job is executed on processor **PRC3**.

Time From, Time Until

Sets time limits (From and Until) for submitting the job.

Format

Usage	Optional
Format	If not left blank, the From and Until subparameters must contain valid times expressed in 24-hour format (hh:mm). By default, valid times are from 00:00 through 23:59 . However, if Time Synonym (in Tools/Options) is checked, valid times are from New Day time until New Day Time plus 23:59. For example, if New Day time is 8:00 A.M., the range of valid times is from 08:00 until 31:59. Alternatively, if From contains a valid time value, Until can contain the > character. For more information, see below. The From value can be specified without an Until value. The opposite is also true.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameter

+ **num days** is an optional subparameter, valid only for CONTROL-M for z/OS version 6.2.xx, that enables you to set a range of days after the original scheduling date of the job during which the job can be submitted. **From + num days** defines the beginning of the range and **Until + num days** defines the end of the range, where the variable *num* is a number of days after the Odate (original scheduling date) of the job. Valid values for *num* are any number from 1 through 120.

- Defining a **From + num days** value makes the job eligible for submission anytime after *num* days following the Odate.
- Defining an **Until + num days** value makes *num* days after the Odate the last date on which the job is eligible for submission.

If values are set for the **From + num days** subparameter, or the **Until + num days** subparameter, or both, but no value is set for the related **Time From** or **Time Until** parameters, CONTROL-M uses the New Day time on the relevant day as the default.

For more information on the use of this subparameter, see the information and examples below.

General information

CONTROL-M submits the job only during the time range defined in the **Time** parameter. The job is only submitted from (but not before) the time specified by the **From** parameter time and before the **Until** time.

CONTROL-M ignores seconds when determining the time range. For example, a job with a time range of 20:00 to 21:00 could be submitted at 21:00:58.

If you do not set a value for either the **From** parameter or **Until** parameter, the default is the New Day time (the start time of the new work day) as specified in CONTROL-M system parameters.

NOTE

 Operation of CONTROL-M is suspended while the New Day procedure is running. If a job is limited by the **From** and **Until** parameters to the time that the New Day procedure is running, the job is never ordered.

If the **From** field contains a valid time value, you can enter a > character in the **Until** field. This character is used to indicate that once the **From** time has passed, if CONTROL-M has not yet submitted the job by New Day time, it should try to submit the job as soon as possible after the New Day procedure is run (without waiting for the **From** time to arrive again). CONTROL-M continues to ignore the **From** time either until the job is submitted or until the **Max Wait** period expires.

If identical values are specified for the **From** and **Until** parameters, the job is scheduled immediately (regardless of the specified time value). For example, if the value of **From** is 0900 and that of **Until** is 0900, and the job is ordered at 0700, the job is submitted for execution at 0700.

Batch jobs are frequently scheduled for submission overnight. Therefore, if the times set for the **From** and **Until** parameters in a job are such that the New Day procedure processing time intervenes between these times, CONTROL-M treats the job as eligible for submission during both the following periods:

- between the **From** time and the New Day procedure processing time
- between the New Day procedure processing time and the **Until** time

You can set a value for *num* in **From + num days** without setting a value for *num* in **Until + num days**. The effect is that the job cannot be executed before the date and time specified in the **From** fields, but can be executed at any time on any day thereafter.

Do not set a value for *num* in **Until + num days** that is smaller than the value set for *num* in **From + num days**. If you do, the job is never executed.

Aliases in other CONTROL-M components

Alternate names for the Time From and Time Until parameters are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	TIMEFROM, TIMETO
Reporting Facility	FROM TIME, TO TIME
CONTROL-M/Server Utilities	-timefrom, -timeuntil
CONTROL-M for z/OS Utilities	TIME FROM, TIME UNTIL
CONTROL-M/EM API	time_from time_until

Examples

Example 1

Submit the job between 9 A.M. and 6 P.M.

Time From 09:00 + days Until 18:00 + days

Example 2

Submit the job at any time after 6 P.M.

Time From 18:00 + days Until > + days

In this example, the job can be submitted at any time after 6 P.M. on the day of submission. If the job has not yet been submitted when the New Day time at the site arrives, it is submitted as soon as possible, even at a later date, until the period set by the MAXWAIT parameter expires.

Example 3

The New Day time at the site is 6:00 A.M. Submit the job after the New Day time, but no later than 7:30 A.M.

Time From + days Until 07:30 + days

In this example, the job can only be submitted between 6:00 A.M. and 7:30 A.M. If the job is still on the Active Jobs file on the following day, it will again be submitted between 6:00 A.M. and 7:30 A.M. on that day.

Example 4

The New Day time at the site is 6:00 A.M. Submit the job at any time between midnight and the New Day time.

Time From 00: 00 + days Until + days

In this example, the job can only be submitted between midnight and 6:00 A.M.

Example 5

The New Day time at the site is 1:00 A.M. Submit the job at any time between 11:00 P.M. and 6:00 A.M.

Time From 23: 00 + days Until 06: 00 + days

In this example, the job is eligible for submission between 11:00 P.M. and 1:00 A.M., and between 1:00 A.M. and 6:00 A.M.

Example 6

The New Day time at the site is 1:00 A.M. and the Odate is September 6. Submit the job at any time between 11:00 P.M. on September 9, and 6:00 A.M. on the sixth day after the Odate of the job

Time From 23: 00 + 003 days Until 06: 00 + 006 days

Example 7

The New Day time at the site is 1:00 A.M. Submit the job at any time between 11:00 P.M. on the third day after the Odate of the job, and the New Day time on the sixth day after the Odate of the job

Time From 23: 00 + 003 days Until + 006 days

In this example, the job is eligible for submission between 11:00 P.M. on the third day after the Odate of the job and 1:00 A.M. on the sixth day after the Odate of the job.

Example 8

The New Day time at the site is 1:00 A.M. Submit the job at any time between 11:00 P.M. on the third day after the Odate of the job, and 1:00 A.M. on the sixth day after the Odate of the job

Time From + 003 days Until 06:00 + 006 days

In this example, the job is eligible for submission between 1:00 A.M. on the third day after the Odate of the job and 6:00 A.M. on the sixth day after the Odate of the job.

Example 9

The New Day time at the site is 1:00 A.M. Submit the job at any time between 1:00 A.M. on the third day after the Odate of the job, and 1:00 A.M. on the sixth day after the Odate of the job

Time From + 003 days Until + 006 days

In this example, the job is eligible for submission at any time between 1:00 A.M. on the third day after the Odate of the job and 1 A.M. at the end of the sixth working day after the Odate of the job.

Example 10

The New Day time at the site is 8:00 A.M., and the *Time synonym option in Tools/Options is checked*. Submit the job at any time from one hour after the start of the New Day until one hour before the next New Day.

Time From 09:00 + days Until 31:00 + days

In this example, the job is eligible for submission between 9:00 A.M. until 7:00 A.M. the next morning. Because the Time Synonym option is checked, 7:00 A.M. the next morning is indicated as the sum of $(24:00 + 7:00) = 31:00$.

Units

Specifies a unit of time for the numerical value indicated by the Interval parameter.

Format

Usage	Mandatory when a value is specified for the Interval parameter
Format	List box Valid values: <ul style="list-style-type: none">■ Minutes (Default)■ Hours■ Days
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Cyclic	Values must be specified for the Interval and Units parameters when a job is cyclic.
Interval	A value must be specified for Units when Interval is specified.

General information

The Units parameter indicates the unit of measure in which the numerical value of the Interval parameter is expressed.

This parameter is used together with the Interval parameter.

Aliases in other CONTROL-M components

Alternate names for the Units parameter are listed below.

Component	Parameter Name
CONTROL-M/Server Utilities	The Units value is contained in the -interval parameter.

Alternate formats for other CONTROL-M components

Alternate formats for the Units parameter are listed below.

Component	Parameter Name
CONTROL-M/Server Utilities	<p>Valid values:</p> <ul style="list-style-type: none">■ d - Days■ h - Hours■ m - Minutes (Default) <p>Format: <interval_amount><unit></p> <p>Example for 24 hours: 24h</p>

Condition parameters

The parameters in this chapter enable you to create dependencies between jobs in your network.

Table 8 Conditions parameters

Parameter	Description
In Condition	Prerequisite conditions required for a job to execute.
Out Condition	Prerequisite conditions to be added or deleted after the job completes with a completion status of OK .

In Condition

Specifies prerequisite conditions that must be satisfied before the job is submitted for execution.

Format

Usage	Optional
Format	The In Condition parameter is composed of the Name , Date , and And/Or subparameters. These subparameters are described below.
AutoEdit Support	Yes. AutoEdit system variables (but not other types of AutoEdit variables) can be specified as the entire value for this parameter.

Subparameters

Parameter	Description	
Name	Name of the In Condition. Note: Beginning with version 6.1.03, the square bracket characters [and] can be used in Condition names.	
	Length	<ul style="list-style-type: none"> ■ Condition names for CONTROL-M versions prior to 6.0.01 can be from 1 through 20 characters. ■ Condition names for CONTROL-M version 6.0.0x can be from 1 through 39 characters. ■ Condition names for CONTROL-M version 6.1.0.x can be from 1 through 255 characters. (z/OS: Not more than 39 characters) Note: Conditions with long names are not passed to earlier versions of CONTROL-M.
	Case sensitive	Yes. However, if the Uppercase Only check box was selected in the Add CONTROL-M Definition window, you cannot use lowercase characters.
	Invalid Characters	Computers other than z/OS: Blanks; single quotation marks; ")" and "(" (parentheses); " " (pipe) z/OS: Blanks; ")" and "(" (parentheses); " " (pipe)

Parameter	Description	
Date	A 4-character date reference associated with the condition.	
	date	A 4-digit date reference in the format mmdd or ddmm , depends on the site standard.
	offset	For CONTROL-M for z/OS as from version 6.2.00 only: + or - followed by a number from 0 through 999, indicating the number of days in the future (+), or in the past (-), relative to the actual order date.
	ODAT	Variable that is automatically replaced by the job's original scheduling date (that is, the date on which the job was ordered). Note: Beginning with version 6.1.03 of CONTROL-M/EM and CONTROL-M/Server, ODAT can also be specified when modifying details of a job in the Active Jobs file.
	PREV	Variable that is automatically replaced by the job's previous scheduling date. Note: PREV cannot be specified when modifying details of a job in the Active Jobs file.
	**** (or \$\$\$\$)	Any scheduling date. The Condition parameter is satisfied if any prerequisite condition with the same name exists, regardless of its associated date.
	STAT	Condition is not date-dependent. Note: This value is valid only for CONTROL-M/Server version 6.0.01 and later or for CONTROL-M for z/OS.
And/Or	List box, used to specify the logical relationship between In Conditions. If more than one Condition parameter is specified, an And/Or parameter must be specified for each Condition parameter.	
Parentheses	Parentheses are used to isolate groups of In Conditions in a longer list of conditions to indicate logical relationships that are resolved before the entire condition statement is resolved. For more information, see “Logical relationships between conditions” on page 200 . Notes: Pairs of parentheses cannot be nested.	
	blank	Indicates no special relationship between the current and following condition.
	(Beginning of a comparison between successive conditions.
)	End of a comparison between successive conditions.
	A(Indicates a logical AND between two IN conditions.
	O(Indicates a logical OR between two IN conditions.

General information

The In Conditions parameter makes the submission of the job dependent on the existence of one or more prerequisite conditions.

NOTE



A maximum of 99 prerequisite conditions can be specified for the In Condition parameter.

Logical relationships between conditions

The logical relationship (And/Or) used when two or more prerequisite conditions are specified determines whether all or only some of the prerequisite conditions must exist in order for the job to be submitted.

- Expressions in parentheses are resolved first.
- Pairs of parentheses cannot be nested.
- AND operations are resolved prior to the resolution of OR operations.
- AND conditions do not need to be grouped together before OR conditions.

For a detailed explanation of prerequisite conditions, see “[Out Condition](#)” on [page 206](#).

Time stamp

Inserting the **@HHMMSS** code into an In condition name includes a time stamp (in hours, minutes, and seconds) that is resolved to the time that the job is entered in the Active Jobs file.

Future and past dates

You can use the Days Offset field to set a future or past date for an In condition. Valid values for this field are a + (plus) or - (minus) sign, followed by a number from 0 through 999. The value in the field represents the number of days in the future, or in the past, relative to the actual order date.

Aliases in other CONTROL-M components

Alternate names for the In Condition parameter are listed below.

Component	Parameter name
CONTROL-M/EM Utilities	INCOND
Reporting Facility	CONDITION
CONTROL-M/Server Utilities	-incond
CONTROL-M/EM API	in_condition
CONTROL-M for z/OS	IN

Alternate formats in other CONTROL-M components

Alternate formats for the In Condition parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	INCOND is composed of the NAME, ODATE, AND_OR, and OP subparameters. The OP value is a right or left parenthesis. Used to isolate portions of the In condition expression.
CONTROL-M/EM Utilities continued	Example <INCOND NAME="Cond1" ODATE="ODAT" AND_OR="AND" OP=")">
Reporting Facility	Condition name.
CONTROL-M for z/OS	Each specified prerequisite condition consists of the mandatory cond_name and dateref subparameters.

Example 1: Schedule a job that depends on the successful completion of another job

Schedule JOB_B to execute after the successful completion of JOB_A (regardless on what day JOB_A was run):

Job Name	JOB_A			
Out Conditions	JOB_A_OK	Date	ODAT	
Job Name	JOB_B			
In Conditions	JOB_A_OK	Date	****	

If JOB_A completes with a termination status of OK, prerequisite condition JOB_A_OK is created (with JOB_A's original scheduling date). JOB_B, that is waiting for prerequisite condition JOB_A_OK, is submitted for execution as soon as the prerequisite condition is created.

Example 2: Daily jobs

JOB_A and JOB_B are daily jobs. JOB_B should be submitted only after the successful completion of JOB_A. JOB_B must not be mistakenly submitted based on the successful completion of JOB_A from a previous day.

Job Name	JOB_A
Out Conditions	JOB_A_OK Date ODAT
Job Name	JOB_B
In Conditions	JOB_A_OK Date ODAT

Assuming that the scheduling date is May 5:

If JOB_A completes with a termination status of OK, prerequisite condition JOB_A_OK is created (with the date 0505). JOB_B, that is waiting for prerequisite condition JOB_A_OK with date 0505, is submitted for execution as soon as the prerequisite condition is created.

The In Conditions parameter of JOB_B is not satisfied by the JOB_A_OK condition with a date of 0504 (created the previous day).

Example 3: Schedule a job that depends on the completion of multiple jobs

Schedule the job that produces the salary statistics report for top management after the set of jobs that calculates the salaries ends **OK**:

Mem Name	EBDRPT1A
Days	01, 15
In Conditions	SALARY-OK

When the set of jobs that calculates the salaries ends **OK**, it creates prerequisite condition SALARY-OK.

The report is produced twice a month, for the 1st and for the 15th. The report for the 15th is produced only if its prerequisite condition SALARY-OK exists (signifying that the 15th's salary job ended OK). The existence of the prerequisite condition for the 1st – SALARY-OK does not enable the submission of the report for the 15th.

The report for the 1st does not necessarily run on the 1st of the month. Suppose the salary jobs only finish executing on the 3rd; only then is the prerequisite condition SALARY-OK for the 1st created. This is because the prerequisite condition is always associated with a scheduling date, and not with the actual running date. Therefore, a date reference should be added to the condition:

Mem Name EBDRPT1A
Days 01, 15
In Conditions SALARY-OK Date ODAT

Example 4: Job scheduling that depends on previous job runs and a generic date reference

Consider a similar example: a monthly total report must be produced based on data from the last two runs. Also, the job must run when communication channels to a remote site are active:

Days 01, 15
Retro Y
Max Wait 06
In Conditions SALARY-OK Date: ODAT And/Or: A
SALARY-OK Date: PREV And/Or: A
COMM-ACTIVE Date: **** And/Or: A

The job is submitted only if the jobs for the 1st and the 15th have finished. Prerequisite condition COMM-ACTIVE is based on a “generic” date reference that exists only when communication is active.

The communication process itself can be monitored by CONTROL-M. When communication is not active, CONTROL-M deletes prerequisite condition COMM-ACTIVE, preventing abends of jobs that depend on active communication.

Example 5: Maintain order of job runs

Assume a group of jobs runs every day of the week, except Saturday and Sunday. It is very important that some of the jobs scheduled for the various days of the week do not run in parallel. The order of these jobs must be maintained even in cases of delays:

Week Days 2, 3, 4, 5, 6
Retro Y
Max Wait 8
In Conditions DEPOSITS Date: PREV

The job is submitted only if the prerequisite condition DEPOSITS of the previous scheduling date exists. The prerequisite condition DEPOSITS is created only after the group of jobs called DEPOSITS finishes.

Example 6: Job scheduling that depends on site conditions

Suppose a Database master data set exists, and that it is accessed by many programs. Unfortunately, the contents of the Database are often destroyed or damaged because of bugs in old programs. When, and if, it is discovered that the contents of the Database are corrupted, submission of all the jobs that access the file must be prevented:

```
Dates 0201, 0403, 1101
Retro Y
Max Wait 06
In Conditions MASTER-FILE-OK Date: ****
```

It has been discovered that the Database contents are indeed “bad.” At this point, prerequisite condition MASTER-FILE-OK must be deleted, either manually from CONTROL-M/EM, or automatically by the job or process that made the discovery. When the Database is restored to its normal state, the prerequisite condition is added again and execution proceeds as planned.

Example 7: Job scheduling when a failure has occurred

A detached process, LOGCLOSE, is to begin whenever a certain communication process crashes because of a boot operation, or as a result of an operator’s cancellation:

```
Retro Y
Max Wait 0
In Conditions COMM-CANCELED Date: ****
```

The detached process LOGCLOSE starts executing whenever prerequisite condition COMM-CANCELED is active. The prerequisite condition is added by CONTROL-M when the communication process is canceled by an operator or after a computer crash.

Example 8: Date reference

The following example provides a further explanation of the concept of the scheduling date reference:

```
Mem Name EBDRPT6D
Days 01, 15, 20
Months 1-N 2-N 3-N 4-N 5-N 6-N 7-Y 8-N 9-Y 10-N 11-N 12-N
In Conditions EBD-REPORTS-READY Date: ****
```

Today is the 15th of September. The date reference values resolved in this job are written in mmdd date format:

```
ODAT 0915
PREV 0901
**** Any date reference
```

Example 9: Condition including terms isolated with parentheses

```
ctmcreate -tasktype command -cmdline ls -jobname cond_600 -incond
cond_21 ODAT AND -incond '(' cond_22 ODAT OR -incond cond_23' )' ODAT
AND -incond cond_24 ODAT OR
```

Example 10: Out condition name including a time stamp

```
ctmdefine -tasktype command -cmdline date -application app -group grp
-table time_cond -days ALL -month ALL Y -outcond a@HHMMSS ODAT ADD
-jobname counter -memname counter
```

The resulting Out condition statement:

```
*CONDITION a101028 0113 ADDED
```

Out Condition

Specifies prerequisite conditions to be added or deleted after the job completes with a completion status of **OK**.

Format

Usage	Optional
Format	The Out Condition parameter is composed of the Name , Date , and Sign subparameters. These subparameters are described below.
AutoEdit Support	Yes. AutoEdit system variables (but not other types of AutoEdit variables) can be specified as the entire value for this parameter.

Subparameters

Parameter	Description	
Name	Name of the Out Condition. Note: Beginning with version 6.1.03, the square bracket characters [and] can be used in Condition names.	
	Length	<ul style="list-style-type: none"> ■ Condition names for CONTROL-M versions prior to 6.0.01 can be from 1 through 20 characters. ■ Condition names for CONTROL-M version 6.0.0x can be from 1 through 39 characters. ■ Condition names for CONTROL-M version 6.1.0.x can be from 1 through 255 characters. (z/OS: Not more than 39 characters) Note: Conditions with long names are not passed to earlier versions of CONTROL-M.
	Case sensitive	Yes. However, if the Uppercase Only check box was selected in the Add CONTROL-M Definition window, you cannot use lowercase characters.
	Invalid Characters	Computers other than z/OS: Blanks; single quotation marks; ")" and "(" (parentheses); " " (pipe) z/OS: Blanks; ")" and "(" (parentheses); " " (pipe)

Parameter	Description	
Date	A four-character date reference associated with the condition. date A 4-digit date reference in the mmdd or ddmm format, depending on the site standard. offset For CONTROL-M for z/OS from version 6.2.00: + or - followed by a number from 0 through 999, indicating the number of days in the future (+), or in the past (-), relative to the actual order date. ODAT. Variable that is automatically replaced by the job's original scheduling date (that is, the date on which the job was ordered). Note: Beginning with version 6.1.03 of CONTROL-M/EM and CONTROL-M/Server, ODAT can also be specified when modifying details of a job in the Active Jobs file. PREV Variable that is automatically replaced by the job's previous scheduling date. Note: PREV cannot be specified when modifying details of a job in the Active Jobs file. NEXT Variable that is automatically replaced by the job's next scheduling date. Note: NEXT cannot be specified when modifying details of a job in the Active Jobs file. **** (or \$\$\$\$) Any scheduling date. The Condition parameter is satisfied if any prerequisite condition with the same name exists, regardless of its associated date. STAT Condition is not date-dependent. Note: This value is valid only for CONTROL-M/Server version 6.0.01 and later or for CONTROL-M for z/OS.	
Sign	Indicates whether the specified condition is to be added (created) or deleted. <ul style="list-style-type: none"> ■ + Adds (creates) the prerequisite condition. Default. ■ - Deletes the prerequisite condition. If the value of ODAT is \$\$\$\$ or ****, + cannot be selected.	

General information

The In Conditions parameter makes the submission of the job dependent on the existence of one or more prerequisite conditions.

NOTE



A maximum of 99 prerequisite conditions can be specified for the Out Conditions parameter.

If the job completion status is **OK**, then, according to the option specified, the prerequisite conditions are added to or deleted from the Conditions/Resources table. The Out Conditions parameter is performed before the Do Cond parameter. Therefore, the Out Conditions parameter can be overridden by those of the Do Cond parameter. For examples, see “[Do Cond](#)” on page 227.

Prerequisite conditions

A prerequisite condition is a user-defined entity whose existence can be tested to determine whether a job should be submitted for execution.

You can specify that a prerequisite condition be added (that is, created) or deleted as part of the post-processing treatment of a job (using the Out Condition parameter and the Do Cond parameter). A prerequisite condition can also be added or deleted manually by the operator using the Prerequisite Conditions window.

Prerequisite conditions are used to define and implement job execution dependencies. A job containing an In Condition definition is not submitted for execution unless the specified In conditions exist. This permits job-to-job dependencies or job dependencies based on successful completion of a manual task (such as a file creation or a restore operation).

When created, each prerequisite condition is associated with a specific date. A date is also specified when testing for the existence of a prerequisite condition. Thus, the submission of a job can be made contingent upon the existence of a prerequisite condition created on a specific date. This enables you to specify jobs, for example, that depend on conditions created on the same day and that ignore conditions created on previous days.

A prerequisite condition can represent any user-specified situation. The following represent the kind of self-explanatory conditions for which a job may need to test:

JOB-EJGH12-FINISHED
SALARY-INPUT-READY
CHECKS-PUNCHED
WEEKEND
COMM-ACTIVE

Time stamp

Inserting the **@HHMMSS** code into an Out condition name includes a time stamp (in hours, minutes, and seconds) that is resolved to the time that the job is entered in the Active Jobs file.

Future and past dates

You can use the Days Offset field to set a future or past date for an Out condition. Valid values for this field are a + (plus) or - (minus) sign, followed by a number from 0 through 999. The value in the field represents the number of days in the future, or in the past, relative to the actual order date.

Aliases in other CONTROL-M components

Alternate names for the Out Condition parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	OUTCOND
Reporting Facility	CONDITION
CONTROL-M/Server	-outcond
Utilities	
CONTROL-M for z/OS	OUT
Utilities	
CONTROL-M/EM API	out_condition

Examples

For examples of prerequisite conditions, see “In Condition” on page 198.

Resource parameters

The parameters in this chapter specify the resources that must be available before a job can be run.

Table 9 Resource parameters

Parameter	Description
Control Resources	List of resources and type of usage (exclusive or shared) required.
Quantitative Resources	List of Quantitative resources required by the job, and the quantity of each resource.

Control Resources

Indicates the resources required by the job during execution and the type of control (shared or exclusive) the job requires over each resource.

Format

Usage	Optional Note: A maximum of 99 Control Resources can be specified for a job.
Length	1-64 characters
Case Sensitive	Yes. However, if the Uppercase Only check box was selected in the Add CONTROL-M Definition window, you cannot use lowercase characters.
Invalid Characters	■ Blanks ■ Computers other than z/OS: Single quotation marks
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameters

Name	Name of the Control resource. The following special suffixes can be appended to the specified resource name: <ul style="list-style-type: none"> ■ \$ represents any single character. For example, TAPE\$ can represent TAPE1 or TAPE2. However, if the job requires two TAPE\$ units, it can only use two TAPE1 units or two TAPE2 units, not one of each. (The \$ can only assume value 1 or 2 for the job; it cannot represent both.) ■ @ identifies a Quantitative resource used for load balancing.
	Length From 1 through 64 characters
	Case Sensitive Yes. However, if the Uppercase Only check box was selected in the Add CONTROL-M Definition window, you cannot use lowercase characters.
	Invalid Characters Blanks; single quotation marks.

Control	Valid values are: <ul style="list-style-type: none">■ Shared■ Exclusive
On Fail	Whether to keep a Control resource tied to a job if the job does not end OK. Valid values are: <ul style="list-style-type: none">■ Keep – The resource is kept tied to the job until one of the following occurs:<ul style="list-style-type: none">— the job ends OK— the job is deleted— the job is forced OK■ Release – The resource is not kept tied to the job. This is the default.

General information

The Control resource parameter is used to control parallel execution of jobs.

Control resources are defined using the CONTROL-M/EM Control Resources window.

If a job requires exclusive use of a Control resource, only that job can use the Control resource. If another job requests the same resource in exclusive or shared state, this second job is not submitted by CONTROL-M until the resource is released by the first job.

If a job requires a Control resource in shared state, that job can run in parallel with other jobs that request the same resource in shared state.

Aliases for other CONTROL-M components

Alternate names for the Control Resource parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	CONTROL
Reporting Facility	RESOURCE
CONTROL-M/Server	-control
CONTROL-M for z/OS	CONTROL
CONTROL-M/EM API	control_resource

Alternate formats for other CONTROL-M components

Alternate format Approved.s for the Control Resource parameter are listed below.

Component	Format	
Reporting Facility	The Control Resource parameter is composed of the subparameters below.	
	RESOURCE	Name of the resource. String.
	TYPE	Type of Control resource: ■ E - Exclusively owned by a job ■ S - Shared by any number of jobs

Example 1: Scheduling a job using an exclusive resource

Job R1 (which reorganizes a disk) cannot run in parallel with job B1 (which backs up the same disk) or job B2 (which reads data from the disk). Jobs B1 and B2 do not interfere with each other and can be executed in parallel.

Job R1 is defined as follows:

```
Mem Name = R1
Control Resources: VS01 = E
```

Job B1 is defined as follows:

```
Mem Name: B1
Control Resources: VS01 = S
```

Job B2 is defined as follows:

```
Mem Name: B2
Control Resources = VS01 = S
```

Jobs B1 and B2 can run simultaneously since they both use resource VS01 in shared mode. Job R1 requests VS01 for exclusive use and therefore cannot run in parallel with either job B1 or B2.

- If either job B1 or B2 is running, CONTROL-M does not submit job R1.
- If job R1 is running CONTROL-M does not submit job B1 or B2.

CONTROL-M submits job B1 if job B2 is running, and vice-versa.

Quantitative Resources

Indicates the name and quantity of Quantitative resources required by the job.

Format

Usage	Optional.
Format	Each Quantitative resource is specified using the mandatory subparameters described below.
Case Sensitive	Yes. However, if the Uppercase Only check box was selected in the Add CONTROL-M Definition window, you cannot use lowercase characters.
Invalid Characters	■ Blanks ■ Computers other than z/OS: Single quotation marks
AutoEdit Support	Yes. AutoEdit system variables (but not other types of AutoEdit variables) can be specified as the entire value for this parameter.

Subparameters

Name	Name of the Quantitative resource. The following special suffixes can be appended to the specified resource name: ■ \$ represents any single character. For example, TAPE\$ can represent TAPE1 or TAPE2. However, if the job requires two TAPE\$ units, it can only use two TAPE1 units or two TAPE2 units, not one of each. (The \$ can only assume value 1 or 2 for the job; it cannot represent both.) ■ @ identifies a Quantitative resource used for load balancing.	
	Length	From 1 through 64 characters
	Case Sensitive	Yes. However, if the Uppercase Only check box was selected in the Add CONTROL-M Definition window, you cannot use lowercase characters.
	Invalid Characters	Blanks; single quotation marks.
	Quantity	Amount of the resource that is required. Valid values for this field are from 1 through 9999 .

On Fail	Whether to keep a Quantitative resource tied to a job if the job does not end OK. Valid values are: <ul style="list-style-type: none"> ■ Keep – the resource is kept tied to the job until one of the following occurs: <ul style="list-style-type: none"> — the job ends OK — the job is deleted — the job is forced OK ■ Release – the resource is not kept tied to the job. This is the default.
On OK	Whether to keep a Quantitative resource tied to a job if the job ends OK. Valid values are: <ul style="list-style-type: none"> ■ Release – The resource is not kept, and is returned to the total quantity available for other jobs. This is the default. ■ Discard – The resource is not reusable, meaning that the quantity of the resource is permanently removed from the total quantity available for other jobs.

General information

When a Quantitative resource is specified for a job, CONTROL-M determines whether a sufficient quantity of the specified resource is available before submitting the job. When the job is submitted, the specified quantity of resource is assigned to that job and is not available to other jobs. When the job finishes executing, the resource is made available to other jobs.

NOTE

A maximum of 99 Quantitative resources can be specified for a job.

The Quantitative Resources parameter is used to control the use of Quantitative resources in the installation (for example, tape drives, CPU utilization).

For load balancing, Quantitative resources are used to specify the resources that must be available on the agent computer selected by CONTROL-M to execute the job.

NOTE

Load balancing is available for certain computers with CONTROL-M version 2.2x or later.

Aliases for other CONTROL-M components

Alternate names for the Quantitative Resource parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	QUANTITATIVE
Reporting Facility	RESOURCE
CONTROL-M/Server	-quantitative
CONTROL-M for z/OS	RESOURCE
CONTROL-M/EM API	quantitative_resource

Example 1: Specifying two tape drives

A CONTROL-M installation has 10 tape drives available for production. A job that requires the use of two tape drives is defined with a Quantitative Resources parameter specifying the number of tape drives required:

Quantitative Resources	TAPE	2
------------------------	------	---

CONTROL-M determines whether two tape drives are available. If the drives are available, and all other submission criteria for the job have been satisfied, the tape drives are allocated to the job, and the job is submitted for execution. The total number of free tape drives is now eight. When the job finishes executing, the two tape drives are returned to the pool of available resources.

Example 2: Quantitative resource requirement that cannot be fulfilled

Given the following situation:

- Several jobs that require tape drives are currently executing.
- Only one tape drive is currently available.
- Job A requires two tape drives and contains the following parameter (all other submission criteria for the job have been satisfied):

Quantitative Resources	TAPE	2
------------------------	------	---

As long as two tape drives are not available, Job A is not submitted for execution.

If another tape drive is released by a different job, or if an authorized user increases the number of existing tape drives so that two are available, CONTROL-M submits the job for execution.

Example 3: Defining a quantitative resource with a mask character

A CONTROL-M installation is defined as having the following Quantitative resources: three units of TAPE1 and three units of TAPE2. A job requiring three tape drives contains the following parameter:

Quantitative Resources	TAPE\$	3
------------------------	--------	---

The job is submitted for execution when three units of the same type are available (that is, either three units of TAPE1 or three units of TAPE2) since the mask character \$ can only represent a single value for a given job.

Example 4: Defining multiple quantitative resources with mask characters

A job requires two tape drives and a printer:

Quantitative Resources	TAPE\$	2	PRI NT\$	1
------------------------	--------	---	----------	---

Two units of TAPE1 and one unit of PRI NT2 are available. However, the job is not submitted until a unit of PRI NT1 becomes available since the mask character \$ can only represent a single value for a given job. In this instance, \$ represents the number 1.

Example 5: Load balancing

A job to be submitted by the load-balancing mechanism requires 10 units of the Quantitative resource CPU:

Quantitative Resources	CPU@	10
------------------------	------	----

The job is submitted to an agent computer possessing at least 10 available units of the specified resource.

Post-processing parameters

Post-Processing parameters are used to describe:

- Actions to be performed if the job is not submitted.
- Actions to be performed after the job has finished executing.
- Handling of the job's log (SYSOUT).
- Notification messages to various users.
- Rerun conditions.

Based on the job's execution status codes, CONTROL-M automatically assigns a completion status:

Table 10 Job statuses

Status	Description
OK	Job ended OK . The job finished executing with a successful operating system completion status. This status can be overridden with the Do NOTOK parameter (as a result of an On Statement/Code evaluation).
NOTOK	Job did not end OK . The job finished executing with an unsuccessful operating system completion status or due to a submission failure (for example, queue does not exist). This status can be overridden with the Do OK parameter (as a result of an On Statement/Code evaluation).

For group scheduling tables:

Steps parameters can also be defined for group scheduling tables.

- Actions to be performed if a group finished **OK** are performed only if all the jobs in the group finished **OK**.
- Actions to be performed if a group finished **NOTOK** are performed only if one or more jobs in the group finished **NOTOK**.

Post-processing of a group occurs when the last job in the group ends. A group may become active again after the post-processing has been completed, if one or more jobs are rerun, or if a new job is added to the group and submitted. In this case, when the last job in the group ends again, the completion status of the group is rechecked and the appropriate post-processing actions are performed.

For more information about group scheduling tables, see the *CONTROL-M User Guide*.

Table 11 Post-processing parameters

Parameter	Description
CTB Step	Adds CONTROL-M/Analyzer steps as the first and/or last step of the job's execution.
Do AutoEdit	Assigns a value to an AutoEdit variable.
Do Cond	Specifies prerequisite conditions to be added or deleted.
Do CTBRule	Invokes a CONTROL-M/Analyzer rule to be executed during the processing of a specific program step.
Do Forcejob	Forces a job or all jobs in a scheduling table to be ordered under CONTROL-M regardless of the scheduling criteria.
Do If Rerun	Job steps to be executed during restart of a job. Available only at sites utilizing CONTROL-M/Restart.
Do Mail	Specifies a message to be sent to one or more email addresses.
Do NOTOK	Sets the job's completion status to NOTOK regardless of how the job actually ended.
Do OK	Sets the job's completion status to OK regardless of how the job actually ended.
Do Remedy	Opens a ticket in the Remedy Help Desk regarding the critical service.
Do Rerun	Causes the job to be rerun according to the parameters specified in the Rerun parameter.
Do Shout	Specifies messages to be sent ("shouted") to specified destinations on various occasions.
Do Stop Cyclic	Prevents future iterations of a cyclic job.
Do Sysout	Specifies how the job's log/output should be handled.
On statement	Job processing step and code event criteria that determine whether the accompanying DO statements are performed.
Reten Days	Number of days to retain the job in the History Jobs file. [z/OS only]
Reten Gen	Maximum number of generations of the job to keep in the History Jobs file. [z/OS only]
Step Range	Specifies a range of steps in the steps of an On PGMST statement.

CTB Step

Adds CONTROL-M/Analyzer steps as the first and/or last step of the job's execution.



NOTE

For CONTROL-M for z/OS installations in which CONTROL-M/Analyzer is installed.

Format

Usage	Optional
Availability	This parameter is accessed from the CONTROL-M for z/OS interface, only.
Format	CTB Step is composed of the AT, NAME, TYPE, and ARGUMENTS subparameters, described below.
Invalid Characters	Non-English characters
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description	
AT	Indicates where to place the CONTROL-M/Analyzer step in the job. Mandatory. Valid values: <ul style="list-style-type: none"> ■ S (Start) – The indicated CONTROL-M/Analyzer step must become the first step of the job. ■ E (End) – The indicated CONTROL-M/Analyzer step must become the last step of the job. 	
NAME	Name of the CONTROL-M/Analyzer entity. Must be a valid name of a CONTROL-M/Analyzer rule or mission. Mandatory.	
	Length	1 through 8 characters
	Case Sensitive	Yes
	Invalid Characters	Blanks; non-English characters

Parameter	Description	
TYPE	Type of CONTROL-M/Analyzer entity. Mandatory. Valid values: ■ R (Rule) – Entity is a CONTROL-M/Analyzer rule. ■ M (Mission) – Entity is a CONTROL-M/Analyzer mission.	
ARGUMENTS	Arguments to be passed to the CONTROL-M/Analyzer step. Optional.	
	Length	0 through 60 characters
	Case Sensitive	Yes
	Invalid Characters	Non-English characters

General information

A maximum of two CTB STEP statements (that is, one START statement and one END statement) can be specified.

Multiple arguments must be separated by a comma without a space because they are automatically passed to the CONTROL-M/Analyzer step as a PARM=<arguments> parameter in the step's JCL.

CONTROL-M uses the status returned by CONTROL-M/Analyzer as it would use the return status of any job step.

- If CONTROL-M/Analyzer returns a status of **OK** or **TOLER** (within accepted tolerances), CONTROL-M considers the step as having ended **OK**.
- If CONTROL-M/Analyzer returns a status of **NOTOK** or **ABEND**, CONTROL-M considers the job step as having ended **NOTOK**.

Aliases for other CONTROL-M components

Alternate names for the CTB Step parameter are listed below.

Component	Parameter Name
CONTROL-M/EM API	ctb_step

Example: Check results and set a condition

After successfully performing salary calculations, job SACALC01 invokes rule CHKCALC to ensure that the results are reasonable, and then sets OUT condition SALARY-OK.

```
JOB: SACALC01 LIB CTM. PROD. SCHEDULE TABLE: SALARY
COMMAND ===> SCROLL==> CRSR
+-----+
MEMNAME SACALC01 MEMLIB GENERAL
OWNER SYS1 TASKTYPE JOB PREVENT-NCT2 DFLT N
APPL SAL GROUP SALARY
DESC SALARY CALCULATIONS
OVERLIB
SCHENV SYSTEM ID NJE NODE
SET VAR
CTB STEP AT END NAME CHKCALC TYPE RULE
ARGUMENTS %ODATE
CTB STEP AT NAME TYPE
DOCMEM SACALC01 DOCLI B CTM. PROD. DOC
=====
DAYS 01,15 DCAL
AND/OR
WDAYS WCAL
MONTHS 1- Y 2- Y 3- Y 4- Y 5- Y 6- Y 7- Y 8- Y 9- Y 10- Y 11- Y 12- Y
DATES
CONFCAL SHIFT RETRO Y MAXWAIT 00 D-CAT
MINIMUM PDS
DEFINITION ACTIVE FROM UNTIL
=====
IN
CONTROL
RESOURCE
PIPE
TIME: FROM UNTIL PRIORITY DUE OUT SAC CONFIRM
TIME ZONE:
=====
OUT SALARY-OK ODAT +
COMMANDS: EDIT, DOC, PLAN, JOBSTAT 11.17.00
```

Do AutoEdit

The Do AutoEdit variable assigns a value to an AutoEdit variable for use in a rerun of the job when the On Statement/Code criteria are satisfied.

Format

Usage	Optional
Format	<p>Name and Value text boxes in the CONTROL-M/EM Job Editing form.</p> <p>Enter the AutoEdit variable name in the Name text box, and the expression in the Value text box.</p> <p>Application-specific job parameters may not be specified in AutoEdit variable values. The names of application-specific job parameters are prefixed by two percent signs, the application's abbreviation and a hyphen (%%SAPR3- for SAP, %%OAP- for Oracle, and so on).</p>
Length	<p>Computers other than z/OS:</p> <ul style="list-style-type: none"> ■ The AutoEdit variable name Name can be up to 40 characters long (including the %% prefix). ■ The AutoEdit expression Value can be up to 214 characters long. <p>z/OS:</p> <p>The total length of Do AutoEdit, including the %% prefix, variable-name, value, and the = sign, must not exceed 55 characters.</p>
Case Sensitive	Yes
Invalid Characters	<p>Computers other than z/OS: The following characters cannot be included as part of variable-name in a User-defined AutoEdit variable: < > [] { } () = ; ' ~ : ? . + - * / & ^ # @ ! , " '.</p> <p>In value the only invalid characters are embedded blanks. Leading blanks are valid.</p> <p>z/OS: Blanks</p>
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description
Name	Name of the AutoEdit variable. The %% prefix is entered automatically. 1-38 character string (following the %% prefix).
Value	AutoEdit expression. 1-214 character string. Application-specific job parameters may not be specified in AutoEdit variable values. The names of application-specific job parameters are prefixed by two percent signs, the application's abbreviation and a hyphen (%%SAPR3- for SAP, %%OAP- for Oracle, and so on).

Related parameters

AutoEdit	AutoEdit Assignment assigns values to a variable for use in the current job run. Whereas, Do AutoEdit assigns a value to be used in the subsequent run of the job.
-----------------	--

General information

AutoEdit variables are resolved (replaced) at the time a job is submitted.

The Do AutoEdit parameter can be used to assign a value to an AutoEdit variable for use in a rerun of the job. When a job is rerun, statements specified in Do AutoEdit are evaluated after statements specified in AutoEdit Assignment.

Unless it is assigned a value in the AutoEdit Assignment parameter, an AutoEdit variable that is assigned a value in a Do AutoEdit parameter does not have any value during the first submission of the job.

Aliases for other CONTROL-M components

Alternate names for the Do AutoEdit parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOAUTOEDIT
CONTROL-M/Desktop	Do Set var
CONTROL-M/Server Utilities	-doautoedit
CONTROL-M/EM API	do_autoedit

Alternate formats for other CONTROL-M components

Alternate formats for the Do AutoEdit parameter are listed below.

Component	Format		
CONTROL-M/EM Utilities	<p>The value for the DOAUTOEDIT parameter is contained in the EXP subparameter.</p> <p>Example</p> <pre><DOAUTOEDIT EXP="%%PARM1=%%TIME"/></pre>		
	<table border="1"><tr><td>EXP</td><td>String containing both the variable and the expression, presented as an equation.</td></tr></table>	EXP	String containing both the variable and the expression, presented as an equation.
EXP	String containing both the variable and the expression, presented as an equation.		

Do Cond

The Do Cond parameter specifies a prerequisite condition to be added or deleted when the On Statement/Code criteria are satisfied.

Format

Usage	Optional
Format	Each Do Cond parameter consists of three subparameters, described below.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description	
Condition	Descriptive name of a prerequisite condition.	
	Length	<ul style="list-style-type: none"> ■ 1 through 255 characters ■ z/OS: 1 through 39 characters ■ CONTROL-M for z/OS versions prior to 6.0.00: 1 through 20 characters
	Case Sensitive	Yes. However, if the Uppercase Only check box was selected in the Add CONTROL-M Definition window, you cannot use lowercase characters.
	Invalid Characters	Computers other than z/OS: Blanks; single quotation marks; ")" and "(" (parentheses); " " (pipe) z/OS: Blanks; ")" and "(" (parentheses); " " (pipe)

Parameter	Description
Date	<p>Date (four characters long) for the prerequisite condition.</p> <ul style="list-style-type: none"> ■ date. Specific date (mmdd or ddmm format). ■ ODAT. Automatically replaced by the job's original scheduling date when the job is ordered. ■ PREV Automatically replaced by the job's previous scheduling date when the job is ordered (or for a forced job, ODAT-1). ■ NEXT Automatically replaced by the job's next scheduling date when the job is ordered (or for a forced job, ODAT+1). ■ **** (or \$\$\$\$) Any condition date. For deleting a prerequisite condition, only. When specified, all prerequisite conditions with the specified condition name are deleted, regardless of their dates. ■ STAT Condition is not date-dependent. Note that this value is valid only for CONTROL-M/Server version 6.0.01 and later. <p>Note: PREV and NEXT cannot be specified when modifying details of a job in the Active Jobs file. A date reference is required for each condition. However, beginning with version 6.1.03 of CONTROL-M/Server, ODAT can be specified when modifying details of a job in the Active Jobs file.</p>
Sign	<p>A pair of option buttons that indicate if the condition should be added (created) or deleted.</p> <ul style="list-style-type: none"> ■ + Adds (creates) the condition ■ - Deletes the condition <p>If the value of ODAT is \$\$\$\$ or ****, + cannot be selected.</p>

General information

The Do Cond parameter is optional. However, each Condition parameter specified must have a Date reference and a Sign specification.

When the criteria specified in the On Statement/Condition parameter are satisfied, the designated prerequisite condition(s) are added or deleted from the CONTROL-M Conditions List.

If parameters Do Cond and Out Conditions perform opposing actions on the same prerequisite condition and date, the Do Cond parameter overrides the Out Conditions parameter.

For more information on the Out Conditions parameter, see “Out Condition” on page 206.

***NOTE***

A maximum of 99 prerequisite conditions can be specified for the Do Cond parameter.

Aliases for other CONTROL-M components

Alternate names for the Do Cond parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOCOND
CONTROL-M/Server Utilities	-docond
Reporting Facility	Parameter not included.
CONTROL-M for z/OS	DO COND
CONTROL-M/EM API	do_cond

Alternate formats for other CONTROL-M components

Alternate formats for the Do Condition parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	DOCOND contains the following subparameters:
	NAME Name of the condition. String.
	ODATE Date (four characters long) for the prerequisite condition. String. Default: ODAT.
	SIGN Valid values: ■ ADD (Default) ■ DEL

Do CTBRule

Invokes a CONTROL-M/Analyzer rule to be executed during the processing of a specific program step.

NOTE



This parameter is available only for CONTROL-M for z/OS jobs at sites using CONTROL-M/Analyzer.

Format

Usage	Optional
Format	<ul style="list-style-type: none"> ■ CONTROL-M/EM Job Editing form: Select CTBRule from the Do list box. Specify values in the Name and Arg fields. ■ CONTROL-M: Type CTBRULE in the DO field and press Enter.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description	
name	Text box.	
	Name of the CONTROL-M/Analyzer rule that is to be executed. The CONTROL-M/Analyzer rule contains all balancing specifications to be performed. Mandatory.	
	Length	1 through 8 characters
	Case Sensitive	Yes
ARG	Invalid Characters	Blanks; non-English characters
	Text box.	
	Arguments that are passed to the CONTROL-M/Analyzer rule. Separate multiple arguments by commas. Optional.	
	Length	1 through 45 characters
	Case Sensitive	Yes
	Invalid Characters	Blanks; non-English characters

General information

When Do CTBRULE is specified, balancing is performed by the CONTROL-M/Analyzer Runtime environment according to the specified rule definition and using the specified arguments. The CONTROL-M/Analyzer Runtime environment is invoked once for each Do CTBRULE statement in the job scheduling definition.



NOTE

If DO CTBRULE is specified under ON PGMST ANYSTEP, the CONTROL-M/Analyzer Runtime environment is invoked only once.

When CONTROL-M calls a CONTROL-M/Analyzer rule, CONTROL-M/Analyzer System variable SYSOPT contains the value **CTMWORK**. This variable can then be tested within the CONTROL-M/Analyzer rule definition to determine if CONTROL-M invoked the CONTROL-M/Analyzer Runtime environment.

When the CONTROL-M/Analyzer Runtime environment is invoked by CONTROL-M, that is, CONTROL-M/Analyzer System variable SYSOPT is set to **CTMWORK**, CONTROL-M/Analyzer can analyze and balance SYSDATA. For more information about invoking CONTROL-M/Analyzer rules from CONTROL-M job scheduling definitions, see the discussion of the interface to CONTROL-M in the *CONTROL-M/Analyzer User Guide*.

Aliases for other CONTROL-M components

Alternate names for the Do CTBRULE parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOCTBRULE
Reporting Facility	Parameter not included.
CONTROL-M for z/OS	DO CTBRULE
CONTROL-M/EM API	do_ctbrule

Alternate formats for other CONTROL-M components

Alternate formats for the Do CTBRULE parameter are listed below.

Component	Format	
CONTROL-M/EM Utilities	DOCTBRULE contains the following subparameters.	
	NAME	Name of the CONTROL-M/Analyzer rule that is to be executed.
	PAR	Arguments.

Example: Execute a CONTROL-M/Analyzer rule when a job ends OK

If the job ends **OK**, execute CONTROL-M/Analyzer balancing rule GOVTBAL.

```

JOB: GOVTREPT LIB CTM. PROD. SCHEDULE TABLE: BACKUP
COMMAND ==> SCROLL==> CRSR
+-----+
TIME: FROM UNTIL PRIORITY DUE OUT SAC CONFIRM
TIME ZONE:
=====+
OUT FINANCE-GOVTREPT-OK ODAT +
AUTO-ARCHIVE Y SYSDB Y MAXDAYS MAXRUNS
RETENTION: # OF DAYS TO KEEP 030 # OF GENERATIONS TO KEEP
SYSOUT OP (C, D, F, N, R) FROM
MAXRERUN RERUNMEM INTERVAL FROM
STEP RANGE FR (PGM. PROC) . TO .
ON PGMSLT ANYSTEP PROCST CODES OK A/O
DO CTBRULE = GOVTBAL ARG DOREPORT, 10, %%ODATE
DO
ON PGMSLT PROCST CODES A/O
DO
SHOUT WHEN NOTOK TO TSO-M44 URGN R
MS JOB GOVTREPT ENDED "NOT OK"
SHOUT WHEN TO URGN
MS
===== >>>>>>>>>>>>>>>> END OF SCHEDULING PARAMETERS <<<<<<<<<<
COMMANDS: EDIT, DOC, PLAN, JOBSTAT 11.17.00

```

Do Forcejob

The Do Forcejob parameter forces an individual job or all jobs in a scheduling table to be placed in the Active Jobs file (regardless of each job's Scheduling criteria) when the On Statement/Code criteria are satisfied.

Format

Usage	Optional
Format	<p>In the CONTROL-M/EM Job Editing form:</p> <p>Select Force-job from the Do list box. The SCD Table, Job Name, and Date text boxes are displayed.</p> <p>Enter the subparameter values in these text boxes.</p> <p>These subparameters are described below.</p>
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description	
SCD Table	Name of the job scheduling table	
	Length	1 through 20 characters
	Invalid Characters	Blanks; single quotation marks OS/900: Non-English characters
Job Name	Job name. If this field is blank, all jobs in the specified table are forced.	
	Length	<ul style="list-style-type: none"> ■ Computers other than z/OS: 1 through 20 characters. ■ z/OS: 1 through 8 characters.
	Invalid Characters	Blanks (embedded); single quotation marks

Parameter	Description	
Date	Value to be used as the original scheduling date for the job. Valid values are:	
	ODAT	Resolves to the original scheduling date of the job resulting in the execution of this parameter (default). Note: As of CONTROL-M/Server version 6.1.03, ODAT can also be specified when modifying details of a job in the Active Jobs file.
	date	A date reference, 4 or 6 characters long (either mmd , ddmm , yyymmdd , or yyddmm format, depending on the site standard). z/OS: Only the yyymmdd or yyddmm format can be used

General information

Do Forcejob causes the specified job to be placed immediately in the Active Jobs file. The job is submitted for execution as soon as all its submission criteria are satisfied.

NOTE

When Do Forcejob forces a job that belongs to a group, it treats it as a regular job and forces it alone (that is, without a Group Entity).



Aliases for other CONTROL-M components

Alternate names for the Do Forcejob parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOFORCEJOB
CONTROL-M/Server	-doforcejob
CONTROL-M for z/OS	DO FORCEJOB
CONTROL-M/EM API	do_forcejob

Alternate formats for other CONTROL-M components

Alternate formats for the Do Forcejob parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	<p>DOFORCEJOB consists of the DSN, TABLE_NAME, NAME, and ODATE subparameters. The value of DSN is the scheduling table Library name, which must be specified for z/OS jobs.</p> <p>Example</p> <pre><DOFORCEJOB DSN="z/OS.TBL" TABLE_NAME="Tbl 1" JOB="Job3" ODATE="DATE" /></pre>
CONTROL-M for z/OS	DO FORCEJOB consists of the TABLE, NAME, and LIBRARY subparameters. The value of DSN is the scheduling table Library name, which must be specified for z/OS jobs.

Do If Rerun

Job steps to be executed during restart of a job.

NOTE



This parameter is available only if CONTROL-M/Rerun is installed on a CONTROL-M for z/OS site.

Format

Usage	Optional
Format	Select IFRerun from the Do list box in the Job editing form. From and To text boxes and a Confirm check box are displayed. Enter the required information. Select the check box, if required. These subparameters are described below.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Maximum Reruns	Determines the maximum number of times the restart or rerun specified by the Do If Rerun parameter is performed.
Do Remedy	Used to perform the job rerun when Confirm is not selected and a job rerun is required.

Subparameters

Parameter	Description
From	<p>Step at which the job must be restarted. Mandatory.</p> <p>Valid values:</p> <ul style="list-style-type: none"> ■ pgmstep – Program step within the job stream. ■ pgmstep.procstep – Program step within the called procedure. ■ \$FIRST – First step of the job. ■ \$ABEND – Step of the job that ended NOTOK due to system abend, user abend, condition code C2000 (PL/1 abend) or JFAIL (job failed on JCL error). \$ABEND is a subset of SEXERR (below). ■ \$FIRST.\$ABEND – First step of the abended procedure. ■ \$FIRST.\$CLEANUP – This reserved keyword instructs CONTROL-M to run a CONTROL-M/Restart data set cleanup for the job. Data set cleanup is performed from the first step of the job. The job itself is not restarted. ■ SEXERR – Job step that ended with any error, including an abend, or that ended with a condition code that is redefined using the On and DO statements as ENDED NOTOK. <p>Note: For both From and To steps, pgmstep is the name of the step (EXEC statement) that executes the program from which to begin or end the restart:</p> <pre>// pgmstep EXEC PGM= program</pre> <p>procstep is the name of the step (EXEC statement) that invokes the procedure from which the above pgmstep program is executed:</p> <pre>// procstep EXEC procedure</pre> <p>pgmstep and procstep values can each be from 1 through 8 characters, and must not contain blanks.</p> <p>When specifying a procstep when the procedures are nested, the innermost procstep in which the program is included must be specified.</p>
To	<p>Step at which the restarted job must terminate. Optional.</p> <p>Valid values are:</p> <p>Note: Non-English characters are invalid for this subparameter.</p> <ul style="list-style-type: none"> ■ pgmstep – Program step within the job stream ■ pgmstep.procstep – Program step within the called procedure. <p>If not specified, the restarted job terminates at the last job step that would normally be executed.</p> <p>Note: For both From and To steps, pgmstep is the name of the step (EXEC statement) that executes the program from which to begin or end the restart:</p> <pre>// pgmstep EXEC PGM= program</pre> <p>procstep is the name of the step (EXEC statement) that invokes the procedure from which the above pgmstep program is executed:</p> <pre>// procstep EXEC procedure</pre> <p>pgmstep and procstep values can each be from 1 through 8 characters, and must not contain blanks.</p> <p>When specifying a procstep when the procedures are nested, the innermost procstep in which the program is included must be specified.</p>

Parameter	Description
Confirm	<p>Specifies whether a manual confirmation is required before the job is restarted.</p> <ul style="list-style-type: none"> ■ When the check box in the Job Editing form is clear, no confirmation is required. The job restart can be automatically submitted (by the Do Rerun parameter) without a manual confirmation. Default. ■ When the check box in the Job Editing form is selected, confirmation is required. The job restart is not submitted unless the job is confirmed manually from the CONTROL-M/EM flow diagram. <p>Non-English characters are invalid for this subparameter.</p>

General information

When a Do If Rerun statement is specified, the rerun is performed by the CONTROL-M/Rerun facility using the specified restart subparameters.

- When Do If Rerun is specified with a Confirm parameter value of **No (Confirm check box is clear)**:
 - If a Do If Rerun statement follows, the job is automatically submitted for rerun.
 - If a Do If Rerun statement does not follow, the job is not automatically rerun. Instead, the job remains displayed with its error status in the CONTROL-M/EM GUI.

In this case, to submit the job for rerun or restart, rerun the job from the CONTROL-M/EM GUI. The Rerun (with Restart) Confirmation window is displayed. Request the restart or rerun from the window.

- When Do If Rerun is specified with a Confirm parameter value of **Yes (the Confirm check box is selected)**, the job appears in the CONTROL-M/EM GUI with a WAIT CONFIRMATION (WITH RESTART) status and is not restarted unless confirmed. Confirm the job to restart it.

When a job is submitted for restart, if **\$FIRST** is specified in the From subparameter, a **\$FIRST** step specification is passed “as is” to the CONTROL-M/Rerun step. If **\$ABEND** or **SEXERR** is specified, the specified **\$ABEND** or **SEXERR** value is first resolved to the appropriate step by the CONTROL-M monitor and then passed to the CONTROL-M/Rerun step.

If **\$FIRST.\$ABEND** is specified, the CONTROL-M monitor determines which procedure abended and then passes the **\$FIRST** step specification for that procedure to the CONTROLR step. For information regarding the CONTROL-M/Rerun step, refer to the *CONTROL-M/Rerun User Manual*.

The Max Rerun parameter determines the maximum number of times the restart or rerun can be performed. For more information, see “[Maximum Reruns](#)” on page 163.

Availability

- This parameter is available only if CONTROL-M/Rerun is installed on a CONTROL-M for z/OS site.
- The Do If Rerun and Rerun Member parameters cannot be specified together.

Aliases for other CONTROL-M components

Alternate names for the Do If Rerun parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOIFRERUN
CONTROL-M for z/OS	DO IFRERUN
CONTROL-M/EM API	do_ifrerun

Alternate formats for other CONTROL-M components

Alternate formats for the Do If Rerun parameter are listed below.

Component	Format	
CONTROL-M/EM Utilities	DOIFRERUN is composed of the following subparameters:	
	CONFIRM	Valid values: <ul style="list-style-type: none">■ 0 (No confirmation. Default)■ 1 (Confirm)
	FPGMS	First program step in the range. 1-8 character string.
	FPROCS	First process step in the range. 1-8 character string.
	TPGMS	Last program step in the range. 1-8 character string.
	TPROCS	Last process step in the range. 1-8 character string.
CONTROL-M for z/OS	DO IFRERUN is composed of the following subparameters:	
	FROM	First program or process step in the range. 1-8 character string.
	TO	Last program or process step in the range. 1-8 character string.
	CONFIRM	Valid values: <ul style="list-style-type: none">■ N (No confirmation. Default)■ Y (Confirm)

Do Mail

The Do Mail parameter specifies a message to be sent (“mailed”) to an e-mail address when the specified On Statement/Code criteria are satisfied.

Format

Usage	Optional
Format	<ul style="list-style-type: none"> ■ Select Mail from the Do list box in the Job editing form. ■ To, Subject, and Message text boxes are displayed. <p>To send a brief message, enter the required information. To send a more detailed message and/or a message that is sent to more than one recipient, Click Details=.... The Mail dialog box is displayed. These subparameters are described below.</p>
Invalid Characters	z/OS, except for Message subparameter: Non-English characters
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description	
To	E-mail addresses for recipients of the mail message. Multiple addresses can be specified, separated by semicolons “;”. Mandatory. Note: Only physical addresses or AutoEdit variables can be specified. Logical addresses (as specified for the Do Shout parameter) are not supported for Do Mail.	
	Length	Computers other than z/OS: 1 through 255 characters z/OS: 1 through 255 characters
	Case Sensitive	Yes
	Invalid Characters	Computers other than z/OS: Blanks; single quotation marks z/OS: Blanks; non-English characters
	AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Parameter	Description	
CC	E-mail addresses that should be CCed for the mail message. Multiple addresses can be specified, separated by semicolons (";"). Optional. Note: On some UNIX computers, all recipients are shown in the To field because the CC field is not supported.	
	Length	Computers other than z/OS: 1 through 255 characters z/OS: 1 through 255 characters
	Case Sensitive	Yes
	Invalid Characters	Computers other than z/OS: Blanks; single quotation marks z/OS: Blanks; non-English characters
	AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.
	Subject Subject line for the message.	
Subject	Length	Computers other than z/OS: 1 through 99 characters z/OS: 1 through 70 characters
	Case Sensitive	Yes
	Invalid Characters	Computers other than z/OS: Single quotation marks; do not use “-“ as the first character. z/OS: Non-English characters
	AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.
	message Text of the mail message.	
message	Length	Computers other than z/OS: 1 through 4000 characters z/OS: 1 through 255 lines, each containing 1 through 70 characters However, do not exceed 4000 characters in the Job Editing Form.
	Case Sensitive	Yes
	Invalid Characters	Computers other than z/OS: Single quotation marks z/OS: None
	AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.
Urgency	Select from the following buttons, which indicate a level of urgency for the message: Regular Indicates that the message should have a regular level of urgency. Urgent Indicates messages with a high priority. Urgent message are sent with a special indication so that the recipient of the message is aware of the urgency. Very Urgent Indicates that the message should have the highest level of urgency. For CONTROL-M/Server utilities, only.	

Parameter	Description	
Attach Sysout	Specifies at the job level whether the sysout should be sent as an email attachment.	
	Format	List
	Values	<ul style="list-style-type: none"> ■ Yes: Send the job's sysout as an attachment ■ No: Do not send the job's sysout as an attachment ■ Default: Refers to the ADD SYSOUT TO EMAIL value in the config.file to determine whether to send the job's sysout as an attachment.

General information

The mail message specified by this parameter is sent to the indicated e-mail addresses when the condition specified by the On Statement/Code parameter is satisfied.

Mail messages can also be sent using a Do Shout parameter. However:

- When using the **Do Shout** parameter, email addresses must be defined in the dynamic destination table.
- **Do Mail** can specify two fields of e-mail addresses: TO contains up to 96 characters (in z/OS environments, up to 9999); CC contains up to 99 characters (in z/OS environments, up to 9999). **Do Shout** allows only 16 characters.
- **Do Mail** can specify up to 4096 characters in the message (in z/OS environments, up to 255 lines each containing up to 70 characters). **Do Shout** allows only 255 characters.
- The specified message is sent to the addresses specified in the CC field in the same way that it is sent to the addresses in the **To** field.

Aliases for other CONTROL-M components

Alternate names for the Do Mail parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOMAIL
CONTROL-M/Server	-domail
CONTROL-M for z/OS	DO MAIL
CONTROL-M/EM API	do_mail

Example: Send a message when a job completes OK

The following example illustrates how a message is sent to an e-mail address when a specified job completes successfully. When FIRST_JOB completes successfully, condition FIRST_OK is created, as specified in FIRST_JOB's Out Conditions parameter. Do Mail then sends the message to the specified e-mail address.

Job Name	FIRST_JOB
Mem Name	Job_1
Mem Lib	W\$DISK:
Owner	Thomas
Application	Payroll
Out Conditions	FIRST_OK
Do Mail	To: Thomas_werner@workmail.com "The FIRST_JOB finished OK."

Do NOTOK

The Do NOTOK parameter assigns a completion status of NOTOK to a job when the On Statement/Code criteria are satisfied, regardless of the job's actual completion status.

Table 12 Format - Do NOTOK Parameter

Usage	Optional
Format	Select NOTOK from the Do list box. No additional information is required.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Do OK	Do OK overrides or can be overridden by the Do NOTOK parameter. When both are specified, the one specified last takes effect.
--------------	---

General information

For most jobs:

If DO OK and DO NOTOK are both specified, and are implemented, the last statement to be implemented determines the status assigned to the job.

For information about the Do OK parameter, see “Do OK” on page 245.

For z/OS jobs:

Do NOTOK overrides the completion status of a job and changes it to NOTOK.

Do NOTOK cannot be specified together with Do Rerun or Do OK for the same codes-event.

When:

Do OK, Do NOTOK, and/or Do Rerun are specified for different codes-events in a job processing definition.

-and-

More than one of the codes-events is executed, including the codes-event specifying **Do OK**.

Then:

Do OK is overridden by Do NOTOK and/or Do Rerun, regardless of the order in which the codes-events are executed.

Aliases for other CONTROL-M components

Alternate names for the Do NOTOK parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	NOTOK
Reporting Facility	Parameter not included.
CONTROL-M/Server	-donotok
CONTROL-M for z/OS	DO NOTOK
CONTROL-M/EM API	do

Alternate formats for other CONTROL-M components

Alternate formats for the Do NOTOK parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	NOTOK is a valid value for the DO parameter. It is not a parameter itself.
CONTROL-M for z/OS	NOTOK is a valid value of the DO parameter. It is not itself a parameter.

Do OK

The Do OK parameter assigns the completion status of **OK** to a job, regardless of its actual completion status.

Format

Usage	Optional
Format	Select OK from the Do list box. No additional information is required.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Do NOTOK	Do NOTOK overrides or can be overridden by the Do OK parameter. When both are specified, the one specified last takes effect.
-----------------	---

General information

For most jobs:

If DO OK and DO NOTOK are both specified, and are implemented, the last statement to be implemented determines the status assigned to the job.

For z/OS jobs:

Do NOTOK overrides the completion status of a job and changes it to NOTOK.

Do NOTOK cannot be specified together with Do Rerun or Do OK for the same codes-event.

When:

Do OK, Do NOTOK, and/or Do Rerun are specified for different codes-events in a job processing definition.

-and-

More than one of the codes-events is executed, including the codes-event specifying **Do OK**.

Then:

Do OK is overridden by Do NOTOK and/or Do Rerun, regardless of the order in which the codes-events are executed.

Aliases for other CONTROL-M components

Alternate names for the Do OK parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	OK
CONTROL-M/Server	-dook
CONTROL-M for z/OS	DO OK
CONTROL-M/EM API	do

Do Remedy

Opens a ticket in the Remedy Help Desk.

Format

Usage	Optional
Format	Consists of subparameters, described below.
Invalid Characters	<p>The following special characters are not permitted in the Do Remedy parameter or its subparameters.</p> <ul style="list-style-type: none"> ■ Single quotation mark ('') ■ Double quotation marks ("") ■ Equals (=) ■ Less than (<) ■ Greater than (>) ■ Ampersand (&) ■ Backslash (\) ■ Non-English characters
AutoEdit Support	No

Click  to open a dialog box that enables you to view and edit the entire contents of the Subject and Message subparameters and specify AutoEdit variables.

Subparameters

Subparameter	Description
Urgency	<p>The urgency level of the ticket that will be opened in Remedy. Mandatory. Valid values are:</p> <ul style="list-style-type: none"> ■ L = Low (Default) ■ M = Medium ■ H = High ■ U= Urgent ■ C = Clear
Summary	A brief summary is displayed in Remedy. By default, a summary of the problem appears using AutoEdit variables. For more information on the field's characteristics, refer to Remedy documentation.
Description	A detailed description is displayed in Remedy. By default, a description of the problem appears using AutoEdit variables. For more information on the field's characteristics, refer to Remedy documentation.

General information

The action parameter DO Remedy is applicable on CONTROL-M Server and on jobs within the batch service.

Do Rerun

Indicates if an automatic rerun should be performed when the On Statement/Code criteria are satisfied.

No values or subparameters are specified for this parameter.

Related parameters

Do OK	OK status can act as a trigger for job reruns specified with Do Rerun.
Do NOTOK	NOTOK status can act as a trigger for job reruns specified with Do Rerun.
Interval	Time between job runs specified with the Do Rerun parameter.
Maximum Reruns	Number of job runs that can be specified with the Do Rerun parameter.
Rerun From	Indicates whether the interval between job runs begins with the start or the end of the previous job run. Default: start
Shout RERUN	Sends a message if the job's completion status was set to Rerun.

General information

Do Rerun specifies that the job should be rerun according to the criteria specified in the Max Rerun and Interval parameters. These parameters must be specified before a Do Rerun action can be defined.

NOTE

Do Rerun cannot be used to rerun Group Scheduling entities.



For most jobs:

If Do Rerun is specified, and DO OK or DO NOTOK is specified, and implemented, the last statement to be implemented determines the status assigned to the job.

For z/OS jobs:

When a Do Rerun action is specified for a job, the job's completion status is set to NOTOK, even if it was previously specified as OK.

Availability

For z/OS jobs:

- Cyclic jobs cannot contain a Do Rerun parameter.
- Do Rerun cannot be specified together with Do OK or Do NOTOK for the same codes-event.

When:

Do OK, Do NOTOK, and/or Do Rerun are specified for different codes-events in a job processing definition.

-and-

More than one of the codes-events is executed, including the codes-event specifying Do OK.

Then:

Do OK is overridden by Do NOTOK and/or Do Rerun, regardless of the order in which the codes-events are executed.

Aliases for other CONTROL-M components

Alternate names for the Do Rerun parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	RERUN
CONTROL-M/Server Utilities	-dorerun
CONTROL-M for z/OS	DO RERUN
CONTROL-M/EM API	do

Do Shout

Specifies a message to be sent (“shouted”) to a destination when the On Statement/Code criteria are satisfied.

Format

Usage	Optional.
Format	Select Shout from the Do list box. The controls described below in Subparameters are displayed.
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description
Destination	Destination of the Shout message (1-16 characters, case sensitive). This parameter is required. For a detailed explanation, see “ Shout ” on page 293.
MSG	Text of the Shout message, up to 255 characters (spaces allowed). This parameter is required. Use of AutoEdit variables is supported. For more information about this field, see “ Shout ” on page 293.
Urgency	Level or urgency for the Shout Message. Choose the option button for the appropriate urgency level: <ul style="list-style-type: none">■ Regular (Default)■ Urgent■ Very urgent

Aliases for other CONTROL-M components

Alternate names for the Do Shout parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOSHOUT
CONTROL-M/Server	-doshout
CONTROL-M for z/OS	DO SHOUT
CONTROL-M/EM API	do_shout

Alternate formats for other CONTROL-M components

Alternate formats for the Do Shout parameter are listed below.

Component	Format
CONTROL-M/EM Utilities	DOSHOUT is composed of the DEST (destination) URGENCY, and MESSAGE subparameters. Example: <DOSHOUT DEST="Wkstn2" URGENCY="R" MESSAGE="Job5 completed OK"/>

Do Stop Cyclic

When specified, this parameter prevents subsequent iterations of the current cyclic job.

No values or subparameters are specified for this parameter.

Related parameters

Cyclic	Cyclic is overridden by the Do Stop Cyclic parameter.
--------	---

General information

Cyclic jobs normally run at regular intervals for as long as specified scheduling criteria are satisfied.

If the related On Statement/Code criteria are satisfied, Do Stop Cyclic prevents future iterations of the current cyclic job.

If the current job is not a cyclic job, this parameter has no effect on job processing.

If a cyclic job is terminated by a **Do Stop Cyclic** parameter, the View Details screen displayed by option Z in the **ctmpsm** utility contains **Cyclic:T** where **T** indicates "Terminated".

Aliases for other CONTROL-M components

Alternate names for the Do Stop Cyclic parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	SPCYC
CONTROL-M/Server	-dostopcyclic
CONTROL-M for z/OS	DO STOPCYCL
CONTROL-M/EM API	do

Do Sysout

Indicates how the job's output should be handled when the On Statement and Code criteria are satisfied.

Format

Usage	Optional						
Format	<p>Select Sysout from the Do list box and specify the relevant subparameters.</p> <p>The following subparameters are available for this parameter:</p> <table> <tr> <td>Option</td><td> <p>Indicates what to do with the SYSOUT data.</p> <p>The options that can be selected in this list box are:</p> <p>Computers other than z/OS:</p> <ul style="list-style-type: none"> ■ None ■ Copy ■ Delete ■ Move ■ Release <p>z/OS:</p> <ul style="list-style-type: none"> ■ None ■ Change jobs class ■ Delete output ■ Copy output ■ Move output <p>Each value is described in detail in Table 21 on page 304.</p> </td></tr> <tr> <td>Prm</td><td>Contains additional information, depending on which value is specified for the Option parameter.</td></tr> <tr> <td></td><td>The format for this parameter is the same as specified for Sysout Handling. For more information about this parameter, see “SYSOUT Handling” on page 303.</td></tr> </table>	Option	<p>Indicates what to do with the SYSOUT data.</p> <p>The options that can be selected in this list box are:</p> <p>Computers other than z/OS:</p> <ul style="list-style-type: none"> ■ None ■ Copy ■ Delete ■ Move ■ Release <p>z/OS:</p> <ul style="list-style-type: none"> ■ None ■ Change jobs class ■ Delete output ■ Copy output ■ Move output <p>Each value is described in detail in Table 21 on page 304.</p>	Prm	Contains additional information, depending on which value is specified for the Option parameter.		The format for this parameter is the same as specified for Sysout Handling. For more information about this parameter, see “SYSOUT Handling” on page 303 .
Option	<p>Indicates what to do with the SYSOUT data.</p> <p>The options that can be selected in this list box are:</p> <p>Computers other than z/OS:</p> <ul style="list-style-type: none"> ■ None ■ Copy ■ Delete ■ Move ■ Release <p>z/OS:</p> <ul style="list-style-type: none"> ■ None ■ Change jobs class ■ Delete output ■ Copy output ■ Move output <p>Each value is described in detail in Table 21 on page 304.</p>						
Prm	Contains additional information, depending on which value is specified for the Option parameter.						
	The format for this parameter is the same as specified for Sysout Handling. For more information about this parameter, see “SYSOUT Handling” on page 303 .						
AutoEdit Support	AutoEdit variables and expressions cannot be specified as all or part of the values for this parameter.						

Related parameters

SYSOUT Handling	Sysout Handling specifies how to handle a SYSOUT when the job ended OK .
------------------------	---

General information

If no Sysout Handling is specified (or the job does not end **OK**), and no Do Sysout statement is activated, the job's log is placed in the default location specified by CONTROL-M until the New Day procedure performs its cleanup.

NOTE



The default destination of the Job log is determined by a CONTROL-M system parameter on each computer. For more information, see your CONTROL-M administrator.

The Automatic Log Copy CONTROL-M system parameter is not affected in any way by the function of Do Sysout.

Aliases for other CONTROL-M components

Alternate names for the Do Sysout parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	DOSYSOUT
CONTROL-M/Server	-dosysout
CONTROL-M for z/OS	DO SYSOUT
CONTROL-M/EM API	do_sysout

Alternate formats for other CONTROL-M components

Alternate formats for the Do Sysout parameter are listed below.

Component	Format						
CONTROL-M/EM Utilities	<p>DOSYSOUT is composed of the parameters below.</p> <p>Example <code><DO SYSOUT OPTION="ChangeClass" PAR="F" FROM="C" /></code></p> <table border="1"> <tr> <td>OPTION</td> <td>Indicates what to do with the SYSOUT data. Mandatory.</td> </tr> <tr> <td></td> <td>Valid values: <ul style="list-style-type: none"> ■ Release ■ Delete ■ Copy ■ Move </td> </tr> <tr> <td></td> <td>Note: Copy and Move are not used with z/OS.</td> </tr> </table>	OPTION	Indicates what to do with the SYSOUT data. Mandatory.		Valid values: <ul style="list-style-type: none"> ■ Release ■ Delete ■ Copy ■ Move 		Note: Copy and Move are not used with z/OS.
OPTION	Indicates what to do with the SYSOUT data. Mandatory.						
	Valid values: <ul style="list-style-type: none"> ■ Release ■ Delete ■ Copy ■ Move 						
	Note: Copy and Move are not used with z/OS.						

Component	Format	
CONTROL-M/EM Utilities <i>continued</i>	PAR	Certain OPTION values require that you supply additional information (such as Release , NewDest). The PAR parameter holds that information as a string.
	FROM	Limits the SYSOUT handling operation to only SYSOUTs from the specified class.
CONTROL-M for z/OS	DO Sysout is composed of the parameters below.	
	OPT	SYSOUT option code. Mandatory. Valid values: <ul style="list-style-type: none">■ C – Change the class of the job output.■ D – Delete (purge) the job output.■ F – Copy the job output to file.■ N – Change destination of job output.■ R – Release the job output.
	data	Relevant SYSOUT data. Mandatory and valid only if the specified OPT value is C, F, or N. Valid values depend on the OPT value, as follows: <ul style="list-style-type: none">■ F – File name. String comprised of from 1 through 44 characters. All characters are valid except blanks.■ C – New class (1 character). Any character is valid except blank, but an asterisk (*) indicates the original MSGCLASS of the job.■ N – New destination (1 through 8 characters). All characters are valid except blanks.
	FRM	FROM class. Optional. Limits the SYSOUT handling operation to only SYSOUTs from the specified class.

On statement

Job processing step and code event, and job SYSOUT criteria that determine whether the accompanying DO statements are performed.

NOTE



On Sysout statements are only available for jobs that run under CONTROL-M for z/OS version 6.2.00 or later.

z/OS and non-z/OS jobs

There are important differences in the way the On statement functions between jobs running in z/OS environments and jobs running on other computers. In this section, the two types of jobs will be described separately.

Jobs running on computers other than z/OS

In the case of jobs running on computers other than z/OS, the On statement specifies a codes event as the criteria for specified Do statements to be performed. A codes event can be one of the following types:

- operating system completion code
- a combination of statements and error codes

Each of these types is described in detail below.

Format

Usage	Optional.
Type	<p>Operating system completion code:</p> <ul style="list-style-type: none"> ■ Statement – An asterisk must be specified in this field. ■ Code – This field must contain one of the following: <ul style="list-style-type: none"> — OK — NOTOK — JLOST, indicating a completion status for the job — a string in one of the following formats: {COMPSTAT RUNCOUNT RERUNNO} operator completionCode <p>In this string</p> <p><i>operator</i> is one of the following: = or EQ (equal) < or LT (less than) > or GT (greater than) ! or NE (not equal)</p> <p><i>completionCode</i> must be one of the following: the number of the code returned by the operating system EVEN (the field is considered satisfied by an even return code) ODD (the field is considered satisfied by an odd return code)</p> <p>Note: If one of the following 2-letter abbreviations, EQ, LT, GT, or NE, is used as the value of operator, the abbreviation must be preceded and followed by blanks.</p>
	<p>Combination of statements and error codes:</p> <ul style="list-style-type: none"> ■ Statement – a character string, from 1 through 132 characters in length, containing a statement from the job script file The specified string can be a portion of the statement. ■ Code – a character string, from 1 through 132 characters in length, to be compared to the operating system's response to the specified statement <p>The Statement subparameter is optional. However when it is specified, the Code subparameter is also required.</p> <p>Statement and Code character strings can each contain mask characters. Valid mask characters are:</p> <ul style="list-style-type: none"> ■ * – represents any number of characters (including no characters) ■ \$ – represents any single character ■ ? – represents any single character <p>Note for Chinese, Japanese and Korean character sets: The ? and \$ wildcards are not supported. The * wildcard is supported only as a standalone value or as a suffix to another value; it cannot be embedded in, or act as a prefix to, another value.)</p>
AutoEdit Support	No. AutoEdit variables or expressions cannot be specified as all or part of the value for this parameter.

General information

Each On statement is combined with subsequent Do statements. Their implied relationship is:

- **IF:** Codes-event criteria (specified in an On statement) are satisfied,
- **THEN:** Perform the actions (specified in the Do statements).

Any number of sets consisting of an On statement and Do statements can be specified for a job. Each On statement can be combined with an unlimited number of Do statements.

The following topics are discussed in this section:

[Operating system completion code](#)

[Combination of statements and error codes](#)

[Considerations when defining conditional postprocessing actions](#)

[Defining conditional criteria](#)

[Understanding how On statements are processed](#)

[Order of processing of On Statement/Code combinations](#)

[Formatting of On statements from SYSOUT](#)

[Utilization of exit codes](#)

[Operating system completion code](#)

Table 13 describes how the On statement is used to test for an operating system completion code or CONTROL-M completion status.

Table 13 Operating system completion code

Completion code or status	Description
Completion code	Upon termination of a job, the reserved word COMPSTAT contains the completion code of the job. The user can compare the completion code to a fixed value or test for an even or odd completion code using one of the listed logical operators. For example, COMPSTAT>4 indicates that dependent Do statements are executed if the job terminates with a completion code of 5 or above.
Number of runs	Upon termination of a job, RUNCOUNT indicates the number of times the job has been submitted for execution.
Number of reruns	Upon termination of a job, RERUNNO indicates the number of times the job has been submitted for execution due to DO RERUN.
Completion status	Specifying OK or NOTOK in the Status parameter indicates that dependent Do statements are executed based on the OK or NOTOK termination status of the job.
JLOST	Specifying JLOST in the Status parameter indicates that dependent Do statements are executed if the SYSOUT of the job cannot be found.

Combination of statements and error codes

The On statement functions as follows:

- The SYSOUT of the job is divided into sets, each consisting of a job script statement and operating system responses to the statement (if any). If no response exists for a specific script statement (that is, the statement executed successfully), a null message is paired with the script statement.
- The statement set is compared to the On statements defined for the job. If the Code parameter is specified as the * mask character, it can match even a null error message record successfully.
- If there is a match between the On statements and a statement set from the job's log, the corresponding Do action statements are executed. Otherwise, CONTROL-M proceeds to the next statement set.

Considerations when defining conditional postprocessing actions

Conditional postprocessing actions are performed following job processing. To define postprocessing actions that are conditional on the job processing results, use the Set tab to define On statements and accompanying Do statements. These statements are described as follows:

- On statements—identify the job processing results that determine if the accompanying conditional (Do) actions are going to be performed.

- Do statements—identify the actions to perform when the On statement criteria are satisfied.

Defining conditional criteria

When filling in On criteria, supply two values:

- statement
- code

On criteria can be defined to depend on values returned from any of the following

- job SYSOUT
- job completion code
- job completion status

To be able to fill in the On statement and codes values appropriately, you must understand how the job results are processed.

Understanding how On statements are processed

Whenever CONTROL-M/Server submits a job under CONTROL-M/Agent, the agent determines the completion code and completion status of the job based on the processing results and the instructions and definitions in the job script. The agent always passes this information to the server (even if an On statement does not depend on that information).

So that it can determine if On criteria that depend on the SYSOUT of a job have been satisfied, CONTROL-M/Server passes such On criteria to the CONTROL-M/Agent at the time of job submission. After job execution (that is, after the job has ended or timed out), the agent must determine which On statements that depend on the job's SYSOUT have been satisfied, and which have not.

Job SYSOUT is divided into sets of data. Each set consists of the following:

- a job script statement
 - operating system responses to the job script statement.
- There can be multiple responses (lines). For example, for a job script statement requesting a list of the files in a directory, each listed file would constitute an operating system response line. (If no response exists for a specific script statement, a null message is paired with the job script statement.)

CONTROL-M/Agent does not directly access the SYSOUT. Instead, it calls the Control Module which accesses the SYSOUT. The processing logic is as follows:

1. CONTROL-M/Agent calls the Control Module requesting SYSOUT data.
2. The Control Module reads one set of the SYSOUT data (beginning with the first set), and formats it as follows
 - job script statement
 - operating system response 1
 - operating system response 2
 - operating system response 3, and so on
3. The Control Module sends job script statements to the agent and one operating system response (beginning with the first response).
4. CONTROL-M/Agent checks the data sent by the Control Module against the On statement.
 - If the job script statement does not match one of the On statements, there is no match to that set of On criteria.
 - If the job script statement and operating system response match the On statement and code criteria, CONTROL-M/Agent considers the On statement criteria to be satisfied.
 - If the job script statement matches the On statement, but the operating system response does not match the code criteria, CONTROL-M/Agent asks to see the next operating system response in the set, and repeats this process until there is a match or until there are no more operating system responses in the set, in which case there is no match.
5. As long as there are remaining On Statements and sets of data in the SYSOUT, CONTROL-M/Agent repeats the process from step 1. The agent requests that the control module check the next set of data, beginning with its job script statement and first operating system response.

When the process is complete, CONTROL-M/Agent sends CONTROL-M/Server the following information about the job:

- list of On statements (relating the SYSOUT) that have been satisfied
- list of On statements (relating to the SYSOUT) that have not been satisfied
- completion status of the job—determined by the script of the job and processing results
- completion code of the job—defined in, and determined by, the script of the job

CONTROL-M/Server examines this information, then determines and performs appropriate post processing.

— EXAMPLE —**How On statements relating to the SYSOUT are processed**

A job script requests (among other functions) that the operating system run the following commands (the operating system does run the commands):

pwd (this is a request to run a Dir command on the specified directory)
ls (this is a request to list the files found in the Dir request)

The SYSOUT of the job contains the following results from these requests.

```
+pwd  
/data/wrkfl e  
+l s  
fi l e1  
fi l e2  
di r1  
di r2
```

The job processing definition contains the following On (and Do) statement:

On statement stmt= ls code=dir*
Do ...

Following job processing, CONTROL-M/Agent issues calls to the Control Module to see if the On criteria have been satisfied. The list below indicates the call#, data formatted and returned by the Control Module, the SYSOUT set, and analysis of the results by CONTROL-M/Agent:

<i>Call</i>	<i>data returned by the Control Module</i>	<i>Set</i>	<i>results according to the agent</i>
Call1:	statement= pwd code=/data/wrkfl e	1st set	No match on the statement
Call2:	statement=ls code= file1	2nd set	Match on statement. No match on code
Call3:	statement=ls code=file2	2nd set	Match on statement. No match on code
Call4:	statement=ls code=dir1	2nd set	Match on statement. Match on code.

CONTROL-M/Agent has determined that there is a match on the On criteria. It issues no more calls, and notifies CONTROL-M/Server that the On criteria are satisfied. (It also sends CONTROL-M/Server the completion code and completion status.)

Because On statement SYSOUT criteria are matched against SYSOUT data as formatted and returned by the Control Module, you must specify SYSOUT-related On criteria using the formatting that the Control Module uses, to respond to calls from CONTROL-M/Agent.

Order of processing of On Statement/Code combinations

CONTROL-M processes On Statement/Code combinations in the following order:

1. On Statement/Code combinations related to completion codes, for example:
ON " * " COMPSTAT>0"
2. On Statement/Code combinations related to SYSOUT, for example:
ON " *cp aaa bbb* " *not found*"
3. On Statement/Code combinations based on the OK/NOTOK state of the job, for example:
ON " * " NOTOK"

Formatting of On statements from SYSOUT

Scripts that are analyzed by CONTROL-M/Server as part of the post-processing of a job should comply with the following requirements:

- Begin the script with the echo on command. This ensures that job script statements will be written to the SYSOUT file.
- End each prompt with a > or] character. These characters and embedded spaces should not be used inside the prompt text string.

Table 14 describes how the On Statement/Code job processing parameter interprets script lines from SYSOUT.

Table 14 Describing formatting of statements from SYSOUT

Item	Description
Analysis of the Sysout for On Statement/Code	<p>Text in a SYSOUT file that follows a > prompt or] prompt is treated by CONTROL-M/Server as part of the job script. All other text is treated as part of the operating system response.</p> <p>When specifying an On Statement/Code statement in a job processing definition, place text that follows either of these prompts in the Stmt parameter.</p> <p>Place other text in the Code parameter.</p>
Continuation Lines	CONTROL-M/Server does not process continuation lines for comparison with text in a Stmt subparameter. Therefore, do not specify script continuation line text in the Stmt subparameter.
Length of Script Statement	<p>CONTROL-M/Server compares the first 512 characters of a script statement with the text in subparameter Stmt. Text after the first 512 characters of a script statement should not be in subparameter Stmt.</p> <p>The maximum length of the On Code parameter is 1024 characters.</p>

Utilization of exit codes

Both DOS **.bat** scripts and REXX **.cmd** scripts can return an exit code to CONTROL-M/Server upon completion. The **_exit** script utility is used by **.bat** scripts. For more information about script utilities, see the *CONTROL-M Administrator Guide*.

CONTROL-M/Server can distinguish between exit codes by using the following expression in the Code subparameter of the On Statement/Code job processing parameter:

COMPSTAT=<value>

Example 1: Using exit codes

In this example, a REXX script exits with an exit code of 5, as displayed below:

```
exit 5
```

This condition can be detected by defining the following On Statement/Code parameter:

```
Stmt: *
Code: COMPSTAT=5
```

Example 2: Job ends with a status of NOTOK

Using the following commands, any completion code other than 2 causes the job to end with a status of NOTOK.

```
On
Statement *
Code COMPSTAT!2
Do NOTOK
```

Example 3: Job ends with a status of OK

Using the following commands, any even completion code causes the job to end with a status of OK.

```
On
Statement *
Code COMPSTAT EQ EVEN
Do OK
```

Example 4: Create a condition on NOTOK

Using the following commands, a completion status of **NOTOK** causes CONTROL-M to create a condition.

```
On
Statement *
Code NOTOK
Do Cond PRKZ_NOTOK ODAT +
```

Example 5: Output from an OpenVMS job

Assume that the following messages are issued from an OpenVMS job:

```
$ SET NOON
$ MOU/SYS/OVER=1 D MUAO:
$ COPY JWI NFO_2507.DAT mua0: ACCOUNT.DAT
%COPY-E-OPENIN, error opening
      J$DSK: [USR1]JWI NFO2507.DAT; as input
-RMS-E-FNF, file not found
$SH
%DCL-W-INSFPRM, missing command parameters - supply
      all required parameters
USER1          Job terminated at 10-AUG-1997 09:01:42.07
Accounting information:
Buffered I/O count: 43Peak working set size: 375
Direct I/O count: 24Peak page file size: 2485
Page faults: 495Mounted volumes: 0
Charged CPU time: 0:00:00.00.61Elapsed time: 0:00:00.02.63
```

The following On statement would be triggered by the preceding messages:

```
On
Statement COPY JWI NFO$$$$.* *
Code %COPY-E-OPENIN, error opening J$DSK: [USR1]*
Do NOTOK
```

Example 6: Output from a UNIX Job

Assume that the following messages are issued from a UNIX job:

```
+ date
Mon Mar 20 10:30:58 IST 2006
+ pwd
/export/users/ctmagent
+ ls
BMCI INSTALL
ctm
```

```
installed-versions.txt  
Isagent.sh
```

The following On statement would be triggered by the preceding messages:

```
ON  
Statement Is  
Code Isagent*  
Do NOTOK
```

Example 7: Rerunning a job (for Microsoft Windows)

Assume that the following is the SYSOUT from a batch job:

```
copy job411.dat tempt.dat  
File not found - JOB411.DAT  
0 file(s) copied
```

The following On statement would be triggered by the preceding job output:

```
On  
Statement copy job411.dat  
Code File not found  
Do Rerun
```

Example 8: Assign NOTOK status for an iSeries (AS/400) job

Assume that the following is the SYSOUT from an iSeries (AS/400) job:

```
*N0nE Request 21/11/05 16:41:07 QWTSCSBJ QSYS 02FF TEST  
CMTST 0009  
Message . . . . : -CALL PGM(CMTST)  
CPD0170 Diagnostic 30 21/11/05 16:41:07 QCLCLCPR QSYS 02FF  
TEST CMTST 009  
Message . . . . : Program CMTST in library *LIBL not found.  
Cause . . . . : The Program specified on the CALL command  
cannot be found.
```

The following On statement would be triggered by the preceding job output:

```
On  
Statement *CALL PGM (CMTST)*  
Code *Program CMTST in library *LIBL not found.*  
Do NOTOK
```

Example 9: Issue a shout

In this example a shout is issued to the administrator if the word “error” is displayed anywhere in the SYSOUT.

```
On
Statement stmt= * code= *error*
Do Shout To= Adman Urgn= High Msg= Potential error in Job %%jobid
```

Example 10: Using completion codes other than 2

A completion code other than 2 causes the job to end NOTOK.

```
On
Statement stmt= * code= COMPSTAT !2
Do NOTOK
```

Example 11: Using even completion codes causes the job to end OK

Any even completion code causes the job to end OK.

```
On
Statement stmt= * code= COMPSTAT EQ Even
Do OK
```

Example 12: Trigger a second job after the first job ends NOTOK

If a job ends NOTOK, add a condition that triggers a job that now becomes necessary.

```
On
Statement stmt= * code= NOTOK
Do Condition Name=JobX_NotOK Date= odat sign= +
```

Example 13: Set the status of a job to NOTOK under certain conditions

Set the status of a job to NOTOK if the SYSOUT indicates that the password directory is not found. In such a case, the SYSOUT of the UNIX job contains text similar to the following:

```
cp /etc/passwd /tmp
cp /etc/passwdx /tmp
cp: /etc/passwdx: No such file or directory
cp /etc/passwd /usr/kvm/xyzzy
cp: /usr/kvm/xyzzy: Permission denied
exit 12
```

On

```
Statement stmt= cp/etc/passwdx/tmp code= cp*no*file  
Do NOTOK
```

Example 14: Rerun a job under certain conditions

Rerun the job if the SYSOUT indicates that a particular file to be copied was not found:

```
On  
Statement stmt= copy job411.dat code= File not found  
Do Rerun
```

Jobs running in z/OS environments

Format

Usage	Optional
Length	For more information, see Subparameters below.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Do CTBRule	Can be specified as a Do PGMST step.
Step Range	Specifies a range of steps in the larger step range specified by the On parameter. An action can be specified for the range that is selected.

Subparameters

Stmt	On statement that causes CONTROL-M to check the execution results of a job step or procedure against the specified codes criteria.				
PGMST	<p>Job step. The execution results of the job step are checked against the specified codes criteria. Mandatory if the On Stmt option is selected.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ■ <i>pgmstep</i> ■ <i>*rangename</i> ■ ANYSTEP ■ +EVERY <p>These values are described in Table 15 on page 273.</p>				
	<table border="1" style="width: 100%;"> <tr> <td style="width: 15%;">Length</td><td>1 through 8 characters</td></tr> <tr> <td>Invalid Characters</td><td>Blanks.</td></tr> </table>	Length	1 through 8 characters	Invalid Characters	Blanks.
Length	1 through 8 characters				
Invalid Characters	Blanks.				
	<p>Note: If the first character of PGMST is * (asterisk), it must be followed by the range name of a defined Step Range consisting of up to 7 characters.</p>				
Stmt <i>continued</i>	<p>PROCST</p> <p>Procedure step (EXEC statement) that invokes a procedure from which the specified PGMST program is executed. Optional.</p> <p>Valid values are:</p> <ul style="list-style-type: none"> ■ <i>blank</i> ■ <i>procstep</i> ■ +EVERY <p>These values are described in Table 16 on page 274.</p>				
	<table border="1" style="width: 100%;"> <tr> <td style="width: 15%;">Length</td><td>1 through 8 characters</td></tr> <tr> <td>Invalid characters</td><td>Blanks</td></tr> </table>	Length	1 through 8 characters	Invalid characters	Blanks
Length	1 through 8 characters				
Invalid characters	Blanks				
Codes	Return codes or statuses that can satisfy the step or code event criteria if returned upon termination of the specified job steps. At least one code must be specified. Codes can be condition codes, user abend codes, system abend codes, various end codes and statuses, and certain keywords. Codes are described in “Code values” on page 274 .				
And/Or	<p>Optional. Specifying either And or Or opens a new On statement in the On block (described later) and links the new statement to the statement containing the And/Or specification, as follows:</p> <ul style="list-style-type: none"> ■ And – indicates AND logic between the two On statements. On block criteria are satisfied only if both On statements are satisfied. ■ Or – indicates OR logic between the two On statements. On block criteria are satisfied if either (or both) On statements are satisfied. 				

Sysout	On statement that defines a string and the location to be checked. When the job runs, if this string is found in the specified location within the SYSOUT of the job, the action defined in the accompanying Do statement is performed.		
	Note: This option is available only for jobs running under CONTROL-M for z/OS version 6.2.00 or later.		
	Sysout Pattern	Length	1 through 40 characters
		Invalid characters	Blanks
Sysout continued	From Column	A number from 001 through 132, indicating the column at which the search should start. If this field is blank, the value 001 is assumed. The value in this field must be lower than that in the To Column field.	
	To Column	A number from 001 through 132, indicating the column at which the search should end. If this field is blank, the value 132 is assumed. The value in this field must be higher than that in the From Column field.	
	And/Or	Optional. Specifying either And or Or opens a new On statement in the On block (described later) and links the new statement to the statement containing the And/Or specification, as follows: <ul style="list-style-type: none"> ■ And – indicates AND logic between the two On statements. On block criteria are satisfied only if both On statements are satisfied. ■ Or – indicates OR logic between the two On statements. On block criteria are satisfied if either (or both) On statements are satisfied. 	

General information

On statements define event criteria that identify either specific CONTROL-M job steps and possible codes that result from the execution of those job steps, or specific strings in the SYSOUT of a job.

On statements are usually, but not necessarily, followed by user-specified Do actions. The implied relationship between On statements and associated Do statements is:

- **IF:** Codes-event criteria (specified in an On Stmt statement) are satisfied, or the string specified in an On Sysout statement is found in the SYSOUT,
- **THEN:** Perform the actions (specified in the Do statements).

The combination of On Stmt statements and Do statements enables you to specify post-processing actions the performance of which depends on the execution results of job steps executed under CONTROL-M.

The combination of On Sysout statements and Do statements enables you to specify post-processing actions that are to be performed if the SYSOUT of jobs contain specific strings.

Multiple On Statements and On Blocks

In a new job scheduling definition, an empty On statement is followed by an empty DO statement. Additional On statements can be opened in the job scheduling definition as follows:

- Each On and DO statement is independent. Multiple On and DO statements are not logically connected to the preceding On and DO statements.

Multiple On blocks are normally interpreted sequentially. If the conditions of an On block are satisfied, the accompanying DO actions are performed. The conditions of more than one On block can be satisfied; therefore more than one set of DO statements can be performed.

Example 1: Multiple On Stmt Do Blocks

One On block specifies **STEP1** as the program step, and **>C0004** as the code. A second On block specifies **ANYSTEP** as the program step, and **>C0008** as the code.

If **STEP1** results in a condition code of **C0016**, the On step and code event criteria for both On statements are satisfied, and the DO actions accompanying both On blocks are performed.

- When you fill in the And/Or subparameter of an On statement, an empty On statement is opened immediately (that is, before the accompanying DO statement). The specified And/Or value logically connects the new On statement to the preceding On statement. These two On statements constitute a single On block.

Example 2: Related On Statements

For the DO SHOUT action to be performed, **Step1** must end with a condition code of **C0004**, and **Step5** must end with system abend **S0C4**.

ON Pgmst=Step1	Procst=	Codes=C0004	And
ON Pgmst=Step5	Procst=	Codes=S0C4	
DO Shout	To=euser	Urgn=Regular	Msg=Backup operation s...
ON			

Inserting additional On statements from CONTROL-M for z/OS

When using the z/OS interface, to add an empty On statement between two existing On statements, type the > character over the first letter in the On PGMST value of the previous On line, and press Enter.

Example 3: Insert an On Statement

If the program step name is **STEP1**

ON PGMST >TEP1

adds an “empty” On line after the current On statement. The **STEP1** step name is restored to its original value when **Enter** is pressed (that is, the > character disappears).

To delete unwanted On statements, specify appropriate Line Editing commands in the Edit environment. For more information about Line Editing commands, see the *CONTROL-M for z/OS User Guide*.

Using all runs of a job including restarts

When processing On blocks, CONTROL-M can incorporate the results of all previous runs and restarts, filtering them for jobs restarted with the RESTART, RECAPTURE CONDITION, and ABEND CODES parameters. CONTROL-M/Restart searches previous runs to determine which steps must be considered part of the restarted job.

For example, if one step finished successfully during its original run, and another step finished successfully after a restart, the On block check for the successful finish for both steps produces a **TRUE** result and the On statement is satisfied.

Activation of this facility in CONTROL-M/Restart requires that the ALLRUNS parameter in the CTRPARM member be set to **YES**. When activated, this facility can apply to any specified step, step range, or to the step value **+EVERY**.

Step values

Table 15 describes the **PGMST** Step Range values.

Table 15 PGMST step values (part 1 of 2)

Step Value	Description
<i>pgmst</i>	<p>In an On statement, the specified step is generally a program step, specified in the PGMST field. It may be a program executed directly within the job stream, in which case no PROCST value is specified, or it may be a program executed by a called procedure, in which case the called procedure is specified in PROCST.</p> <p>If the JCL contains nested procedures, the name of the EXEC procedure statement that invokes the most deeply nested procedure (that is, the procedure that immediately invokes the PGM step) must be specified in PROCST.</p> <p>The same step name can appear in different On statements in the same On block (or different On blocks).</p>
<i>*rangename</i>	<p>To check codes in a range of steps, first define the step range and assign it a name in the Step Range statement. Then specify the name, preceded by an asterisk, in the PGMST field. The * indicates that the specified name is a range name, not a step name. The range of steps is displayed, and you can check the codes that are displayed within the defined range.</p> <p>If CONTROL-M adds a CONTROLR step to a job (for example, a job is restarted by CONTROL-M/Restart or PREVENT NCT2 is specified in the job scheduling definition), the CONTROLR step is processed like all other job steps.</p> <p>Example In the Step Range statement, the name DF2, is assigned to the range of program steps STEP20 through STEP29A.</p> <p>If *DF2 is specified in On PGMST, the On step and code criteria is satisfied if any of the codes result from any of the steps in the range STEP20 through STEP29A.</p>

Table 15 PGMST step values (part 2 of 2)

Step Value	Description
ANYSTEP	The ANYSTEP value can be specified in the PGMST field. In general, it indicates that the DO statements must be performed if the specified codes are found in any steps. However, if ANYSTEP is specified with the codes OK , NOTOK , EXERR , JLOST , JNRUN , JSECU , JNSUB , or *UKNW , the On criteria are satisfied only if the entire job ends with the specified code criteria. If ANYSTEP is specified with the FORCE code, no other codes can be specified in the same On block, and the PROCST field must be left blank.
+EVERY	The +EVERY value is used without being accompanied by limiting step values when the code criteria must be satisfied for every step. The following examples all have the same impact – the code criteria must be satisfied for every step in the job without exception.

The PROCST Step Range values are described in [Table 16](#).

Table 16 PROCST step values

Step Value	Description
blank	When left blank, matching program step names (PGMST) are checked regardless of whether they are directly from the job or from a called procedure. Default. The On statement is satisfied if the PGMST criteria are satisfied from any procedure directly from the job.
procstep	Name of a specific procedure step: <i>// procstep EXEC procedure</i> If a specific procedure step is specified, only program steps from the invoked procedure are checked to see if they satisfy the code criteria. Program steps directly from the job are not checked.
+EVERY	The +EVERY value is used without being accompanied by limiting step values when the code criteria must be satisfied for every step. The following examples all have the same impact – the code criteria must be satisfied for every step in the job without exception.

Code values

Codes can be condition codes, user abend codes, system abend codes, various end codes and statuses, and certain keywords. They can also be prefaced by certain qualifiers. All of these are described below.

A maximum of 245 codes can be specified for any On step statement, as follows:

- Each line of an On statement contains fields for specification of up to four codes.
- Whenever a fourth code on a line is specified, and Enter is pressed, a new line within the same On statement is opened, allowing specification of up to another four codes.

NOTE

If a DO OK statement is specified in the job scheduling definition, it is ignored for steps for which any of the following codes apply: JNRUN, JNSUB, *REC0, *UKNW.

Code values are described in [Table 17](#).

Table 17 Code values (part 1 of 2)

Value	Description
Cnnnn	Step condition code, where <i>nnnn</i> is a 4-digit value.
Sxxx	Step system abend code, where <i>xxx</i> is a 3-character hex value.
Unnnn	Step user abend code, where <i>nnnn</i> is a 4-digit value.
*****	Any step that executes, including steps with JCL errors and steps returned with an ABEND code. For reasons of backward compatibility, the ***** code does not include steps with the FLUSH code or SNRUN (described below). The ***** code does, however, include jobs not submitted and jobs whose SYSOUT was lost if On PGMST ANYSTEP is specified.
FORCE	<p>This code applies when a Job is Forced OK from the CONTROL-M Active Environment screen (Screen 3).</p> <p>To specify a code of FORCE, all of the following must apply:</p> <ul style="list-style-type: none"> ■ No other code can be specified in the same statement. ■ The PGMST value must be ANYSTEP. ■ No PROCST value can be specified. ■ No other On statements can appear in the On block. <p>Valid DO statements for the FORCE code are:</p> <ul style="list-style-type: none"> ■ DO SHOUT ■ DO COND ■ DO FORCEJOB ■ DO SETVAR ■ DO MAIL
JLOST	Job SYSOUT was lost. This value can be specified only with the ANYSTEP step value.
JNRUN	Job was canceled during execution or re-execution. This value can be specified only with the ANYSTEP step value.
JFAIL	Job failed due to JCL error.
JSECU	Job failed due to security requirements (only under ACF2). This value can be specified only with the ANYSTEP step value.

Table 17 Code values (part 2 of 2)

Value	Description
JNSUB	Job not submitted. Submission of a job or initiation of a started task failed for any reason. This value can be specified only with the ANYSTEP step value.
OK	A PGM step finished executing OK (by default with a condition code of C0004 or less). This value can be specified only with the ANYSTEP step value.
	Note: Through parameter MAXCCOK in member CTMPARM in the IOA PARM library, the default condition code can be set to C0000 .
	If a job is FORCED OK , the DO statements following an On PGMST ANYSTEP... CODES OK statement are processed only if the FRCOKOPT parameter in the CTMPARM member in the IOA PARM library is set to Y .
NOTOK	A PGM step (or the job) finished executing NOTOK . This code covers all types of failures, including non-execution errors (for example, job not run, JCL error, job not submitted), and (by default) any condition code greater than C0004 . This value can only be specified with the ANYSTEP step value.
	Note: You can use the MAXCCOK parameter in the CTMPARM member in the IOA PARM library to set the default condition code to C0000 .
EXERR	Any type of execution error. It is the same as NOTOK , but is triggered only if the job has actually started executing. This value can only be specified as the ANYSTEP step value.
*NCT2	A NOT CATLGD 2 or NOT RECATLGD 2 event occurred in the job step. The default result of this event is a NOTOK status for the step. A message containing the data set name is written to the IOA Log file.
	Note: If you do not want to be alerted to NOT RECATLGD 2 events, see your INCONTROL administrator.
*TERM	Job terminated by CMEM due to an NCT2 event.
REC0	Rerun (recovery) is needed, but no more reruns are available.
	Note: REC is followed by a zero (0), not a letter O.
*UNKW	An unknown error occurred, usually as a result of a computer crash during job execution. This value can only be specified with the ANYSTEP step value.
SEJ	Job was queued for re-execution.
FLUSH	A JCL COND or JCL IF/THEN/ELSE statement caused a step to not run. This code is described in more detail in FLUSH , below.
SNRUN	A step did not run. This code is described in more detail in “ SNRUN ” on page 277.

FLUSH

The **FLUSH** code generally applies when a step does not run but no error is indicated. This code is assigned when:

- A JCL COND or JCL IF/THEN/ELSE statement caused the step not to run. CONTROL-M detects code FLUSH steps by the IEF272I message (Step was not executed).
- If a job was restarted by CONTROL-M/Restart, and CONTROL-M is to consider all job runs during post-processing (ALLRUNS is set to YES in the CTRPARM member), a step is defined as FLUSH if both the following statements are true:
 - Either the step did not previously run, or CONTROL-M/Restart did not recapture a completion or abend code from a previous run
 - Either of the following statements is also true:
 - It was not executed during the RESTART run because of a JCL COND or JCL IF/THEN/ELSE statement.
 - It was not executed due to a RESTART decision (the CTR103I message).

Because a code of FLUSH does not indicate that an error occurred during job execution, assignment of this status does not cause a job status of NOTOK.

If a JCL statement other than the COND or IF/THEN/ELSE statement caused the step not to run, it is not defined as a FLUSH step.

If the failure of a step causes subsequent steps not to be executed, these subsequent steps are not defined as FLUSH steps.

For reasons of backward compatibility (that is, to ensure that the application of the ***** code remains unchanged), the ***** code does not include FLUSH steps.

SNRUN

A step is defined as code SNRUN if it did not run. This code includes:

- Any step with a code of FLUSH.
- Any step that does not appear in the job.
- Instances where a step does not run because of a JCL error in a prior step (the step with the JCL error does not have a status of SNRUN)
- If a job was restarted by CONTROL-M/Restart, and CONTROL-M is to consider all job runs during post-processing (the ALLRUNS parameter is set to YES in the CTRPARM member), a step is defined as SNRUN if both the following statements are true:
 - Either the step did not previously run, or CONTROL-M/Restart did not recapture a completion or abend code from a previous run.
 - The step was not executed during the RESTART run.

SNRUN cannot be specified together with ANYSTEP. (Because SNRUN includes steps that do not exist in a job, and ANYSTEP includes all step names even if they do not exist in a job, specifying both in the same job would cause a condition that SNRUN could not process.).

A status of SNRUN does not indicate that an error occurred during a job execution, nor does it cause a job status of NOTOK. It only indicates that it did not run.

For backward compatibility (that is, to ensure that the application of the ***** code remains unchanged), the ***** code does not include SNRUN steps.

Code qualifiers and relationships

Any character in a condition code, system abend code or user abend code may be replaced by an asterisk (*). An asterisk means “any value” for the character it replaces. For example, if **S*13** is specified, the code criteria for the step is satisfied by codes **S013**, **S613**, **S913**, and so on.

The additional qualifiers in [Table 18](#) can be used in specific circumstances.

Table 18 Qualifiers

Qualifier	Description
>	Greater than. Valid as a qualifier for condition codes and user abend codes.
<	Less than. Valid as a qualifier for condition codes and user abend codes.
N	Specifies not to perform the accompanying DO statements if the specified code exists in the step. Valid as a qualifier for condition codes, user abend codes and system abend codes.

NOTE

The N qualifier indicates that the DO statements must not be performed if the specified condition exists. It does not indicate that the DO statements must be performed if the specified condition does not exist.

The relationship between multiple codes in an On statement is OR (that is, the appearance of any of the codes in the specified step satisfies the On criteria), except for range specifications (for example, >10 <40).

However, code criteria qualified by N take precedence over all other code criteria. If a code that is specified with an N qualifier is generated by the specified step, accompanying DO actions are not performed even if other On code criteria are satisfied.

EXAMPLE

If Step1 ends with a condition code of C0004 and Step 5 ends with system abend code S0C4, perform the indicated Shout.

```
On Statement PGMST= Step1 PROCST=      Codes=C0004      AND
On Statement PGMST= Step5 PROCST=      Codes=S0C4
Do Shout      To=emuser      Urgn=Regular      Msg= Backup operations ...
```

Aliases for other CONTROL-M components

Alternate names for the On statement are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	ON
CONTROL-M/Server Utilities	-on
e-Trigger	on_do_statement
CONTROL-M/EM API	on_statement

Alternate formats for other CONTROL-M components

Alternate formats for the On parameter are listed below.

Component	Parameter name
CONTROL-M/EM Utilities	ON is composed of the STMT, CODE, PGMS, PROCS, and AND_OR subparameters. STMT is a 1-132 character string, used only when you are specifying an On statement value.
CONTROL-M/EM API	on_statement is composed of the following subparameters: <ul style="list-style-type: none">■ and_or■ code■ procedure_step■ program_step■ statement

Reten Days

Number of days to retain the job in the History Jobs file. For z/OS jobs only.

NOTE



At sites that do not use the History Jobs file, this parameter is not relevant and is not displayed.

Format

Usage	Optional
Format	001 - 999 days. Note: When the Reten Days field is left blank, History Jobs file information is kept as specified by the Reten Gen parameter. For more information, see "Reten Gen" on page 282 .
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Reten Gen	Reten Days cannot be specified when Reten Gen is specified. Note: When specifying a value for RETENTION: # OF DAYS TO KEEP (Reten Days) from the CONTROL-M for z/OS interface, leave RETENTION: # OF GENERATIONS TO KEEP blank.
------------------	---

General information

Jobs in the History Jobs file are easier to restore to the Active Jobs file (for example, for restart) than jobs archived to CDAM. Therefore, it may be desirable to retain a job in the History Jobs file for a period of time.

Using Reten Days you can specify a fixed number of days to keep the job in the History Jobs file. Once the specified number of days is reached, the job is automatically deleted from the History Jobs file during the next New Day processing.

Reten Days and Reten Gen are mutually exclusive. A value can be specified for either, but not both.

**NOTE**

When changing job criteria from Reten Days to Reten Gen (or the reverse), previous job criteria are lost and are not acted upon.

For retention criteria to hold across job executions, the jobs must be identical in all respects. (For example, if a job is transferred to a different group, it is treated as a different job for purposes of retention. In this case, retention values are reset, and retention is calculated from the moment of transfer.)

Aliases for other CONTROL-M components

Alternate names for the Reten Days parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	RETEN_DAYS
Reporting Facility	RETEN DAYS
CONTROL-M for z/OS	RETENTION: # OF DAYS TO KEEP
CONTROL-M/EM API	reten_days

Reten Gen

Maximum number of generations of the job to keep in the History Jobs file. For z/OS jobs, only.

NOTE



At sites that do not use the History Jobs file, this parameter is not relevant and is not displayed.

Format

Usage	Optional.
Format	00 - 99 generations. Note: When the Reten Gen field is left blank, History Jobs file information is kept as specified by the Reten Days parameter. For more information, see “Reten Days” on page 280.
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Related parameters

Reten Days	Reten Gen cannot be specified when Reten Days is specified. Note: When specifying a value for RETENTION: # OF GENERATIONS TO KEEP (Reten Gen) from the CONTROL-M for z/OS interface, leave RETENTION: # OF DAYS TO KEEP blank.
-------------------	--

General information

Jobs in the History Jobs file are easier to restore to the Active Jobs file (for example, for restart) than jobs archived to CDAM. Therefore, it may be desirable to retain several of the most current generations of the job in the History Jobs file.

Reten Gen enables specification of the number of generations of the job to keep in the History Jobs file. Once the specified number of generations has been reached, as a new generation is added to the History Jobs file, the earliest remaining generation is deleted.

Reten Days and Reten Gen are mutually exclusive. A value can be specified for either, but not both.

**NOTE**

When changing job criteria from Reten Days to Reten Gen (or the reverse), previous job criteria are lost and are not acted upon.

For retention criteria to hold across job executions, the jobs must be identical in all respects. (For example, if a job is transferred to a different group, it is treated as a different job for purposes of retention. In this case, retention values are reset, and retention is calculated from the moment of transfer.)

Aliases for other CONTROL-M components

Alternate names for the Reten Gen parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	RETEN_GEN
Reporting Facility	RETEN GEN
CONTROL-M for z/OS	RETENTION: # OF GENERATIONS TO KEEP
CONTROL-M/EM API	reten_gen

Step Range

Specifies a range of steps in the steps of an On PGMST statement.

NOTE

For z/OS jobs only.



Format

Usage	Optional
Format	Consists of the Name, From, and To subparameters described below.

Related parameters

On statement	Specifies a range of steps within an On parameter statement. Specific actions can be associated with the specified range of steps, instead of the full range specified in the On parameter statement.
---------------------	---

Subparameters

Name	Name for the range. 1through 7 characters. Only trailing blanks are allowed in this field.
From	<p>First pgmstep or pgmstep,procstep in the range.</p> <p>Note: pgmstep is the step name in the EXEC statement that identifies the program to be executed:</p> <pre>//pgmstep EXEC PGM= pgmname</pre> <p>procstep is the step name in the EXEC statement that invokes the procedure: // procstep EXEC procname</p> <p>pgmstep values and procstep values can each be from 1 through 8 characters in length, and must not contain blanks.</p> <p>Non-English characters not allowed.</p>
To	<p>Last pgmstep or pgmstep,procstep in the range.</p> <p>Note: The To subparameter is optional. If blank, its value defaults to the last step in the job.</p> <p>Non-English characters not allowed.</p> <p>For more information, see the note for the From subparameter.</p>

General information

Whenever a Step Range statement is specified, it eliminates the need to define separate On PGMST, On PROCST, and On Codes statements and accompanying Do actions for each step in the range. The defined Step Range Name can be used (without redefining the range) in subsequent On PGMST, On PROCST, and On Codes statements, by specifying the Step Range Name, preceded by an asterisk (*), in the On PGMST field.

Any number of step ranges can be specified. After entering a Step Range parameter, another Step Range parameter line is automatically displayed.

Using all runs of a job including restarts

When processing On blocks, CONTROL-M can incorporate the results of all previous runs and restarts, filtering them for jobs restarted with the CONTROL-M for z/OS RESTART, RECAPTURE CONDITION or ABEND CODES parameters. CONTROL-M/Restart searches previous runs to determine which steps must be considered part of the restarted job.

For example, if one step finished successfully during its original run and another step finished successfully after a restart, the On block check for the successful finish for both steps produces a **TRUE** result and the On statement is satisfied.

Activation of this facility requires that the CONTROL-M for z/OS ALLRUNS parameter in the CTRPARM member be set to YES. When activated, this facility may apply to any specified step, step range, or to the +EVERY step value.

Aliases for other CONTROL-M components

Alternate names for the Step Range parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	STEP_RANGE
Reporting Facility	Composed of the FROM PGMST, FROM PROCS TO PGMSTEP, and TO PROCSTEP parameters.
CONTROL-M for z/OS	STEP RANGE
CONTROL-M/EM API	step_range

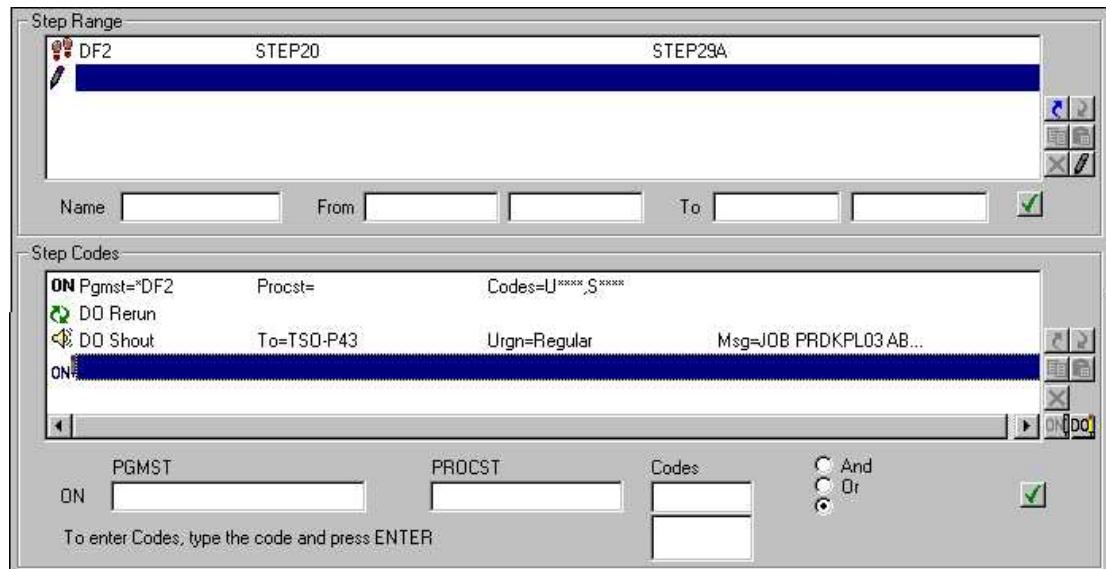
Alternate formats for other CONTROL-M components

Alternate formats for the Step Range parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	STEP_RANGE is composed of the following parameters:
	NAME 1-7 character string.
	FPGMS First program step in the range. 1-8 character string.
	FPROCS First process step in the range. 1-8 character string.
	TPGMS Last program step in the range. 1-8 character string.
	TPROCS Last process step in the range. 1-8 character string.
CONTROL-M for z/OS	STEP RANGE consists of the following subparameters
	STEP RANGE Equivalent to Name.
	FR (PGM,PROC) First program or process step in the range. 1-8 character string.
	TO Last program or process step in the range. 1-8 character string.

Example 1: CONTROL-M/EM Job Editing Form

Define program steps **STEP20** through **STEP29A** as step range **DF2**. If any of these steps produce any system or user abend (except user abend **U2030**), rerun the job and shout a message to **TSO-P43**.



Example 2: CONTROL-M for z/OS interface

Define program steps **STEP20** through **STEP29A** as step range **DF2**. If any of these steps produce any system or user abend (except user abend **U2030**), rerun the job and shout a message to **TSO-P43**.

```

JOB: PRDKPL01 LIB CTM. PROD. SCHEDULE TABLE: PRODKPL
COMMAND ==> SCROLL==> CRSR
+-----+
=====
OUT
AUTO-ARCHIVE Y SYSDB Y MAXDAYS MAXRUNS
RETENTION: # OF DAYS TO KEEP 030 # OF GENERATIONS TO KEEP
SYSOUT OP (C, D, F, N, R) FROM
MAXRERUN RERUNMEM INTERVAL FROM
STEP RANGE DF2 FR (PGM. PROC) STEP20 . TO STEP29A .
STEP RANGE FR (PGM. PROC) . TO .
ON PGMST *DF2 PROCST CODES S**** U**** NU2030 A/O
DO RERUN
DO SHOUT TO TSO-P43 URGENCY R
= JOB PRDKPL03 ABENDED, THE JOB IS RERUN
DO
ON PGMST PROCST CODES A/O
DO
SHOUT WHEN TO URGN
MS
===== >>>>>>>>>>>>>>>>> END OF SCHEDULING PARAMETERS <<<<<<<<<< =====
COMMANDS: EDIT, DOC, PLAN, JOBSTAT 11.17.00

```


Job Output parameters

The parameters in this chapter determine what to do with the data resulting from a job run.

Table 19 Job Output parameters – summary

Parameter	Description
Auto-Archive	Determines whether SYSDATA (job output) is to be archived.
Shout	Specifies messages to be sent (“shouted”) to various destinations on various occasions.
SYSOUT Handling	Specifies how the job’s log should be handled after the job completes with a completion status of OK .

Auto-Archive

The Auto-Archive parameter determines whether SYSDATA (job output) should be archived.

NOTE



The Auto-Archive parameter is relevant only for jobs to be run in z/OS environments or OpenVMS computers. The parameter is displayed only if CONTROL-R is selected in the CONTROL-M Definition window in CONTROL-M/Desktop.

Format

Usage	Optional
Format	<p>Check box in the CONTROL-M/EM Job Editing form.</p> <ul style="list-style-type: none"> ■ When this check box is selected, job output is archived. ■ When this check box is cleared, job output is not archived. In this case, CONTROL-R cannot restart the job, and SYSDATA viewing under CONTROL-M for z/OS is not possible. <p>When the Auto-Archive check box is selected, the subparameters described below can also be specified.</p>
AutoEdit Support	No. An AutoEdit variable or expression cannot be specified as all or part of the value for this parameter.

Subparameters

Parameter	Description
SYS DB	<p>A check box in the CONTROL-M/EM Job editing form:</p> <ul style="list-style-type: none"> ■ If this check box is selected, a single data set is used for archiving the SYSDATA of all jobs until it is full. When the first archive data set is full, another SYSDATA data set is allocated and used. BMC Software recommends this method. ■ If this check box is cleared, a separate data set is created for the SYSDATA of each job run.
Max Days...	<p>A number from 00 through 99. Indicates the maximum number of days to retain the SYSDATA archive data set for jobs that ended NOTOK.</p>
Max Runs...	<p>Indicates the maximum number of job runs to retains the SYSDATA archive data set for jobs that ended NOTOK. Valid values:</p> <ul style="list-style-type: none"> ■ a number from 00 through 99 ■ blank (there is no maximum number of job runs)

General information

The Auto-Archive parameter enables you to decide whether to archive job output (SYSDATA). SYSDATA refers to all information in the job log, the expanded JCL (job script), and to the output messages of the job.

While archiving SYSDATA is normally desirable, it might not be desirable for cyclic jobs, started tasks, or frequently repeated jobs that do not require restart.

BMC Software recommends that you select the SYSDB check box. BMC Software does not recommend creating a separate data set for each run because:

- Creating many data sets consumes a large amount of space in the disk VTOC.
- Each data set is allocated on a track basis. If the SYSDATA does not completely fill the track, large amounts of disk space may be wasted.

When archiving SYSDATA, BMC Software recommends that value **99** not be specified for the Max Wait parameter for cyclic jobs or started tasks. Otherwise, these jobs, which are never automatically deleted from the Active Jobs file, can cause the disk to fill up with unnecessary archived SYSDATA. For more information, see “[Max Wait](#)” on page 159.



NOTE

Specified parameters take effect only during execution of the New Day procedure (CONTDAY) or the CONTROL-M CTMCAJF utility. Therefore, it is possible to find more generations of the same job than the current value of Max Runs.

Whenever a job is deleted from the Active Jobs file and does not reside in the History file, its SYSDATA is deleted regardless of Max Days or Max Runs.

The Max Days and Max Runs parameters define retention criteria for the archived SYSDATA of jobs that ended NOTOK. Defaults for these parameters are defined using CONTROL-M/Restart installation parameters. Max Days and Max Runs values in a job definition are used to override the CONTROL-M/Restart defaults. If both parameters are specified, retention is limited by the parameter that is satisfied first.

Computer-specific information

The Auto-Archive parameter is relevant only for jobs to be run in z/OS environments or OpenVMS computers.

Aliases in other CONTROL-M components

Alternate names for the Auto-Archive parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	AUTOARCH
Reporting Facility	AUTO ARCHIVE
CONTROL-M for z/OS	AUTO-ARCHIVE
CONTROL-M for z/OS Utilities	AUTOARC
CONTROL-M/EM API	auto_archive sys_db arch_max_days arch_max_runs

Shout

The Shout parameter gives you the ability to create a message that may be sent (“shouted”) to one or more specified destinations when certain conditions are encountered.

Format

Usage	Optional
Format	The Shout parameter consists of the subparameters described in Table 20 on page 294 .
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.

Related parameters

Parameter	Description
Do Shout	The Do Shout parameter specifies a message to be sent (“shouted”) to a destination when the On Statement/Code criteria are satisfied. For more information, see “ Do Shout ” on page 250.

Subparameters

Table 20 Shout subparameters (part 1 of 5)

Parameter	Format
When	<p>States what should cause the Shout message to be sent.</p> <p>Choose one of the following values:</p> <ul style="list-style-type: none"> ■ Exectime <p>Send the message if the job's elapsed runtime is outside a specified limit. The limit is specified in the Time field. A limit can be expressed as the actual elapsed minutes of the job run, or as a deviation from the job's (statistical) average runtime. The limit for Exectime can be expressed in any of the following formats:</p> <ul style="list-style-type: none"> — >n – The message is sent if the elapsed runtime of the job is greater than n minutes. in z/OS environments, n is a number from 0 through 999. On other computers, n is a number from 1 through 999. — <n – The message is sent if the elapsed runtime of the job is less than n minutes. n is a number from 1 through 999. — +n – The message is sent if the elapsed runtime of the job exceeds its average execution time by at least n minutes. n is a number from 1 through 999. — +n% – The message is sent if the elapsed runtime of the job exceeds its average execution time by at least n%. n is a number from 1 through 900. — -n – The message is sent if the elapsed runtime of the job is at least n minutes less than its average execution time. n is a number from 1 through 999. — -n% – The message is sent if the elapsed runtime of the job is at least n% less than its average execution time. n is a number from 1 through 99. <p>Note: A job processing definition can contain more than one Shout parameter with a When of Exectime. For more information, see examples of the use of Exectime below.</p> <ul style="list-style-type: none"> ■ Late Sub <p>Send the message if the job is still not submitted and cannot be submitted at the time specified in the accompanying Parm (time) field.</p> <p>Specify the time in <i>hhmm</i> format. (In CONTROL-M for z/OS, you can alternatively specify an * for the time; this results in use of the job's calculated DUE IN time to determine if the job was not submitted on time.) By default, a valid time must be in the range of 00:00 through 23:59. However, if Time Synonym (in Tools/Options) is checked, a valid time must be in the range from NewDay time until NewDay Time-plus-23:59. For example, if New Day time is 8:00 A.M., the range of valid times is from 08:00 until 31:59.</p> <p>The message is sent only if the job is actually not submittable. That is, if a runtime criterion (in condition, quantitative resource, and so on) is not met at the given time.</p> <p>However, if a job is ordered after the specified time but starts running immediately because it meets all runtime criteria, the Late Sub parameter doesn't apply.</p>

Table 20 Shout subparameters (part 2 of 5)

Parameter	Format
When continued	<ul style="list-style-type: none"> ■ Late Time Send the message if the job does not finish executing by the time specified in the accompanying Parm (time) field. In CONTROL-M for z/OS, this parameter appears as LATE. Specify the time in <i>hhmm</i> format. (In CONTROL-M for z/OS, you can alternatively specify an * for the time; this results in use of the job's calculated DUE OUT time to determine if the job is late.) By default, a valid time must be in the range of 00:00 through 23:59. However, if Time Synonym (in Tools/Options) is checked, a valid time must be in the range from New Day time until New Day Time-plus-23:59. For example, if New Day time is 8:00 A.M., the range of valid times is from 08:00 until 31:59. Note: No message is sent if the job is being rerun. ■ NOTOK Send the message if the job terminates with a completion status of NOTOK. ■ OK Send the message if the job terminates with a completion status of OK. ■ RERUN Send the message if the job's completion status was set to Rerun (not valid for scheduling group entities).
Parm	Used to specify additional parameters required for the When options Exectime , Late Sub , and Late Time .

Table 20 Shout subparameters (part 3 of 5)

Parameter	Format
Days Offset	Sets the number of days relative to the ODAT by which the sending of the Shout message is offset. The value of this parameter is relevant only for the LateTime and LateSub parameters (see Late Sub). [Only for jobs running under CONTROL-M for z/OS version 6.2.00 or later.] Valid values: <ul style="list-style-type: none">■ a number from 0 through 120■ blank – no offset. If the Parm (time) value is *, leave this field blank.
To	<p>Logical destination of the Shout message. Mandatory. Destination is the name of an entry in the Shout Destination table.</p> <p>Computers other than z/OS:</p> <p>Valid values</p> <ul style="list-style-type: none"> ■ a user logged onto the CONTROL-M installation ■ a user's mail in the CONTROL-M installation ■ a specific terminal ■ system console ■ alerts window in all CONTROL-M/EM workstations connected to the specified CONTROL-M installation <p>Note: The CONTROL-M/EM workstations to which an alert is issued may be limited by user authorizations. For more information, see the security chapter in the <i>CONTROL-M Administrator Guide</i>.</p> <ul style="list-style-type: none"> ■ CONTROL-M log All Shout messages are recorded in the CONTROL-M log. Select the log as a destination only when you do not wish to send the message to an additional destination.
Length	1 through 16 characters
Case Sensitive	Yes

Table 20 Shout subparameters (part 4 of 5)

Parameter	Format	
To <i>continued</i>	Invalid Characters	Blanks; single quotation marks
	AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.
z/OS: The following are valid values for Destination:		
	U-userid	Writes the message to the IOA Log file userid is a user ID consisting of 1 through 8 characters but containing no blanks
	OPER [-n]	Sends a scrollable message to the operator console n is an optional 2-digit route code If a route code is not specified, the default routes are Master Console and Programmer Information (1 and 11). For more information regarding route codes, refer to the IBM publication Routing and Descriptor Codes, GC38-1102.
	OPER2[-n]	Sends an unscrollable message to the operator console n is an optional 2-digit route code If a route code is not specified, the default routes are Master Console and Programmer Information (1 and 11). For more information regarding route codes, refer to the IBM publication Routing and Descriptor Codes, GC38-1102.

Table 20 Shout subparameters (part 5 of 5)

Parameter	Format
Destination <i>continued</i>	TSO - logonid or T - logonid Where logonid is one of the following: <ul style="list-style-type: none"> ■ a valid logon identity consisting of 1 through 7 characters ■ a valid group identity found within the IOA Dynamic Destination Table An optional second value, indicating the computer or node of the TSO logonid, can be specified, as follows: Under JES2: <ul style="list-style-type: none"> ■ ;Nn, ;Mm or ;NnMm, where<ul style="list-style-type: none"> — m is the ID of the computer in JES2 (not the 4-character SMF system ID) — n is the 1- to 2-character JES/NJE node ID Under JES3: <ul style="list-style-type: none"> ■ Lname, where Lname is the logical JES name of the computer (that is, the name as used in the JES3 command *T, not the SMF system ID) Note: A Shout to a TSO user performs a TSO SEND command, which may require authorization at the receiving end.
	U-M: mail_name_prefix
	U-ECS
Urgency	Urgency of the Shout message directed to the Alerts window. Urgency assigned to the Shout message affects the appearance of the message in the Alerts window. Urgency levels are: <ul style="list-style-type: none"> ■ R - Regular (Default) ■ U - Urgent ■ V - Very Urgent
Message	Text of the Shout message. Length 1 through 255 characters z/OS: 1 through 70 characters Case Sensitive Yes Invalid Characters None AutoEdit Support Yes. The message can include AutoEdit variables, including any combination of text, CONTROL-M system variables, job submission variables and User variables (created using the AutoEdit Assignment parameter). However, the length of the message after decoding cannot exceed the length specified above. For more information, see Chapter 15, “AutoEdit facility.”

General information

A “Shout message” is a message sent to one or more destinations when the condition specified by the When parameter is satisfied.

The Do Shout parameter (described in “[Do Shout](#)” on page 250) can be used to issue Shout messages conditioned by an On Statement/Code parameter.

Shout messages can also be issued from the data center using the CTMSHOUT utility. For more information, see the Utilities chapter in your *CONTROL-M Administrator Guide*.

When **Exectime** values are specified with a + or – sign (that is, when elapsed runtime is compared to average runtime), the Shout applies only if there are current statistics data for the job (containing statistics for at least one of the last 20 runs of the job).

If current job statistics data exists, all available elapsed-time statistics for the last 20 job runs are averaged to generate the average runtime, and the current runtime is compared to this figure according to the specified criteria.

If no job statistics data exist, or if the data is not current (there are no elapsed-time statistics for any of the last 20 job runs), the Shout parameter is not applied.

More about Exectime

The following additional considerations apply to the use of **Exectime**:

- When **Exectime** values are negative (for example, -n; -n%), the check can be performed only after the job has finished running.
- When **Exectime** values are positive (for example, +n; +n%), the check can be performed (and if the elapsed runtime limits are exceeded, the message can be “shouted”) before the job has finished running.
- Relative **Exectime** limits should not exceed 24 hours. When relative **Exectime** limits exceed 24 hours (that is, if +n(%) of the average runtime exceeds 24 hours), the message is “shouted” if and when processing reaches 24 hours.

If a relative **Exectime** is not specified prior to job submission, but is specified afterwards (for example, the job is Held, the parameters changed, and the job then Freed), the **Exectime** value is ignored.

More about destinations

When the destination is a user, the message is also sent to the user's mail.

If not found in the Shout Destination table, the destination is assumed to be a user name. In this instance, the Shout message is sent to the user's terminal and the user's mail.

The Shout Destination table is maintained by the CONTROL-M administrator. Several such tables may exist. Each table contains the same logical destinations, but the physical (actual) destinations can vary from table to table.

Only one table is in use ("active") at any time, as determined by the administrator. A Shout message sent to a logical destination is directed by CONTROL-M to the corresponding physical destination listed in the active Shout Destination table.

Availability

For z/OS jobs

Cyclic jobs cannot contain the Shout When Rerun parameter.

Aliases in other CONTROL-M components

Alternate names for the Shout parameter are listed below.

Component	Parameter Name
CONTROL-M/EM Utilities	SHOUT
CONTROL-M/Server Utilities	-shout
CONTROL-M for z/OS	SHOUT
CONTROL-M/EM API	shout

Example 1: Sends Shout message to a specified user when job ends OK

Shout Statements:

```
When OK
Destination SHIFTMNGR
Urgency R
Message NIGHTSHIFT RUN COMPLETED
```

The message is sent to CONTROL-M logical destination SHIFTMNGR.

Example 2: Sends Shout message to CONTROL-M/EM when job terminates NOTOK

If the job terminates with a status of **NOTOK**, send a message to CONTROL-M/EM, indicating the completion code:

Shout Statements:

```
When NOTOK
Destination ECS
Urgency U
Message Job NOTOK - Completion code=%%COMPSTAT
```

The message is sent to the CONTROL-M/EM Alerts window.

Example 3: Sends Shout message when job runtime is less than expected

Given that a job whose average run time is 50 minutes completes in 40 minutes. The job processing definition contains a Shout statement with When **Exectime**. The following table indicates which Time parameter values would and which would not cause a Shout message to be issued:

Shout Message Issued	Shout Message Not Issue
>39	>40
<41	<40
-10	-11
-20%	-21%

Example 4: No Shout message although job runtime is more than expected

Given that a job whose average run time is 50 minutes completes in 90 minutes. The job processing definition contains a Shout statement with When **Exectime**. The following table indicates which Time parameter values would and which would not cause a Shout message to be issued:

Shout Message Issued	Shout Message Not Issue
>89	>90
<91	<90
+41	+40
+79%	+80%

SYSOUT Handling

The SYSOUT Handling parameter indicates how the job's log file (SYSOUT) should be handled after the job ends with a status of **OK**.

Format

Usage	Optional Note: This parameter is sometimes referred to as the Option and Prm parameters.								
Format	<p>List box in the Job Editing form.</p> <p>Valid values:</p> <ul style="list-style-type: none"> ■ None ■ Change job class (z/OS only) ■ Delete output ■ Copy output ■ Move output ■ Release for printer <p>Each value is described in detail in Table 21.</p> <p>For most of these options, a second field is displayed. This second field is sometimes referred to as the Prm parameter.</p> <p>The format of the Prm parameter is as follows:</p> <table border="1"> <tr> <td>Length</td><td>Computers other than z/OS: Up to 255 characters. ■ z/OS: Up to 44 characters, as follows: ■ File Name (Copy): up to 44 characters ■ New Class Name (Change job class): 1 character ■ New Destination (Move): up to 8 characters</td></tr> <tr> <td>Case sensitive</td><td>Yes</td></tr> <tr> <td>Invalid Characters</td><td>Blanks</td></tr> <tr> <td>AutoEdit Support</td><td>Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.</td></tr> </table>	Length	Computers other than z/OS: Up to 255 characters. ■ z/OS: Up to 44 characters, as follows: ■ File Name (Copy): up to 44 characters ■ New Class Name (Change job class): 1 character ■ New Destination (Move): up to 8 characters	Case sensitive	Yes	Invalid Characters	Blanks	AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.
Length	Computers other than z/OS: Up to 255 characters. ■ z/OS: Up to 44 characters, as follows: ■ File Name (Copy): up to 44 characters ■ New Class Name (Change job class): 1 character ■ New Destination (Move): up to 8 characters								
Case sensitive	Yes								
Invalid Characters	Blanks								
AutoEdit Support	Yes. An AutoEdit variable or expression can be specified as all or part of the value for this parameter.								



NOTE

Some SYSOUT Handling options (those that are selected from the SYSOUT Handling list) require you to supply additional input. When such an option is selected from the PostProc panel, an additional text box is displayed. The label for this text box is different for each SYSOUT Handling option that is selected. When an additional text box is displayed, enter the appropriate information in it.

Table 21 SYSOUT Handling formatting (part 1 of 4)

Value	Description																	
Delete	Deletes the log file.																	
Copy	<p>Copies the log file.</p> <p>Note: SYSOUTs should not be copied to a CONTROL-M internal directory or subdirectory (for example, a subdirectory underneath the SYSOUT directory).</p> <p>Specify the log file name and full path to which the log file must be copied in the File Name text box. The following can occur:</p> <table border="1"> <thead> <tr> <th>Log file name</th> <th>Full path</th> <th>Remark</th> </tr> </thead> <tbody> <tr> <td>Specified</td> <td>Specified</td> <td>The log file is copied as specified in the File Name text box.</td> </tr> <tr> <td>Specified</td> <td>Not specified</td> <td>The log file is copied to the job owner's home directory using the file name specified. For jobs executed on remote hosts, the log file is copied to the agent home directory through which the job was submitted.</td> </tr> <tr> <td>Not specified</td> <td>Specified</td> <td>The log file is copied to a default file name determined according to the considerations below, to the full path specified.</td> </tr> <tr> <td>Not specified</td> <td>Not specified</td> <td>The log file is copied to the job owner's home directory using the default file name determined according to the considerations below. For jobs executed on remote hosts, the log file is copied to the agent home directory through which the job was submitted</td> </tr> </tbody> </table>			Log file name	Full path	Remark	Specified	Specified	The log file is copied as specified in the File Name text box.	Specified	Not specified	The log file is copied to the job owner's home directory using the file name specified. For jobs executed on remote hosts, the log file is copied to the agent home directory through which the job was submitted.	Not specified	Specified	The log file is copied to a default file name determined according to the considerations below, to the full path specified.	Not specified	Not specified	The log file is copied to the job owner's home directory using the default file name determined according to the considerations below. For jobs executed on remote hosts, the log file is copied to the agent home directory through which the job was submitted
Log file name	Full path	Remark																
Specified	Specified	The log file is copied as specified in the File Name text box.																
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Not specified	Not specified	The log file is copied to the job owner's home directory using the default file name determined according to the considerations below. For jobs executed on remote hosts, the log file is copied to the agent home directory through which the job was submitted																
<p>File name considerations</p> <p>For Microsoft Windows: <Mem_Name> <Job_Name>_<order_num>_<rerun_num>. DAT</p> <p>For OpenVMS: <Mem_Name>. TXT</p> <p>For UNIX: <Mem_Name> <Job_Name>. LOG<order_num>. <rerun_num></p> <p>For OS/2, the full path name must be specified.</p>																		

Table 21 SYSOUT Handling formatting (part 2 of 4)

Value	Description
Copy <i>(continued)</i>	<p>File name considerations (continued)</p> <p>Special notes for iSeries (AS/400) computers:</p> <p>This second field is mandatory. It indicates the database file to which the job log is copied.</p> <p>The file must be specified in one of the following formats:</p> <p>library/file *LIBL/file file</p> <ul style="list-style-type: none"> ■ If the specified file does not exist, it is created. The job log is placed in the file as member CM<AS/400_Job Number> (the first line of the member contains details that identify the job). ■ If the specified file already exists, and its record length is 132 or more, the job log is placed in the file as a new member identified as above. ■ If the specified file already exists, and its record length is less than 132, the job log is truncated and placed in the file as a new member identified as above.
Release	<p>Releases the log file for printing on the specified printer/output queue.</p> <p>A second field is displayed for the printer queue to which the log file should be released.</p> <p>Note: The default printer/output queue and the SYSOUT directory are determined by CONTROL-M system parameters on each computer. For more information, see your CONTROL-M administrator.</p> <p>Special notes for iSeries (AS/400) computers:</p> <ul style="list-style-type: none"> ■ If an output queue is not specified, the output of the job is sent to the queue specified by the CONTROL-M Default Output Queue system parameter. <p>The name of the output queue must be specified in one of the following formats:</p> <p>library/outq *LIBL/outq outq</p> <ul style="list-style-type: none"> ■ If outq (without library) or *LIBL/outq is specified, the specified outq is taken from the *LIBL (Library list) of CONTROL-M. If the specified outq is not found in the Library list, the Release option is not executed. ■ If library/outq is specified, the output queue is taken from the specified library. If the specified outq is not found in the specified library, the Release option is not executed.

Table 21 SYSOUT Handling formatting (part 3 of 4)

Value	Description																		
Move	<p>Moves the log file and deletes it from the CONTROL-M SYSOUT directory. The New Destination text box is displayed for the location to which the log file should be moved.</p> <p>Note: SYSOUTs should not be moved to a CONTROL-M internal directory or subdirectory (for example, a subdirectory underneath the SYSOUT directory).</p> <p>Specify the log file name and full path to which the log file must be moved in the File Name text box. The following can occur:</p> <table border="1"> <thead> <tr> <th>Log file name</th><th>Full path</th><th>Remark</th></tr> </thead> <tbody> <tr> <td>Specified</td><td>Specified</td><td>The log file is moved as specified in the File Name text box.</td></tr> <tr> <td>Specified</td><td>Not specified</td><td>The log file is moved to the job owner's home directory using the file name specified. For jobs executed on remote hosts, the log file is moved to the agent home directory through which the job was submitted.</td></tr> <tr> <td>Not specified</td><td>Specified</td><td>The log file is moved to a default file name determined according to the considerations below, to the full path specified.</td></tr> <tr> <td>Not specified</td><td>Not specified</td><td>The log file is moved to the job owner's home directory using the default file name determined according to the considerations below. For jobs executed on remote hosts, the log file is moved to the agent home directory through which the job was submitted</td></tr> </tbody> </table> <p>File name considerations</p> <p>For Microsoft Windows: <Mem_Name> <Job_Name>_<order_num>_<rerun_num>. DAT</p> <p>For OpenVMS: <Mem Name>. TXT</p> <p>For UNIX: <Mem_Name> <Job_Name>. LOG<order_num>. <rerun_num></p> <p>For OS/2, the full path name must be specified.</p>				Log file name	Full path	Remark	Specified	Specified	The log file is moved as specified in the File Name text box.	Specified	Not specified	The log file is moved to the job owner's home directory using the file name specified. For jobs executed on remote hosts, the log file is moved to the agent home directory through which the job was submitted.	Not specified	Specified	The log file is moved to a default file name determined according to the considerations below, to the full path specified.	Not specified	Not specified	The log file is moved to the job owner's home directory using the default file name determined according to the considerations below. For jobs executed on remote hosts, the log file is moved to the agent home directory through which the job was submitted
Log file name	Full path	Remark																	
Specified	Specified	The log file is moved as specified in the File Name text box.																	
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Not specified	Not specified	The log file is moved to the job owner's home directory using the default file name determined according to the considerations below. For jobs executed on remote hosts, the log file is moved to the agent home directory through which the job was submitted																	

Table 21 SYSOUT Handling formatting (part 4 of 4)

Value	Description
Move (continued)	<p>File name considerations (continued) For iSeries (AS/400) and UNISYS computers: The second field indicates the outq (output queue) to which the job log spool file should be moved.</p> <ul style="list-style-type: none"> ■ If an output queue is not specified, the job log spool file is moved to the queue specified by the CONTROL-M Default Output Queue system parameter. ■ The name of the output queue must be specified in one of the following formats: library/outq *LIBL/outq outq ■ If outq (without library) or *LIBL/outq is specified, the specified outq is taken from the *LIBL (Library list) of CONTROL-M. If the specified outq is not found in the Library list, the Move option is not executed. ■ If library/outq is specified, the output queue is taken from the specified library. If the specified outq is not found in the specified library, the Move option is not executed.
Change Jobs Class	<p>Changes the class of job output. [z/OS only]</p> <p>The New Class Name text box and From Class text box are displayed.</p> <p>Enter the new class name (1 character) in the text box (Mandatory). An asterisk (*) indicates the job's original MSGCLASS.</p> <p> Optionally, you can specify a class in the From Class text box. If a class is specified, SYSOUT Handling is limited to only SYSOUTs from the specified class.</p>

Related parameters

Parameter	Description
Do Sysout	The Do SYSOUT parameter specifies how the job's output should be handled when the On Statement/Code criteria are satisfied. For more information, see “ Do Sysout ” on page 253.

General information

SYSOUT Handling is specified in the Postproc panel of the Job Editing form.

If no SYSOUT handling is specified (or the job does not end **OK**), and no **Do Sysout** statement (in the On Statement/Code parameters) is activated, the job's log file is placed in the location determined by CONTROL-M until it is removed by the New Day procedure.

NOTE



Note: The CONTROL-M Automatic Log Copy system parameter is not affected in any way by specified SYSOUT Handling.

Aliases in other CONTROL-M components

Alternate names for the SYSOUT Handling parameter are listed below.

Component	Parameter Name	
Reporting Facility	SYSOUT Handling is composed of two sub parameters:	
	SYSOPT	Equivalent to the SYSOUT handling text box.
	PARM	Equivalent to the variously-named text boxes that are displayed when specific SYSOUT Handling options are chosen.
CONTROL-M/Server Utilities	-SYSOUT	
CONTROL-M for z/OS	SYSOUT	
CONTROL-M/EM API	SYSOUT handling is composed of three subparameters:	
	sysout_from_class	Equivalent to From Class
	sysout_option	Equivalent to Option.
	sysout_parameter	Equivalent to Parameter.

Formats in other CONTROL-M components

Alternate formats for the Auto-Archive parameter are listed below.

Component	Format
Reporting Facility	The values for SYSOPT and PARM are strings.

Component	Format							
CONTROL-M/Server Utilities	Two values are supplied for -SYSOUT: <table border="1"> <tr> <td><option></td><td> <ul style="list-style-type: none"> ■ RELEASE ■ DELETE ■ COPY ■ MOVE </td></tr> <tr> <td><parameter></td><td>The appropriate value, depending on the <option> value specified. String.</td></tr> </table>		<option>	<ul style="list-style-type: none"> ■ RELEASE ■ DELETE ■ COPY ■ MOVE 	<parameter>	The appropriate value, depending on the <option> value specified. String.		
<option>	<ul style="list-style-type: none"> ■ RELEASE ■ DELETE ■ COPY ■ MOVE 							
<parameter>	The appropriate value, depending on the <option> value specified. String.							
CONTROL-M for z/OS	<option>	<p>SYSOUT is composed of the following subparameters:</p> <table border="1"> <tr> <td>OP</td><td> Type of SYSOUT handling to perform. Mandatory. Valid values are: <ul style="list-style-type: none"> ■ C – Change the class of the job output. [z/OS, only.] ■ D – Delete the job output. ■ F – Copy the job output to file. ■ N – Change the destination of the job output. ■ R – Release the job output. </td></tr> <tr> <td>data</td><td> Relevant SYSOUT data. Mandatory and valid only if the specified OP value is F, C, or N. Valid values depend on the OP value: <ul style="list-style-type: none"> ■ F – File name. String comprised of from 1 through 44 characters. All characters are valid except blanks. ■ C – New class (1 character). Any character is valid except blank, but an asterisk (*) indicates the original MSGCLASS of the job. ■ N – New destination (1 through 8 characters). All characters are valid except blanks. </td></tr> <tr> <td>FRM</td><td> 1-character value that identifies the class of job output to process. Selected when C is the value of OPT. [z/OS, only.] Optional. Note: If a FRM class is not specified, all SYSOUT classes are treated as a single, whole unit. </td></tr> </table>	OP	Type of SYSOUT handling to perform. Mandatory. Valid values are: <ul style="list-style-type: none"> ■ C – Change the class of the job output. [z/OS, only.] ■ D – Delete the job output. ■ F – Copy the job output to file. ■ N – Change the destination of the job output. ■ R – Release the job output. 	data	Relevant SYSOUT data. Mandatory and valid only if the specified OP value is F, C, or N. Valid values depend on the OP value: <ul style="list-style-type: none"> ■ F – File name. String comprised of from 1 through 44 characters. All characters are valid except blanks. ■ C – New class (1 character). Any character is valid except blank, but an asterisk (*) indicates the original MSGCLASS of the job. ■ N – New destination (1 through 8 characters). All characters are valid except blanks. 	FRM	1-character value that identifies the class of job output to process. Selected when C is the value of OPT. [z/OS, only.] Optional. Note: If a FRM class is not specified, all SYSOUT classes are treated as a single, whole unit.
OP	Type of SYSOUT handling to perform. Mandatory. Valid values are: <ul style="list-style-type: none"> ■ C – Change the class of the job output. [z/OS, only.] ■ D – Delete the job output. ■ F – Copy the job output to file. ■ N – Change the destination of the job output. ■ R – Release the job output. 							
data	Relevant SYSOUT data. Mandatory and valid only if the specified OP value is F, C, or N. Valid values depend on the OP value: <ul style="list-style-type: none"> ■ F – File name. String comprised of from 1 through 44 characters. All characters are valid except blanks. ■ C – New class (1 character). Any character is valid except blank, but an asterisk (*) indicates the original MSGCLASS of the job. ■ N – New destination (1 through 8 characters). All characters are valid except blanks. 							
FRM	1-character value that identifies the class of job output to process. Selected when C is the value of OPT. [z/OS, only.] Optional. Note: If a FRM class is not specified, all SYSOUT classes are treated as a single, whole unit.							

Examples

All of the following examples presume a job completion status of **OK**.

Example 1: Release the Log file to the default printer

Sysout Handl i ng
Opti on: Rel ease

Example 2: [iSeries (AS/400)] Release the Log file to the specified output queue

Sysout Handl i ng
Opti on: Rel ease
Parm: MYLIB/MYOUTQ

Example 3: OpenVMS and UNIX: Move the Log file

Move the log file to a file called **test.log** in the job owner's home directory.

Sysout Handl i ng
Opti on: Move
Parm: test. l og

Example 4: UNIX: Copy the Log file to a directory

Copy the log file to a directory called **prg2/test/**. Use the default file name.

Sysout Handl i ng
Opti on: Copy
Parm: prg2/test/

Example 5: UNIX: Copy the Log file to a file

Copy the log file to a file. The name of the log file is determined by the Job Name.

Sysout Handl i ng
Opti on: Copy
Parm: prg2/%JOBNAME

Status parameters

The parameters in this chapter describe information that is collected as the result of a job run. They have the following common characteristics:

- These parameters are accessible only from the active environment.
- Most of the values for these parameters are supplied by CONTROL-M, and many cannot be modified by the user.
- Most parameters are displayed in CONTROL-M/EM in the Active panel of the Job Editing form.
- These parameters can be used as filter criteria for selecting job definitions using the CONTROL-M/EM utilities and the Reporting facility.
- Their values can be displayed in reports generated by the Reporting facility.

Status parameters summary

The status parameters are summarized in [Table 22](#).

Table 22 Status parameters – summary (part 1 of 2)

Parameter	Description
Average Run Time	Average time taken, in minutes, for the job to run. This statistic is compiled from the last successful runs of the job.
Current Status	Indicates the completion status of the job (for example, Ended Not OK).
Deleted	Indicates if the job was deleted.

Table 22 Status parameters – summary (part 2 of 2)

Parameter	Description	
Due In	Time and day at which the next run of the job should start executing.	
	+ <i>num days</i>	The number of days that the start of job execution is extended after the ODAT. This subparameter is relevant only for jobs running under CONTROL-M for z/OS version 6.2.00 or later.
Due Out	Time and day by which the next run of the job should stop executing.	
	Format	HHMM, where HH is a 2-digit number from 00 through 24.
	+ <i>num days</i>	The number of days that the end of job execution is extended after the ODAT. This subparameter is relevant only for jobs running under CONTROL-M for z/OS version 6.2.00 or later.
Elapse	Length of time (in minutes) that the job is expected to run.	
End Time	Indicates the time that the last run of the job ended.	
From Proc	For z/OS jobs only with CONTROL-M/Restart: Procedure step from which the job should be rerun.	
From Step	For z/OS jobs only with CONTROL-M/Restart: Step from which the job should be rerun.	
Hold	Indicates if the job is currently being held.	
Job ID	Unique serial number assigned to the job by the CONTROL-M server.	
Next Time	Indicates the next time that the job runs. For reruns or cyclic jobs that use the Interval option.	
NJE	Indicates that the job was sent for execution to a computer that is connected to CONTROL-M through NJE (the node does not have a shared spool with CONTROL-M).	
NJE Node	Node ID of the NJE terminal.	
Rerun Counter	Indicates how many times the job was run.	
Restart	Indicates if the job was restarted.	
Search Count	Number of times CONTROL-M has looked for the job.	
Standard Deviation	Standard deviation from the average runtime. This statistic is compiled from the last successful runs of the job.	
Start Time	Indicates the time that the last run of the job started.	
To Proc	For z/OS jobs only with CONTROL-M/Restart: Procedure step until which the job should be rerun.	
To Step	For z/OS jobs only with CONTROL-M/Restart: Step until which the job should be rerun.	

SAP parameters

The parameters described in this chapter are for the CONTROL-M/Control Module for SAP panels and windows available in the Job Editing form when the CONTROL-M/CM for SAP panel is imported into CONTROL-M/EM and CONTROL-M/Desktop. These are as follows:

- SAP panel, listed in [Table 23](#)
- Add ABAP window, listed in [Table 24](#)
- Add External Program window, listed in [Table 25](#)
- Add External Command window listed in [Table 26](#)
- SAP Data Archiving panel, listed in [Table 27](#)
- SAP-BW (Business Warehouse) panel, listed in [Table 28](#), [Table 29](#), and [Table 30](#).

NOTE

The SAP parameter format is as follows:

SAPR3-<parameter_name>

SAP parameters that describe an action that can occur more than once in a session are enumerated, as follows. The <nn> below represents a numerical value:

SAPR3-<parameter_name><nn>

Certain parameters that are described in this chapter as “Mandatory” are mandatory only when using the SAP panel in CONTROL-M/Desktop.

When submitting jobs differently, the default value may be used by CONTROL-M/CM for SAP.

NOTE

Certain parameters are displayed in the SAP panels after a job has been submitted. These parameters are for notification purposes only, and have a read-only status.

The parameter descriptions are in alphabetical order.

Table 23 SAP panel parameters – summary

Parameter	Description
Account	The name of the Account.
Copy From Step	Indicates from which ABAP or External Program step in the original job to begin the copying procedure.
Detect Spawned Jobs	A spawned job is a job created by another (parent) job, and which is monitored by CONTROL-M. This parameter indicates whether to detect and monitor jobs that were spawned by the current SAP job.
Job Class	The job submission priority (in SAP).
Job Count	A unique SAP job ID number.
Job Mode	Determines the task that the job performs.
Job Name	The name of the job to be monitored or submitted.
Job Type	Read-only fields that indicate the nature of the SAP job in Active job mode. The type is indicated by the check boxes that are selected. Only relevant for jobs extracted by the Extractor process.
New Job Name	The name of the newly created job (in copy mode).
Output Management	The location to which the spool and joblog should be copied.
QID	The Batch Input Session Queue ID number. Relevant only in Batch Input mode.
SAP Job Status	The status of the job in SAP. Relevant only after job submission, while in Active Job Mode.
Spool List Recipient	Recipient of the print job.
Spool List Type	Type of the recipient of the print job.
Start Condition	Specifies whether the job should run <ul style="list-style-type: none">■ with the ASAP option■ immediately■ after an event
Steps	The steps (actions) to be performed as part of the SAP job.
Step Type	Specify that a job should only run when there are resources available.
Target Group	The Application Server on which the job runs.
Target Server (1)	The host computer on which the external program runs.

Table 24 Add ABAP window parameters (part 1 of 2)

Parameter	Description
ABAP Program	The name of the program
Archive ID	The SAP ArchiveLink Storage system ID
Archive Text	A free text description of the archive location
Authorization	A user with print authorization
Columns	The maximum number of characters on an output line
Delete After Print	Indicates whether the report is deleted after printing
Department	The spool department
Document Type	The archive object document type

Table 24 Add ABAP window parameters (part 2 of 2)

Parameter	Description
Event	The event ID that indicates the event name of the After Event start condition
Event Parameter	The event parameter for a specific event ID
Information Field	Archive information
Job Name	A read-only field that displays the job name
Language	The language of the ABAP step
Layout	The print layout format
Name	The spool list name
New Spool Request	Indicates whether to request a new spool
Number of Copies	The number of copies to print
Object Type	The archive object type
OS Cover Sheet	Type of cover page for output
Output Device	The designated printer logical name
Owner	The step owner
Print Archive Mode	Determines whether the spool of the step is printed to an output device, to the archive, or both
Print Expiration	The number of days after which the print job expires.
Recipient	The name of the recipient of the job output
Rows	The maximum number of rows per page
SAP Cover Page	The type of cover page for output
Selection Cover Page	Indicates whether a cover page should be used
Time of Print	Indicates whether to print the job output immediately, print the job later, or send the job to the spooler
Titles	The spool list titles
Use ABAP Program Default	A check box that exists for both the Rows and Columns parameters. Indicates whether the ABAP program default should be used, rather than a number in the Rows or Columns box
Variant Name	The Variant name

Table 25 Add external program window parameters (part 1 of 2)

Parameter	Description
Activate Traces	Indicates whether SAP activates traces
External Program	The external program name
Job Waiting for External Termination	Indicates whether SAP waits for the external program to end
Log External Errors in Joblog	Indicates whether SAP writes the error in a joblog

Table 25 Add external program window parameters (part 2 of 2)

Parameter	Description
Log External Output to Joblog	Indicates whether SAP writes the output in a joblog
Parameters	The parameters for an external program
Owner	The step owner
Target Host	The host computer on which the external program runs

Table 26 Add external command window parameters

Parameter	Description
Activate Traces	Indicates whether SAP activates traces
External Program	The external program name
Job Waiting for External Termination	Indicates whether SAP waits for the external program to end
Log External Errors in Joblog	Indicates whether SAP writes the error in a joblog
Log External Output to Joblog	Indicates whether SAP writes the output in a joblog
Operating sys	List of operating systems
Owner	The step owner
Parameters	The parameters for an external program
Target Server (1)	The server on which the external command runs

Table 27 SAP panel for data archiving parameters (part 1 of 2)

Parameter	Description
Account	The name of the Account
Archiving Object	The name of the archiving object in SAP
Check Sessions	Enables the user to check if an incomplete archiving session exists for a specific archiving object
Check Variant	Enables the user to check if a Write job already exists with the specific variant for the archiving object defined for this job
Copy Spool To	The name and path of the file to which the spool should be copied
Detect Spawned Jobs	Monitors the spawned jobs of an original SAP job
Job Class	The job submission priority (in SAP)
Job Mode	Determines the task that the job performs
Job Name	The name of the job to be monitored or reported
Print Parameters	For more information, see Table 24 on page 314
Session Number	Indicates the archiving session number in SAP

Table 27 SAP panel for data archiving parameters (part 2 of 2)

Parameter	Description
Start Condition	Specifies that a job should run only when there are SAP resources available
Target Server (1)	The Application Server on which the job runs
Variant Name	The name of the Variant

Table 28 SAP-BW General panel parameters

Parameter	Description
Account	The name of the Account
CONTROL-M Job Name	For more information, see “Job Name”
SAP-BW Business Process Type	Determines the task that the job performs. The option selected (Process Chain or InfoPackage) determines which subparameters are available

Table 29 SAP-BW panel, Process Chain parameters

Parameter	Description
Process Chain Description	Describes a Process Chain
Process Chain ID	A unique BW-generated ID of a Process Chain
Process Chain Log ID	A unique BW-generated ID for the Process Chain running session. Relevant only after job submission, in Active Job Mode
Rerun Options	Indicates how the Process Chain should be rerun

Table 30 SAP-BW panel, InfoPackage parameters

Parameter	Description
Background Job Name	The name of the InfoPackage's background job name
InfoPackage Description	A description of the InfoPackage.
InfoPackage RNR	A unique BW-generated ID for the InfoPackage's running session. Relevant only after job submission, in Active Job Mode
InfoPackage Tech. Name	A unique BW-generated InfoPackage ID
Job Count	The InfoPackage's background job count. Relevant only after job submission, in Active Job Mode

ABAP Program

The name of the ABAP program.

Format

Usage	Mandatory
Availability	Add ABAP window in Create job mode
Format	Text box
Valid Values	1-40 characters
Case Sensitive	Uppercase only
Invalid Characters	Special characters not permitted Blanks permitted
Variable Name	%%SAPR3-STEP-S<nn>-PROGRAM

Account

The name of the Account.

Format

Usage	Mandatory
Format	Text box
Valid Values	1-30 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%SAPR3-ACCOUNT

General information

This parameter is mapped to the CONTROL-M/EM Owner parameter.

The Account is a profile. The remaining parameters are predefined according to the Account, when the Account is created.

The Account parameter must be specified for every SAP job.

Activate Traces

Indicates whether SAP activates traces.

Format

Usage	Optional
Availability	Add External Program window or Add External Command window in Create job mode
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - active■ N: (Cleared) - not active
Default	X (Selected)
Variable Name	<code>%%SAPR3-STEP-S<nn>-ACTIVATE_TRACE</code>

Archive ID

SAP ArchiveLink Storage system ID.

Format

Usage	Optional
Availability	<ul style="list-style-type: none"> ■ Add ABAP window in Create job mode ■ Print Parameters window in Write job mode (SAP Data Archiving panel) ■ Only enabled if Print Archive Mode is set to Archive or Print & Archive
Format	Text box
Valid Values	2 characters
Default	ZZ
Case Sensitive	Yes
Invalid Characters	Only trailing blank spaces permitted
Variable Name	<code>%%SAPR3-STEP-S<nn>-ARCH_ID</code>
XBP Interface	<p>This parameter is functional in:</p> <ul style="list-style-type: none"> ■ XBP 2.0, or ■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Archive Text

A free text description of the archive location.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)■ Only enabled if Print Archive Mode is set to Archive or Print & Archive
Format	Text box
Valid Values	1-40 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%SAPR3-STEP-S<nn>-ARCH_TEXT
XBP Interface	This parameter is functional in: <ul style="list-style-type: none">■ XBP 2.0, or■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Archiving Object

The name of the archiving object in SAP Data Archiving jobs.

Format

Usage	Mandatory
Format	Text box
Valid Values	1-10 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%SAPR3-DA_ARC_OBJ

General information

The Archiving Object parameter is only relevant for SAP Data Archiving jobs.

Authorization

User with print authorization.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-12 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_AUTH

Background Job Name

Name of the InfoPackage background job name.

Format

Usage	Optional
Availability	InfoPackage SAP-BW Business Process Type
Format	Text box
Valid Values	<p>1-25 characters</p> <p>Note: The BI_BTCH prefix is automatically added to the beginning of the job name in SAP-BW.</p> <p>If no value is entered, SAP-BW generates a name for the background job</p>
Case Sensitive	No
Invalid Characters	None
Variable Name	%%SAPR3-BACKJOBNAME

Check Sessions

Enables the user to check if an incomplete archiving session exists for a specific archiving object. An incomplete archiving session is one for which not all **Delete** jobs ended successfully.

Format

Usage	Optional
Availability	Write job mode in the SAP Data Archiving panel
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - perform a check■ N: (Cleared) - do not perform a check
Default	N (Cleared)
Variable Name	%%SAPR3-DA_CHECK_SESSIONS

General information

If an incomplete archiving session is found, a message is displayed, and a Data Archiving write job is not created.

The Check Sessions parameter is only relevant for SAP Data Archiving jobs.

Check Variant

Enables the user to check if a **Write** job already exists with the specific variant for the archiving object defined for this job.

Format

Usage	Optional
Availability	Write job mode in the SAP Data Archiving panel
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - perform a check■ N: (Cleared) - do not perform a check
Default	N (Cleared)
Variable Name	%%SAPR3-DA_CHECK_VARIANT

General information

If such a **Write** job is found, a message is displayed, and a new **Write** job is not created.

The Check Variant parameter is only relevant for SAP Data Archiving jobs.

Columns

The maximum number of characters in an output line.

Format

Usage	Mandatory
Availability	<ul style="list-style-type: none"> ■ Add ABAP window in Create job mode ■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box and check box
Valid Values	<ul style="list-style-type: none"> ■ Integer. Any value from 1 through 255. ■ -1 (Use ABAP Program Default check box is selected) Special value indicating that the number of columns is obtained from the ABAP program code.
Default	80
Variable Name	<code>%%SAPR3-STEP-S<nn>-PRINT_NUMCOLUMNS</code>

Related parameters

Use ABAP Program Default	Indicates whether the ABAP program default should be used, rather than the number in the Columns box. If selected, the variable <code>%%SAPR3-STEP-S<nn>-PRINT_NUMCOLUMNS</code> is set to -1.
---------------------------------	---

Copy From Step

Indicates from which ABAP or External Program step in the original job to begin the copying procedure.

Format

Usage	Mandatory
Availability	Copy job mode
Format	Text box
Valid Values	Integer between 1-99
Default	1
Variable Name	%%SAPR3-START_STEP

Copy Spool To

The name and path of the file to which the spool should be copied.

Format

Usage	Optional
Format	Text box
Valid Values	1-214 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%SAPR3-SPOOL

General information

The Copy Spool To parameter can be specified only for SAP Data Archiving jobs.

**NOTE**

If *SYSOUT is specified, the spool is copied into the job SYSOUT.

Delete After Print

Indicates whether the report is deleted after printing.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - delete after printing■ N: (Cleared) - do not delete after printing
Default	N (Cleared)
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_RELEASE

Department

Spool department.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-12 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-DEPT
XBP Interface	This parameter is functional in: <ul style="list-style-type: none">■ XBP 2.0, or■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Detect Spawned Jobs

A spawned job is a job created by another (parent) job, and monitored by CONTROL-M. This parameter indicates whether to detect and monitor jobs that were spawned by the current SAP job.

Format

Usage	Optional
Format	Option buttons and text box, and a read-only check box
Valid Values	<p>For %%SAPR3-DETECT_OPTION</p> <p>1: (No Detection Needed) 2: (Parent (current) Job definition) 3: (A specific Job definition)</p> <p>For %%SAPR3-DETECT_CHILD_JOBNAME</p> <ul style="list-style-type: none"> ■ Name of the parent job (for option 2) ■ Name of the specific job (for option 3) <p>For %%SAPR3-DETECT_CHILD_TABLE</p> <ul style="list-style-type: none"> ■ Name of the scheduling table in which the parent exists ■ For option 2 or 3 always set the value %%SCHEDTAB <p>For %%SAPR3-GROUP_ORDID</p> <ul style="list-style-type: none"> ■ The Order ID of the group scheduling table ■ For option 2 or 3 always set the value %%GROUP_ORDID <p>For %%SAPR3-DETECT_CHILD_RELEASE</p> <ul style="list-style-type: none"> ■ Specify whether to start spawned jobs that have a status of Scheduled. ■ For option 2 or 3, set the following values: <ul style="list-style-type: none"> ■ Y - Start Spawed Jobs ■ N - Do not start Spawed Jobs
Variable Names	%%SAPR3-DETECT_OPTION %%SAPR3-DETECT_CHILD_JOBNAME %%SAPR3-DETECT_CHILD_RELEASE %%SAPR3-DETECT_CHILD_TABLE
Related Variable	%%SAPR3-GROUP_ORDID

General information

The following options are available:

- No Detection needed: Do not detect spawned jobs of the current job.
- Detect and Create According to:
 - Parent (current) job definition: Detect spawned jobs of the current job and extract these jobs to CONTROL-M, with identical properties to the “parent job”.
 - A specific job definition:
A field is displayed, in which you can enter a specific SAP-type job name. Detected spawned jobs of the current job are extracted to CONTROL-M with identical properties to the specified (not the current) job.

Important: The specified job must exist in the same scheduling table as the current job.

Document Type

Archive object document type.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)■ Only enabled if Print Archive Mode is set to Archive or Print & Archive
Format	Text box
Valid Values	1-10 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-ARCHIVE_OBJECT

Event

The event ID that indicates the event name of the After Event start condition.

Format

Usage	Mandatory for the After Event start condition
Availability	Create job mode when the "start after event" start condition is selected.
Format	Text box
Valid Values	1-32 characters
Variable Name	%%SAPR3-EVENT_ID
Related Parameter	%%SAPR3-EVENT_PARAM

Event Parameter

The event parameter for a specific event ID.

Format

Usage	Optional
Availability	Create job mode when the "start after event" start condition is selected.
Format	Text box
Valid Values	1-64 characters
Related Parameter	%%SAPR3-EVENT_ID
Variable Name	%%SAPR3-EVENT_PARAM

External Command

The name of the external command.

Format

Usage	Optional
Availability	Add External Command window in Create job mode
Format	Text box
Valid Values	1-128 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-PROGRAM

External Program

The name of the external program.

Format

Usage	Optional
Availability	Add External Program window in Create job mode
Format	Text box
Valid Values	1-128 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-PROGRAM

InfoPackage Description

A description of the InfoPackage.

Format

Usage	Mandatory
Availability	InfoPackage SAP-BW Business Process Type
Format	Text box
Valid Values	1-60 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-InfoPackage_Desc

InfoPackage RNR

A unique BW-generated ID for the InfoPackage's running session. Relevant only in Active Job Mode, after job submission.

Format

Usage	Read-only
Availability	InfoPackage SAP-BW Business Process Type
Format	Read-only text box
Variable Name	%%SAPR3-InfoPackage_RNR

InfoPackage Tech. Name

A unique BW-generated InfoPackage ID.

Format

Usage	Mandatory
Availability	InfoPackage SAP-BW Business Process Type
Format	Text box
Valid Values	30 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-InfoPackage_TechName

Information Field

Archive information.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)■ Only enabled if Print Archive Mode is set to Archive or Print & Archive
Format	Text box
Valid Values	1-3 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-ARCHIVE_INFO

Job Class

The job submission priority (in SAP). The Job Class parameter can be specified for both SAP R/3 jobs and SAP Data Archiving jobs.

Format

Usage	Mandatory
Availability	<ul style="list-style-type: none">■ Create job mode■ Write job mode in the SAP Data Archiving panel
Format	List
Valid Values	<ul style="list-style-type: none">■ A - most urgent■ B - urgent■ C - least urgent
Default	<ul style="list-style-type: none">■ For SAP R/3 jobs: C■ For SAP Data Archiving jobs: A
Variable Name	%%SAPR3-JOBCLASS
XBP Interface	The A and B values of this parameter are only functional in one of the following <ul style="list-style-type: none">■ XBP 2.0■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Job Count

A unique SAP job ID number.

In the SAP-BW panel, the Info Package Job Count parameter is relevant only in Active Job Mode, after job submission.

Format

Usage	Mandatory
Availability	Copy, Original, or External job mode
Format	<p>List for special values</p> <p>Text box for digits</p>
Valid Values	<p>For %%SAPR3-JOB_COUNT:</p> <ul style="list-style-type: none"> ■ Job count of a specific job <ul style="list-style-type: none"> - Specific_Job If this value is set, the value for %%SAPR3-JOBCOUNT must be an 8-digit number. ■ Special values: <ul style="list-style-type: none"> - FIRST - FIRST_SCHEDULED - LAST - LAST_SCHEDULED <p>For %%SAPR3-JOBCOUNT:</p> <ul style="list-style-type: none"> ■ Job count of a specific job <ul style="list-style-type: none"> - An 8-digit number Only if Specific_Job is set for the value of or %%SAPR3-JOB_COUNT ■ Special values: <ul style="list-style-type: none"> The same special value set for or %%SAPR3-JOB_COUNT
Note:	<ul style="list-style-type: none"> ■ In Copy job mode, these parameters can be set for either a specific job, or as one of the special values. ■ In Original job mode, these parameters can be set for either a specific job, or as either the FIRST_SCHEDULED or LAST_SCHEDULED special values. ■ In External job mode, only a specific job can be set.
Variable Names	<ul style="list-style-type: none"> ■ %%SAPR3-JOB_COUNT ■ %%SAPR3-JOBCOUNT

Job Mode

Determines the task that the job performs.

Format

Usage	Mandatory
Format	Option buttons
Valid Values	<p>Valid values for SAP R/3 jobs:</p> <ul style="list-style-type: none"> ■ Create - Create and run a new job in SAP - CREATE ■ Original - Run an existing job in SAP - RUN_ORG ■ Copy - Copy an existing job in SAP and run the new job - RUN_COPY ■ External - Monitor the status of a job that runs in SAP - EXTERNAL ■ Batch Input - Run a Batch Input session - BATCHINPUT <p>Valid values for SAP Data Archiving jobs:</p> <ul style="list-style-type: none"> ■ Write - Create and run a Data Archiving Write job - DA_WRITE ■ Detect Delete - Detect a Data Archiving Delete job created in SAP - DA_DETECTOR The %%SAPR3-DA_JOB_TYPE parameter should be set to DELETE. ■ Detect Store - Detect a Data Archiving Store job created in SAP - DA_DETECTOR The %%SAPR3-DA_JOB_TYPE parameter should be set to STORE.
Variable Name	%%SAPR3-JOB_MODE
Related Variable	%%SAPR3-DA_JOB_TYPE

The Job Mode parameter must be specified for both SAP R/3 jobs and SAP Data Archiving jobs. For SAP-BW jobs, see “[SAP-BW Business Process Type](#)” on page 374.

Job Name

The name of the job to be monitored or submitted (in Batch Input job mode also called Map Name).

Format

Usage	Mandatory
Format	Text box
Valid Values	1-32 characters
Case Sensitive	No
Invalid Characters	None
Variable Name	%%SAPR3-JOBNAME
Related Variable	%%SAPR3-JOB_COPY_TARGET_VAL

General information

This parameter is mapped to the CONTROL-M/EM Job Name parameter.

Job Type

Read-only fields that indicate the nature of the SAP job in Active job mode. The type is indicated by the check boxes that are selected. Only relevant for jobs extracted by the Extractor process.

Format

Usage	Mandatory
Availability	Active job mode
Format	Check boxes and text boxes
Valid Values	<ul style="list-style-type: none"> ■ Extracted - An SAP job extracted from SAP to CONTROL-M by the Extractor process for monitoring and managing purposes ■ Intercepted - A job that was intercepted by SAP, extracted to CONTROL-M by the Extractor process, activated by CONTROL-M/Enterprise Manager, and is now being monitored in CONTROL-M ■ Spawning - A job that was created in SAP by a job created or monitored in CONTROL-M, extracted from SAP by the Extractor process and is now being monitored in CONTROL-M <ul style="list-style-type: none"> - Parent Name - If the job type is Spawning, the name of the parent job is displayed in this field. - Parent ID - If the job type is Spawning, the SAP job count of the parent job is displayed in this field.
XBP Interface	<p>These parameters are functional only in:</p> <ul style="list-style-type: none"> ■ XBP 2.0, or ■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Job Waiting for External Termination

Indicates whether SAP waits for the external program to end before starting the next step, or before exiting.

Format

Usage	Optional
Availability	Add External Program window or Add External Command window in Create job mode
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - wait■ N: (Cleared) - do not wait
Default	X (Selected)
Variable Name	%%SAPR3-STEP-S<nn>-WAIT_FOR_TERM

Language

The language of the ABAP step.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1 alphanumeric character Example: D for German; d for Serbo-Croatian.
Case Sensitive	Yes
Invalid Characters	Blanks Special characters
Variable Name	%%SAPR3-STEP-S<nn>-LANGU

Layout

The print layout format.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-16 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_LAYOUT
XBP Interface	This parameter is functional in: <ul style="list-style-type: none">■ XBP 2.0, or■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Log External Errors in Joblog

Indicates whether SAP logs external errors in the joblog.

Format

Usage	Optional
Availability	Add External Program window or Add External Command window in Create job mode
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - external errors written in the log■ N: (Cleared) - external errors not written in the log
Default	X (Selected)
Variable Name	%%SAPR3-STEP-S<nn>-LOG_STDERR

Log External Output to Joblog

Indicates whether SAP logs external output in the joblog.

Format

Usage	Optional
Availability	Add External Program window or Add External Command window in Create job mode
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - output written in the log■ N: (Cleared) - output not written in the log
Default	X (Selected)
Variable Name	%%SAPR3-STEP-S<nn>-LOG_STDOUT

Name

The spool list name.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-12 characters
Case Sensitive	Uppercase only
Invalid Characters	None
Variable Name	<code>%%SAPR3-STEP-S<nn>-LIST_NAME</code>
XBP Interface	This parameter is functional in one of the following <ul style="list-style-type: none">■ XBP 2.0■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

New Job Name

The name of the newly created job (in copy mode).

Format

Usage	Optional
Format	Text box
Valid Values	1-32 characters
Variable Name	%%SAPR3-JOB_COPY_TARGET_VAL

New Spool Request

Indicates whether to request a new spool.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - request a new spool■ N: (Cleared) - do not request a new spool
Default	X (Selected)
Variable Name	%%SAPR3-STEP-S<nn>-NEW_LIST_ID
XBP Interface	This parameter is functional in: <ul style="list-style-type: none">■ XBP 2.0, or■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Number of Copies

The number of copies to be printed.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	A three-digit integer between 001-255
Default	001
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_COPIES

Object Type

The archive object type.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)■ Only enabled if Print Archive Mode is set to Archive or Print & Archive
Format	Text box
Valid Values	1-10 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	<code>%%SAPR3-STEP-S<nn>-ARCHIVE_SAPOBJECT</code>

Operating sys

Available for external commands. This indicates the operating system.

Format

Availability	Add External command window in Create job mode
Format	List or free text
Valid Values	1-10 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-OPERSYS

OS Cover Sheet

Type of cover page for output.

Format

Usage	Optional
Availability	<ul style="list-style-type: none"> ■ Add ABAP window in Create job mode ■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	List
Valid Values	<ul style="list-style-type: none"> ■ D: (Default Setting) - use the default setting from SAP ■ X: (Print) - print the cover page ■ N: (Do Not Print) - do not print the cover page
Default	D
Variable Name	<code>%%SAPR3-STEP-S<nn>-PRINT_HOST_BANNER</code>

NOTE

In SAP 4.6D, this parameter can return different values, depending on specific SAP user-definitions. This is a known SAP problem.

Output Device

The logical name of the designated printer.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-4 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_DEST

General information

If the device does not exist, SAP adds a \$ sign before the device name.

Output Management

For job log and spool.

Format

Usage	Optional
Format	Option button
Valid Values	1-214 characters <ul style="list-style-type: none">■ To copy to a file, enter the full-path file name■ To copy to SYSOUT, enter *SYSOUT.■ If you do not wish to copy the job log or the spool, do not set this variable.
Default	<ul style="list-style-type: none">■ SYSOUT - for joblog■ Don't copy - for spool
Variable Name	%%SAPR3-JOBLOG - for joblog %%SAPR3-SPOOL - for spool

Owner

The authorized step owner.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Add External Program window in Create job mode■ Add External Command window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-12 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%SAPR3-STEP-S<nn>-OWNER

General information

If left unspecified, the value is taken from the Account owner field.

Parameters

The parameters for an external program or an external command.

Format

Usage	Optional
Availability	Add External Program and Add External Command windows in Create job mode
Format	Text box
Valid Values	1-214 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-VAR-NAME

Print Archive Mode

Determines whether the spool of the step is printed to an output device, to the archive, or both.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	List
Valid Values	<ul style="list-style-type: none">■ PRINT: (Print)■ ARCHIVE: (Archive)■ PRINT_ARCHIVE: (Print & Archive)
Default	Print
Variable Name	<code>%%SAPR3-STEP-S<nn>-PRINT_ARCHMODE</code>

Print Expiration

The number of days after which a print job expires.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	List
Valid Values	Single-digit number: <ul style="list-style-type: none">■ 1-8 - a specific number of days■ 9 - a special value that signifies Do Not Delete
Default	8
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_EXPIRATION

Process Chain Description

Describes a Process Chain.

Format

Usage	Optional
Availability	Process Chain SAP-BW Business Process Type
Format	Text box
Valid Values	1-60 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-ProcessChain_Desc

Process Chain ID

A unique BW-generated ID of a Process Chain.

Format

Usage	Mandatory
Availability	Process Chain SAP-BW Business Process Type
Format	Text box
Valid Values	30 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%SAPR3-ProcessChain_ID

Process Chain Log ID

A unique BW-generated ID for the Process Chain running session. Relevant only in Active Job Mode, after job submission.

Format

Usage	Read-only.
Availability	Process Chain SAP-BW Business Process Type
Format	Read-only text box
Variable Name	%%SAPR3-ProcessChain_LogID

QID

The Batch Input Session Queue ID number.

Format

Usage	Optional
Availability	Batch Input job mode
Format	Text box
Valid Values	20-digit number
Variable Name	<code>%%SAPR3-QID</code>

General information

Batch Input jobs that are deleted after they run are not monitored. The status of jobs marked for deletion is not displayed. If left unspecified, the oldest defined session is scheduled.

Recipient

The name of the recipient of the job output.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-12 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_RECIPIENT

Rerun Options

If an SAP-BW job fails, indicates how the Process Chain should be rerun.

Format

Usage	Mandatory
Availability	When SAP-BW Business Process Type is set to Process Chain , in Active mode, and the job is in Hold status (“Zoom and Save” action)
Format	Option buttons
Valid Values	<ul style="list-style-type: none">■ Restart from point of failure■ Rerun from start
Default	Restart from point of failure

Rows

Maximum number of rows per page.

Format

Usage	Mandatory
Availability	<ul style="list-style-type: none"> ■ Add ABAP window in Create job mode ■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box and check box
Valid Values	<ul style="list-style-type: none"> ■ Integer between 1-90 ■ -1 Use ABAP Program Default check box is selected) Special value indicating that the number of rows is obtained from the ABAP program code.
Default	65
Variable Name	<code>%%SAPR3-STEP-S<nn>-PRINT_NUMLINES</code>

Related parameter

Use ABAP Program Default	Indicates whether the ABAP program default should be used, rather than the number in the Rows box. If selected, the variable <code>%%SAPR3-STEP-S<nn>-PRINT_NUMLINES</code> is set to -1.
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SAP-BW Business Process Type

Determines the task that the job performs.

Format

Usage	Mandatory
Format	Option buttons
Valid Values	<ul style="list-style-type: none">■ PC_RUN_ORG (Process Chain)■ IP_RUN_ORG (InfoPackage)
Default	IP_RUN_ORG (InfoPackage)
Variable Name	%%SAPR3-JOB_MODE

SAP Cover Page

Type of cover page for output.

Format

Usage	Optional
Availability	<ul style="list-style-type: none"> ■ Add ABAP window in Create job mode ■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	List
Valid Values	<ul style="list-style-type: none"> ■ D: (Default Setting) - use the default setting from SAP ■ X: (Print) - print the cover page ■ Blank space: (Do Not Print) - do not print the cover page
Default	D
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_BANNER



NOTE

In SAP 4.6D, this parameter can return different values, depending on specific SAP user-definitions. This is a known SAP problem.

SAP Job Status

A read-only field that indicates the status of the SAP CCMS job, in SAP. Relevant only in Active Job Mode, after job submission.

Format

Usage	Read-only Displayed only in Active Job Mode
Availability	Active job mode
Format	Text box
Valid Values	<ul style="list-style-type: none"> ■ SCHEDULED ■ RELEASED ■ READY ■ ACTIVE ■ CANCELED ■ FINISHED
Variable Name	None
XBP Interface	<p>This parameter is functional in:</p> <ul style="list-style-type: none"> ■ XBP 2.0, or ■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

General information

This parameter is updated when the Job Editing form is opened. However, the status is not refreshed automatically.

SAP Spool Recipient Attribute

Indicates whether to create a new SAP spool.

Format

Usage	Optional
Availability	Create Job mode
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X (Selected): Request a new spool■ N (Not selected): Do not request a new spool
Default	N (Not selected)
Variable Name	<code>%%SAPR3_RECIP_COPY</code> <code>%%SAPR3_RECIP_BLIND_COPY</code> <code>%%SAPR3_RECIP_EXPRESS</code> <code>%%SAPR3_RECIP_NO_FORWARDING</code> Note: You can use either <code>%%SAPR3_RECIP_COPY</code> or <code>%%SAPR3_RECIP_BLIND_COPY</code> at any one time.

Selection Cover Page

Indicates whether a cover page should be used.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - use cover page■ N: (Cleared) - do not use cover page
Default	N (Cleared)
Variable Name	<code>%%SAPR3-STEP-S<nn>-PRINT_BANNER_PAGE</code>

Session Number

Indicates the archiving session number in SAP.

Format

Usage	Optional This parameter should be specified when either of the following occur: <ul style="list-style-type: none">• The Write job was not created by CONTROL-M• The Write job and the Detect job are not part of the same group scheduling table. This parameter should not be specified if the Write job and the Detect job are part of the same group scheduling table.
Availability	Delete or Store job mode in the SAP Data Archiving panel
Format	Text box
Valid Values	6-digit number
Variable Name	<code>%%SAPR3-DA_SESSION_NUMBER</code>

Spool List Recipient

Recipient of the print job.

Format

Usage	Optional
Availability	Create job mode
Format	Name - 214 characters
Valid Values	Any string value, up to 214 characters
Variable Name	<code>%%SAPR3_RECIPIENT</code>
Related Parameters	<code>%%SAPR3_RECIP_TYPE</code> <code>%%SAPR3_RECIP_COPY</code> <code>%%SAPR3_RECIP_BLIND_COPY</code> <code>%%SAPR3_RECIP_EXPRESS</code> <code>%%SAPR3_RECIP_NO_FORWARDING</code>

Spool List Type

Type of the recipient of the print job.

Format

Usage	Optional
Availability	Create job mode
Format	Type - List of single characters
Valid Values	<ul style="list-style-type: none">■ A - External■ B - Username■ C - Shared distribution■ P - Private distribution
Variable Name	<code>%%SAPR3_RECIP_TYPE</code>
Related Parameters	<code>%%SAPR3_RECIPIENT</code> <code>%%SAPR3_RECIP_COPY</code> <code>%%SAPR3_RECIP_BLIND_COPY</code> <code>%%SAPR3_RECIP_EXPRESS</code> <code>%%SAPR3_RECIP_NO_FORWARDING</code>

Start Condition

Specifies whether the job should run with the ASAP option, immediately, or after event.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Create, Original, or Copy job mode■ All job modes in the SAP Data Archiving panel
Format	Option buttons
Valid Values	<ul style="list-style-type: none">■ X - ASAP■ N - Immediate■ E - After Event
Default	N (Immediate)
Variable Name	%%SAPR3-SUBMIT_ASAP
Related Variables	%%SAPR3_EVENT_ID, %%SAPR3_EVENT_PARAM

General information

If the ASAP option is selected, the job runs as soon as a background work process is available for it in SAP. If the job cannot start immediately, it is transformed in SAP into a time-based job.

If the Immediate option is selected, the job either runs immediately, or fails in case there are no work processes available to run it.

If the After Event option is selected, the job waits for the event to be triggered.

Step Type

Type of step to be performed.

Format

Usage	Optional.
Length	1 character. Valid values: <ul style="list-style-type: none">■ A: ABAP program step■ C: External Command step■ E: External Program step■ F: Fax Number■ L: Telex Number■ U: Internet Address■ X: X.400 Address■ R: Remote Mail Address
Case-Sensitive	Uppercase only.
Variable Name	%%SAPR3_STEP-S<nn>-STEP_TYPE

General information

The variable described above must be specified for every single step in a job.

Steps

A read-only field that displays the job steps (actions) to be performed as part of the SAP job.

Format

Usage	Read-only
Availability	Create job mode
Format	Read-only text list
Valid Values	You can specify any number of steps from 1 through 99 steps <ul style="list-style-type: none">■ ABAP Program - Add an ABAP program■ External command - Add an external command■ External Program - Add an external program
Case Sensitive	No
Invalid Characters	Blanks
Related Variables	All step parameters must use the following prefix: %%SAPR3-STEP-S<nn>-

General information

When the specified Job Mode is Create, at least one step must be specified in an SAP job definition. This job definition can consist of one or more ABAP program steps, or External program steps, or both.

In the AutoEdit variables given for each of the Add ABAP Window parameter descriptions in this chapter, S<nn> represents a logical number between S01 and S99.

Target Group

The application server on which the job runs. The Target Group parameter can be specified for SAP R/3 jobs only.

Format

Usage	Optional
Availability	Create, Original, or Copy job mode
Format	Text box
Valid Values	1-20 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	<code>%%SAPR3-TARGET_SERVER</code>
Related Parameter	<code>%%SAPR3-SERVER_OR_GROUP_TYPE</code> Valid values are: <ul style="list-style-type: none">■ G - Group■ S - Server

General information

If left unspecified, SAP determines a value for this parameter during runtime.

Not supported in `ctmr3req` in job define mode (`-SAPR3-ACTION job_define`).

Target Host

The host computer on which the external program runs.

Format

Usage	Mandatory
Availability	Add External Program window in Create job mode
Format	Text box
Valid Values	1-32 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%SAPR3-STEP-S<nn>-TARGET_HOST

Target Server (1)

The application server on which the job runs. The Target Server parameter can be specified for both SAP R/3 jobs and SAP Data Archiving jobs.

Format

Usage	Optional
Availability	<ul style="list-style-type: none"> ■ Create, Original, Copy, or Batch Input job mode ■ All job modes in the SAP Data Archiving panel
Format	Text box
Valid Values	<p>1-20 characters</p> <p>The following (full) format must be used: hostname_SYSID_sysnumber</p>
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	<code>%%SAPR3-TARGET_SERVER</code>
Related Parameter	<code>%%SAPR3-SERVER_OR_GROUP_TYPE</code> Valid values are: <ul style="list-style-type: none"> ■ G - Group ■ S - Server

General information

If left unspecified, SAP determines a value for this parameter during runtime.

Not supported in `ctmr3req` in job define mode (`-SAPR3-ACTION job_define`).

Target Server (2)

The application server on which the external command runs.

Format

Usage	Mandatory
Availability	Add External Command window in Create job mode
Format	Text box
Valid Values	1-32 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%SAPR3-STEP-S<nn>-TARGET_HOST

Time of Print

Indicates when to print the job output.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	List
Valid Values	<ul style="list-style-type: none">■ N: Send to SAP spooler■ X: Print out immediately■ A: Print later
Default	Send to SAP spooler
Variable Name	%%SAPR3-STEP-S<nn>-PRINT_IMMED

Titles

The spool list titles.

Format

Usage	Optional
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Print Parameters window in Write job mode (SAP Data Archiving panel)
Format	Text box
Valid Values	1-68 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	<code>%%SAPR3-STEP-S<nn>-LIST_TEXT</code>
XBP Interface	This parameter is functional in: <ul style="list-style-type: none">■ XBP 2.0, or■ XBP 1.0 with CONTROL-M Function Modules installed (when Use Extended is selected)

Use ABAP Program Default

Indicates whether the ABAP program default should be used, rather than a number entered in the **Rows** or **Columns** box.

For details, see the related parameters.

Related parameters

Rows	If selected, the Rows box is not available. If not selected, enter a number in the Rows box.
Columns	If selected, the Columns box is not available. If not selected, enter a number in the Columns box.

Variant Name

Available for SAP R/3 and SAP Data Archiving jobs. Specify a variant for the specified ABAP program or Archiving Object.

Format

Usage	Optional for SAP R/3 jobs. Mandatory for SAP Data Archiving Write jobs.
Availability	<ul style="list-style-type: none">■ Add ABAP window in Create job mode■ Write job mode in the SAP Data Archiving panel
Format	Text box
Valid Values	1-14 characters
Case Sensitive	Uppercase only
Invalid Characters	None
Variable Name	%%SAPR3-STEP-S<nn>-VAR-NAME

Oracle E-Business Suite parameters

The parameters described in this chapter are for the OAP panel of the Job Editing form.

These parameters are only relevant if CONTROL-M/CM for Oracle E-Business Suite is installed and Oracle E-Business Suite forms are loaded in CONTROL-M/EM.

Table 31 OAP parameters – summary (part 1 of 2)

Parameter	Description
Advanced Options	Enables various advanced options to be modified.
Application	The application short name associated with the responsibility name.
Application Instance	Oracle E-Business Suite instance connection information.
Application Name	The application long name associated with the concurrent program.
Application Short Name	The application short name associated with the concurrent program.
Description	Description of a request.
Include Child Status	When specified, child jobs are monitored.
Include Output	If specified, the output of the Oracle job is appended to SYSOUT.
Include Log	When specified, the request log is copied to the CONTROL-M sysout.
Notifications	Generates a selection list containing all Oracle workflow roles.
Output Language	The job output language.
Parameter Validation	All specified parameter values are validated. If no value is specified, the default value is retrieved.
Parent	Parent of the job or process.
Phase	Phase of the job or process.
Print	Determines print settings.
Priority	Priority of the job or process.
Profiles	Specify or modify the print profile name and value.
Request ID	Oracle E-Business Suite request ID number.
Request Type	Indicates whether the request is a Request Set or Single Request.

Table 31 OAP parameters – summary (part 2 of 2)

Parameter	Description
Responsibility	Authorization for accessing data and running programs or requests, or both.
Security Group	The security group assigned to the username.
Status	Status of the job or process.
Upon completion	Enables various tasks to be performed upon completion of a job.
User Name	Authorized Oracle E-Business Suite user who has at least one responsibility.
Wait Child	If an Oracle job spawned multiple child jobs, the CONTROL-M job tracks status of all child jobs. If not, CONTROL-M only checks original job status, stopping as soon as it finishes.

Advanced Options

Enables various advanced options to be modified.

Format

Usage	Optional.
Format	Button. When clicked, the Advanced Options window is displayed.

The following parameter settings can be modified in the **Advanced Options** window:

- “Profiles” on page 411
- “Include Log” on page 402
- “Include Output” on page 403
- “Parameter Validation” on page 406
- “Wait Child” on page 421
- “Include Child Status” on page 401

Application

The application short name associated with the responsibility name.

Format

Usage	Mandatory
Length	1 - 50 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%OAP-RESPAPP

Application Instance

Oracle E-Business Suite instance connection information.

Format

Usage	Mandatory
Length	1 - 214 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%OAP-INSTANCE

Application Name

The application long name associated with the concurrent program.

Format

Usage	Optional.
Default	None
Length	1 - 214 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%OAP-APPDESP

Application Short Name

The application short name associated with the concurrent program.

Format

Usage	Mandatory.
Length	1 - 50characters
Case Sensitive	Yes (uppercase only)
Invalid Characters	Blanks
Variable Name	%%OAP-APPNAME

Description

Text description of a request.

Format

Usage	Optional.
Length	1 - 214 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%OAP-DESCRIPTION

Displayed only when the Request Type is **Single Request**.

Include Child Status

If selected, child jobs are monitored. If one ends in error, the CONTROL-M job status is also error. If unspecified, CONTROL-M job status is determined only by parent job ending status.

Format

Usage	Optional.
Format	<p>Check box. Default: Selected (Child jobs monitored) Located on the Advanced Options window accessed from the OAP panel.</p>
Variable Name	%%OAP-SUBSTATUS

Include Log

When specified, the request log is copied to the CONTROL-M sysout.

Format

Usage	Optional
Format	<p>Check box</p> <p>Located on the Advanced Options window accessed from the OAP panel.</p>
Default	Selected
Variable Name	<code>%%OAP-DISPLAY_LOGFILE</code>

Include Output

When specified, the output of the Oracle job is appended to SYSOUT.

Format

Usage	Optional.
Format	Check box. Located on the Advanced Options window accessed from the OAP panel.
Default	Not selected
Variable Name	<code>%%OAP-DISPLAY_OUTPUT</code>

Notifications

Generates a selection list containing all Oracle workflow roles.

NOTE

For Oracle E-Business Suite 11 and 11i only.



Format

Usage	Optional.
Format	List generated by CONTROL-M/EM. Located on the Upon Completion window accessed from the OAP panel.
Length	1-214 characters
Case Sensitive	Yes
Variable Name	%%OAP-NOTIFICATIONS-Nn-NAME

Output Language

The job output language.

Format

Usage	Optional.
Format	<LANGUAGE>_<TERRITORY> Located on the Upon Completion window accessed from the OAP panel.
Default	If no value is set, default is AMERICAN_AMERICA
Length	1-60 characters
Variable Name	%%OAP-LANGUAGE

Parameter Validation

All specified parameter values are validated. If no value is specified, the default value is retrieved.

Format

Usage	Optional.
Format	<p>Check box.</p> <p>Default: Selected (parameter values are validated).</p> <p>Located on the Advanced Options window accessed from the OAP panel.</p>
Variable Name	%%OAP-PARAM_VALIDATION

Parent

Parent of the job or process.

Format

Usage	Optional
Format	Number, 1-15 digits in length. Displayed only in the Job Editing form active environment (in the CONTROL-M/EM GUI).
Variable Name	<code>%%OAP-ACTIVE_ATTRn-PARENT</code>

General information

The value of this parameter is supplied by the Oracle E-Business Suite and cannot be modified.

Phase

Phase of the job or process.

Format

Usage	Optional
Length	1 - 50 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%OAP-ACTIVE_ATTRn-PHASE

The value of this parameter is supplied by the Oracle E-Business Suite and cannot be modified.

This parameter is displayed only in the Job Editing form active environment (in the CONTROL-M/EM GUI).

Print

Determines print settings.

Format

Usage	Optional
Format	<p>Composed of the Printer (Load), No. of Copies, and Style subparameters, described below.</p> <p>Located on the Upon Completion window accessed from the OAP panel.</p>

Subparameters

Printer (Load)	Causes the Oracle E-Business Suite server to generate a list in real time of all available printers. Select required printer for job output.	
	Usage	Optional
	Length	1-100 characters
	Case sensitive	Yes
	Invalid Characters	None
	Variable Name	In Single Request: %%OAP-PRINTERS-P<n>-NAME In Request Set: %%OAP-SETPROG-P<n>-PRINTERNAME
No. of copies	Required number of copies.	
	Usage	Optional
	Format	Integer. 1-4 digits.
	Variable Name	In Single Request: %%OAP-PRINTERS-P<n>-VALUE In Request Set: %%OAP-SETPROG-P<n>-PRINTCOPIES
	Style	
Style	Format in which job output is printed.	
	Usage	Optional. Mandatory if a value is supplied for the Printer (Load) parameter.
	Length	1-20 characters
	Case sensitive	Yes
	Invalid Characters	None
	Variable Name	%%OAP-PRINTSTYLE

Priority

Priority of the job or process.

Format

Usage	Optional.
Format	Number, 0-100. Displayed only in the Job Editing form active environment (in the CONTROL-M/EM GUI).
Variable Name	%%OAP-ACTIVE_ATTR<n>-PRIORITY

Related parameters

Priority	CONTROL-M priority (described on page 174) determines submission the priority of the job in CONTROL-M, whereas Priority under Oracle E-Business Suite determines the priority of the job in Oracle E-Business Suite.
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General information

There are two Priority settings for an Oracle E-Business Suite job that is scheduled in the CONTROL-M data center.

The priority of a job in CONTROL-M is first used to determine when CONTROL-M/EM schedules the job for execution.

After the job is submitted for execution in the Oracle E-Business Suite, the Oracle E-Business Suite Priority of the job determines when it is run in the Oracle E-Business Suite.

Profiles

Specify or modify the print profile name and value.

Format

Usage	Optional.
Format	Profile Name and Value text boxes, described below. Located on the Advanced Options window accessed from the OAP panel.

Subparameters

Profile Name	Profile internal name.	
	Usage	Optional
	Length	1-214 characters
	Case sensitive	Yes
	Invalid Characters	None
	Variable Name	<code>%%OAP-PROFILES-P<n>-NAME</code>
Value		
	Usage	Optional
	Length	1-214 characters
	Case sensitive	Yes
	Invalid Characters	None
	Variable Name	<code>%%OAP-PROFILES-P<n>-VALUE</code>

Request ID

Oracle E-Business Suite request ID number.

Format

Usage	Optional
Format	Number, 1-15 digits in length. Displayed only in the Job Editing form active environment (in the CONTROL-M/EM GUI).
Variable Name	%%OAP-ACTIVE_ATTR<n>-REQUEST_ID

General information

The value of this parameter is supplied by the Oracle E-Business Suite and cannot be modified.

Request Type

Indicates whether the request is a Request Set or Single Request.

Format

Usage	Mandatory
Format	<p>Option buttons.</p> <p>Valid values:</p> <ul style="list-style-type: none"> ■ Request Set ■ Single Request <p>Note: Each option has subparameters.</p>
Default	Request Set
Variable Name	<code>%%OAP-TASKTYPE</code>

General information

Each Request Type option is composed of subparameters.

Request Set

Specifies a number of requests.

Table 32 Request Set subparameters (part 1 of 2)

Application Name	For more information, see “ Application Name ” on page 398.	
Application Short Name	For more information, see “ Application Short Name ” on page 399.	
Request Set	Request Set long name.	
Usage	Optional	
Length	1-214 characters	
Case sensitive	Yes	
Invalid Characters	None	
Variable Name	<code>%%OAP-SETDESP</code>	

Table 32 Request Set subparameters (part 2 of 2)

Request Set Parameters	Click the Request Set button to cause the Oracle E-Business Suite server to generate a list, in real time, of all concurrent programs in the request set. Each program is listed in a table displaying Program and Stage . Select an item from the generated list to enter in the form.
Usage	Optional
Variable Name	OAP-SETPROG-P<n>-PARMS-PARM <m>-NAME OAP-SETPROG-P<n>-PARMS-PARM <m>-VALUE
Request Set Code (Load)	Request Set short name. Causes the Oracle E-Business Suite server to generate a list, in real time, that satisfies relevant criteria. Select an item from the generated list to enter in the form.
Usage	Mandatory
Length	1-30 characters
Case sensitive	Yes (uppercase)
Invalid Characters	Blanks
Variable Name	%%OAP-SETNAME

Single Request

Specifies a single request.

Table 33 Single Request subparameters (part 1 of 2)

Application Name	For more information, see “ Application Name ” on page 398.
Application Short Name	For more information, see “ Application Short Name ” on page 399.
Description	For more information, see “ Description ” on page 400.
Program Short Name (Load)	The concurrent program short name. Causes the Oracle E-Business Suite server to generate a list in real time that satisfies relevant criteria. Select an item from the generated list to enter in the form.
Usage	Mandatory
Length	1-30 characters
Case sensitive	Yes (uppercase)
Invalid Characters	Blanks
Variable Name	%%OAP-PROGNAME

Table 33 Single Request subparameters (part 2 of 2)

		Request Type
Program long Name		Descriptive program name. Usage Optional Length 1-214 characters Case sensitive Yes Invalid Characters None Variable Name %%OAP-PROGDESP
Request Parameters		Opens Single Request Parameter form. You can specify parameter values for the specified concurrent program. Note: All fields must be specified, or the default value is used. If no default value is specified in CONTROL-M, default is automatically NULL .
	Usage	Optional
	Format	Parameters: <ul style="list-style-type: none">■ Organization ID■ BOM or ENG■ Item Selection■ Specific Item■ Revision■ Date■ Items From■ Items To■ Category Set■ Category Structure■ Categories From■ Categories To For more information on these parameters, see the <i>CONTROL-M/CM for Oracle E-Business Suite Administrator Guide</i> .
	Variable Name	OAP-PARMS-P<n>-NAME
		OAP-PARMS-P<n>-VALUE

Responsibility

Authorization for accessing data and running programs or requests, or both.

Format

Usage	Mandatory
Length	1-100 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%OAP-RESPNAME

Security Group

The security group assigned to the username.



NOTE

For Oracle E-Business Suite 11i only.

Format

Usage	Optional
Length	1-80 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%OAP-SECURITY_GROUPNAME

Status

Oracle E-Business Suite status of the job or process.

Format

Usage	Optional
Format	Displayed only in the Job Editing form active environment (in the CONTROL-M/EM GUI).
Variable Name	%%OAP-ACTIVE_ATTR<n>-STATUS

There are two statuses (whether it is Held or Free, and so on) for an Oracle E-Business Suite job that is scheduled in the CONTROL-M data center.

The status of a job in CONTROL-M (whether it is Held or Free, and so on) can be modified from the CONTROL-M/EM GUI.

After the job is submitted for execution in the Oracle E-Business Suite, its Oracle E-Business Suite Status determines how the job is handled (whether it is Held or Free, and so on) in the Oracle E-Business Suite.

NOTE

The value of this parameter is supplied by the Oracle E-Business Suite and cannot be modified.

Upon completion

Enables various tasks to be performed upon completion of a job.

Format

Usage	Optional.
Format	Button. When clicked, the Upon Completion window is displayed.

The following parameter settings can be modified in the **Upon Completion** window:

- “Notifications” on page 404
- “Print” on page 409
- “Output Language” on page 405

User Name

Authorized Oracle E-Business Suite user who has at least one responsibility.

Format

Usage	Mandatory
Length	1-100 characters
Case Sensitive	No
Invalid Characters	Blanks
Variable Name	%%OAP-USERNAME

Wait Child

If an Oracle job spawned multiple child jobs, the CONTROL-M job tracks the status of all child jobs. If not, CONTROL-M only checks the original job status, stopping as soon as it finishes.

Format

Usage	Optional.
Format	<p>Check box. Default: Selected (Tracks child job status) Located on the Advanced Options window accessed from the OAP panel.</p>
Variable Name	%%OAP_WAITCHILD

Advanced File Transfer parameters

This chapter describes the parameters in the FILE_TRANS panel that are used to run Advanced File Transfer (AFT) jobs. This panel is displayed in the Job Editing form when CONTROL-M/CM for Advanced File Transfer is installed at your data center. The basic CONTROL-M parameters for AFT jobs are summarized in the following tables, and each parameter is described in detail in the remainder of this chapter.

Parameter descriptions are in alphabetical order.



NOTE

Other CONTROL-M job parameters are available for additional processing of AFT jobs. They are described in the other chapters in this guide.

Table 34 FILE_TRANS panel parameters—summary

Parameter	Description
Account	Set of parameters that define both sides of a file transfer connection.
Binary/ASCII	Select either Binary or ASCII mode for file transfer.
File Transfer Direction	Source and destination computers.
Number of Retries	Number of times CONTROL-M/CM for Advanced File Transfer tries to re-establish a failed connection.
Rerun from Point of Failure	Indicates whether file transfer jobs should be rerun from the point of failure (from the specific point in the file transfer where the job failed).
Transfer Location	Source and destination locations on the host computers.
Use Configuration Default	Use the number of retries defined in the configuration file.



NOTE

Parameters displayed in the FILE_TRANS panel after a job has been submitted are informational only.

Table 35 FILE_TRANS panel parameters–notification purposes only

Parameter	Description
Host Name	The name of the host computer.
OS Type	The operating system of the host computer.
User Name	The user name of the host computer.

NOTE

The following parameters are displayed in the General, OpenSystems/OS400, MVS, Security, and FTP Commands panels of the Advanced window.

Table 36 FILE_TRANS panel - Advanced window parameters–general

Parameter	Description
After the completion of a successful file transfer the source file is	Indicates whether the source file is to be left as is, deleted, or renamed upon completion of a successful file transfer.
Continue on Failure	Specifies whether a multi-file transfer should continue if a specific file transfer fails or if an entire multi-file transfer job fails.
If a file of the same name as the destination file already exists	When a file is specified to be transferred to a location already containing a file of the same name, the value for this parameter determines: <ul style="list-style-type: none">■ whether the file transfer is aborted or skipped or■ the destination file is appended or overwritten
Rename Destination file	Specifies the new file name pattern for the destination file.
Temporary File Prefix	A temporary prefix that is prepended to the file name during the transfer. If a directory is being transferred, this prefix is prepended to the names of all the files in that directory. Upon completion of a successful file transfer, the prefix is removed. The original name of the file (or all the files in the directory) is restored.

Table 37 FILE_TRANS panel - Advanced window parameters–OpenSystems/OS400

Parameter	Description
Recursive	Specifies whether a directory transfer includes all its subdirectories.
Rename Destination file	Specifies the new file name pattern for the destination file.
Trailing blanks	Specify how trailing blanks are handled during OS/400 transfers.

Table 38 FILE_TRANS panel - Advanced window parameters–MVS

Parameter	Description
Additional Options	Additional z/OS FTP server parameters to be defined prior to performing the file transfer.
Allocation Units	Value of the allocation units for the z/OS data set.
Block Size	Block size of the z/OS data set to be allocated.
DBCS Encoding	Specifies the DBCS encoding for the MVS dataset.
Logical Record Length	Logical record length of the z/OS data set to be allocated.
Primary Allocation	Primary allocation amount for the z/OS data set to be allocated.
Record Format	Record format of the z/OS data set to be allocated.
Secondary Allocation	Secondary allocation amount for the z/OS data set to be allocated.
Template Name	Name of the template with which you intend to work.
Translate Table	File containing the translation tables for the data connection.
Unit	Value of the allocation units for the z/OS data set.
Volume	Volume on which the z/OS data set is allocated.

Table 39 FILE_TRANS panel - Advanced window parameters–security

Parameter	Description
Compression	Defined separately for host 1 and host 2. Indicates whether compression is to be used for file transfers using Secure File Transfer (SFTP). For the specific file transfer, overrides the setting for the account. (Security)
Encryption Algorithm	Defined separately for host 1 and host 2. The encryption algorithm to be used for file transfers using SFTP. For a specific file transfer, this parameter overrides the Encryption Algorithm setting for the account.

Table 40 FILE_TRANS panel - Advanced window parameters–FTP Commands

Parameter	Description
Host1 pre command	Specifies the pre command for host 1.
Host1 first pre command parameter	Specifies the first parameter for pre command for host 1.
Host1 second pre command parameter	Specifies the second parameter for pre command for host 1.
Host1 post command	Specifies the post command for host 1.
Host1 first post command parameter	Specifies the first parameter for post command for host 1.
Host1 second post command parameter	Specifies the second parameter for post command for host 1.
Host2 pre command	Specifies the first parameter for pre command for host 2.
Host2 first pre command parameter	Specifies the second parameter for pre command for host 2.

Table 40 FILE_TRANS panel - Advanced window parameters–FTP Commands

Parameter	Description
Host2 second pre command parameter	Specifies the post command for host 2.
Host2 post command	Specifies the first parameter for post command for host 2.
Host2 second post command parameter	Specifies the second parameter for post command for host 2.

Account

Name of a set of parameters that define both sides of a file transfer connection.

Format

Usage	Mandatory
Format	Text box
Length	Up to 64 characters
Case Sensitive	Yes
Special Requirement	Must begin with a letter and can contain alphanumeric characters and underscores. Must not contain blanks.
Default	None
Variable Name	%%FTP-ACCOUNT

Additional Options

Specifies additional z/OS FTP server parameters that can be defined prior to performing the file transfer. Additional options that are specified are used by the SITE command.

Format

Usage	Optional
Format	Text box. Free text according to FTP server SITE commands. Up to 214 characters
Variable Name	<p>%%FTP-ADDOPTxy</p> <p>Note: x is either 1 or 2 and indicates the z/OS host (1 refers to the host defined on the left side of the Account Details dialog box, and 2 refers to the host defined on the right side of the Account Details dialog box).</p> <p>y indicates a value from 1 through 5, according to the sequential transfer number</p> <p>For example, when performing a file transfer from one z/OS host to another z/OS host, the variable:</p> <p>%%FTP-ADDOPT21</p> <p>contains additional options to set for the connection to the z/OS host defined on the right side of the Account Details dialog box, in the first file transfer.</p>

After the completion of a successful file transfer the source file is

Indicates whether the source file is to be left as is, deleted, or renamed upon completion of a successful file transfer.

Format

Usage	Optional
Format	Option button and File Name text box for the Renamed option
Valid Values	<ul style="list-style-type: none"> ■ Left as is ■ Deleted ■ Renamed (enter new name in the File Name text box)
Default	Left as is
Variable Name	%%FTP-SRCOPTx Note: x indicates a value between 1-5, according to the sequential transfer number

Subparameter

File Name	If the Renamed option is selected, a text box for entering the new file name is available. The file name must be a valid name for the operating system of the host computer.	
	Usage	Optional
	Format	Text box
	Valid Values	1-256 characters
	Case sensitive	Yes
	Invalid Characters	Operating system dependent
	Variable Name	%%FTP-NEWNAME ^x Note: x indicates a value between 1-5, according to the sequential transfer number.

Allocation Units

Specifies the value of the allocation units for the z/OS data set.

Format

Usage	Optional
Format	List
Valid Values	<ul style="list-style-type: none">■ Blocks■ Cylinders■ Tracks
Default	N/A
Variable Name	%%FTP-ALLOCUNITSx Note: x indicates a value between 1-5, according to the sequential transfer number

Binary/ASCII

Determines the mode in which files are transferred.

Format

Usage	Mandatory
Format	Option button
Valid Values	<ul style="list-style-type: none">■ Binary■ ASCII
Default	Binary
Variable Name	%%FTP-TYPEx Note: x indicates a value between 1-5, according to the sequential transfer number.

Block Size

The block size of the z/OS data set to be allocated.

Format

Usage	Optional
Format	Text box
Valid Values	Integer between 0-32760
Default	N/A
Variable Name	%%FTP-BLKSIZEx Note: x indicates a value between 1-5, according to the sequential transfer number.

Compression

Determines whether the current SFTP file transfer uses compression. This parameter is defined for each host in the account.

Format

Usage	Optional If this value is unspecified, the Compression parameter defined for the account is used. For host computers that are not defined to use SFTP, this field is disabled.
Format	List
Valid Values	<ul style="list-style-type: none"> ■ No (0) - Compression off ■ Yes (1) - Compression on
Default	Yes
Variable Name	%%FTP-COMPRESSIONxy Note: x is either 1 or 2 and indicates the z/OS host (1 refers to the host defined on the left side of the Account Details dialog box, and 2 refers to the host defined on the right side of the Account Details dialog box). y indicates a value between 1-5, according to the sequential transfer number For example, when performing a file transfer from one z/OS host to another z/OS host, the variable: %%FTP-COMPRESSION21 contains the compression value to set for the connection to the z/OS host defined on the right side of the Account Details dialog box, in the first file transfer.

General information

The value of this parameter is defined separately for each host computer.

The setting for this parameter on the Security panel of the Advanced window of the FILE_TRANS panel affects only the current file transfer. For more information about how to change the security settings for the account, see the *CONTROL-M/Control Module for Advanced File Transfer Administrator Guide*.

For host computers that are not defined to use SFTP, this field is disabled. For more information, see the *CONTROL-M/Control Module for Advanced File Transfer Administrator Guide*.

Continue on Failure

Specify whether a multi-file transfer continues if a specific file transfer fails or if an entire multi-file transfer fails.

Format

Usage	Optional
Format	Check box
Valid Values	<ul style="list-style-type: none">■ 0 – Stop on failure■ 1 – Continue on failure
Default	Unchecked
Variable Name	%%FTP-CONT_EXEx Note: x indicates a value between 1-5, according to the sequential transfer number

DBCS Encoding

Specifies the DBCS encoding for the MVS dataset.

Format

Usage	Optional
Format	List
Valid Values	<ul style="list-style-type: none">■ EUCKANJI (Extended UNIX Code Kanji)■ HANGEUL■ BIG5 (IBM Big-5)■ SJISKANJI (JIS Kanji)■ JIS83KJ (JIS 1983 Kanji)■ JIS78KJ (JIS 1978 Kanji)■ KSC5601 (Korean Standard Code KSC-5601)■ SCHINESE (Simplified Chinese)■ TCHINESE (Traditional Chinese (5550))
Default	N/A
Variable Name	%%FTP-DBCSx Note: x indicates a value between 1-5, according to the sequential transfer number

Encryption Algorithm

The encryption algorithm that the current SFTP file transfer uses. This parameter is defined for each host in the account.

Format

Usage	Optional. If this value is left unspecified, the encryption parameter defined for the account is used. For host computers that are not defined to use SFTP, this field is disabled.
Format	List
Valid Values	<ul style="list-style-type: none"> ■ Blowfish ■ DES ■ 3DES ■ AES
Default	Blowfish
Variable Name	<code>%FTP-ENCRYPTIONxy</code> Note: x is either 1 or 2 and indicates the z/OS host (1 refers to the host defined on the left side of the Account Details dialog box, and 2 refers to the host defined on the right side of the Account Details dialog box). y indicates a value between 1-5, according to the sequential transfer number For example, when performing a file transfer from one z/OS host to another z/OS host, the variable: <code>%%FTP-ENCRYPTION21</code> contains the encryption value to set for the connection to the z/OS host defined on the right side of the Account Details dialog box, in the first file transfer.

General information

The value of this parameter is defined separately for each host computer.

The setting for this parameter on the Security panel of the Advanced window of the FILE_TRANS panel affects only the current file transfer. If you want to change the security settings for the account, see the *CONTROL-M/Control Module for Advanced File Transfer Administrator Guide*.

For host computers that are not defined to use SFTP, this field is disabled. For more information, see the *CONTROL-M/Control Module for Advanced File Transfer Administrator Guide*.

File Transfer Direction

Indicates the source and destination computers for the file transfer.

Format

Format	Arrow button
Valid Values	<ul style="list-style-type: none">■ 0 = Right to left■ 1 = Left to right
Variable Name	%%FTP-UPLOADx Note: x indicates a value between 1-5, according to the sequential transfer number

Host Name

The name of the host computer.

Format

Usage	Read-only
Format	Text
Variable Name	%%FTP-LHOST %%FTP-RHOST

Host1 pre command

Specifies the pre command for host 1.

Format

Usage	Optional
Format	List
Valid Values	<ul style="list-style-type: none">■ chmod■ Mkdir■ rename■ rm■ rmdir
Default	N/A
Variable Name	%%FTP-PRECOMM1x Note: x indicates a value between 1-5, according to the sequential transfer number

Host1 first pre command parameter

Specifies the first parameter for pre command for host 1.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ file mode for chmod command■ Full directory to create for Mkdir command■ Old file name for rename command■ File name to delete for rm command■ Directory name to delete for rmdir command
Default	N/A
Variable Name	%%FTP-PREPARAM11x Note: x indicates a value between 1-5, according to the sequential transfer number

Host1 second pre command parameter

Specifies the second parameter for pre command for host 1.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ File name to change mode■ New file name for rename command■ N/A for Mkdir, rm and rmdir commands.
Default	N/A
Variable Name	%%FTP-PREPARAM11x Note: x indicates a value between 1-5, according to the sequential transfer number

Host1 post command

Specifies the post command for host 1.

Format

Usage	Optional
Format	List
Valid Values	<ul style="list-style-type: none">■ chmod■ Mkdir■ rename■ rm■ rmdir
Default	N/A
Variable Name	%%FTP-POSTCOMM1x Note: x indicates a value between 1-5, according to the sequential transfer number

Host1 first post command parameter

Specifies the first parameter for post command for host 1.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ file mode for chmod command■ Full directory to create for Mkdir command■ Old file name for rename command■ File name to delete for rm command■ Directory name to delete for rmdir command
Default	N/A
Variable Name	%%FTP-POSTPARAM1x Note: x indicates a value between 1-5, according to the sequential transfer number

Host1 second post command parameter

Specifies the second parameter for post command for host 1.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ file name to change mode■ New file name for rename command■ N/A for Mkdir, rm and rmdir commands
Default	N/A
Variable Name	%%FTP-POSTPARAM12x Note: x indicates a value between 1-5, according to the sequential transfer number

Host2 pre command

Specifies the pre command for host 2.

Format

Usage	Optional
Format	List
Valid Values	<ul style="list-style-type: none">■ chmod■ Mkdir■ rename■ rm■ rmdir
Default	N/A
Variable Name	%%FTP-PRECOMM2x Note: x indicates a value between 1-5, according to the sequential transfer number

Host2 first pre command parameter

Specifies the first parameter for pre command for host 2.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ file mode for chmod command■ Full directory to create for Mkdir command■ Old file name for rename command■ File name to delete for rm command■ Directory name to delete for rmdir command
Default	N/A
Variable Name	%%FTP-PREPARAM21x Note: x indicates a value between 1-5, according to the sequential transfer number

Host2 second pre command parameter

Specifies the second parameter for pre command for host 2.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ file name to change mode■ New file name for rename command■ N/A for Mkdir, rm and rmdir commands.
Default	N/A
Variable Name	%%FTP-PREPARAM22x Note: x indicates a value between 1-5, according to the sequential transfer number

Host2 post command

Specifies the post command for host 2.

Format

Usage	Optional
Format	List
Valid Values	<ul style="list-style-type: none">■ chmod■ Mkdir■ rename■ rm■ rmdir
Default	N/A
Variable Name	%%FTP-POSTCOMM2x Note: x indicates a value between 1-5, according to the sequential transfer number

Host2 first post command parameter

Specifies the first parameter for post command for host 2.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ file mode for chmod command■ Full directory to create for Mkdir command■ Old file name for rename command■ File name to delete for rm command■ Directory name to delete for rmdir command
Default	N/A
Variable Name	%%FTP-POSTPARAM21x Note: x indicates a value between 1-5, according to the sequential transfer number

Host2 second post command parameter

Specifies the second parameter for post command for host 2.

Format

Usage	Optional
Format	Text
Valid Values	<ul style="list-style-type: none">■ file name to change mode■ New file name for rename command■ N/A for Mkdir, rm and rmdir commands.
Default	N/A
Variable Name	%%FTP-POSTPARAM22x Note: x indicates a value between 1-5, according to the sequential transfer number

If a file of the same name as the destination file already exists

This parameter determines whether the file transfer is aborted or skipped, or whether the destination file is appended or overwritten if a file with the same name already exists at the specified destination

Format

Usage	Mandatory
Format	Option button
Valid Values	<ul style="list-style-type: none">■ Abort - 0■ Overwrite - 1■ Append - 2■ Skip - 4
Default	Overwrite
Variable Name	%%FTP-IF-EXISTx Note: x indicates a value between 1-5, according to the sequential transfer number

Logical Record Length

The logical record length of the z/OS data set to be allocated.

Format

Usage	Optional
Format	Text box
Valid Values	Integer between 0-32760
Default	N/A
Variable Name	%%FTP-LRECLx Note: x indicates a value between 1-5, according to the sequential transfer number

Number of File Transfers

Represents the number of file transfers in a CONTROL-M/CM for Advanced File Transfer job. This is an internal variable that is set by the form, not by the user. It determines how many rows appear in the form for file transfers.

Format

Usage	N/A
Format	N/A
Valid Values	Integer between 1-5
Default	N/A
Variable Name	%%FTP-TRANSFER_NUM

Number of Retries

The number of times CONTROL-M/CM for Advanced File Transfer tries to re-establish a failed connection.

Format

Usage	Mandatory
Format	Text field, with incremental arrows
Valid Values	Integer between 0-99
Default	5
Variable Name	%%FTP-NUM_RETRYES

General information

When the FTP server is running on an z/OS operating system, this field is disabled.

If you are working online, the **Retrieve** button is available and you can click it to automatically set this parameter to the default value defined in configuration.

OS Type

The operating system associated with the Host Name.

Format

Usage	Read-only
Format	Text
Valid Values	<ul style="list-style-type: none">■ Windows■ UNIX■ MVS■ Tandem■ OpenVMS■ OS2200■ OS400
Variable Name	%%FTP-LOSTTYPE %%FTP-ROSTYPE

Primary Allocation

The primary allocation amount for the z/OS data set to be allocated.

Format

Usage	Optional
Format	Text box
Valid Values	Integer between 1 - 16777215
Default	N/A
Variable Name	%%FTP-PRIMARYx Note: x indicates a value between 1-5, according to the sequential transfer number

Record Format

The record format of the z/OS data set to be allocated.

Format

Usage	Optional
Format	List
Valid Values	<ul style="list-style-type: none">■ F■ FB■ V■ VB■ U
Default	N/A
Variable Name	%%FTP-RECFMx Note: x indicates a value 1-5, according to the sequential transfer number.

Recursive

Specifies whether a directory transfer includes all its subdirectories.

Format

Usage	Optional
Format	Check box
Valid Values	<ul style="list-style-type: none">■ 0 - non-recursive■ 1 - recursive
Default	Unchecked
Variable Name	%%FTP-RECURSIVE ^x Note: x indicates a value between 1-5, according to the sequential transfer number

Rename Destination file

Specifies the new file name pattern for the destination file. The renaming happens after a successful transfer. The pattern can contain strings, Autoedit variables and the variable \$\$AFTFILE\$\$.

Format

Usage	Optional
Length	1-256 characters
Valid Values	Dependent on operating system
Case sensitive	Yes
Blanks permitted	No
Default	N/A
Variable Name	%%FTP-DEST-NEWNAMEx Note: x indicates a value between 1-5, according to the sequential transfer number

Rerun from Point of Failure

Indicates whether failed file transfer jobs should be restarted from the point of failure (from the specific file transfer that failed within the job).

Format

Usage	Optional
Format	Check box
Valid Values	<ul style="list-style-type: none">■ Checked - a failed file transfer restarts from the point of failure■ Cleared - a failed file transfer restarts from the beginning of the first file in the file transfer
Default	Checked
Variable Name	%%FTP-RPF

Secondary Allocation

The secondary allocation amount for the z/OS data set to be allocated.

Format

Usage	Optional
Format	Text box
Valid Values	Integer between 0 -16777215
Default	N/A
Variable Name	%%FTP-SECONDARYx Note: x indicates a value between 1-5, according to the sequential transfer number

Template Name

The name of the template to be used for the job.

Format

Usage	Optional
Format	Text box
Length	Up to 64 characters
Case Sensitive	Yes
Blanks	No
Default	None
Variable Name	%%FTP-TEMPLATEx Note: x indicates a value between 1-5, according to the sequential transfer number

Temporary File Prefix

A temporary prefix that is prepended to the file name during the file transfer. If a directory is being transferred, this prefix is prepended to the names of all the files in the directory. Upon completion of a successful file transfer, the prefix is removed. The original name of the file (or all file names in the directory) is restored.

Format

Usage	Optional
Format	Text box
Length	Up to 99 characters
Valid Values	Operating system dependent
Case Sensitive	Yes
Blanks	No
Default	None
Variable Name	%%FTP-FILE-PFXx Note: x indicates a value between 1-5, according to the sequential transfer number

General information

The temporary file name that is created by prepending the prefix must be a valid file name for the operating system of the destination host computer.

Trailing blanks

Specify how trailing blanks are handled during OS/400 transfers. This option is relevant only for files that are transferred in ASCII mode.

Format

Usage	Optional
Format	Option button
Valid Values	<ul style="list-style-type: none">■ 0 – Send trailing blanks.■ 1 – Do not send Trailing blanks for Database file with file structure■ 2 - Do not send Trailing blanks for all Database files
Default	1 - Do not send Trailing blanks for Database file with file structure
Variable Name	%%FTP-TRIMx Note: x indicates a value between 1-5, according to the sequential transfer number

Transfer Location

The source or destination location for files being transferred to or from a host computer.

Format

Usage	Mandatory
Format	Text box
Length	Up to 255 characters
Case Sensitive	Yes
Blanks	Yes
Default	None
Variable Name	<p>%%FTP-RPATHx %%FTP-LPATHx</p> <p>Note: x indicates a value between 1-5, according to the sequential transfer number</p>

Translate Table

Specifies a file on an z/OS system containing translate tables for the data connection.

Format

Usage	Optional
Format	Text box
Valid Values	1-8 characters
Default	None
Variable Name	%%FTP-TRANSTABx Note: x indicates a value between 1-5, according to the sequential transfer number

Unit

The Unit on which the z/OS data set is allocated.

Format

Usage	Optional
Format	Text box
Length	1-8 characters
Default	None
Variable Name	%%FTP-UNITx Note: x indicates a value between 1-5, according to the sequential transfer number

Use Configuration Default

This parameter can be selected if you are working offline and want to use the default number of retries defined in the configuration file.

Format

Usage	Optional
Format	Check box
Valid Values	<ul style="list-style-type: none">■ Checked - use the value defined in configuration■ Unchecked - use the value defined in the Number of Retries parameter
Default	Unchecked
Variable Name	%%FTP-USE_DEF_NUMRETRIES

User Name

The user name of the host computer.

Format

Usage	Read-only
Format	Text
Variable Name	%%FTP-LUSER %%FTP-RUSER

General information

User name of the host computer. The User Name must include the domain when

- the host has an operating system type of Microsoft Windows, and CONTROL-M/Agent is running on it.
- the host has an operating system type of Microsoft Windows. CONTROL-M/Agent is not running on it, but the server installed on it requires the domain for login.

Volume

The Volume on which the z/OS data set is allocated.

Format

Usage	Optional
Format	Text box
Length	1-6 characters
Default	None
Variable Name	%%FTP-VOLUME ^x Note: x indicates a value between 1-5, according to the sequential transfer number

PeopleSoft parameters

This chapter describes the parameters in the PS8 panel for PeopleSoft jobs. This panel is displayed in the Job Editing form when CONTROL-M/CM for PeopleSoft is installed on your data center. The basic CONTROL-M parameters for PeopleSoft jobs are summarized in [Table 41](#). Each parameter is described in this chapter. For more information, see your PeopleSoft Process Scheduler manual.



NOTE

Other CONTROL-M job parameters are available for additional processing of PeopleSoft jobs. For more information, see the other chapters in this guide.

Table 41 PeopleSoft panel parameters – summary

Parameter	Description
Connection Profile	Name for a set of attributes that define a connection between CONTROL-M/CM for PeopleSoft and a PeopleSoft application server.
Email Subject	Indicates the subject line for an email message that is sent by the job.
Email Text	Message text to be displayed in the body of an email message.
Email With Log	Indicates that Structured Query Report (SQR) program log files are attached to an email message.
Format	Output type for the process or job.
Process Name (I)	Name of a PeopleSoft process.
Process Name (II)	Name of a job (collection of PeopleSoft processes).
Process Type	Type of process for the process or job definition.
Rerun From Step	Process number from which a job that failed previously should be rerun (generally the process where the job previously failed).
Run Control ID	Set of run control attributes to be associated with a job or process.
Server Name	Name of the PeopleSoft Server.
Type	Output destination type of a process or job.
User ID	PeopleSoft user ID name to be used for the job.
Userdef1/2/3	User-defined parameters that are made available to the PeopleSoft process or job by CONTROL-M/CM for PeopleSoft.

Connection Profile

Name for a set of attributes that define a connection between CONTROL-M/CM for PeopleSoft and a PeopleSoft application server.

Format

Usage	Mandatory
Length	1 - 30 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Default	None
Variable Name	%%PS8-CON_PROFILE

General information

A connection profile defines the connection attributes between CONTROL-M/CM for PeopleSoft and a PeopleSoft environment. The connection profile must exist before it is specified in a job. Click **Select** next to the **Connection Profile** text box to display a list of profiles that have been defined.

The connection profile contains the following parameters:

- Connection profile name
- PeopleSoft user name
- PeopleSoft password
- PeopleSoft server name
- PeopleSoft server port
- PeopleTools version

The PeopleSoft user name specified in the profile must have authorization to handle all PeopleSoft jobs and processes in the PeopleSoft environment.

To manage connection profiles, specify the **psftcm profcfg** CONTROL-M/CM for PeopleSoft command. For more information about this command, see the *CONTROL-M/Control Module for PeopleSoft Administrator Guide*.

TIP

During the CONTROL-M/CM for PeopleSoft installation, an existing CONTROL-M Option for PeopleSoft environment file can be converted to a connection profile.

Email Subject

Indicates the subject line for an email message that is sent by the job.

Format

Usage	Optional. Available if the Type parameter is set to Email .
Length	1- 50 characters
Case Sensitive	No
Variable Name	%%PS8-EMAIL SUBJECT

Related parameters

Parameter	Description
Email Text	Specifies the message text for the body of the email.
Email With Log	Indicates that SQR program log files should be included as an attachment to the email message.
Type	Specifies the output destination type of a process or job.

General information

When the Type parameter in the Distribution window is set to **Email**, use the Email Subject parameter to enter the subject line for the email message produced by the job. The text must not exceed 50 characters. For more information, see “[Type](#)” on page 483.

Email Text

Use this parameter to enter the body of an email message that is sent by the job.

Format

Usage	Optional. Available if the Type parameter is set to Email.
Case Sensitive	No
Variable Name	%%PS8-EMAIL_TEXT

Related parameters

Parameter	Description
Email Subject	Contains the subject line of the email message.
Email With Log	Indicates that SQR program log files should be included as an attachment to the email message.
Type	Specifies the output destination type of a process or job.

General information

When the Type parameter in the Distribution window is set to Email, use the [Email Text](#) parameter to enter the message text for the email message produced by the job. The text must not exceed 250 characters. For more information, see “[Type](#)” on page 483.

Email With Log

Use this parameter to attach log files generated by the SQR program to an email message that is sent by the job.

Format

Usage	Optional. Available if the Type parameter is set to Email . <ul style="list-style-type: none"> ■ When this option is selected, the email message is sent with an SQR log file attachment. ■ When this option is not selected, the email message is sent without an SQR log file attachment. Default.
Variable Name	<code>%%PS8-EMAIL_ATTACH_LOG</code>

Related parameters

Parameter	Description
Email Subject	Contains the subject line of the email message.
Email Text	Specifies the message text for the body of the email.
Process Type	The process type selected determines what output destination types are available for the Type parameter.
Type	Specifies the output destination type of a process or job.

General information

When the Type parameter in the Distribution window is set to Email, use the **Email With Log** parameter to include log files as an attachment to the email message produced by the job. These log files result from the Structured Query Report (SQR) program when **SQR** is selected as the Process Type for the job.

Format

Indicates the output format for all processes in a job.

Format

Usage	Optional
Variable Name	%%PS8-OUTDESTFORMAT

Related parameters

Parameter	Description
Process Type	The process type selected determines what output destination types are available for the Type parameter.
Type	Specifies the output destination type of a process or job.

General information

Lists the format types that are available for the specified Process Type and Type parameters.

NOTE

Valid values for this parameter correspond to values for a PeopleSoft job. For more information about the **Format** parameter, see your PeopleSoft Process Scheduler manual.

EXAMPLE

If SQR is specified for the Process Type parameter and PRINTER is specified for the Type parameter, valid values for the **Format** parameter are:

- HP
 - LP
 - PS
 - WP
-

Process Name (I)

Name of the process to be scheduled.

Format

Usage	Mandatory
Length	1 - 8 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%PS8-PRCSNAME

Related parameters

Parameter	Description
Process Name (II)	Identifies the name of the job to be scheduled.

General information

Enter a name in the text box field or click **Select and Edit** to display a list of process names that have been defined.

— EXAMPLE —

If SQR is specified for the Process Type parameter and the process produces a report named RESULTSQR.SQR, the value of Process Name (I) is RESULTSQR.

Process Name (II)

Name of the job to be scheduled.

Format

Usage	Mandatory
Length	1 - 12 characters
Case Sensitive	Uppercase only
Invalid Characters	Blanks
Variable Name	%%PS8-JOBNAME

Related parameters

Parameter	Description
Process Name (I)	Identifies the name of the process to be scheduled.

General information

Enter a name in the text box field or click **Select and Edit** to display a list of job names that have been defined.

EXAMPLE

If SQR is specified for the Process Type parameter and the job produces a report named REPORTSQR.SQR, the value of Process Name (II) is REPORTSQR.

Process Type

Indicates the type of process for the process or job definition.

Format

Usage	Mandatory
Length	1 - 30 characters
Case Sensitive	Yes
Invalid Characters	None
Variable Name	%%PS8-PRCSTYPE

Related parameters

Parameter	Description
Type	The selected Process Type determines what output destination types are available. Use the Type parameter to specify the output destination type of a process or job.

General information

A global definition under which related processes or jobs definitions are grouped. Enter a name in the text box field or click **Search** to display a list of process types.

Examples of process types are COBOL, Crystal, SQR, and Application Engine.

Rerun From Step

Rerun a job from a specific process number.

Format

Usage	Optional
Value	Integer
Variable Name	<code>%%PS8-FAILEDSTEP</code>

General information

The process or job must have run and ended. Jobs that ended successfully can be started to run again.

Jobs that contain more than one process, and did not end successfully, can be rerun from a specified process number. For more information about rerunning a job from a failed process, see the *CONTROL-M/Control Module for PeopleSoft Administrator Guide*.

Run Control ID

Run control attributes that are associated with a process or job.

Format

Usage	Mandatory
Length	1 - 30 characters
Case Sensitive	Yes
Variable Name	%%PS8-RUNCONTROLID

Related parameters

Parameter	Description
Server Name	Identifies the name of the server that the application is scheduled to run on.
User ID	Identifies the PeopleSoft user ID of the user authorized to submit the process or job.

General information

The Run Control ID parameter, together with the User ID parameter, uniquely identifies the process that is running. It enables required parameters to be available for a process when it runs. Enter an ID in the text box field or click **Search** to display a list of IDs.

Server Name

Identifies the name of the server to be used for running the process or job.

Format

Usage	Optional
Length	1 - 8 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Default	None
Variable Name	%%PS8-SERVERNAME

Related parameters

Parameter	Description
Run Control ID	Set of run control attributes associated with a process or job.
Connection Profile	Set of attributes that define a connection between CONTROL-M/CM for PeopleSoft and a PeopleSoft application server.
User ID	Identifies the PeopleSoft user ID of the user authorized to submit the process or job.

General information

The name of the server depends on the Connection Profile parameter. The Server Name parameter identifies the name of the application server on which the process or job is scheduled to run.

To specify the Server Name parameter, enter a name in the text box field or click **Select** to display a list of existing server names.

Type

Output destination type, specifying the file path, printer destination, URL, or email address.

Format

Usage	Optional
Default	File
Variable Name	%%PS8-OUTDESTTYPE

Related parameters

Parameter	Description
Email Subject	Contains the subject line of the email message.
Email Text	Specifies the message text for the body of the email.
Email With Log	Indicates that SQR program log files should be included as an attachment to the email message.
Format	Selects the output format for all processes in a job.
Process Type	The process type selected determines what output destination types are available for the Type parameter.

General information

The output destination types available for the **Type** parameter depend on the process specified with the **Process Type** parameter. For example, if SQR is specified for the **Process Type** parameter, you can select one of the following output destination types:

- Email
- File
- Printer
- Web

Additional distribution information must be specified when the output type is either Email or Web. When the output type is Web, select a folder name to which the output should be distributed.

Use the **Format** parameter to select the output format for the specified **Type** parameter. For more information, see “[Format](#)” on page 476.

User ID

PeopleSoft user ID of the user authorized to submit the process or job.

Format

Usage	Mandatory
Length	1 - 30 characters
Case Sensitive	Yes
Invalid Characters	Blanks
Variable Name	%%PS8-USERID

Related parameters

Parameter	Description
Run Control ID	Identifies a set of run control attributes to be associated with a process or job.
Server Name	Identifies the name of the server where the application is scheduled to run.

General information

The PeopleSoft user with the specified User ID must be authorized to run the specified process or job.

CONTROL-M has a security mechanism that insures that requestors cannot submit a job that they are not authorized to submit. In addition, when building a job processing definition, the selection list of possible jobs and processes is limited by the user's privileges in PeopleSoft.

This parameter is mapped to the CONTROL-M/EM Owner parameter. For more information, see “[Owner](#)” on page 64.

Userdef1/2/3

Specify CONTROL-M data to be shared with PeopleSoft processes or jobs.

Format

Usage	Optional
Length	1 - 30 characters
Case Sensitive	No
Invalid Characters	None
Variable Name	%%PS8-USERDEF1/2/3

General information

This parameter enables you to specify and share data from CONTROL-M with PeopleSoft processes or jobs. You can enter AutoEdit variables or constants, according to your requirements (for example, filename).

User-defined values are made available to your application by accessing userdef(x) in the CONTROLM record.

— EXAMPLE —

You can create a number of CONTROL-M/CM for PeopleSoft jobs that correspond to the same process, but with different parameters.

Microsoft Windows parameters

The parameters described in this chapter are for the WIN panel of the Job Editing form. These parameters are only relevant if CONTROL-M/Agent Microsoft Windows version 6.0.0x or later is installed in your data center.

Table 42 Microsoft Windows parameters

Parameter	Description
Job Execution Time	Maximum amount of elapsed execution time, in seconds, for the job.
Job Memory	Maximum amount of memory, in megabytes, allowed for the job.
Max Work Set Size	Maximum RAM, in megabytes, for all processes of the job.
Min Work Set Size	Minimum RAM, in megabytes, for all processes of the job.
Priority Class	Highest priority class the job and its “children” can receive.
Process Execution Time	Maximum amount of elapsed execution time, in seconds, for each process in a job.
Process Memory	Maximum amount of memory, in megabytes, allowed for each process in a job.
Scheduling Class	Scheduling class for all processes of a job.



NOTE

The job fails if the maximum value set for a parameter is exceeded. The OSCOMPSTAT will equal -3.

Job Execution Time

Maximum amount of elapsed execution time, in seconds, for the job.

Format

Usage	Optional
Format	CPU time, in seconds. Min: 0.1 Max: 1.8 x 1012
Variable Name	<code>%%WIN2K-PER_JOB_USER_TIME_LIMIT</code>

NOTE

BMC Software recommends entering application data using the required panel in the CONTROL-M/EM Job Editing form.



Job Memory

Maximum amount of memory, in megabytes, allowed for the job.

Format

Usage	Optional
Format	Memory, in megabytes. Min: 0.1 Max: 4200.0
Variable Name	<code>%%WIN2K-JOB_MEMORY_LIMIT</code>

Max Work Set Size

Maximum RAM, in megabytes, for all processes of the job.

Format

Usage	Optional.
Format	RAM, in megabytes. Min.: 0.1 Max.: 4200.0
Variable Name	<code>%%WIN2K-MAXIMUM_WORKING_SET_SIZE</code>

Min Work Set Size

Minimum RAM, in megabytes, for all processes of the job.

Format

Usage	Optional
Format	RAM, in megabytes. Min.: 0.1 Max.: 4200.0
Variable Name	<code>%%WIN2K-MINIMUM_WORKING_SET_SIZE</code>

Priority Class

Highest priority class the job and its children can receive.

Format

Usage	Optional
Format	List box. Valid values: <ul style="list-style-type: none">■ IDLE_PRIORITY_CLASS■ BELOW_NORMAL_PRIORITY_CLASS■ NORMAL_PRIORITY_CLASS■ ABOVE_NORMAL_PRIORITY_CLASS■ HIGH_PRIORITY_CLASS■ REALTIME_PRIORITY_CLASS
Variable Name	<code>%%WIN2K-PRIORITY_CLASS</code>

General information

The calling process must enable the `SE_INC_BASE_PRIORITY_NAME` privilege so that the calling process is allowed to boost the scheduling priority of a process.

Process Execution Time

Maximum amount of elapsed execution time, in seconds, for each process in a job.

Format

Usage	Optional
Format	CPU time, in seconds. Minimum: 0.1 Maximum: 1.8 x 1012
Variable Name	%%WIN2K-PER_PROCESS_USER_TIME_LIMIT

General information

If the user-mode time for any process exceeds the specified amount, that process is terminated.

Process Memory

Maximum amount of memory, in megabytes, allowed for each process in a job.

Format

Usage	Optional
Format	Memory, in megabytes. Minimum: 0.1 Maximum: 4200.0
Variable Name	<code>%%WIN2K-PROCESS_MEMORY_LIMIT</code>

Scheduling Class

Scheduling class for all processes of a job.

Format

Usage	
Format	Valid values: 0 – 9 . <ul style="list-style-type: none">■ 0 - provides the minimum resources■ 9 - provides the maximum resources
Default	5
Variable Name	%%WIN2K-SCHEDULING_CLASS

General information

To use a scheduling class greater than 5, the calling process must enable the `SE_INC_BASE_PRIORITY_NAME` privilege. If the **Logon as user** option is turned off, no special change is needed. If the **Logon as user** option is turned on, **Increase Scheduling Priority** must be granted to the owner of the job.

AutoEdit facility

The AutoEdit facility consists of a group of special variables and functions that can be used to make your job processing definitions more dynamic. This facility also enables you to define your own variables.



NOTE

Certain AutoEdit functions and variables work differently for z/OS jobs. Although some of these differences are described in this chapter, BMC recommends that you consult the *CONTROL-M for z/OS User Guide* for a more complete description of AutoEdit functionality for z/OS jobs.

Using AutoEdit variables and functions, you can

- access information about the system under which a job is running
- pass information to a job or modify working parameters of the job
- pass information in a Shout message or a Do Mail message to a user when the job ends

You cannot include application-specific job parameters in the values of AutoEdit variables. The names of application-specific job parameters are prefixed by two percent signs, the application's abbreviation and a hyphen (%%SAPR3- for SAP, %%OAP- for Oracle, and so on).

AutoEdit variables in a job processing definition are resolved immediately before the job is submitted, in the order in which they appear in the job processing definition.



NOTE

If a job is rerun, the AutoEdit statements specified in the **Auto Edit Assignment** parameter are resolved before those specified using the **Do AutoEdit** parameter.

Table 43 describes job parameters that can accept AutoEdit variables or expressions as values.

For more information about variable types, see “[AutoEdit variables](#)” on page 499. For more information about AutoEdit functions, see “[AutoEdit Expressions](#)” on page 513.

Table 43 Parameters that accept AutoEdit variables and expressions

AutoEdit Assignment	<ul style="list-style-type: none">■ Modifies working parameters for a job and/or passes parameters to a job when the job is submitted.■ Defines variables that can be displayed in a Shout message or Do Mail message when a job completes. <p>Note: This parameter is called Setvar in certain CONTROL-M/Server utilities and in CONTROL-M/Desktop.</p>
Command	AutoEdit variables can be used as part of the command string.
Do AutoEdit	Enables the user to specify AutoEdit statements to be resolved (in addition to those specified for AutoEdit Assignment) depending on how a job ended. These can be local variables to be used if the job is rerun, or they can be global variables to be used by other jobs.
Path (Mem Lib)	AutoEdit variables can be used in this parameter to indicate the name of the library or directory in which the file described in the Path parameter is located.
File Name (Mem Name)	AutoEdit variables can be used in this parameter to indicate the name of the file containing the job commands or job script.
Over Lib	AutoEdit variables can be used in this parameter to provide the name of an alternate library or directory in which to search for the file that was specified using the MEMNAME parameter.
Shout or Do Shout	AutoEdit variables can be used in a Shout or Do Shout message to pass job parameters or other data to a user.
Sysout Handling or Do Sysout	AutoEdit variables can be used in the field which provides supplementary information about the handling of the job's SYSOUT (for example, a filename) when the job ends OK .

The **AutoEdit Assignment** and **Do AutoEdit** parameters can also use the **%%LIBMEMSYM** variable to reference a list of AutoEdit expressions in a separate text file. For more information, see “[Variable lists](#)” on page 511.

AutoEdit variables

All AutoEdit variables are identified by the %% prefix. If %% is included in the value for a job processing parameter, CONTROL-M assumes that it is referring to an AutoEdit variable or function.



NOTE

A special %%# prefix can be used to indicate that an AutoEdit variable or function should not be resolved. In these cases, the actual name of the AutoEdit variable or function (minus the # sign) is output. For example, **Do Shout Variable %%#PARM1 is greater than 100** issues the following message:

Variable %%PARM1 is greater than 100.

For more information about AutoEdit variable prefixes, see [Table 51 on page 509](#).

AutoEdit variables are divided into the following types:

- **Job Submission variables** pass parameters to a job or set the job's working parameters. For more information, see [“Job submission variables” on page 499](#).
- **System variables** are automatically assigned values using system information available at the time of job submission (for example, %%DATE contains the current system date). For more information, see [“CONTROL-M system variables” on page 504](#).
- **User-defined variables** can be defined in a number of different ways for inclusion in various job processing parameters. For more information, see [“User-defined variables” on page 508](#).
- **Variable lists**. The %%LIBMEMSYM special variable can be used to point to a file containing a list of AutoEdit assignments statements to be applied to a job. This variable enables you to create one or more lists of AutoEdit assignment statements that can be applied to many job processing definitions. For more information, see [“Variable lists” on page 511](#).

Job submission variables

Job submission variables pass parameters to a job or set the job's working parameters.

Certain job submission variables are available only for certain computers. [Table 45](#) through [Table 48](#) describe variables that are computer-specific.

NOTE

All job submission variable names must be specified using uppercase letters.

**Table 44 General job submission variables**

Name	Description	
%%PARMn	<p>Job submission parameter, where n represents the parameter number. This variable can be used to pass parameters to all types of jobs.</p> <ul style="list-style-type: none"> ■ On OpenVMS computers %%PARMn is used to represent the P1 through P8 parameters. ■ For other computers, n can be a number between 1 and 32. <p>Note that for CONTROL-M version 2.1x on an iSeries (AS/400) computer, the value for variable %%PARMn must not include 'single quotation marks'. If quotation marks are necessary, use "double quotation marks" only.</p>	
%%OVERLIB	string	Over Lib (name of an alternate library/directory in which job script is stored) of the job.

Table 45 OpenVMS job submission parameters

Name	Description
%%QUEUE	<p>Name of the batch queue to which the job is submitted.</p> <p>For VMS cluster configurations: Specify only those queues that are defined in the system's queue manager where CONTROL-M runs.</p>

The variables described in [Table 46](#) correspond to parameters of the iSeries (AS/400) Submit Job command. For more information about the valid values for these parameters, see your iSeries (AS/400) SBMJOB command documentation.

Table 46 iSeries (AS/400) job submission parameters (part 1 of 3)

Name	Description
%%ACGCDE	<p>Accounting code for the job.</p> <p>Valid values are in the <accountingCode> format or one of the following special values:</p> <p>*USRPRF, *USER, *JOBD, *NOCHG, or *NONE</p> <p>Note: This variable is relevant only for CONTROL-M/Agent for iSeries (AS/400) version 2.25 or later.</p>
%%CURLIB	Name of the current library associated with the job being run.

Table 46 iSeries (AS/400) job submission parameters (part 2 of 3)

Name	Description
%%DATE	Date that is assigned to the job when it is started.
%%HOLD	Whether the job is held at the time that it is put on the job queue.
%%INQMSGRPY	Manner in which pre-defined messages issued as a result of running this job are answered.
%%JOBD	Job description. Valid values are in the <i><library>/<jobDescription></i> format or the value: *USRPRF
%%JOBPTY	Job queue scheduling priority.
%%QUEUE	Name of the batch queue to which the job is submitted. Valid values are in the <i><library>/<jobQueue></i> format or the value: *JOBD
%%JOBQ	Same as %%QUEUE.
%%LDA	Local data areas (see “ Expressions for %%LDA [iSeries (AS/400) only] ” on page 520).
%%LIBL or %%INLLIBL	Library list. Note: The %%INLLIBL variable is relevant only for CONTROL-M/Agent for iSeries (AS/400) version 2.25 or later.
%%LOG	Message logging values used to determine the amount and type of information sent to the job log by the job.
%%LOGCLPGM	Whether the commands that are run in a control language program are logged to the job log through the message queue of the CL program.
%%MSGQ	Name of the message queue to which a completion message is sent when the submitted job has completed execution. Valid values are in the <i><library>/<messageQueue></i> format or one of the following special values: *USRPRF, *WRKSTN, or *NONE Note: CONTROL-M/Agent for iSeries (AS/400) version 2.25 or later uses a specific message queue as an event mechanism for job completion. If the message queue for a job is changed using the %%MSGQ variable, the event driven mechanism for this job is disabled.
%%OUTPTY	Output priority for spooled output files produced by the job.

Table 46 iSeries (AS/400) job submission parameters (part 3 of 3)

Name	Description
%%OUTQ	Qualified name of the output queue used for spooled files that specify OUTQ(*JOB). Valid values are in the <library>/<outputQueue> format or one of the following special values: *CURRENT, *USRPRF, *DEV, or *JOBD
%%PRTDEV	Qualified name of the default printer device for this job.
%%PRTXTT	Up to 30 characters of text that is printed at the bottom of each page of printed output and on separator pages.
%%RTGDTA	Routing data used to start the first routing step in the job.
%%SWS	Job switches.
%%SYSLIBL	System portion of the initial library list that is used by the submitted job.
%%HEX	Indicates that the value that immediately follows is a hexadecimal value, such as %%PARMn=%%HEX2AF4. This function ensures that the value is transferred to iSeries (AS/400) in the appropriate format.
%%DEC	Indicates that the value that immediately follows is a packed decimal value, such as, %%PARMn=%%DEC1289. This function ensures that the value is transferred to iSeries (AS/400) in the appropriate format.

Table 47 UNISYS job submission parameters (part 1 of 2)

Name	Description
%%ACCOUNT	Account ID for the job run.
%%ADDRUN	Execution statement to be inserted before the execution of the user's job. Examples: %%ADDRUN="@prt,i" or %%ADDRUN="@add myqual*myfile.myelt" CONTROL-M/Agent inserts the specified command before the user job's runstream prior to job submission.
%%DEADLINE	Deadline assignment for the job.
%%INJOBPR	Flag that indicates if a job contains programs that print or direct standard output to the PR print queue.
%%NODEID	Node ID of the UNISYS computer to which the job is submitted. If specified, the value for %%NODEID overrides the contents of the job processing parameter Node ID. If this variable is assigned the value CTMLOCAL, the job is submitted on the CONTROL-M/Server computer. Note: Do not use this variable in a group scheduling table definition.
%%OPTION	Options to be appended to the @START command.

Table 47 UNISYS job submission parameters (part 2 of 2)

Name	Description
%%PROJECT	Project ID for the job run.
%%RUNTIME	Estimated run time for the job.

Table 48 Tandem job submission parameters

Name	Description
%%TANDEM_ASSIGN_xxx	Enables the user to specify a TANDEM ASSIGN as an AutoEdit variable to be used in a CONTROL-M job environment. Where xxx is the name of the Tandem ASSIGN variable.
%%TANDEM_BYPASS_JOB	Enables the user to simulate running a dummy job.
%%TANDEM_CPU	Specifies a CPU on which a job should run.
%%TANDEM_DEFINE_xxx	Enables the user to specify a TANDEM DEFINE variable as an AutoEdit variable to be used in a CONTROL-M job environment. Where xxx is the name of the Tandem DEFINE variable.
%%TANDEM_INPUT_FILE	Name of a file containing a script to run in a detached job.
%%TANDEM_PARAM_xxx	Enables the user to specify a TANDEM PARAM variable as an AutoEdit variable to be used in a CONTROL-M job environment. Where xxx is the name of the Tandem PARAM variable.

CONTROL-M system variables

Table 49 describes the available AutoEdit system variables. These reserved variables can be used to include system information in job processing parameter values.

Please note the following:

- Start of the week depends upon user preferences specifying whether 1 = Sunday or 1 = Monday. Descriptions in **Table 49** that refer to day of the week presume that 1= Sun. Consult your CONTROL-M administrator to determine which standard is used at your site.
- All System variable names must be specified using uppercase letters.
- Certain system variables can be referenced only after job completion (in postprocessing parameters). These variables are listed separately in **Table 50 on page 507**.

Table 49 CONTROL-M system variables (part 1 of 4)

Name	Format	Description
%%\$DATE	yyyymmdd	Current system date (4-digit year).
%%\$NEXT	yyyymmdd	Next scheduling date for the job (4-digit year).
%%\$ODATE	yyyymmdd	Original scheduling date of the job (4-digit year).
%%\$OYEAR	yyyy	Original scheduling year of the job (4-digit year).
%%\$PREV	yyyymmdd	Previous scheduling date for the job (4-digit year).
%%\$RDATE	yyyymmdd	Installation current working date (4-digit year).
%%\$RYEAR	yyyy	Installation current working year (4-digit year).
%%\$YEAR	yyyy	Current system year (4-digit year).
%%APPLGROUP	string	Name of the group to which the job belongs.
%%APPLIC	string	Name of the Application to which the job's group belongs. Note: For z/OS jobs the %%APPL variable is used to reference the Application name.
%%BLANKn	n spaces	Resolves to n blanks, where n is a number between 1 - 214.
%%CENT	yy	First two digits in the current year (for example, 20 in year 2006).

Table 49 CONTROL-M system variables (part 2 of 4)

Name	Format	Description
%%CYCLIC	Y N	<p>This variable is used in the command line of the ctmorder utility to override the Cyclic parameter in cases where the user wishes to order a single run of a job that is defined as cyclic.</p> <p>Y – job is cyclic N – job should be run only once.</p>
%%DATACENTER	string	<p>Name of the data center for the current CONTROL-M installation.</p> <p>Note: This variable is available on certain CONTROL-M computers as of CONTROL-M version 2.20. However, prior to CONTROL-M/EM version 6.1.02, %%DATACENTER returned the host name for the current CONTROL-M/Server.</p>
%%DATE	yymmdd	Current system date.
%%DAY	dd	Current system day.
%%GROUP_ORDID	nnnnnn	<p>Order ID of the group to which the job belongs.</p> <p>Note: This variable is valid only for jobs in a group scheduling table and it is evaluated in base 10.</p>
%%JOBNAME	string	<p>Name of the submitted job. This variable can be used to override the value specified for the JOBNAME parameter (for example, in the ctmorder utility).</p> <p>Note: On a Microsoft Windows computer, JOBNAME must comply with Microsoft naming conventions (for example, it cannot contain / and \ characters).</p>
%%JULDAY	nnn	Current system day of the year (Julian format).
%%MEMLIB	string	Mem Lib (name of the library or directory in which job script is stored) of the job.
%%MONTH	mm	Current system month.
%%NEXT	yymmdd	Next scheduling date for the job.
%%ODATE	yymmdd	Original scheduling date of the job.
%%ODAY	dd	Original scheduling day of the job.
%%OJULDAY	nnn	<p>Original scheduling day of the year (Julian format).</p> <p>For example, 36 for February 5th.</p>
%%OMONTH	mm	Original scheduling month of the job.

Table 49 CONTROL-M system variables (part 3 of 4)

Name	Format	Description
%%ORDERID	NNNNNN	Unique job order ID under CONTROL-M.
%%OWDAY	d	Original scheduling day of the week of the job (1= Sun., 2= Mon., and 0=Sat.).
%%OWNER	string	Owner (user ID) associated with the job.
%%OYEAR	YY	Original scheduling year of the job.
%%POSTCMD	command	<p>Specifies a command to run immediately after running the job defined by MEMNAME. The return code is ignored.</p> <p>Note: Not relevant for z/OS jobs. Relevant only for CONTROL-M/Server version 6.0.01 or later, or (without SYSOUT) for any job submitted by CONTROL-M/Agent for Microsoft Windows 2000 version 6.0.01 or later. This variable is not used with group scheduling tables.</p>
%%PRECMD	command	<p>Specifies a command to run immediately before running the job defined by MEMNAME. The return code is ignored.</p> <p>Note: Not relevant for z/OS jobs. Relevant only for CONTROL-M/Server version 6.0.01 or later, or (without SYSOUT) for any job submitted by CONTROL-M/Agent for Microsoft Windows 2000 version 6.0.01 or later. This variable is not used with group scheduling tables.</p>
%%PREV	YYMMDD	Previous scheduling date for the job.
%%RDATE	YYMMDD	Installation current working date.
%%RDAY	dd	Installation current working day.
%%RJULDAY	nnn	<p>Installation current working day of the year (Julian format).</p> <p>For example, 36 for February 5th.</p>
%%RMONTH	mm	Installation current working month.
%%RUNCOUNT	NNNN	Number of times the job order has been submitted for execution (that is, the first time the job is being submitted, this variable returns a value of 1).
%%RWDAY	n	Installation current working day of the week (1=Sun., 2=Mon., and 0=Sat.).
%%RYEAR	YY	Installation current working year.
%%SCHEDTAB	string	<p>Name of the job's Scheduling table.</p> <p>Note: This variable is available on certain CONTROL-M computers as of CONTROL-M version 2.2x.</p>
%%TIME	HHMMSS	Time of day.

Table 49 CONTROL-M system variables (part 4 of 4)

Name	Format	Description
%%WDAY	n	Current system day of the week (1=Sun., 2=Mon., and 0=Sat.).
%%YEAR	yy	Current system year.

The following variables are not assigned values until after the job is submitted or completes execution. These variables can be used only for the **Shout**, **Do Shout**, **Do Mail**, and **Do AutoEdit** parameters.


NOTE

AutoEdit variables that return runtime statistics for a job must be resolved before the variables can return any values. AutoEdit variables for job statistics: %%AVG_CPU, %%AVG_TIME, %%SD_CPU, and %%SD_TIME.

Run the ctmjsa utility to compile data in the Statistical Details table before specifying the required AutoEdit statistics variable. For more information, see “Runtime Statistics” and ctmjsa in the *CONTROL-M Administrator Guide*.

Table 50 Post-processing system variables

Name	Format	Description
%%AVG_CPU	numeric	Average CPU time (in seconds) for previous runs of the current job. Note: Do not use this variable in a group scheduling table definition.
%%AVG_TIME	numeric	Average run time (in seconds) for previous runs of the current job or group scheduling table.
%%COMPSTAT	numeric	Completion code assigned to the job by the operating system of the computer that executes the job. Initial value: 0.
%%JOBID	string	Identification assigned to the job by the operating system of the computer that executes the job. Note: Do not use this variable in a group scheduling table definition.
%%NODEID	string	Node ID of agent computer that submitted the job. Note: This variable is available for certain computers as of CONTROL-M version 2.2x.
%%SD_CPU	numeric	Standard deviation of the CPU time (in seconds) from the average CPU time for previous runs of the current job. Note: Do not use this variable in a group scheduling table definition.
%%SD_TIME	numeric	Standard deviation of the elapsed run time (in seconds) from the average elapsed run time for previous runs of the current job or group scheduling table.

User-defined variables

A user-defined variable is created when it is assigned a value using the AutoEdit Assignment parameter or the Do AutoEdit parameter. User variables can also be defined for all jobs in a group scheduling table using the Set panel of the Group Editing form. For more information about assigning a value to a variable, see “[AutoEdit Expressions](#)” on page 513.

User-defined variables can be used to

- store intermediate values in a series of AutoEdit parameters
- store values to be included in a command string in the Command parameter
- store information to be included in a Shout message
- store information to be included in an e-mail message created with a Do Mail parameter

NOTE

 Global variables can be used to pass information between jobs in a data center. For example, job A can set global variable %%A to **Yes**, and job B on another agent in the same data center can reset %%A to **No** in response. Global variables can also be created and modified using the CTMVAR utility. For more information about this utility, see the *CONTROL-M Administrator Guide*. For more information about global variables, see “[Scope](#)” on page 510.

Resolution of each user variable depends on the specified prefix, and the scope of the specified variable. Each of these concepts is described below.

Syntax

Valid names for user variables are any alphanumeric string (up to 38 characters in length) preceded by a prefix of %. Blanks are not allowed in a user variable name.

The following characters cannot be included as part of the name of a User-defined AutoEdit variable: < > [] { } () = ; ` ~ | : ? . + - * / & ^ # @ ! , " !.

NOTE

 Application-specific job parameters may not be specified in AutoEdit variable values. The names of application-specific job parameters are prefixed by two percent signs, the application’s abbreviation and a hyphen (%%SAPR3- for SAP, %%OAP- for Oracle, and so on).

Names and values for User variables are case sensitive. For example, %%TEST and %%Test are regarded as two separate variables.

**NOTE**

Names of AutoEdit variables in CONTROL-M for z/OS must always be in uppercase.

All AutoEdit variables are prefixed by `%%`. In addition to the `%%` prefix, certain characters can be added to determine special characteristics. These special prefixes are described in [Table 51](#).

Table 51 Variable Prefixes

<code>%%\</code>	<p>Indicates that a variable is global for the data center (CONTROL-M/Server and all its connected agents).</p> <p>This prefix is used only when creating or modifying the variable. When the variable is referenced (for example, in a Do Shout message) it is referenced without the <code>\</code>. For more information about global variables, see “Scope” on page 510.</p>
<code>%%#</code>	<p>Indicates that the variable should not be resolved.</p> <p>This prefix enables inclusion of a variable name as text in job output. The <code>#</code> symbol is stripped from the output, and the remaining AutoEdit variable name is included as text in the appropriate location.</p> <p>For example, a Do Shout message of Job Daily returned a value for variable %%#PARM1</p> <p>is output as:</p> <p>Job Daily returned a value for variable %%PARM1</p>
<code>%%@</code>	<p>Indicates that the variable should contain a value to be resolved by each job that uses it.</p> <p>For example:</p> <p>%%\PARM1 = %%@TIME</p> <p>Indicates that whenever a job uses Global variable <code>%%PARM1</code>, it should be resolved to the execution time of the job (that is, the time at which the variable is referenced).</p> <p>If the above parameter is specified without the <code>@</code> sign (<code>%%\PARM1 = %%TIME</code>), it always resolves to the execution time of the job <i>that set the variable</i> (that is, the time at which the variable was created).</p> <p>Note: This prefix is relevant only for Global variables whose values contain AutoEdit variables.</p>
<code>%%</code>	<p>For Windows agents: When specifying AutoEdit variables in the CMDLINE or COMMAND parameters on CONTROL-M/Agent for Windows, the AutoEdit prefix must be specified as <code>%%</code>.</p> <p>Note: If you use an agent utility (such as <code>ctmcreate</code>) in a batch file to specify an AutoEdit variable, ensure that the prefix is <code>%%%%</code>.</p>

Examples

%%A=%%ODATE	The %%A variable is resolved to the original scheduling date of the job. %%A is local to the job.
%%\A=%%ODATE	Global variable %%\A is assigned to the original scheduling date of the job. %%A can be referenced by CONTROL-M/Server or any agent in the data center. All references to variable %%A resolve to the %%ODATE value for the job in which %%A was set.
%%\A=%%@ODATE	Global variable %%\A is resolved to the original scheduling date of the job. If %%A is referenced by CONTROL-M/Server or a job in any agent in the data center, it resolves to the current value of variable %%ODATE. Note: @ indicates that %%\A should contain a value to be resolved by each job that uses it (in this case, ODATE).
%%#A	%%#A is not resolved. The text string %%A is returned.

Scope

The scope of a variable is the extent to which it is available to other jobs. As mentioned above, each variable can be

- local for a specific job
- common to all jobs in a group scheduling table
- global for an entire data center (a CONTROL-M/Server and all its agents)
- system AutoEdits which are predefined and available for any job in the data center

Multiple variables (each with a different scope) can have the same name. If more than one variable with the same name has been defined, the variable with the narrowest scope is used.

NOTE

The exception to this rule occurs when the AutoEdit variable is distributed from the CONTROL-M/Server to the CONTROL-M/Agent. The variable from the narrowest scope may not be the one that is used by the CONTROL-M/Agent.

Depending on the value of the AUTOEDIT_INC_SEC variable of the CONTROL-M/Server, duplicate variables from different scopes can be distributed to the agents. For more information, see the *CONTROL-M Administrator Guide*.



To determine which AutoEdit variable value to use:

CONTROL-M uses the following logic to determine which value to use when a variable is specified in a job processing definition.

1. CONTROL-M checks if a local variable (for the job) has been defined with the specified name. If a local variable exists, the value specified for that variable is used.
2. If no local variable exists with the specified name, and the job is in a group scheduling table, CONTROL-M checks for a variable with the specified name in the Group definition. If the variable is defined in the Group definition, that value is used.
3. If the job is not in a group scheduling table, or the variable is not defined in the Group definition, CONTROL-M searches for a Global variable with the specified name.
4. If no definition is found for a specified variable, the variable is resolved to the reserved word **CTMERR**.

Variable lists

The **%%LIBMEMSYM** AutoEdit variable can be used in the **AutoEdit Assignment** or **Do AutoEdit** parameters to indicate a text file containing a list of AutoEdit assignments. This variable enables you to create a central file containing AutoEdit assignment statements that can be read by many job processing definitions.



NOTE

Multiple LIBMEMSYM statements can be included in a single job processing definition. In this way you can maintain groups of local or global variables that are relevant to certain jobs, and allow more than one such group to be applied to a job. However, if a variable is defined in more than one list, the last list defined overrides previous lists.

The format for the **%%LIBMEMSYM** variable:

```
%%LI BMEMSYM=path_name
```

path_name is the full (case sensitive) path name of a text file containing AutoEdit assignment statements. This file must be accessible to CONTROL-M. The file must contain a single assignment on each line.

- For the AutoEdit Assignment parameter, the specified file is accessed at the time the job is submitted for execution by CONTROL-M.

- If a %%LIBMEMSYM statement is specified using the Do AutoEdit parameter, local variables defined in the specified file are relevant only during a rerun of the job if and when the On Statement/Code conditions are satisfied.

NOTE



For z/OS jobs, a variable list can be specified using the %%LIBSYM and %%MEMSYM variables. If a %%LIBMEMSYM variable is specified for an z/OS job, it is treated as a user-defined variable, and does not reference a variable list.

Example

If a job processing definition contains the following specifications for the AutoEdit Assignment parameter:

```
%%a=5
%%LI BMEMSYM=/control m/ctm/autoedi t. common1
%%PARM1=%%C
```

And the file **/controlm/ctm/autoedit.common1** contains the following entries:

```
%%b=%%CALCDATE %%DATE -%%a
%%yy=%%SUBSTR %%b 1 2
%%mm=%%SUBSTR %%b 3 2
%%dd=%%SUBSTR %%b 5 2
%%c=%%dd/%%mm/%%yy
```

When the job is submitted for execution by CONTROL-M, AutoEdit variables are resolved as if the AutoEdit Assignment parameter contained the following entries:

```
%%a=5
%%b=%%CALCDATE %%DATE -%%a
%%yy=%%SUBSTR %%b 1 2
%%mm=%%SUBSTR %%b 3 2
%%dd=%%SUBSTR %%b 5 2
%%c=%%dd/%%mm/%%yy
%%PARM1=%%C
```

AutoEdit Expressions

An AutoEdit expression consists of any of the following:

- An elementary expression. “[Elementary expressions](#)” on page 513
- A numeric expression consisting of AutoEdit variables and/or numeric constants using AutoEdit operators. “[Numeric expressions](#)” on page 514
- A string expression formed by concatenating AutoEdit variables and/or alphanumeric strings. “[String Expressions](#)” on page 516
- An AutoEdit function. “[AutoEdit functions](#)” on page 518
- A special expression that can be used to specify Local Data Areas for iSeries (AS/400) jobs. “[Expressions for %%LDA \[iSeries \(AS/400\) only\]](#)” on page 520



NOTE

AutoEdit variables can also be used to represent part of the name of an existing AutoEdit variable in an expression. When this method is used the name of the variable is resolved and then the contents of that variable are used for further resolution of the expression. (For more information, see the examples later in this chapter.)

A **Shout** message can include an AutoEdit expression as part of its text; however, it cannot assign a value to an AutoEdit variable.

The following syntax rules apply to AutoEdit expressions:

- Only one expression can be placed on a line.
- No spaces are allowed before the “=”.
- Spaces that immediately follow the “=” are ignored.
- Variable names and values are case sensitive.
- Strings of alphanumeric characters do not require quotation marks. If quotation marks are used, they are considered part of the string.

Elementary expressions

- An elementary expression has the following format:

variable=**value**

variable is any user variable or job submission variable.

value is any numeric or alphanumeric string up to 214 characters in length.

- The following expression assigns a value of 100 to the %%Result variable:

%%Result=100

- The following expression assigns the string **Job “PRDKCZ” finished OK** to the %%Compl eti on variable:

```
%%Compl eti on=Job " PRDKCZ" fi ni shed OK
```

Numeric expressions

A numeric expression has the following format:

<i>result</i>	<i>operator</i>	<i>operand</i>
---------------	-----------------	----------------

The components of this expression are described in the following table:

result	Any user variable or job submission variable.
operand	Any AutoEdit variable, <i>or</i> a numeric constant.
operator	One of the following AutoEdit operators: %%PLUS represents the “+” operator %%MINUS represents the “-” operator

Syntax rules

The following syntax rules apply to a numeric expression:

- Only one operator can be used in each expression.
- There should be no spaces immediately before or after the “=”.
- There must be spaces before and after the operator.

NOTE



When specifying AutoEdit functions that return dates, such as %%\$CALCDATE or %%\$DATE, there should be no spaces between the + (plus) or - (minus) sign and the number of days to add or subtract. In this case, the + and - signs are not considered numeric expression operators and are not related to the rules specified here. For more information, see “%%CALCDATE and %%\$CALCDATE” on page 518.

EXAMPLE

In the following example, %%YESTERDAY resolves to 0 on July 1:

```
%%YESTERDAY=%%DAY %%MINUS 1
```

EXAMPLE

In the following example, %%PARM1 resolves to 46 on February 5th:

```
%%X=%%RJULDAY  %%MI NUS  %%DAY  
%%PARM1=%%X  %%PLUS  15
```

String Expressions

A string expression has the following basic format:

```
<variable>=<value>[.]<value>...
```

The components of this expression are described in the following table:

<variable>	Any user variable or job submission variable.
<value>	Any AutoEdit variable, or alphanumeric string.
. (period)	If specified, indicates that the values before and after the period should be concatenated.

Syntax rules

The following syntax rules apply to a string expression:

- Any spaces in the expression (including those immediately following the “=”) are regarded as part of the string and are included in the result.
- A period is used to concatenate two variables. No concatenation character is required to link two strings.
- To include a period as part of the string between two concatenated variables, use two consecutive periods (see example below).
- Any number of variables or strings can be concatenated in an expression.
- If one variable follows another with no period in between, the two variables are combined to form the name of a third variable (see example below). Concatenation progresses from right to left until the entire expression is resolved.

Examples

`%%X` resolves to 0312:

```
%%X=%%DAY. %%MONTH
```

`%%Y` resolves to 03. 12:

```
%%Y=%%DAY.. %%MONTH
```

`%%Z` resolves to “Today is 03/12/05”:

```
%%Z= Today is %%DAY/%%MONTH/%%YEAR
```

The following sequence passes a value to `%%PARM1` based on the day of the month. This example illustrates building the name of a variable in the expression:

```
%%BackupTape_01=301
%%BackupTape_02=302
%%BackupTape_03=303
%%PARM1=%BackupTape_%%DAY
```

The `%%BackupTape_%%DAY` expression is resolved in two steps (from right to left):

- Given that the system date is Dec. 3, `%%DAY` resolves to 03. The resulting expression is:

```
%%PARM1=%BackupTape_03
```

- Next, CONTROL-M resolves the `%%BackupTape_03` variable. Since the value of this variable is 303, the resulting expression is:

```
%%PARM1=303
```

AutoEdit functions

An AutoEdit function performs an action or process on the specified user variable or job submission variable. AutoEdit functions are used instead of another expression. The following functions are available:

Table 52 AutoEdit Functions

Function	Description
“%%CALCDATE and %%\$CALCDATE”	Adds or subtracts a specified number of days from a specified date. Same as %%CALCDATE, but handles 4-digit years.
%%GETENV <environment variable>	Retrieves the value of an environment variable.
“%%SUBSTR”	Extracts a substring from a specified string.

%%CALCDATE and %%\$CALCDATE

%%CALCDATE is a numeric function that adds or subtracts a quantity of days from a given date. This function has the following format:

```
result=%%CALCDATE date [+|-]quantity
```

The components of this expression are described in the following table:

result	Any user variable or job submission variable.
date	Date or variable in yymmdd (yyyymmdd for %%\$CALCDATE) format. This value must be preceded and followed by a space.
quantity	Number (or variable that resolves to a number) of days to add or subtract from the date.

— EXAMPLE —

On July 2, 2005, %%A resolves to 050630 in any of the following expressions:

```
%%A=%%CALCDATE %%DATE -2  
%%A=%%CALCDATE 050702 -%%DAY  
%%A=%%CALCDATE 050628 +2
```

— EXAMPLE —

On July 2, 2005, %%A resolves to 20050630 in any of the following expressions

```
%%A=%%$CALCDATE %%$DATE -2  
%%A=%%$CALCDATE 20050702 -%%DAY  
%%A=%%$CALCDATE 20050628 +2
```

%%SUBSTR

%%SUBSTR is a string function that is used to extract a substring from within a larger string. This function has the following format:

```
result=%%SUBSTR variable startpos length
```

The components of this expression are described in the following table:

result	Any user variable or job submission variable.
variable	Any AutoEdit variable.
startpos	Numeric literal or variable that indicates the first position in the original string from which to extract the substring. The first character is position 1.
length	A number or variable, indicating the length of the substring to extract.



— NOTE —

The values specified for both <startpos> and <length> must be (or resolve to) a number greater than zero.

— EXAMPLE —

In the following series of expressions, %%Number resolves to TWO:

%%Nstring=ONETWOTHREE

%%Start=4

%%Number=%%SUBSTR %%Nstring %%Start 3

%%GETENV <environment variable>

This function retrieves the value of an environment variable. It has the following format: result=%%GETENV <environment variable>.

— EXAMPLE —

%%A=%%GETENV HOME

%%A resolves to the CONTROL-M/Server user home directory.

Expressions for %%LDA [iSeries (AS/400) only]

%%LDA is a special variable that can be used to specify Local Data Areas for iSeries (AS/400) jobs.

The following format can be used when specifying an expression to assign a value to job submission variable %%LDA for a job:

%%LDA[_startpos[_length] [_dec]] =AutoEdit_exp
--

The components of this expression are described in the following table:

startpos	A number indicating the starting position in the LDA at which to place the results of the specified expression.
length	A number, indicating how many positions in LDA to reserve for the results of the expression.
dec	A number indicating how many decimal places to include in the packed decimal value passed to the LDA.
AutoEdit_exp	The AutoEdit expression whose resolved value should be placed in the indicated location in the LDA.

— EXAMPLE —

Assuming that the system date is December 15, the following expression:

%%LDA_2_3=%%DAY

is submitted to iSeries (AS/400) as:

CHGDTAARA *LDA(2 3) VALUE(15)

The following expression inserts the packed value of 00123.40 into the LDA starting in position 11 for a decimal length of 7 (Actual Packed length of 4):

%%LDA_11_7_2=123.4

CONTROL-M Business Process Integration Suite parameters

This chapter describes the parameters in the various CONTROL-M/Control Module for BPI panels, in the Job Editing form. This panel is displayed in the Job Editing form when CONTROL-M/CM for BPI is installed on your data center. Basic CONTROL-M parameters for CONTROL-M/CM for BPI jobs are summarized in the following tables. Each of these parameters is described in detail in the remainder of this chapter. The parameter descriptions are in alphabetical order.



NOTE

Other CONTROL-M job parameters and variables can be used to apply additional processing to CONTROL-M/CM for BPI jobs. For more information about these parameters, see the other chapters in this guide.

Table 53 JAVA panel parameters – summary (part 1 of 2)

Parameter	Description
Account (CONTROL-M/CM for BPI Java Applications)	A profile that is used to create and execute an EJB or Java Class job. Mandatory.
Object	Name of the EJB or Java Class according to which the Method parameter value is specified. Mandatory.
Method	A method applicable to the specified Java Application class. Mandatory.
Exclude Job Output (CONTROL-M/CM for BPI Java Applications)	An option to exclude information about job output from the Sysout at the end of a job execution. Optional.
No Sysout Banner (CONTROL-M/CM for BPI Java Applications)	Specifies whether a Sysout banner is written to the Sysout at the end of a job execution. Optional.

Table 53 JAVA panel parameters – summary (part 2 of 2)

Parameter	Description
Parameter Name	Specify the name of the parameter for the chosen method. Mandatory if the method requires parameters.
Parameter Value	Specify the value of the parameter for the chosen method. Mandatory if the method requires parameters.
Parameter Alias	Specify the alias of the parameter for the chosen method. Optional.

Table 54 WS panel parameters – summary

Parameter	Description
Account (CONTROL-M/CM for BPI Web Services)	The Account is a profile that is used in order to create and execute a Web Services job.
Business	A company or business that provides web services.
WSDL	A URL or fully qualified filename pointing to the WSDL of the web service
Service	A service provided by the company or business specified in the Business field.
Operation	An operation available for the service specified in the Service field.
Use Parameters from Input File	An option to invoke the target web service with predefined SOAP message from the specified input file, in place of input parameters
Add SOAP Header From File	An option to add the predefined SOAP Header to the final web service invocation SOAP request, when applicable.
Input parameters	Specify values for each selected parameter.
Output parameters	Specify the outcome of selected output parameters.
Array Size	Specifies a number of items in an input parameter array when applicable
Exclude Job Output (CONTROL-M/CM for BPI Web Services)	An option to exclude information about job output from the SYSOUT at the end of a job execution. Optional.
No Sysout Banner (CONTROL-M/CM for BPI Web Services)	Specifies whether a Sysout banner is written to the Sysout at the end of a job execution. Optional.

Table 55 MSG panel parameters – summary (part 1 of 2)

Parameter	Description
Account (CONTROL-M/CM for BPI Messaging)	A profile that is used to create and execute a Messaging job.
Assign Job Output to the following AutoEdit	Upon job completion, saves the reply message into a chosen AutoEdit variable.
Assign Job Output to the following file	Upon job completion, saves the reply message into a chosen file, located on the computer on which CONTROL-M/CM for Messaging is installed.

Table 55 MSG panel parameters – summary (part 2 of 2)

Parameter	Description
Destination queue/Topic	Destination queue/topic name of the message queue to which the outgoing messages are sent.
No Sysout Banner (CONTROL-M/CM for BPI Messaging)	Specifies whether a Sysout banner is written to the Sysout.
Exclude Job Output (CONTROL-M/CM for BPI Messaging)	An option to exclude information about job output from the Sysout.
Expiration Time	The amount of time until the outgoing message expires (in seconds).
Use Free Text Message	The content of the free text message.
Priority	The Outgoing message priority within the queue.
No Sysout Banner (CONTROL-M/CM for BPI Messaging)	Property key name to be added to an outgoing message.
Parameter Value	Property value corresponding to the Property Name parameter.
Property Value	Optional. The property value corresponding to the Property Name parameter.
Reply Queue	Message queue to which message replies will be sent.
Time to Wait	The amount of time to wait for incoming messages in the reply message queue.
Use Predefined Message	Select to use a previously defined text or binary file as the content of the message, rather than entering free text.
Wait for Reply	An option to enable waiting for messages in the reply message queue.

Account (CONTROL-M/CM for BPI Java Applications)

A profile that is used to create and execute an EJB or Java Class job.

Format

Usage	Mandatory
Length	Up to 30 characters
Case Sensitive	Yes (Uppercase only)
Valid Characters	<ul style="list-style-type: none">■ Integers between 0 and 9■ _ (underscore)■ - (dash, hyphen)■ A-Z characters
Blank spaces	Not permitted
Default	None
Variable Name	%%JAVA-PROFILE

General information

No special characters should be included within the name definition.

Account (CONTROL-M/CM for BPI Web Services)

A profile that is used in order to create and execute a Web Services job.

Format

Usage	Mandatory
Length	Up to 50 characters
Case Sensitive	Yes (Uppercase only)
Valid Characters	<ul style="list-style-type: none">■ Integers between 0 and 9■ _ (underscore)■ - (dash, hyphen)■ Alphabetical characters between A - Z (inclusive)
Blank spaces	Not permitted
Default	None
Variable Name	%%WS-ACCOUNT

General information

No special characters should be included within the name definition.

Account (CONTROL-M/CM for BPI Messaging)

Mandatory. A profile that is used to create and execute a CONTROL-M/CM for BPI Messaging job.

Format

Length	Up to 30 characters
Case Sensitive	Yes (Uppercase only)
Valid Characters	A string including any alphanumeric character, and underscore and hyphen.
Blank spaces	Not permitted
Default	None
Variable Name	%%MSG-ACCOUNT

General information

No special characters should be included within the name definition.

Add SOAP Header From File

Select this option to add predefined SOAP Header to the invocation of the target web service SOAP message as taken from a file specified in the Header File field.

Format

Format	Check box
Valid characters	<ul style="list-style-type: none"> ■ X: (Selected) Add predefined SOAP header from file ■ N: (Cleared) Do not add any predefined SOAP header (default)
Valid Values	Any integer up to 99
Variable name	%%WS-ADDSOAPHEADERFROMFILE
Header Entry File Requirements	
Valid Values	Any character string representing the file name including its full path.
Variable name	%%WS-SOAPHEADERFILE
Length	Up to 212 characters

General Information

An example of a SOAP header:

```
<SOAP-ENV: Header>
  <user>J2EE_ADMIN</user>
  <language>English</language>
</SOAP-ENV: Header>
```

Array Size

Specifies a number of items in an input parameter array applicable to the Input parameters of the web services invocation when necessary.

Format

Usage	Optional
Valid Values	Any integer up to 99
Variable name	%%WS-ARRAYSIZE
Default	1
Length	Up to two digits

Assign Job Output to the following AutoEdit

Optional. Upon job completion, saves the reply message into a chosen AutoEdit variable.

Format

Format	Check Box
Valid Characters	<ul style="list-style-type: none"> ■ X: (Selected) Save reply message to AutoEdit variable ■ N: (Cleared) Do not save reply message to AutoEdit variable (default)
Variable Name	%%MSG-ASGOUTPUTTOAUTOEDIT
AutoEdit Entry Requirements	
Valid Values	Any alphanumeric character, and underscore and hyphen. Spaces and special characters are not permitted.
Variable name	%%MSG-JOBOUTPUTAUTOEDIT
Length	Up to 38 characters

The AutoEdit variable into which the job output is saved can be configured in the following formats:

AutoEdit Type	Format
AutoEdit	%%<autoedit_name>
Global AutoEdit	%%\<autoedit_name>
Global AutoEdit	<autoedit_name>

General information

Cannot be selected if **Assign job output to the following file** is specified.

Assign Job Output to the following file

Optional. Upon job completion, saves the reply message into a chosen file, located on the computer on which CONTROL-M/EM Web Services API is installed.

Format

Format	Check Box
Valid Characters	<ul style="list-style-type: none">■ X: (Selected) Save reply message to file■ N: (Cleared) Do not save reply message to file (default)
Variable Name	%%MSG-ASGOUTPUTTOFILE
File Entry Requirements	
Valid Values	Any character string representing the file name including its full path.
Variable name	%%MSG-JOBOUTPUTFILE
Length	Up to 212 characters

General information

Cannot be selected if **Assign job output to the following AutoEdit** is specified.

Business

A company or business that provides web services.

- For UDDI, this means any business registered in the specific UDDI server.
- For WS_FS, this means the path to the specific WSDL file in the directory.
- For WS_URL, this means the URL to the specific WSDL file.

Format

Usage	Mandatory
Format	Text field
Length	Up to 214 characters
Case Sensitive	Yes
Default	None
Variable Name	%%WS-BUSINESS

Destination queue/Topic

Optional. Name of the message queue to which the outgoing messages are sent.

Format

Length	Up to 212 characters
Valid characters	“Use default” or a string including any alphanumeric character, and underscore and hyphen.
Blank spaces	Not permitted
Default	“Use Default”
Variable Name	%%MSG-DESTINATIONQUEUE

Exclude Job Output (CONTROL-M/CM for BPI Java Applications)

Optional. An option to exclude information about job output from the SYSOUT at the end of a job execution.

Format

Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - exclude job output■ N: (Cleared) - include job output
Default	N (Cleared)
Variable Name	%%JAVA-SYSOUTSKIP

Exclude Job Output (CONTROL-M/CM for BPI Web Services)

Selecting this option means that an output message is not created at the end of the job execution.

Format

Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - exclude job output message (SYSOUT file)■ N: (Cleared) - include job output message (SYSOUT file)
Default	N (Cleared)
Variable Name	%%WS-SYSOUTSKIP

Exclude Job Output (CONTROL-M/CM for BPI Messaging)

Optional. An option to exclude all information from the SYSOUT.

Format

Format	Check box
Valid characters	<ul style="list-style-type: none">■ X: (Selected) - exclude job output■ N: (Cleared) - do not exclude job output (default)
Variable Name	%%MSG-SYSOUTSKIP

Expiration Time

Optional. The amount of time (in seconds) until the outgoing message expires.

Length	Up to 10 digits
Valid characters	“Use default” or any digit representing unit of seconds
Blank spaces	Not permitted
Default	“Use default”
Variable name	%%MSG-OUTGOINGMSGEXPTIME

Input parameters

Specify values for each selected parameter.



NOTE

Certain parameters are mandatory, and an indication is displayed to this effect. Failure to select mandatory parameters may cause your job to fail.

Format

Length	Up to 212 characters
Case Sensitive	Yes
Variable Name	<p>%%WS-PARMS-P00n-NAME</p> <p>NOTE: Where n refers to the nth parameter of the corresponding method. For example, if there were two parameters for a particular method, the first parameter would use P001(%%WS-PARMS-P001-NAME), and the second parameter would use P002 (%%WS-PARMS-P002-NAME).</p>

Method

A method applicable to the specified Java Application class.

Format

Usage	Mandatory
Length	Up to 214 characters
Case Sensitive	Yes
Valid Characters	Alphanumeric string. Cannot begin with a number. Blank spaces not permitted.
Default	None
Valid Values	Any method specified within the Object. For more information see “Object” on page 542
Variable Name	%%JAVA-METHOD

No Sysout Banner (CONTROL-M/CM for BPI Java Applications)

Optional. Specifies whether a Sysout banner is written to the Sysout at the end of a job execution.

Format

Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - exclude Sysout banner■ N: (Cleared) - include Sysout banner
Default	N (Cleared)
Variable Name	%%JAVA-NOSYSOUTBANNER

No Sysout Banner (CONTROL-M/CM for BPI Web Services)

Optional. Specifies whether a Sysout banner is written to the Sysout at the end of a job execution.

Format

Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - exclude Sysout banner■ N: (Cleared) - include Sysout banner
Default	N (Cleared)
Variable Name	%%WS-NOSYSOUTBANNER

No Sysout Banner (CONTROL-M/CM for BPI Messaging)

Optional. Specifies whether a Sysout banner is written to the Sysout.

Format

Format	Check box
Valid Values	<ul style="list-style-type: none">■ X: (Selected) - exclude SYSOUT banner■ N: (Cleared) - include SYSOUT banner (default)
Variable Name	%%MSG-NOSYSOUTBANNER

Object

Name of the EJB or Java Class according to which the Method parameter value is specified.

Format

Usage	Mandatory
Length	Up to 214 characters
Case Sensitive	Yes
Valid Characters	Alphanumeric string. Cannot begin with a number. Blank spaces not permitted.
Default	None
Variable Name	%%JAVA-JAVA

Operation

An operation available for the service specified in the Service field.

Format

Usage	Mandatory
Format	Text field
Length	Up to 214 characters
Case Sensitive	Yes
Default	None
Variable Name	%%WS-OPERATION

Output parameters

Specify the outcome of selected output parameters.

NOTE

When selecting the global AutoEdit variable option, the maximum length criteria applies. However, if you select that the output parameter value should be saved to a file, there is no maximum length limitation.

You can specify the outcome of certain output parameters that exist as a result of the job once it has been run. The output parameters can be specified as one of the following syntaxes:

- Global AutoEdit variable name, for example, COMPANY
- A path to a file in which the value is to be saved.

For example, FILE://D:\company.txt These values can also be used to define an input parameter of another job.

Format

Length	Up to 212 characters
Case Sensitive	Yes
Parameter Value Variable Name	<p>%%WS-PARMS-P001-VALUE</p> <p>NOTE: P001 represents the number of the parameter for the chosen method. For example, if there were two parameters for a particular method, the second parameter would use P002 instead of P001 (%%WS-PARMS-P002-VALUE).</p>

Parameter Alias

Optional. Specify the alias of the parameter for the chosen method. For more information see “[Method](#)” on page 538.

Format

Length	Up to 214 characters
Case Sensitive	Yes
Parameter Alias Variable Name	<p>%%JAVA-PARMS-P001-ALIAS</p> <p>NOTE: P001 represents the number of the parameter for the chosen method. For example, if there were two parameters for a particular method, the second parameter would use P002 instead of P001 (%%JAVA-PARMS-P002-ALIAS).</p>

Parameter Name

Mandatory for those methods that require parameters. Specify the name of the parameter for the chosen method. For more information see “[Method](#)” on page 538.

Format

Length	Up to 214 characters
Case Sensitive	Yes
Variable Name	<p>%%JAVA-PARMS-P00n-NAME</p> <p>NOTE: Where n refers to the nth parameter of the corresponding method. For example, if there were two parameters for a particular method, the first parameter would use P001(%%JAVA-PARMS-P001-NAME), and the second parameter would use P002 (%%JAVA-PARMS-P002-NAME).</p>

Parameter Value

Mandatory for those methods that require parameters. Specify the value of the parameter for the chosen method. For more information see “[Method](#)” on page 538.

Format

Length	Up to 212 characters
Case Sensitive	Yes
Parameter Value Variable Name	<p>%%JAVA-PARMS-P001-VALUE</p> <p>NOTE: P001 represents the number of the parameter for the chosen method. For example, if there were two parameters for a particular method, the second parameter would use P002 instead of P001 (%%JAVA-PARMS-P002-VALUE).</p>

Priority

Optional. The level for prioritizing the messages that are to be routed to the Destination queue/Topic.

Format

Valid values	<ul style="list-style-type: none">■ “Use Default”■ Any digit between 0 and 9
Default	“Use Default”
Variable Name	%%MSG-PRIORITY

Property Name

Optional. Property key name to be added to an outgoing message.

Format

Valid values	Any alphanumeric character, underscore, hyphen.
Length	Between 1 - 212 characters
Case Sensitive	Yes
Variable Name	<code>%%MSG-PARMS-P00n-NAME</code> Note: Where n refers to the nth property. For example, if you want to define two properties, the first property would be <code>%%MSG-PARMS-P001-NAME</code> , and the second property would be <code>%%MSG-PARMS-P002-NAME</code> .

Related parameters

Parameter Value

Property Value

Optional. The property value corresponding to the Property Name parameter.

Format

Length	Up to 212 characters
Case Sensitive	Yes
Variable Name	<code>%%MSG-PARMS-P00n-VALUE</code> Note: Where n refers to the nth property value. For example, if you want to specify two property values, the first value would be <code>%%MSG-PARMS-P001-VALUE</code> , and the second value would be <code>%%MSG-PARMS-P002-VALUE</code> .

Reply Queue

Optional. Enabled if **Wait For Reply** is selected. The message queue to which message replies will be sent.

Format

Length	Up to 212 characters
Case sensitive	Yes
Valid characters	“Use default” or a string including any alphanumeric character, and underscore and hyphen.
Blank spaces	Not permitted
Default	“Use default”
Variable name	%%MSG-REPLYQUEUE

Related parameters

- [Wait for Reply](#)
- [Time to Wait](#)

Service

A service provided by the company or business specified in the Business field.

- For UDDI, this means any service registered for the business in the specific UDDI server.
- For WS_FS, this means any service specified in the WSDL file.
- For WS_URL, this means any service specified in the WSDL URL.

Format

Usage	Mandatory
Format	Text field
Length	Up to 214 characters
Case Sensitive	Yes
Default	None
Variable Name	%%WS-SERVICE

Time to Wait

Optional. Enabled if **Wait For Reply** is selected. The amount of time in seconds to wait for incoming messages in the reply message queue.

Format

Length	Up to 10 digits
Valid characters	“Use default” or any numeral value representing unit of seconds
Default	“Use default”
Variable name	%%MSG-TIMETOWAIT

Related parameters

- [Wait for Reply](#)
- [Reply Queue](#)

Use Parameters from Input File

An option to invoke the target web service with predefined SOAP message from the specified input file, in place of input parameters.

Format

Format	Check box
Valid Values	<ul style="list-style-type: none"> ■ X: (Selected) Use predefined SOAP message request from file ■ N: (Cleared) Do not use predefined SOAP message (default)
Variable Name	%%WS-USEINPARMFILE
Input File Entry Requirements	
Valid values	Any character string representing the file name including its full path..
Length	Up to 212 characters
Variable Name	%%WS-INPUTPUTFILE

General information

An example of an web service invoking a SOAP request:

```
<SOAP-ENV: Envelope
  xmlns:SOAP-ENV="http://schemas.xmlsoap.org/soap/envelope/">
  <SOAP-ENV: Body>
    <ctmem: request_change_alert_status
      xmlns:ctmem="http://www.bmc.com/ctmem/schema620">
      <ctmem: alert_id>12345</ctmem: alert_id>
      <ctmem: status>Handled</ctmem: status>
    </ctmem: request_change_alert_status>
  </SOAP-ENV: Body>
</SOAP-ENV: Envelope>
```

Use Free Text Message

Mandatory if **Use Predefined Message** is not selected. The content of the free text message.

Format

Valid Values	X: (Selected) - Use free text message
Variable Name	%%MSG-USEFREETEXT
Free Message Text Requirements	
Format	Logical name specific to the predefined message.
Valid Values	Any alphanumeric and special characters
Variable Name	%%MSG-MSGTEXTPARMS-Pxxx-SUBMSG, where xxx is a 3-digit starting from "001" (through N if the message is longer than 212 characters and/or N multiple of 212 characters) Example: %%MSG-MSGTEXTPARMS-P001-SUBMSG, %%MSG-MSGTEXTPARMS-P002-SUBMSG, etc...

Related parameters

- [Use Predefined Message](#)

Use Predefined Message

Optional. Select to use a previously defined text or binary file as the content of the message, rather than entering free text.

Format

Valid Values	<ul style="list-style-type: none">■ X: (Selected) - Use predefined message■ N: (Cleared) - Use free text message (default)
Variable Name	%%MSG-USEPREDEFINEDMSG
Message Name Requirements	
Format	Logical name specific to the predefined message
Valid values	Any alphanumeric character, underscore, hyphen
Maximum length	30 characters
Variable Name	%%MSG-MESSAGENAME

Wait for Reply

Optional. An option to enable waiting for messages in the reply message queue.

Format

Valid Values	■ “Use default” ■ Yes ■ No
Default	“Use default”
Variable Name	%%MSG-WAITREPLY

Related parameters

- Time to Wait
- Reply Queue



NOTE

A reply message must be a text message.

WSDL

A URL or fully qualified filename pointing to the WSDL of the web service.

Format

Usage	Mandatory
Length	Up to 214 characters
Case Sensitive	Yes
Valid Characters	Alphanumeric string. Cannot begin with a number. Blank spaces not permitted.
Valid Values	A string that starts with “http://” pointing to a url of a valid WSDL or starting with file:// pointing to a fully qualified pathname of a valid WSDL file
Default	None
Variable Name	%%%WS-WSDL

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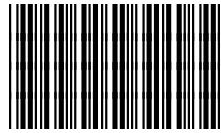
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