

CONTROL-M/Agent for Microsoft Windows Administrator Guide

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 - operating system type, version, and service pack or other maintenance level such as PUT or PTF
 - system hardware configuration
 - serial numbers
 - related software (database, application, and communication) including type, version, and service pack or maintenance level

- sequence of events leading to the problem
- 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

Contents

| | |
|---|--------------------------------------|
| About This Book | xi |
| Chapter 1 | Understanding CONTROL-M/Agent |
| CONTROL-M/Agent Functions | 1-3 |
| CONTROL-M/Agent Concepts | 1-4 |
| Server and Agent Communication | 1-5 |
| Communicating With a Specific CONTROL-M/Agent | 1-5 |
| Chapter 2 | Implementing CONTROL-M/Agent |
| Maintaining CONTROL-M/Agent Services | 2-2 |
| CONTROL-M Agent and Tracker Services | 2-2 |
| Configuring Agent and Tracker Service Properties | 2-4 |
| CONTROL-M FileWatcher Service | 2-4 |
| Starting/Stopping Agent and Tracker Services | 2-5 |
| Determining the Owner of Jobs Run on the Agent | 2-6 |
| How to Assign User Rights to Agent Users | 2-8 |
| Using the CONTROL-M/Agent GUI | 2-9 |
| Modifying Configuration Parameters | 2-10 |
| Displaying and Modifying System Configuration Parameters .. | 2-13 |
| Authorizing CONTROL-M/Servers | 2-15 |
| Specifying a Diagnostic Level | 2-17 |
| Viewing and Deleting Log Files | 2-18 |
| Viewing and Deleting Diagnostics Files | 2-20 |
| Adding Job Object Statistics to Sysout | 2-22 |
| Verifying Communication with the Server | 2-23 |
| Generating the Communication Diagnostic Report | 2-24 |
| Sending a Shout Message to an E-mail Address | 2-25 |
| Language Capabilities | 2-26 |

| | |
|----------------------------------|------|
| Western European Languages | 2-26 |
| Japanese | 2-27 |

Chapter 3

Writing Scripts

| | |
|---|-----|
| Basic Guidelines | 3-2 |
| On Statement/Code Parameter | 3-2 |
| Utilization of Exit Codes by CONTROL-M/Server | 3-3 |
| Script Utilities | 3-4 |
| _exit | 3-4 |
| _sleep | 3-5 |
| Translating DOS Files and REXX Scripts to UNC | 3-6 |

Chapter 4

Utilities

| | |
|---|------|
| Timeout Intervals | 4-2 |
| Specifying Utility Parameters | 4-2 |
| Format for Command Lines With Spaces | 4-3 |
| Directing Output From Utilities | 4-3 |
| Invoking A Utility On A Computer With Multiple Agents | 4-4 |
| Utility Descriptions | 4-5 |
| ag_ping Utility | 4-7 |
| ctmagefg Utility | 4-8 |
| ctmfw Utility (File Watcher) | 4-10 |
| ctmpwd Utility | 4-17 |
| ctmwincfg Utility | 4-19 |

Chapter 5

Defining Microsoft Windows Jobs

| | |
|---|------|
| Creating a Job Skeleton for Microsoft Windows Jobs | 5-2 |
| Defining the CM in CONTROL-M | 5-4 |
| Creating a Microsoft Windows Job | 5-6 |
| Setting Job Object Limits for a Microsoft Windows Job | 5-8 |
| Microsoft Windows Job Object Parameters | 5-9 |
| Viewing a Job Object | 5-11 |

Appendix A

Configuration Parameters

| | |
|--|-----|
| CONTROL-M/Agent Configuration | A-1 |
| CONTROL-M Control Module Configuration | A-4 |
| CONTROL-M Agent Services Configuration | A-6 |

Index

Figures

| | | |
|------------|---|------|
| Figure 1-1 | CONTROL-M Scheduling Solution | 1-2 |
| Figure 2-1 | Agent Configuration window | 2-11 |
| Figure 2-2 | Job Object Statistics check box | 2-22 |
| Figure 4-1 | CONTROL-M/Server Utility Workflow | 4-1 |
| Figure 4-2 | Sample Trace File Output | 4-16 |
| Figure 5-1 | WIN Panel | 5-8 |

Tables

| | | |
|-----------|---|------|
| Table 1-1 | CONTROL-M Products | 1-2 |
| Table 1-2 | CONTROL-M/Agent Information | 1-4 |
| Table 1-3 | Determining the Default CONTROL-M/Agent | 1-6 |
| Table 3-1 | CTMBAT2UNC Utility Parameters | 3-6 |
| Table 3-2 | Scripts Before and After Running CTMBAT2UNC | 3-7 |
| Table 4-1 | Utilities That Support the -input_file Parameter | 4-3 |
| Table 4-2 | CONTROL-M/Agent Utilities | 4-5 |
| Table 4-3 | ctmfw – Parameters | 4-12 |
| Table 4-4 | ctmfw – Return Codes | 4-14 |
| Table 4-5 | ctmpwd Utility – Parameters | 4-18 |
| Table 5-1 | Microsoft Windows Job Object Parameters | 5-10 |
| Table A-1 | CONTROL-M/Agent Configuration Parameters | A-1 |
| Table A-2 | Control Module Configuration Parameters | A-4 |
| Table A-3 | System Configuration for CONTROL-M/Agent Services | A-6 |

About This Book

This book describe how to implement and administer CONTROL-M/Agent for Microsoft Windows. The following table describes the chapters of this book:

| | |
|-------------------|--|
| Chapter 1 | General Information Introduces key features and concepts of CONTROL-M/Agent. |
| Chapter 2 | Implementing CONTROL-M/Agent Describes how to <ul style="list-style-type: none"> • maintain CONTROL-M/Agent Services • Set user rights • Register users and passwords • Use the CONTROL-M/Agent GUI • Send messages to an e-mail address • Modify and repair the CONTROL-M/Agent program |
| Chapter 3 | Writing Scripts Describes how to write CONTROL-M/Agent scripts. |
| Chapter 4 | Utilities Describes CONTROL-M/Agent command-line utilities. |
| Chapter 5 | Defining Windows 2000 Jobs Describes how to set job object limits for a CONTROL-M job. |
| Appendix A | Configuration Parameters Describes how to set and modify configuration parameters. |
| Index | |

Related Publications

- **CONTROL-M Installation Guide** describes the installation of CONTROL-M components.
- **CONTROL-M/Server Administrator Guides** each describe setup, maintenance, security, and utilities for CONTROL-M/Server on a specific type of computer.
- **CONTROL-M Job Parameter and Variable Reference Guide** describes syntax and usage for all parameters and variables that are included in CONTROL-M job processing definitions.
- **CONTROL-M/Desktop User Guide** describes how to define and manage CONTROL-M job processing definitions, Scheduling tables, and Calendars.
- **CONTROL-M/Enterprise Manager User Guide** describes CONTROL-M/EM concepts, features, facilities, and operating instructions.
- **CONTROL-M/eTrigger Administrator Guide** describes how to trigger job submission and tracking activities using a web-based (HTML) interface.

Notational Conventions

The following abbreviations are used in this guide:

| Abbreviation | Description |
|--------------|---|
| CM | CONTROL-M/Control Module A product library for a specific application or operating system used by CONTROL-M/Agent to support that application or operating system. |
| CONTROL-M/EM | CONTROL-M/Enterprise Manager |

The following conventions are used in this guide:

| Convention | Description |
|---------------------|---|
| <key> | When describing keystrokes, angle brackets are used to enclose 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; then select the Groups option from the submenu. Finally, select the Add option from the Groups submenu. |
| {Option A Option B} | The vertical bar is used to separate choices. For example, when used as part of a parameter, {AND OR} means that you specify either AND or OR. |
| [Parameter] | Square brackets are used to enclose parameters that are optional. |
| <variable> | In commands and parameters, angle brackets are used to enclose variable information. For example, the command: cd <controlm_path> means that you specify cd followed by the path of CONTROL-M. |
| <i>italic</i> | An italic font is used for the name of publications. |

Understanding CONTROL-M/Agent

This guide describes concepts and tools required by the administrator to set up and manage CONTROL-M/Agent on Microsoft Windows computers.

CONTROL-M/Agent is a component of the CONTROL-M scheduling solution. The integration of these products is illustrated in [Figure 1-1 on page 1-2](#).

CONTROL-M/Server handles production control and scheduling, and submits and tracks jobs across your network.

CONTROL-M/Agent submits jobs for execution on the Agent computer, monitors the jobs, and performs post-processing analysis of sysout files. The completion status of jobs and the results of post-processing analysis are transmitted back to CONTROL-M/Server.

Other CONTROL-M products are described in the documents listed in [“Related Publications” on page -xii](#).

Figure 1-1 CONTROL-M Scheduling Solution

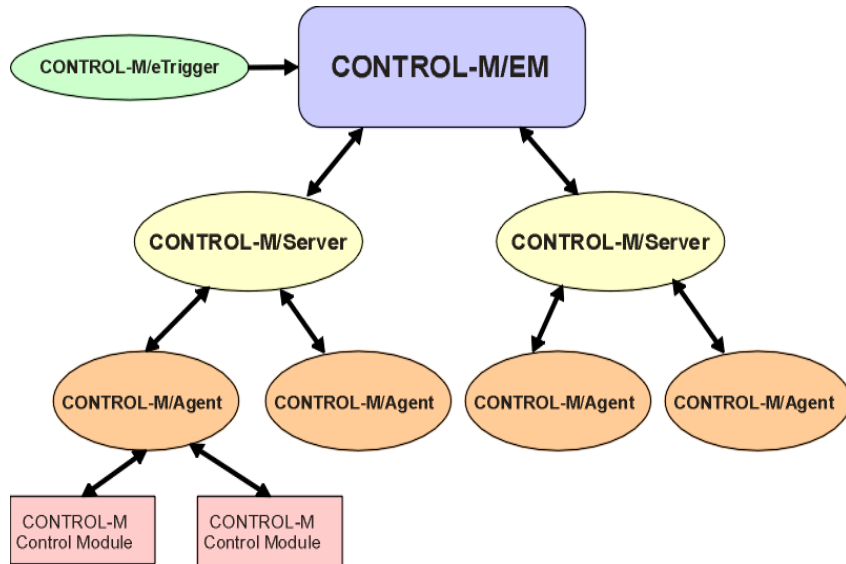


Table 1-1 CONTROL-M Products

| Product | Description |
|----------------------------------|--|
| CONTROL-M/EM | GUI-based control center from which you can manage all scheduling and workflow activities. |
| CONTROL-M/Server | Engine (on a Unix or Microsoft Windows computer) used to drive scheduling in a data center. Each CONTROL-M/Server can manage multiple CONTROL-M/Agents on various computers. |
| CONTROL-M/Agent | Software responsible for job submission and execution. An Agent must exist on each computer that is used to execute CONTROL-M jobs. |
| CONTROL-M/eTrigger | Web-based product that creates and runs jobs under CONTROL-M using input from a web page. |
| CONTROL-M/Control Modules | CONTROL-M Control Modules enable CONTROL-M/Agents to interface with other applications (for example SAP and Oracle Applications). |

CONTROL-M/Agent Functions

Job handling requests managed by CONTROL-M/Agent can consist of any of the following:

- Instructions to submit a job on the Agent computer.
- Requests for information about jobs on the Agent computer that have been submitted, are currently executing, or have recently completed.
- Requests to view or edit job script statements.
- Requests to view job output (sysout) or job documentation.
- Requests to stop jobs that are currently executing.

In addition, CONTROL-M/Agent can handle job output (sysout) and issue Shout messages according to job processing parameters supplied with a job submission request.

CONTROL-M/Agent Concepts

Additional information about CONTROL-M/Agent is contained in the following table.

Table 1-2 CONTROL-M/Agent Information

| Item | Description |
|--------------------------|---|
| Installation | Information about installing and upgrading CONTROL-M/Agent for Microsoft Windows is described in the <i>CONTROL-M Installation Guide</i> . |
| Configuration Parameters | CONTROL-M/Agent configuration parameters are assigned values during the installation procedure. <ul style="list-style-type: none">• Table A-1 on page A-1 lists these parameters and their default values.• BMC recommends using the <code>ctmagcfg</code> utility (described on page 4-8) to modify these parameters. However, some of these parameters can also be modified by using the CONTROL-M/Agent GUI described on page 2-9. |
| Command-Line Utilities | Many CONTROL-M tasks can be implemented from a DOS command-line using utilities. For more information, see Chapter 4, "Utilities" . |
| Control Modules | A Control Module (CM) is a DLL component that enables CONTROL-M/Agent to interface with other applications in your data center. For example, the CM for SAP interfaces between CONTROL-M/Agent and SAP. <ul style="list-style-type: none">• The CONTROL-M/Agent installation procedure installs a Control Module for Microsoft Windows operating systems and assigns values to its configuration parameters. Note: Control Modules are installed only on the default CONTROL-M/Agent.• Table A-2 on page A-4 lists these parameters and their default values.• BMC recommends using the <code>ctmwincfg</code> utility (described on page 4-19) to modify these parameters. However, some of these parameters can also be modified by using the CONTROL-M/Agent GUI described on page 2-9. |

Server and Agent Communication

More than one CONTROL-M/Agent can reside on a computer. This enables more than one CONTROL-M/Server to communicate with different Agents on the same computer. For example, a CONTROL-M/Server can submit a job to an Agent in a test environment while another CONTROL-M/Server can send an accounts payable job to the same computer, using a different Agent.

One CONTROL-M/Agent can communicate with various CONTROL-M/Servers, for example, where jobs are submitted to an Agent from one CONTROL-M/Server and thereafter other jobs are submitted to the same Agent from a different CONTROL-M/Server.

Communicating With a Specific CONTROL-M/Agent

Each CONTROL-M/Agent that resides on the same computer has a different Server-to-Agent listening port. CONTROL-M/Server communicates with a specific CONTROL-M/Agent by referring to its listening port.

The `-agent <agent name>` parameter is used in CONTROL-M/Agent utilities to specify which CONTROL-M/Agent will handle that utility. The variable `<agent name>` represents the name of the CONTROL-M/Agent specified during the installation procedure.

For most utilities if the `-agent` parameter is not specified, the default CONTROL-M/Agent for that computer is used. However, if a configuration utility is run without specifying the `-agent` parameter, the user is prompted to select the CONTROL-M/Agent. For more information about invoking CONTROL-M/Agent utilities, see [“Invoking A Utility On A Computer With Multiple Agents” on page 4-4](#).

The default CONTROL-M/Agent is determined by upgrading an earlier version of CONTROL-M/Agent, or during the installation procedure, as described in the Table 1-3.

Table 1-3 Determining the Default CONTROL-M/Agent

| Method | Description |
|------------------------|---|
| Upgrade | When upgrading CONTROL-M/Agent from an earlier version, that Agent is automatically set as the default. |
| Installation Procedure | <p>During installation of the first CONTROL-M/Agent, the user can select the Agent as default.</p> <ul style="list-style-type: none">• If selected, this CONTROL-M/Agent is set as Default. If the user specifies a name for the Agent, the Agent must be referred to by that name when specifying the -agent parameter. For more information about the -agent parameter, see Chapter 4, "Utilities". <p>Note: The name Default (not case sensitive) is a reserved name.</p> <ul style="list-style-type: none">• If not selected, a subsequent CONTROL-M/Agent can be selected as default. |

After Default CONTROL-M/Agent is installed on a computer, the installation procedure prompts for a name (free text, not case sensitive) for each subsequent CONTROL-M/Agent that is installed on the same computer.

Note

Control Modules can be installed only on Default CONTROL-M/Agent.

Implementing CONTROL-M/Agent

The procedures and facilities described in this chapter enable you to keep CONTROL-M/Agent running efficiently.

The following topics are discussed in this section:

- “Maintaining CONTROL-M/Agent Services” below
- “Configuring Agent and Tracker Service Properties” on page 2-4
- “Starting/Stopping Agent and Tracker Services” on page 2-5
- “Determining the Owner of Jobs Run on the Agent” on page 2-6
- “How to Assign User Rights to Agent Users” on page 2-8
- “Using the CONTROL-M/Agent GUI” on page 2-9
- “Sending a Shout Message to an E-mail Address” on page 2-25

Maintaining CONTROL-M/Agent Services

The following CONTROL-M/Agent services are installed during the CONTROL-M/Agent installation procedure:

- CONTROL-M Agent Service
- CONTROL-M Tracker Service
- CONTROL-M FileWatcher Service

CONTROL-M Agent and Tracker Services

The CONTROL-M Agent and Tracker services can run as Microsoft Windows background processes that are transparent to the user. These services remain active as long as Microsoft Windows is running. For more information, see [“Starting/Stopping Agent and Tracker Services” on page 2-5](#).

Specifying the Agent Service and Tracker Service User Account

The **Log On** panel prompts you to select **Local System account** or **This Account**. For more information, see [“Configuring Agent and Tracker Service Properties” on page 2-4](#).

- If **Local System account** is selected, the service will run in the administrative group and in the native system account environment. By installation default, the following options are selected:
 - (Log on as:) “Local System Account”
 - “Allow service to interact with desktop”

These options enable the Agent service and Tracker service to open windows in the Microsoft Windows desktop. However, the Local System Account cannot access files across a network and cannot send a Shout message to an e-mail destination.

- If the owner of any jobs run by CONTROL-M/Agent has a “Roaming Profile”, select **This Account** mode. If **This Account** is selected, specify an Administrators group user and password. The service will run in the specified user environment. The format for the value in the **This Account** text box is <Domain>\<User>. For more information, see [“Support for Roaming Profile”](#) on page 2-4.

In either case, the service’s logon account must have these user rights (see [“How to Assign User Rights to Agent Users”](#) on page 2-8):

- act as part of the operating system
- debug programs
- increase quotas
- logon as a batch job (recommended)
- logon as service
- replace process level token

Support for Roaming Profile

CONTROL-M/Agent support for “Roaming Profile” requires the following:

- The profile must reside on the network. If the network path includes the environment variable, CONTROL-M/Agent expands the path and loads the User Profile from the expanded path.
- After loading the user profile, CONTROL-M/Agent sets all environment variables from the roaming profile:
 - Logs into a different computer with the roaming user
 - Changes/adds the private environment variable
 - Logs out
 - Runs the CONTROL-M job on the original computer
- New environment variables or updated variables performed by the roaming user on any computer will be detected by the CONTROL-M job.

Configuring Agent and Tracker Service Properties

Summary: You can modify Agent service and Tracker service properties in the **Log On** panel of the CONTROL-M Agent (or Tracker) Properties window. BMC recommends that the same properties be specified for both the Agent service and the Tracker service.

Before You Begin

Default values for Agent and Tracker service properties were set during the CONTROL-M/Agent installation. You can modify these properties.

Note

If the owner of any CONTROL-M jobs has a “roaming profile”, the Logon mode must be set to **This Account**. Otherwise, the **Local System Account** logon mode is recommended.

How to Display and Modify CONTROL-M Agent (or Tracker) Properties

- Step 1** Choose **Start => Settings => Control Panel => Administrative Tools => Services**.
- Step 2** The Services window is displayed. Right-click **CONTROL-M Agent** or **CONTROL-M Tracker** and choose **Properties**.
- Step 3** The **CONTROL-M Agent (or Tracker) Properties (Local Computer)** window is displayed. Click the **Log On** tab.
- Step 4** The **Log On** panel is displayed. Select the desired properties and click **OK**.

CONTROL-M FileWatcher Service

BMC Software recommends that you do not make any changes to this service.

Starting/Stopping Agent and Tracker Services

Summary: The Agent and Tracker services operate as background processes that are not visible to the user. When the computer is turned on or rebooted, these services start automatically if the Startup Type configuration parameter is set to **Automatic**. (See “Startup Type” on page A-6.) These services remain active as long as Microsoft Windows is running.

If you stop these services, you can restart them manually (as described below), or you can reboot the system (if Startup Type is **Automatic**). If the Startup Type is set to **Manual**, you must start these services manually (as described below).

You can modify the Startup Type value. BMC recommends that the Agent service and the Tracker service be treated the same way. The recommended Startup Type is **Automatic**.

Starting CONTROL-M Agent and Tracker Services

- Step 1** Select **Start => Settings => Control Panel => Administrative Tools**.
- Step 2** In the Administrative Tools window, click **Services**.
- Step 3** Select the **CONTROL-M Agent** service and click **Start**.
- Step 4** Select the **CONTROL-M Tracker** service and click **Start**.

Stopping CONTROL-M Agent and Tracker Services

- Step 1** Select **Start => Settings => Control Panel => Administrative Tools**.
- Step 2** In the Administrative Tools window, click **Services**.
- Step 3** Select the **CONTROL-M Agent** service and click **Stop**.
- Step 4** Select the **CONTROL-M Tracker** service and click **Stop**.

Determining the Owner of Jobs Run on the Agent

CONTROL-M/Agent runs a job in the environment of the owner of the job with the permissions granted to that owner.

The owner of a CONTROL-M/Agent job is determined by the value of the **Logon As User** configuration parameter. This parameter can be set during installation (see Chapter 12 in Book 2 of the *CONTROL-M Installation Guide*) or after installation (as described in the ctmwincfg utility on page 4-19).

- If **Logon As User** is set to **Y**, the owner of the job is the owner specified in the CONTROL-M job definition.
- If **Logon As User** is set to **N**, the owner of the job is the user account for the CONTROL-M/Agent service: the **Local System** account or the **This Account** user. For more information, see [“Specifying the Agent Service and Tracker Service User Account”](#) on page 2-2.

The following requirements must be satisfied:

- If a user with a “Roaming Profile” will be the owner of a job, specify **This Account** (and not **Local System Account**) in the CONTROL-M/Agent Service Definition window.
- To enable a specific user to run (be the owner) of CONTROL-M jobs, the password of the user must be entered into CONTROL-M using the ctmpwd utility.
- The owner must have access rights to the network and the **Log on as a batch job** user right.

For information about how to assign user rights, see page 2-8.

Note

To eliminate the need to assign user rights to every job owner on every Microsoft Windows computer running CONTROL-M/Agent, BMC recommends that you define a domain-level group for all job owners. You can name this group “CONTROL-M Job Owners”. Assign network access rights and the **Logon as a batch job** user right to this group.

How to Assign User Rights to Agent Users

Summary: You can use this procedure to assign the user rights listed on page 2-3 to each user who needs them.

How to Assign User Rights

- Step 1** Log on to the CONTROL-M/Agent computer as a local administrator.
- Step 2** Choose **Start => Settings =>Control Panel=> Administrative Tools => Local Security Policy**.
- Step 3** In the displayed tree structure, select **Local Policies**.
- Step 4** In the displayed panel, double-click **User Rights Assignments** to display the list of user rights.
- Step 5** Double-click the user right you want to assign. The **Local Security Policy Settings** window for that user right is displayed.
 - 5.A** If the user who should have the selected user right is not listed in this window, click **Add**.
 - 5.B** In the bottom panel, enter the **<domain>\<user_name>** of the user and click **OK**.
 - 5.C** When the specified user is displayed in the lower panel, click **OK** again.
- Step 6** Restart the Agent service to make the user rights effective.

Using the CONTROL-M/Agent GUI

CONTROL-M/Agent has a GUI that can be used for adding and modifying configuration parameters. The configuration utilities can also be used.

Procedures to perform the following tasks are described in this section:

- Modifying configuration parameters (see page 2-10)
- Modifying system configuration parameters (see page 2-13)
- Authorizing CONTROL-M Servers (see page 2-15.)
- Specifying a diagnostics level (see page 2-17)
- Viewing and deleting log files (see page 2-18)
- Viewing and deleting diagnostics files (see page 2-20)
- Adding Job Object Statistics to Sysout (see page 2-22)
- Verifying Communications with the Server (see page 2-23)
- Generating a Communications Diagnostic Report (see page 2-24)

Modifying Configuration Parameters

Summary: Configuration parameters for CONTROL-M/Agent and its Control Module component are set during installation. Most of these parameters can be modified. Use `ctmagecfg`, `ctmwincfg`, or the CONTROL-M/Agent GUI to view or modify these configuration parameters.

Before You Begin

Start the CONTROL-M/Agent GUI by selecting **Start => Programs => CONTROL-M Agent 6.1.03 => CONTROL-M Agent <agent name>**.

Note

The CONTROL-M/Agent GUI does not start the CONTROL-M Agent service. To start the CONTROL-M Agent service, see [“Starting/Stopping Agent and Tracker Services” on page 2-5](#).

How to Modify Configuration Parameters

- Step 1** Select **Customize => Configuration Parameters**.
- Step 2** The Agent Configuration window is displayed.

Figure 2-1 Agent Configuration window

The image shows a Windows-style dialog box titled "Agent Configuration". It is divided into several sections:

- Information:** Product Version: 6.1.00 Beta; Primary CONTROL-M/Server Host: TLVS2K038
- Directories:** Product Directory: D:\Program Files\BMC Software\CONTROL-M Agent; Agent Data Directory: D:\Program Files\BMC Software\CONTROL-M Agent\Data
- Application Parameters:** Default Printer: None; Control Module (CM) Name: OS
- Connection:** TCP/IP Timeout: 120; Tracker Polling Interval: 100
- Port Numbers:** Agent-to-Server: 7005; Server-to-Agent: 7006

At the bottom of the dialog are "OK" and "Cancel" buttons.

Step 3 Modify the parameters as required. Click **OK**.

Note

The **Agent-to-Server port number** and the **Server-to-Agent port number** are defined both on the Server computer and on each Agent computer. These parameters must have matching values in both locations.

On most Server computers, the **Server-to-Agent port number** for each Agent is assigned a default value. However, a different value can be assigned to this parameter for each Agent computer.

Where to Go from Here

The following table describes tasks that are related to this one.

| Next Task | Procedure |
|--|---|
| Perform other tasks in the list on page 2-9. | Follow the steps for the appropriate task as described on the page indicated in the list. |
| Exit the GUI. | Select File => Exit from the menu bar. |

Displaying and Modifying System Configuration Parameters

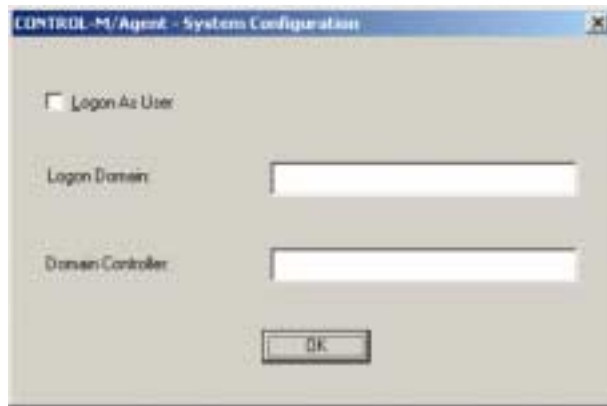
Summary: The following system configuration parameters can be modified using the GUI: Logon As User, Logon Domain, and Domain Controller. These parameters are described in [Table A-2, “Control Module Configuration Parameters,”](#) on page A-4

Before You Begin

Start the CONTROL-M/Agent GUI by selecting **Start => Programs => CONTROL-M Agent**.

How to Display and Modify System Configuration Parameters

- Step 1** Select **Customize => Agent Configuration Parameters**.
- Step 2** The System Configuration dialog box is displayed.



The parameters in this dialog box are described in [Table A-2, “Control Module Configuration Parameters,”](#) on page A-4.

- Step 3** Change the parameters as required. Click **OK**.

Where to Go from Here

The following table describes tasks that are related to this one.

| Next Task | Procedure |
|--|---|
| Perform other tasks in the list on page 2-9. | Follow the steps for the appropriate task as described on the page indicated in the list. |
| Exit the GUI. | Select File => Exit from the menu bar. |

Authorizing CONTROL-M/Servers

Summary: The Authorized CONTROL-M/Servers list includes all servers (including the primary server) that are authorized to send requests to CONTROL-M/Agent. The name of each server is separated by a | symbol (vertical bar) without blanks.

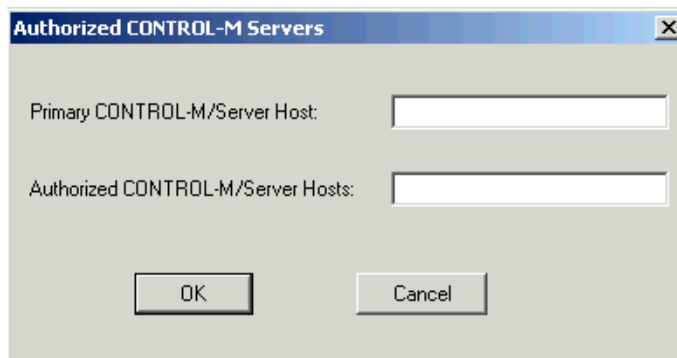
For more information about Authorized CONTROL-M/Servers, see the CONTROL-M/Agent chapter of the *CONTROL-M Installation Guide*.

Before You Begin

Start the CONTROL-M/Agent GUI by selecting **Start => Programs => CONTROL-M Agent**.

How to Display the Authorized Servers List

- Step 1** Select **Customize=>Authorized CONTROL-M/Servers**.
- Step 2** The Authorized CONTROL-M/Servers dialog box is displayed.



- Step 3** Modify the Server computer host names as required. Click **OK**.
- Step 4** Verify communication between the Agent computer and the primary or authorized Server computers. The instructions for performing this task are described in [“Verifying Communication with the Server”](#) on page 2-23.

Where to Go from Here

The following table describes tasks that are related to this one.

| Next Task | Procedure |
|--|---|
| Perform other tasks in the list on page 2-9. | Follow the steps for the appropriate task as described on the page indicated in the list. |
| Exit the GUI. | Select File => Exit from the menu bar. |

Specifying a Diagnostic Level

Summary: Diagnostic messages are recorded in a diagnostics file. The detail and content of the messages is dependent on the current diagnostic level.

Before You Begin

Shut down CONTROL-M/Agent.

How to Specify a Diagnostic Level

- Step 1** Select **Diagnostics => Set Diagnostic Level**.
- Step 2** The Agent Diagnostic Level dialog box is displayed.



Select the desired diagnostic level in the dialog box. Click **OK**.

- Step 3** Restart CONTROL-M/Agent.

Where to Go from Here

| Next Task | Procedure |
|--|---|
| Perform other tasks in the list on page 2-9. | Follow the steps for the appropriate task as described on the page indicated in the list. |
| Exit the GUI. | Select File => Exit from the menu bar. |

Viewing and Deleting Log Files

Summary: You can view log files containing messages that are transmitted between the Agent computer and CONTROL-M/Server, and log files containing diagnostic messages recorded on the Agent computer.

When the log files are no longer required, you can delete them.

Before You Begin

Start the CONTROL-M/Agent GUI by selecting **Start => Programs => CONTROL-M Agent**.

How to View Log Files

Step 1 Select **File => Show Log Files** from the menu bar.

Step 2 An Open File dialog box is displayed.

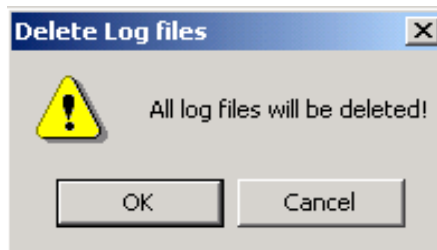


Step 3 Double-click the required file. The log file is displayed in **Notepad**.

How to Delete Log Files

Step 1 Select **File => Delete Log Files** from the menu bar.

Step 2 A confirmation window is displayed.



Step 3 Click **OK**. All log files are deleted.

Where to Go from Here

The following table describes tasks that are related to this one.

| Next Task | Procedure |
|--|---|
| Perform other tasks in the list on page 2-9. | Follow the steps for the appropriate task as described on the page indicated in the list. |
| Exit the GUI. | Select File => Exit from the menu bar. |

Viewing and Deleting Diagnostics Files

Summary: You can view diagnostics files containing messages that are generated according to the diagnostics level specified. When the diagnostics files are no longer required, they can be deleted.

Note

For more information about diagnostic levels, see [“Specifying a Diagnostic Level”](#) on page 2-17.

How to View Diagnostics Files

- Step 1** Select **File => Show Diagnostic Files** from the menu bar.
- Step 2** An Open File dialog box is displayed.



- Step 3** Double-click the required file. The selected file is displayed in **Notepad**.

How to Delete Diagnostics Files

- Step 1** Select **File => Delete Diagnostic Files** from the menu bar. A confirmation window is displayed.
- Step 2** All CONTROL-M/Agent diagnostics files are deleted after confirmation.

PROCLOG Retention Period

CONTROL-M/Server **ctmsys** utility passes the “Maximum Days to Retain Sysout Files” parameter to CONTROL-M/Agent when the New Day Procedure is invoked. This parameter determines the retention period in the Agent for job output (sysout) files.

To change the default retention period for logs in the **proclog** directory, see **ctmsys** utility in the *CONTROL-M/Server Administrator Guide*.

Where to Go from Here

The following table describes tasks that are related to this one.

| Next Task | Procedure |
|--|---|
| Perform other tasks in the list on page 2-9. | Follow the steps for the appropriate task as described on the page indicated in the list. |
| Exit the GUI. | Select File => Exit from the menu bar. |

Adding Job Object Statistics to Sysout

Use the following steps to add job object statistics to sysout:

- Step 1** Select **Diagnostics => Options** from the menu bar.
- Step 2** The Job Object Statistics check box is displayed.

Figure 2-2 Job Object Statistics check box



- Step 3** Select or clear the **Job Object Statistics** check box as required. Click **OK**.
- If you select the check box, job object statistics are written to the sysout file.
 - If you clear the check box, job object statistics are not written.

Where to Go from Here

The following table describes tasks that are related to this one.

| Next Task | Procedure |
|--|---|
| Perform other tasks in the list on page 2-9. | Follow the steps for the appropriate task as described on the page indicated in the list. |
| Exit the GUI. | Select File => Exit from the menu bar. |

Verifying Communication with the Server

Summary: BMC recommends that you verify the ability of the Microsoft Windows Agent computer to communicate with the primary Server computer and with all other authorized Server host computers. Use the following steps to verify communication with a Server computer:

How to Verify Agent - Server Communications

Step 1 Open a DOS window on the CONTROL-M/Agent computer and specify the command: `ping <host_name>`
The variable `<host_name>` is the name of the primary Server computer or one of the authorized Server computers.

- If the ping is successful, you receive a response that begins:
`Pinging <host_name> [<IP_address>] with ...`
`Reply from <IP_address> ...`
- If the ping is unsuccessful and you receive the response
`Request timed out`
then either the Server is down or there are connection problems.
- If the ping is unsuccessful and you receive the response
`Unknown host <host_name>`
verify that the host name is specified correctly.

Step 2 If the ping is still unsuccessful and the Microsoft Windows computer does not use DNS (Domain Name System) for host name resolution, check that the host name is defined in the **hosts** file for the computer. The **hosts** file is usually located under the following directory:

`c:\winnt\system32\drivers\etc\`

If the host name of the Server computer is not listed in the **hosts** file, you can add an entry for the Server computer in the format:

`<IP_address> <host_name>`

Example

`128.128.100.12 diana`

Generating the Communication Diagnostic Report

Summary: CONTROL-M/Agent includes a diagnostic program that checks parameters and environmental conditions relevant to communication between the Agent and Server computers. This program is typically used at the request of Technical Support to determine the cause of a communication problem.

How to Generate the Communication Diagnostic Report

- Step 1** Navigate to the <CONTROL-M Agent>\util directory.
- Step 2** Specify the command: `ag_diag_comm`. After several seconds, the CONTROL-M/Agent Communication Diagnostic Report is displayed.

```
Control-M/Agent Communication Diagnostic Report
-----
User Name                : abercovi: Administrator
CONTROL-M/Agent Directory : D:\Program Files\BMC Software\CONTROL-M
Agent\
Agent Platform Architecture : <platform> (Build:<nnnn>)
FD Number                : FD4195
Agent Version             : 6.1.01
Agent Platform Name       : TLVS2K038
Server Host Name          : piper
Authorized Servers Hosts Names : piper
Server-to-Agent Port Number : 19000
Agent-to-Server Port Number : 8805
Server-Agent Protocol Version : 6
Server-Agent Comm. Protocol : TCP
                        CONTROL-M Agent      status: Not Running Locally
                        CONTROL-M Tracker     status: Not Running Locally
                        CONTROL-M FileWatcher status: Not Running Locally
DNS Translation of Server : 172.16.130.197 (In 0 seconds)
Executing Ping to piper...
Pinging piper.isr.bmc.com [172.16.130.197] with 32 bytes of data:

Reply from 172.16.130.197: bytes=32 time<10ms TTL=255
Reply from 172.16.130.197: bytes=32 time<10ms TTL=255

Ping statistics for 172.16.130.197:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
System Ping to Server Platform : Success
*****
Agent ping to Control-M/Server : piper
Output:
Server is alive.
Result: Success.
--- End of Report ---
```

Sending a Shout Message to an E-mail Address

The CONTROL-M Shout facility sends messages to recipients based on specified logical destinations. For more information, see “Shout Facility” in Chapter 1 and “Shout Message Destinations” in Chapter 4 of the *CONTROL-M/Server Administrator Guide*.

CONTROL-M/Server can request CONTROL-M/Agent to send a message to an e-mail destination. If the destination is not a standard e-mail address, CONTROL-M/Agent will try to resolve the destination to an e-mail address using the **Address Book** of the default Windows Messaging Component (for example, Microsoft Outlook).

Requirements for Sending Shout Messages to E-mail Destinations

- The CONTROL-M/Agent service must run under the user specified in the **This Account** field of the **Log On** panel. See [“Specifying the Agent Service and Tracker Service User Account” on page 2-2](#).
- The default Windows Messaging component must be installed and running on the Microsoft Windows Agent platform. *This component is **not** installed by the CONTROL-M installation procedure.*
- The user specified in the **Mailbox** field of the Windows Messaging Component and the user specified in the **This Account** field of the **Log On** panel must be identical.

To view or change the user in the **This Account** field, see [“Configuring Agent and Tracker Service Properties” on page 2-4](#).

How to Configure the Mailbox Field in Microsoft Outlook

To view or change the user in the **Mailbox** field, close Microsoft Outlook, right-click the Microsoft Outlook icon, and choose **Properties** => **Services** (tab) => **Microsoft Exchange Server** => **Properties**.

Language Capabilities

Western European Languages

CONTROL-M/EM, CONTROL-M/Desktop, CONTROL-M/Server, CONTROL-M/Agent, and CONTROL-M/eTrigger, support Western European language characters (the Latin-1 character set). These products can accept characters in English, German, Spanish, and French from the Latin-1 character set (ISO 8859-1) in almost all text fields and parameters.

For additional information, see the following guides.

| Task | Topic and Guide |
|--|---|
| Indications of which parameters do <i>not</i> support Western European Language special characters | Individual parameter descriptions in the <i>CONTROL-M/Enterprise Manager Parameter and Variable Reference Guide</i> |
| Indications of which dialog boxes support Western European Language special characters | Individual descriptions of the various dialog boxes in the <i>CONTROL-M/Enterprise Manager User Guide</i> and the <i>CONTROL-M/Desktop User Guide</i> |
| Indications of which CONTROL-M/Server and CONTROL-M/Agent utilities do <i>not</i> support Western European Language special characters | The <i>CONTROL-M/Server Administrator Guide</i> and the <i>CONTROL-M/Agent Administrator Guide</i> |
| Language configuration instructions | <i>CONTROL-M Installation Guide</i> |
| Upgrade and migration instructions | <i>CONTROL-M Upgrade Guide</i> |
| CONTROL-M/eTrigger customization instructions | “Use Locale” topic in Chapter 4 of the <i>CONTROL-M/eTrigger Administrator Guide</i> |

Japanese

CONTROL-M can run on Japanese operating systems.

The CONTROL-M components, such as the EM GUI and CONTROL-M/Desktop, do not accept Japanese characters in any free text fields or parameters and display values only in English. For example, Japanese job sysouts do not display correctly. Therefore, in these cases, job sysout analysis is not possible.

No additional customization is necessary after installation or upgrade to run CONTROL-M components with Japanese operating systems.

Writing Scripts

When operating in the Microsoft Windows environment, CONTROL-M/Agent supports the use of the following types of job scripts:

- DOS batch files (suffix **.bat**).
- REXX-language scripts (suffix **.cmd**).

CONTROL-M/Agent can use the **On Statement/Code** job processing parameters to perform post-processing analysis of the sysout of jobs submitted using these scripts.

The following topics are discussed in this chapter:

- [Basic Guidelines](#)
 - [On Statement/Code Parameter](#)
 - [Utilization of Exit Codes by CONTROL-M/Server](#)
- [Script Utilities](#)
 - [_exit](#)
 - [_sleep](#)
- [Translating DOS Files and REXX Scripts to UNC](#)

Basic Guidelines

Scripts 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 command **echo on**. 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.

On Statement/Code Parameter

The following items describe how the **On Statement/Code** job processing parameter interprets script lines.

- **Analysis of the Sysout for On Statement/Code**

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.

When specifying an **On Statement/Code** statement (format 1) in a job processing definition, place text that follows either of these prompts in the **Stmt** parameter. Place other text in the **Code** parameter.

- **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**

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**.

The maximum length of the **On Code** parameter is 1024 characters.

For more information about the **On Statement/Code** parameter, see Chapter 7 of the *CONTROL-M Job Parameter and Variable Reference Guide*. Job processing parameters are described in Chapter 5 of the *CONTROL-M/Enterprise Manager User Guide*.

Utilization of Exit Codes by CONTROL-M/Server

Both DOS **.bat** scripts and REXX **.cmd** scripts can return an exit code to CONTROL-M/Server upon completion. The **_exit** utility described below is used by **.bat** scripts.

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

In this example, a REXX script exits with an exit code of 5, as follows:

```
exit 5
```

This condition can be detected by defining the following **On Statement/Code** parameter:

```
Stmt: *  
Code: COMPSTAT=5
```

Script Utilities

The `_exit` and `_sleep` script utilities can be accessed from within job scripts. These utilities are located in the `<CONTRL-M/Agent>\EXE` directory under the Product directory, for example:

```
c:\Program Files\BMC Software\CONTRL-M Agent\\EXE
```

If this directory is not defined as part of the operating system search path, specify the full path when using one of these utilities.

`_exit`

This utility is similar to the Unix `exit` built-in shell function.

The utility is located in the `<CONTRL-M/Agent>\EXE` directory path that was created during the installation procedure.

Format

```
_exit [<exit code>]
```

The variable `<exit code>` is any whole number ≥ 0 Default: **0**

The program exits with `%errorlevel% = <exit code>`

Examples

`_exit 0` in a script causes the job to end with `%errorlevel% 0`.

```
ctmcreate -tasktype command -cmdline "_exit 0"
```

`_exit 1` in a script causes the job to end with `%errorlevel% 1`.

```
ctmcreate -tasktype command -cmdline "_exit 1"
```

_sleep

This utility is similar to the Unix **sleep** built-in shell function.

The utility is located in the <CTRL-M/Agent>\EXE directory path that was created during the installation procedure.

Format

```
"... _sleep" <seconds>
```

The variable <seconds> is any whole integer number ≥ 0

Note

If `_sleep` is specified, it is mandatory to specify a whole integer number.

Example

Suspend execution of the script for 5 seconds.

```
ctmcreate -tasktype command -cmdline "_sleep 5"
```

Translating DOS Files and REXX Scripts to UNC

The CTMBAT2UNC utility translates DOS batch files (.bat) and REXX-language (.cmd) scripts containing mapped path names into scripts that use Universal Naming Convention (UNC) equivalents to reference remote disk resources. These translated scripts enable CONTROL-M/Agent to execute multiple scripts simultaneously. The owners of the jobs do not have to be logged on to provide the drive mappings for the scripts.

The CTMBAT2UNC utility can be invoked using the following command:

```
ctmbat2unc.exe <batch_file_to_translate> <output_file_name>
```

Table 3-1 describes the CTMBAT2UNC utility parameters.

Table 3-1 CTMBAT2UNC Utility Parameters

| Item | Description |
|---------------------------|------------------------------|
| <batch_file_to_translate> | Original .bat or .cmd script |
| <output_file_name> | New script after translation |

Example

Two job owners, A and B, are executing ScriptA.bat and ScriptB.bat, respectively. Owner A has drive M mapped to \\nt-A\share. Owner B has drive M mapped to \\nt-B\share.

Table 3-2 describes these scripts before and after executing the CTMBAT2UNC utility.

Table 3-2 Scripts Before and After Running CTMBAT2UNC

| Owner | Original Script | Translated Script |
|--------------|--------------------------|---|
| A | @echo off dir M:\jobs | @echo off REM Following line was changed by CTMBAT2UNC dir \\nt-A\share\jobs |
| B | @echo off dir M:\jobs | @echo off REM Following line was changed by CTMBAT2UNC dir \\nt-B\share\jobs |

As shown above, every line changed by the **CTMBAT2UNC** utility is marked by a **REM** comment inserted before the translated line.

Note

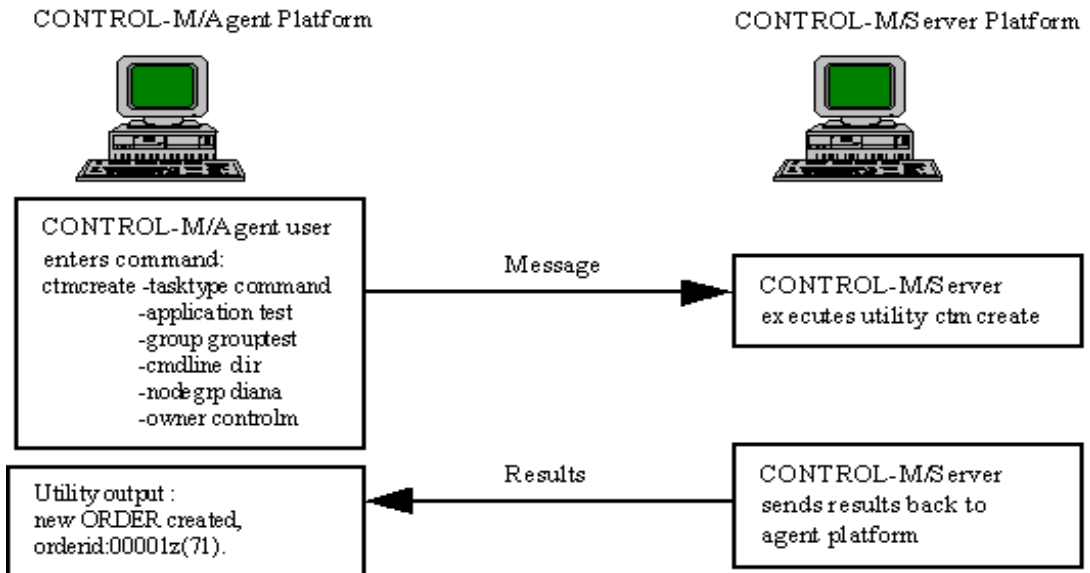
Under the current version of Microsoft Windows, command interpreters do not change a current directory to a UNC path (for example, `cd \\nt-A\share\jobs` will not be executed). BMC recommends that you review the translated script after invoking the `ctmbat2unc` utility.

Utilities

Utilities are special programs that perform job definition, scheduling, and maintenance functions. These utilities can be invoked from a command line or by the **Command** parameter in a job processing definition.

Most of these utilities are executed in CONTROL-M/Server (see Figure 4-1) and are documented in the *CONTROL-M/Server Administrator Guide*. The remaining utilities are documented in this chapter.

Figure 4-1 CONTROL-M/Server Utility Workflow



Note

If the primary CONTROL-M/Server does not respond to a CONTROL-M/Agent request to execute a utility (other than `ag_ping`), the request is automatically redirected to the first non-primary Server listed in the Authorized CONTROL-M/Server Hosts parameter. If the redirection is successful, that Agent continues to work with the replacement Server.

Timeout Intervals

The Timeout for Agent utilities parameter is described on [page A-3](#). If the Agent invokes a utility that runs on the Server and there is no response within the timeout interval, the requested action will fail.

The `ctmagcfg` utility (see [page 4-8](#)) can modify this timeout interval. But, increasing this interval reduces CONTROL-M/Agent performance.

Specifying Utility Parameters

The command used to invoke a CONTROL-M utility is normally specified with all relevant parameters, for example:

```
ctmdefine -table cmmnds -jobname cmls13 \  
-tasktype command -group ecs -application test \  
-date 0101 -cmdline "dir \etc\passwd"
```

The total maximum length for all these parameters is 1000 characters. Using an input file enables you to:

- prepare and save files of utility parameters that can be reused.
- specify utility input longer than 1000 characters.

The utilities in Table 4-1 allow you to place utility parameters in an input file. In this file, each parameter and its values (if any) are on a separate line with the same syntax they would have on a command line.

Table 4-1 Utilities That Support the -input_file Parameter

| | |
|------------|----------|
| ctmcontb | ctmorder |
| ctmcreate | ctmshout |
| ctmdefine | ctmvar |
| ctmkilljob | ecaqrtab |
| ctmstvar | |

Format for Command Lines With Spaces

If a command invoked from the Agent computer contains embedded spaces:

Add \" after the first quote at the beginning of the command, *and* add \" at the end of the command (but prior to any parameters).

Example

```
"\"d:\program files\bmc software\control-m agent\util\_sleep\" 200"
```

Directing Output From Utilities

Some utilities generate reports that can be directed to a file.

- If output parameters are specified, the utility output is directed to the specified file.
- If output parameters are not specified, the output is routed to the default output device (for example, the logical name of a disk).

Invoking A Utility On A Computer With Multiple Agents

All CONTROL-M/Agent utilities now support the `-agent <agent name>` parameter. The variable `<agent name>` represents the name of the CONTROL-M/Agent specified during the installation procedure.

Where multiple CONTROL-M/Agents reside on a computer, the `-agent` parameter determines which CONTROL-M/Agent will handle the utility. If a configuration utility is run without specifying the `-agent` parameter, the user is prompted to select the CONTROL-M/Agent. For all other utilities, if the `-agent` parameter is not specified, the default CONTROL-M/Agent is used. For more information, see [“Communicating With a Specific CONTROL-M/Agent” on page 1-5](#).

Example

Assume a computer has two Agents, **Default** and **Saturn**. To add a user to **Default**, use the following command:

```
ctmpwd -action add -user user2 -password 123456 -agent Default
```

-or-

```
ctmpwd -action add -user user2 -password 123456
```

To add a user to **Saturn**, use the following command:

```
ctmpwd -action add -user saturn_user2 -password 123456 -agent Saturn
```

Utility Descriptions

Table 4-2 provides a short description of the utilities that can be invoked from CONTROL-M/Agent. Some of these utilities can use the **-input_file** parameter. For more information, see [“Specifying Utility Parameters” on page 4-2](#).

Table 4-2 CONTROL-M/Agent Utilities (Part 1 of 2)

| Utility | Description |
|------------------|---|
| _exit | Sets the completion status for a job run from a .bat file. Exit code 0 is equivalent to Ended OK . Any other exit code is equivalent to Ended NOTOK . For more data, see page 3-4 . |
| _sleep | Determines the sleep time for all CONTROL-M/Server processes or for a specific process. For more information, see page 3-5 . |
| ag_diag _comm | <ul style="list-style-type: none"> Verifies that the primary CONTROL-M/Server host is active by pinging the host via the CONTROL-M port. Displays CONTROL-M system information. For more information, see “Generating the Communication Diagnostic Report” on page 2-24 . |
| ag_ping | Tries to communicate with CONTROL-M/Server and indicates whether the attempt succeeded or failed. For more information, see page 4-7 . |
| ctmag | Invokes the CONTROL-M/Agent GUI. For more information, see “Using the CONTROL-M/Agent GUI” on page 2-9 . |
| ctmagcfg | Interactively modifies CONTROL-M/Agent configuration parameters. For more information, see page 4-8 . |
| ctmcontb | Performs operations on the Prerequisite Conditions table. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ctmcreate | Creates a job in the Active Jobs file. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ctmdefine | Creates job processing definitions. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ctmfw | Detects completion of file transfer activity. For more information, see page 4-10 . |
| ctmkilljob | Terminates an executing CONTROL-M job and all of its associated processes. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |

Table 4-2 CONTROL-M/Agent Utilities (Part 2 of 2)

| Utility | Description |
|----------------|---|
| ctmloadset | Updates a Quantitative resource in the Resources table. You must provide all the required parameters on the command line. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ctmorder | Orders or forces one or more jobs from a CONTROL-M scheduling table. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ctmpwd | Maintains CONTROL-M user and password information. For more information, see page 4-17 . (This utility replaces the ctmcpct utility in earlier versions.) |
| ctmshout | Issues a shout message to a specified destination. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ctmstvar | Displays the current value of an AutoEdit variable or function. |
| ctmudly | Orders jobs for a specific User Daily name. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ctmvar | Maintains AutoEdit variables. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . Note: The value of parameter -filename is the full path and name of a file that is accessible to CONTROL-M/Server. |
| ctmwincfg | Interactively maintains Control Module configuration parameters. For more information, see page 4-19 . |
| ecactltb | Displays a list of Control resources and the status of each one. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |
| ecaqrta | Performs operations on the Quantitative resources table. You must provide all the required parameters on the command line. For more information, see the <i>CONTROL-M/Server Administrator Guide</i> . |

ag_ping Utility

This utility verifies that CONTROL-M/Server is active on the Server computer connected to the Agent computer. From the operating system prompt, specify the command:

```
ag_ping
```

The utility attempts to communicate with CONTROL-M/Server and indicates whether the attempt succeeded or failed. If the attempt succeeds, you will receive the message:

```
Output:  
Server is alive.  
Result: Success.
```

ctmagcfg Utility

This interactive utility enables you to view and modify the parameters listed in Table A-1 on [page A-1](#). If the parameter you want to modify is not listed in Table A-1, see the “[ctmwincfg Utility](#)” on [page 4-19](#).

Note

BMC recommends to not access the Registry directly but to use ctmagcfg or ctmwincfg instead.

This utility is located at <**CONTROL-M Agent**>\EXE\ctmagcfg. It must be invoked from the command prompt. A window similar to the following is displayed:

```
Agent Configuration Utility
Agent Name: Default

1)      Agent-to-Server Port Number . . . : [7005]
2)      Server-to-Agent Port Number . . . : [7006]
3)      TCP/IP Timeout. . . . . : [60]
        For items 4 and 5 do not use IP address
4)      Primary CONTROL-M/Server Host . . : [TLVS2K174]
5)      Authorized CONTROL-M/Server Hosts : [TLVS2K174]
6)      Tracker Polling Interval. . . . . : [60]
7)      Diagnostic Level. . . . . : [0]
8)      AutoEdit Inline. . . . . (Y|N): [N]
9)      Comm Trace. . . . . (0-OFF|1-ON) : [0]
10)     CTMS Address Mode . . . . . (IP|) : []
11)     Days To Retain Log Files. . . . . : [1]
12)     Daily Log File Enabled. . . (Y|N): [Y]
13)     Timeout for Agent utilities . . . : [600]
14)     Protocol version. . . . . : [06]
15)     Listen to Net Card>(*ANY for all): [*ANY]
16)     SSL . . . . . (Y|N): [N]
17)     Common Event mechanism. . . (Y|N): [Y]
18)     Tracker Port. . . . . : [5009]
19)     Tracker Report to Server. . (Y|N): [Y]

s)      Save and Restart CONTROL-M/Agent Services
q)      Quit

Enter your choice:
```

Changes to the Diagnostic Level parameter are saved and take effect immediately. If you change any other parameter, the configuration parameters are saved and CONTROL-M/Agent is restarted. For more information, see [Appendix A, “Configuration Parameters.”](#)

Note

The default Protocol version (see option 14 above) is 06. This value indicates that CONTROL-M/Agent will communicate with CONTROL-M/Server version 6.1.03. Do not change this value.

ctmfw Utility (File Watcher)

The File Watcher utility, **ctmfw**, can be used to detect

- the successful completion of a file transfer activity
- the creation of a file
- the deletion of a file

The File Watcher utility is installed as a Microsoft Windows service but can be used as a utility from the <**CONTROL-M/Agent**>\exe directory. For a detailed description of this utility, see the *CONTROL-M/Server Administrator Guide*.

Usage as a Service

As a service, **ctmfw** takes its parameters (rules) during startup from the **rull.dat** file whose full path name is specified in <**CONTROL-M/Agent**>\data\ctmfw.cfg.

To change one or more rules, change the contents of the **rull.dat** file or specify the full path name of a different file.

The full path name to the **ctmfw.cfg** configuration file must be specified under the following Microsoft Windows registry key that is generated automatically by the installation script:

```
HKEY_LOCAL_MACHINE\SOFTWARE\BMC Software\  
CONTROL-M/FileWatcher\SYSPRM\File Watcher  
Configuration File
```

The default value for this key is:

```
<CONTROL-M/Agent_install_directory>\DATA\ctmfw.cfg
```

BMC recommends that this default value not be changed.

The configuration file must contain the following line:

```
-input <rule_file_name>
```

The variable **<rule_file_name>** is the full path name of a rule file containing the File Watcher rules. A sample rule file is illustrated on [page 4-15](#).

Usage as a Utility

When running as a utility, ctmfw is invoked from the command line. Rules can be provided on the command line or by a rule file.

The syntax of the ctmfw utility is:

```
ctmfw FILE
  < mode (CREATE|DELETE)> Default: CREATE
  < minimum detected size <number>
    [' '|Bytes|Kilo|Mega|Giga] > Default: 0Bytes
  < interval between file searches (seconds) >
    Default: 60sec
  < interval between filesize comparison
    iterations (seconds) > Default: 10 sec
  < number of iterations while size is static >
    Default: 3 iterations
  < time limit for the process (minutes).
    Default: 0 (no time limit)
    Effective while the file does not exist or,
    the file size is static and the minimum size
    was not reached >
  < monitor file size when wildcard is used >
    Default: Y
```

-or-

```
ctmfw -input <rule_file_name>
```

Note

As of version 6.1.03, the ctmfw utility can be used to monitor files larger than 4GB.

For more information about rule files, see [“Rule File Structure” on page 4-15](#).

The parameters of the ctmfw utility are described in Table 4-3.

Note

The parameters in the ctmfw command are identified by their sequence. Although all parameters are optional, you cannot skip a parameter and assign a value to a subsequent parameter. The first value is assumed to be the desired **mode**, the second value is assumed to be the **minimum detected size**, and so forth.

If only six values are specified, the default value for **monitor file size when wildcard** is used is used. If five parameters are specified, default values for **time limit for the process** and **monitor file size when wildcard** are used, and so forth. For example:

```
ctmfw c:\tmp\temp1\CREATE 100 10
```

is resolved using default values for **interval between filesize comparison iterations**, **number of iterations while size is static**, **time limit for the process**, and **monitor file size when wildcard is used** as follows:

```
ctmfw c:\tmp\temp1\CREATE 100 10 10 3 0 Y
```

Table 4-3 ctmfw – Parameters (Part 1 of 3)

| Param | Description |
|-------|--|
| FILE | Path of the file to be detected. The file name can include mask character * to represent any number of characters (including no characters) or ? to represent any one character. In this case, enclose the full path name in quotation marks (for example, "c:\ctm\la*.txt"). If a file name in a Rules file (see page 4-15) contains a wildcard, the filename should not be enclosed in quotation marks. When a wildcard is used, the ctmfw utility does not monitor the size of the file unless the monitor file size when wildcard is used parameter is set to Y . |

Table 4-3 ctmfw – Parameters (Part 2 of 3)

| Param | Description | |
|---|--|---|
| mode | CREATE | <p>Detects creation of a file. Default. File size is ignored if the filename parameter contains wildcards (unless the monitor file size when wildcard is used parameter is set to Y).</p> <p>Note: If a mask is specified for the filename,</p> <ul style="list-style-type: none"> • and the monitor file size when wildcard is used parameter is set to N, the ctmfw utility will end OK after detection of the first file that matches the specified mask. • and the monitor file size when wildcard is used parameter is set to Y, the ctmfw utility will continue to monitor the size of the randomly selected file. <p>For more information about monitor file size when wildcard is used, see below.</p> |
| | DELETE | <p>Detects deletion of a file. When the ctmfw utility is run in this mode, it first checks for files that match the specified name. After a specified file is detected, the ctmfw utility checks at the specified interval for deletion of that file. Note: If a mask is specified as the filename, the ctmfw utility will end successfully only after all detected files that match the specified mask have been deleted.</p> |
| minimum detected size | <p>Minimum file size in bytes. This parameter is ignored if the FILE parameter contains wildcards (unless the monitor file size when wildcard is used parameter is set to Y) or if the mode parameter is set to DELETE. Default: 0 (any size detected).</p> | |
| interval between file searches | <p>Interval between successive attempts to detect the existence/deletion of a file (in seconds). Default: 60</p> | |
| interval between filesize comparison iterations | <p>Interval between attempts to monitor the size of a file after it is detected (in seconds). This parameter is ignored when using wildcards in FILE or when using DELETE mode. Default: 10</p> | |
| number of iterations while size is static | <p>Number of attempts to monitor file size where the size remains static and greater than or equal to minimum detected size (indicating successful creation of the file). This parameter is ignored when using wildcards in FILE or when using DELETE mode. Default: 3</p> | |

Table 4-3 ctmfw – Parameters (Part 3 of 3)

| Param | Description |
|---|---|
| time limit for the process | Maximum time (in minutes) to run the process without detecting the file at its minimum size (CREATE) or detecting its deletion (DELETE). If the file is not detected/deleted in this specified time frame, the process terminates with an error return code, as described in Table 4-4. Default: 0 (no time limit). |
| monitor file size when wildcard is used | Indicates whether file size should be monitored if the filename contains wildcards. This parameter is ignored if the filename does not contain a wildcard. Valid values: N – do not monitor file size. Y – monitor the file size. Default. If this parameter is set to Y and more than one file matches the specified mask, the ctmfw utility randomly selects one matching file, monitors its file size, and ignores all other matching files. |

Example

To monitor the file size of files starting with the name **giga**, issue the following command:

```
ctmfw c:\temp\giga???.txt CREATE 300M 1 1 1 1 Y
```

Return Codes

The return codes listed in Table 4-4 are issued by the ctmfw utility after detecting if a file is created or deleted in the specified time frame.

Table 4-4 ctmfw – Return Codes

| Return Code | Description |
|--------------------|---|
| 0 | File successfully created (file arrived in the specified time frame and file size is above or equal to the minimum specified size) or deleted. |
| 1 | File was not created or deleted in the specified time frame. |
| 7 | Indicates that the ctmfw request timed-out. Note: This return code will be issued only if the ctmfw utility is executed in command line mode. |

Rule File Structure

A rule file can be used when running ctmfw as a service or as a utility. The following is an example of a rule file:

```
INTERVAL 5
FROM_TIME 0001
MIN_SIZE 50
MIN_DETECT 5
WAIT_TIME 2
ON_FILEWATCH NONEXIST CREATE 10 3 1
THEN
DO_CMD "BAD FILE WAS CREATED IN 1 MINUTE"
DO_COND ON_2 0101 +
ELSE
DO_CMD "GOOD FILE WAS NOT CREATED IN 1 MINUTE"
DO_CMD ctmshout -USER ECS -MESSAGE "Running the
Filewatcher with default configuration!"
END_ON
```

Any File Watcher command line option can be specified in a rule file. All parameters must be delimited by the new line character.

Example of invoking ctmfw with a rule file

```
ctmfw -input "c:\Program_Files\BMC_Software\
CONTROL-M_Agent\data\ctmfw_rull.dat"
```

File Watcher Silent Mode Registry Key

The FileWatcher service does not open an additional window during execution. If you want visual feedback while running the service, the following registry key setting must be changed to N.

```
HKEY_LOCAL_MACHINE\SOFTWARE\BMC_Software\
CONTROL-M\FileWatcher\SYSPRM\Silent_Mode
```

Network Resources

The FileWatcher service running under the local system account cannot detect network resources (files located on remote systems). If you want the File Watcher to detect network resources, configure the FileWatcher Service to run under a regular user account.

FileWatcher Service Trace

When running as a service, **ctmfw** generates an execution log file. This file is saved in the CONTROL-M/Agent **proclog** directory under the following name:

```
U_CTMFW_<process_id>.log
```

By default, logs in the **proclog** directory are retained for 3 days. If the “maximum days to retain sysout” parameter is set to a number higher than 3, then logs will be retained in this **proclog** directory for the number of days specified in that parameter.

For information about the “maximum days to retain sysout” parameter, see [“PROCLOG Retention Period” on page 2-21](#). For information about viewing logs in the proclog directory, see [“How to View Diagnostics Files” on page 2-20](#).

Sample trace file

Figure 4-2 Sample Trace File Output

```
2002/03/10 13:04:24 182 FW:set INTERVAL=3
2002/03/10 13:04:24 182 FW:set MIN_SIZE=4
2002/03/10 13:04:24 182 FW:set FROM_TIME=0909
2002/03/10 13:04:24 182 FW:ctmfw:command line 'ON_FILEWATCH tst CREATE'(arg#=3). id=1.
2002/03/10 13:04:24 182 FW:ctmfw:command line 'ON_FILEWATCH prd CREATE 0 0 1 NOW 10'(arg#=8)id=2
2002/03/10 13:04:24 182 FW:ctmfw:command line 'ON_FILEWATCH abc DELETE 0 0 1 NOW 10'(arg#=8)id=3
2002/03/10 13:04:24 182 FW:File 'test' exists, its current size is 265. id=1.
2002/03/10 13:04:24 182 FW:File 'test' has reached the minimum size of 4. size=265 bytes id=1.
2002/03/10 13:04:24 182 FW:File 'abc' does not exist. id=3.
2002/03/10 13:04:36 182 FW:File transfer was completed. The size of file 'test' is 265. id=1.
2002/03/10 13:04:36 182 FW:Executing:<ctmcontb add 'aaa' '0101'>
2002/03/10 13:05:09 182 FW:Executing:< dir >
2002/03/10 13:05:27 182 FW:File 'prd' was not CREATED within the time limit. id=2.
2002/03/10 13:05:27 182 FW:File prd will be scanned at 1315. id=2.
2002/03/10 13:05:27 182 FW:File 'abc' was not DELETED within the time limit. id=3.
2002/03/10 13:05:27 182 FW:File abc will be scanned at 1315. id=3.
2002/03/10 13:05:30 182 FW:File prd, is out of time window. next time:1315, id=2.
2002/03/10 13:05:30 182 FW:File abc, is out of time window. next time:1315, id=3.
2002/03/10 13:15:01 182 FW:File prd, entered the time window from '1315' for monitoring, id=2.
2002/03/10 13:15:01 182 FW:File abc, entered the time window from '1315' for monitoring, id=3.
```

ctmpwd Utility

This utility adds, updates, and deletes CONTROL-M/Agent users and passwords. It also lists all users in the CONTROL-M/Agent password file. (This utility replaces the **ctmcp** utility in earlier versions.)

Note

Full Control access to CONTROL-M/Agent directories is automatically given to new users. You must manually give **Logon as a batch job** rights to a new user. (See [“How to Assign User Rights to Agent Users”](#) on page 2-8.)

Syntax

```
CTMPWD -ACTION ADD|UPDATE|DELETE|LIST [-USER <user name>]
[[-OLD_PASSWORD <value>] -PASSWORD <value>] [-ADMIN_PASSWORD
<value>]] -AGENT <agent name>
```

Examples

add a user and password

```
ctmpwd -action add -user user1 -password 12345
```

add the administrator user

```
ctmpwd -action add -user admin -password abcde
```

update a password

```
ctmpwd -action update -user user1 -old_password 12345
-password 67890
```

or

```
ctmpwd -action update -user user1 -admin_password
abcde -password 67890
```

delete a user

```
ctmpwd -action delete -user user1 -password 12345  
or  
ctmpwd -action delete -user user1 -admin_password  
abcde
```

list all users

```
ctmpwd -action list
```

add a user to Agent Saturn

```
ctmpwd -action add -user user3 -password 654321 -agent Saturn
```

Restart CONTROL-M/Agent after using this utility.

Table 4-5 ctmpwd Utility – Parameters

| Parameter | Description |
|----------------|---|
| action | Function to be executed. Valid values: add , update , delete , and list . |
| user | Name of the user. |
| old_password | Current password for the update function. |
| password | Current password for the delete function. New password for the add and update functions. |
| admin_password | Password for the CONTROL-M/Agent administrator when executing the update or delete function if the old_password is not known. |
| agent | Name of the Agent that the utility is designated to run on. For more information, see “Invoking A Utility On A Computer With Multiple Agents” on page 4-4. |

Example

-admin_password enables the CONTROL-M/Agent administrator to modify passwords for users who have forgotten their password. BMC recommends that the administrator first use the following command to establish a password for user ADMIN:

```
ctmpwd -action add -user ADMIN -password <user_admin_password>
```

ctmwincfg Utility

This interactive utility enables you to view and modify the parameters listed in Table A-2 on [page A-4](#). If the parameter you want to modify is not listed in Table A-2, see the “[ctmagcfg Utility](#)” on [page 4-8](#).

Note

BMC recommends to not access the Registry directly but to use `ctmagcfg` or `ctmwincfg` instead.

Syntax

Run the utility from the command line as follows:

```
Agent Configuration Utility
Agent Name: Default

      CM Name : WIN
      CM Type : WIN2K

1)    Logon As User (Y/N) . . . . . : [N]
2)    Logon Domain. . . . . : []
3)    Domain Controller . . . . . : []
4)    Default Printer . . . . . : []
5)    E-mail User Account . . . . . : []
6)    E-mail User Account Password. . . . . : [*****]
7)    Add Job Object statistics to Sysout (Y/N) . : [Y]
8)    Sysout Name. . . . . (MEMNAME|JOBNAME). : [MEMNAME]
9)    Job children inside job object . . . (Y/N) . : [Y]
10)   Wrap parameters with double quotes .(1-4) . : [2]
11)   Run user 'Logon Script' (Y/N) . . . . . : []
12)   CD to user 'Home Dir' (Y/N) . . . . . : []

s)    Save and Restart CONTROL-M/Agent Services
q)    Quit

Enter your choice:
```

Specify values for the parameters you want to change, specify **s** after the prompt “Please enter your choice”, and press **<Enter>**. If you quit without saving, settings are not saved. If you save but do not quit, settings are saved anyway.

Defining Microsoft Windows Jobs

You can define CONTROL-M jobs with the CONTROL-M/Desktop Job Editing form or with the CONTROL-M/Server `ctmdefine` and `ctmcreate` utilities.

The Job Editing form contains a series of panels. Each panel contains parameters whose value you can specify using this form. A job skeleton (template) determines the parameters that are included in the job.

When a job skeleton is designed for Microsoft Windows jobs, a special WIN panel is present in the Job Editing form. You can use this panel to define optional job object parameters that can be used for a Microsoft Windows job.

The following tasks are described in this chapter:

- [“Creating a Job Skeleton for Microsoft Windows Jobs”](#) on page 5-2.
- [“Creating a Microsoft Windows Job”](#) on page 5-6.
- [“Setting Job Object Limits for a Microsoft Windows Job”](#) on page 5-8
- [“Viewing a Job Object”](#) on page 5-11

[Microsoft Windows Job Object Parameters](#) are described on page 5-9.

Note

For more information about the Job Editing form and Job parameters, see the *CONTROL-M/Desktop User Guide* and the *CONTROL-M Job Parameter and Variable Reference Guide*.

Creating a Job Skeleton for Microsoft Windows Jobs


Summary: Use this procedure to prepare a skeleton (template) for Microsoft Windows jobs in CONTROL-M/Desktop.

Before You Begin

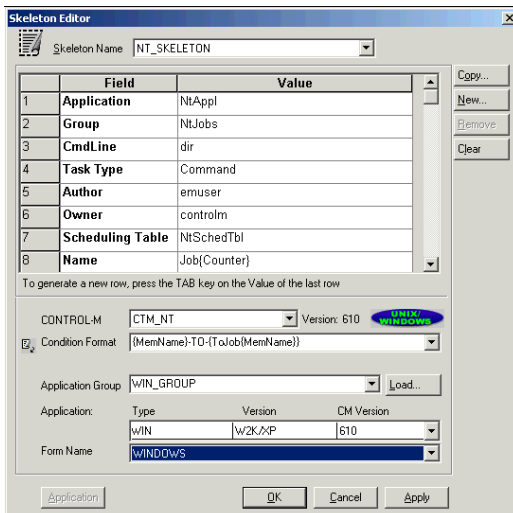
- Ensure that the **windows.xml** file was imported on computers where CONTROL-M/EM client components are installed. For instructions, see *Importing WIN Panel Functionality* in Chapter 13 of the *CONTROL-M Installation Guide*.
- Look for a skeleton that resembles the skeleton you want to define. If you find one, you can use it as a template.

Creating or Modifying a Skeleton

Step 1 Open the Skeleton Editor using one of these methods:

- Choose **Tools => Skeleton**.
- Click **Edit Skeleton**  on the toolbar.
- Click **Edit Skeletons** in the **Mass Create Form** dialog box.

A window similar to the following is displayed:



The screenshot shows the 'Skeleton Editor' dialog box. At the top, the 'Skeleton Name' is set to 'NT_SKELETON'. Below this is a table with the following data:

| | Field | Value |
|---|------------------|--------------|
| 1 | Application | NtAppl |
| 2 | Group | NtJobs |
| 3 | CmdLine | dir |
| 4 | Task Type | Command |
| 5 | Author | emuser |
| 6 | Owner | controlm |
| 7 | Scheduling Table | NtSchedTbl |
| 8 | Name | Job{Counter} |

Below the table, there are several configuration options:

- CONTROL-M: CTM_NT (Version: 610)
- Condition Format: (MemName)-TO-(ToJob{MemName})
- Application Group: wWIN_GROUP
- Application: Type (wWIN), Version (w2K/XP), CM Version (610)
- Form Name: wWINDOWS

Buttons at the bottom include 'Application', 'OK', 'Cancel', and 'Apply'.

- Step 2** Choose the required CONTROL-M from the drop-down list.
- Step 3** Click **Application**. An extra section of the Skeleton Editor is displayed.
- Step 4** In the **Application Group** field, specify the Control Module you want to work with (for example, WIN_GROUP).
- Step 5** Either:
- Manually specify the appropriate **Type**, **Version**, and **CM Version**
or
 - Click **Load** and choose the appropriate entry from a drop down list.

The appropriate Type is **WIN**.

Note

If CONTROL-M/Desktop is not connected to CONTROL-M/EM, enter the Application **Type**, **Version**, and **CM Version** information manually.

- Step 6** In the **Form Name** field, select **WINDOWS**.
- Step 7** Click **OK**.

Where to Go from Here

| Subject | Location |
|---------------------|--|
| Defining a Skeleton | For more information about defining a skeleton, see Chapter 5 of the <i>CONTROL-M/Desktop User Guide</i> . |
| Defining a Job | For information about defining a job, see “Creating a Microsoft Windows Job” on page 5-6 . Also see Chapter 3 of the <i>CONTROL-M/Desktop User Guide</i> . |

Defining the CM in CONTROL-M

Summary: Use this procedure to define the CM in CONTROL-M and install the Job Editing form using `ctmgetcm`.

Before you Begin

- Ensure that the **windows.xml** file was imported on computers where CONTROL-M/EM client components are installed. For instructions, see *Importing WIN Panel Functionality* in Chapter 13 of the *CONTROL-M Installation Guide*.
- Create a job skeleton. For more information, see [“Creating a Job Skeleton for Microsoft Windows Jobs”](#) on page 5-2.

Creating a CM Definition in CONTROL-M

In CONTROL-M/Server

- Step 1** Define a group name with application type **WIN**.
- Step 2** Specify the CONTROL-M/Agent as a node ID in the node group.
- Step 3** Specify `ctmgetcm` to collect application server information from CONTROL-M/Agent.
- Step 4** Define the `<agent_name>` in a node group of type WIN (WIN must be in capital letters).
- Step 5** Run the following command:

```
ctmgetcm -nodeid <agent_name> -appltype WIN -action get
```

In CONTROL-M/EM

- Step 1** Install the CONTROL-M/Agent for Microsoft Windows form. For more information, see [“Creating a Job Skeleton for Microsoft Windows Jobs” on page 5-2](#).
- Step 2** Modify the skeleton according to your requirements. Click **Application** in the Skeleton Editor. See [page 5-2](#).
- Step 3** Click **Load**. The node groups available from CONTROL-M/Server are displayed. Select the required node group.

Where to Go from Here

| Subject | Location |
|---------------------|--|
| Defining a Skeleton | For more information about defining a skeleton, see Chapter 5 of the <i>CONTROL-M/Desktop User Guide</i> . |
| Defining a Job | For information about defining a job, see “Creating a Microsoft Windows Job” on page 5-6 . Also see Chapter 3 of the <i>CONTROL-M/Desktop User Guide</i> . |

Creating a Microsoft Windows Job

Summary: Use this procedure to create a new CONTROL-M job processing definition for a Microsoft Windows job.

Before you Begin

- Ensure that the **windows.xml** file was imported on computers where CONTROL-M/EM client components are installed. For instructions, see *Importing WIN Panel Functionality* in Chapter 13 of the *CONTROL-M Installation Guide*.
- Ensure that a job skeleton was defined for Microsoft Windows jobs. For more information, see [“Creating a Job Skeleton for Microsoft Windows Jobs” on page 5-2](#).
- The job name of the Windows job you want to create must contain only characters (letters, digits, underscore) that can be used in a Microsoft Windows file name.

Note

When CONTROL-M/Agent handles a large number of jobs on a computer with Microsoft Windows 2000 Professional, the following message may be displayed "**Application error 142**".

Creating a Microsoft Windows Job

- Step 1** Select a skeleton for Microsoft Windows jobs from the **Current Skeleton** drop-down list in CONTROL-M/Desktop.
- Step 2** Choose one of the following:
- **Edit => Job => New Job** from the menu bar
 - Press **Ctrl + J**

- Click 

Note

For descriptions of all panels in the Job Editing form, see Chapter 3 of the *CONTROL-M/Desktop User Guide*.

Step 3 Click the **WIN** tab of the Job Editing form.

The WIN panel is used to set parameter values for some Microsoft Windows jobs. This process is described in [“Setting Job Object Limits for a Microsoft Windows Job”](#) on page 5-8.

Note

For more information about the Job Editing form and Job Editing parameters, see the *CONTROL-M/Enterprise Manager User Guide* or the *CONTROL-M/Desktop User Guide*.

Setting Job Object Limits for a Microsoft Windows Job

Summary: Use this procedure to specify values for job object limitation parameters in the WIN panel of the Job Editing Form. If a value is not specified for a parameter, that parameter does not limit the job in any way.

Before you Begin

The **WIN2K** skeleton is used for defining job object limitations. If this skeleton does not exist, see [“Creating a Job Skeleton for Microsoft Windows Jobs” on page 5-2.](#)

To view the characteristics of the job object whose attributes are to be specified, see [“Viewing a Job Object” on page 5-11.](#)

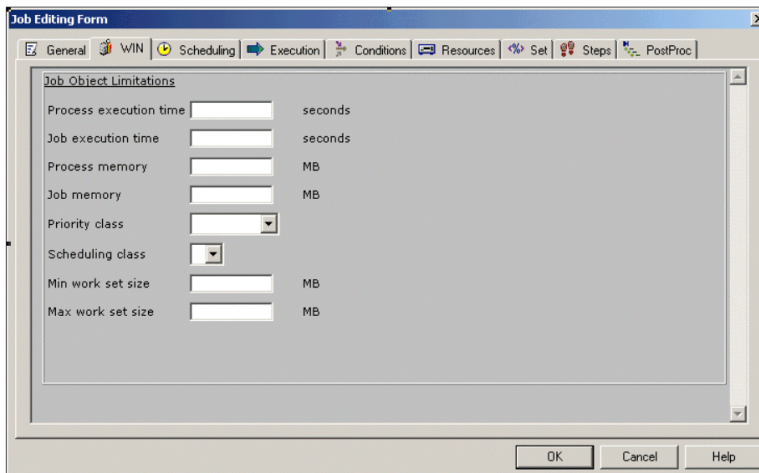
Note

In messages, “job object” may be abbreviated as **JO**.

Setting Job Object Limits for a Microsoft Windows Job

Step 1 Click the **WIN** tab of the Job Editing form. The WIN Panel is displayed.

Figure 5-1 WIN Panel



WIN panel parameters are described in [Table 5-1, “Microsoft Windows Job Object Parameters,” on page 5-10](#). All these parameters are optional.

- Step 2** Specify new data or modify existing data in the WIN Panel.
- Step 3** When you are satisfied with the data in the WIN panel, click **Save to Draft** to save the parameter specifications.

Where to Go from Here

The following table describes where you might find information about tasks that are related to this one.

| Subject | Location |
|--|---|
| Defining additional Microsoft Windows jobs | You can now define additional Microsoft Windows jobs by clicking the WIN tab of the Job Editing form. |
| Viewing jobs you have created or modified | Click Cancel to exit the WIN Panel and go to the Active environment to view the jobs you have created or modified. |
| Defining jobs | For information about defining jobs, see Chapter 3 of the <i>CONTROL-M/Desktop User Guide</i> . |

Microsoft Windows Job Object Parameters

WIN panel parameters are described in Table 5-1. This table also contains the names of the corresponding AutoEdit variables that can be included on the command line or in a parameter input file when invoking the CONTROL-M/Server `ctmcreate` or `ctmdefine` utilities. For example,

```
-autoedit %%WIN2K-PRIORITY_CLASS = "ABOVE_NORMAL_PRIORITY_CLASS"
```

Note

Values entered in WIN panel fields are validity checked. Values entered on the command line or in a parameter input file are not validity checked.

Except for Priority class and Scheduling class, all of these parameters can have decimal values (real numbers). Unless stated otherwise, maximum and minimum values are machine dependent.

Table 5-1 Microsoft Windows Job Object Parameters

| WIN Panel Parameter | Definition and AutoEdit Variable for CONTROL-M/Server |
|----------------------------|---|
| Process execution time | Maximum CPU time, in seconds, for each process in a job. Minimum: 0.1 . Maximum: 1.8 x 10¹² . %%WIN2K-PER_PROCESS_USER_TIME_LIMIT |
| Job execution time | Maximum CPU time, in seconds, for entire job. Min: 0.1 . Max: 1.8 x 10¹² %%WIN2K-PER_JOB_USER_TIME_LIMIT |
| Process memory | Maximum memory, in megabytes, allowed for each process in a job. Minimum: 0.1 . Maximum: 4200.0 . %%WIN2K-PROCESS_MEMORY_LIMIT |
| Job memory | Maximum memory, in megabytes, allowed for job. Min: 0.1 . Max: 4200.0 %%WIN2K-JOB_MEMORY_LIMIT |
| Priority class | Highest priority class the job and its “children” can receive. 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 %%WIN2K-PRIORITY_CLASS |
| Scheduling class | Scheduling class for all processes of a job. Valid values: 0 – 9 , where 0 provides the minimum resources, 9 provides the maximum resources. %%WIN2K-SCHEDULING_CLASS |
| Minimum Working set size | Minimum RAM, in megabytes, for all processes of the job. Increasing the value of this parameter reduces page swapping for this process but reduces the RAM available for other processes. Min.: 0.1 . Max.: 4200.0 %%WIN2K-MINIMUM_WORKING_SET_SIZE |
| Maximum Working set size | Maximum RAM, in megabytes, for all job processes. Decreasing this value reduces the likelihood that this job will interfere with other jobs but may increase the execution time for this job. Min.: 0.1 . Max.: 4200.0 %%WIN2K-MAXIMUM_WORKING_SET_SIZE |

Note

You can determine the amount of memory and CPU time required for a job by viewing job object statistics in the job sysout. If a job exceeds job object limitations, the job will end NOTOK and the same error message will appear in the sysout and in the CONTROL-M/Server message log. WIN panel parameters are used in CONTROL-M/Agent by the SetInformationJobObject API. For more information, see Microsoft documentation for the SetInformationJobObject API.

Viewing a Job Object

Summary: This Microsoft Windows procedure enables you to determine job object characteristics of any CONTROL-M job. You can use these characteristics to decide what job object limits should be specified.

Before you Begin

You can only view Job Object details for a job that is currently running. Use the Order or Force option to run the job you want to evaluate.

How to View a Job Object

- Step 1** Choose ... => **Administrative Tools** => **Performance**.
- Step 2** The **Performance** window (including its graph panel) is displayed. Click the large + button.
- Step 3** The **Add counters** dialog box is displayed.
- 3.A** In the **Performance object** drop-down list, select **JobObject**.
- 3.B** Choose **All instances** to display all existing job object instances.
or
Choose **Select instances from list** and select one or more of the displayed instances.
- The job instance format is <job_name> <order_number> <run_number>. These elements are separated by a blank.*
- 3.C** Choose **Select counters from list**. Then, select the characteristic in the displayed list that you want to analyze.
- To view objects on other Microsoft Windows computers, select counters from <name_of_computer> in the **Add counters** dialog box.*
- 3.D** Click **Add**.

Step 4 Data for the selected “counter” is displayed in the **Performance** graph. Analyze this data to determine whether to specify a related job object limit and, if so, the limiting value to specify.

Where to Go from Here

The following table describes where to find information about tasks that are related to this one.

| Subject | Location |
|--|--|
| Viewing a Job Object | If you need to view other characteristics for the same job object or view the characteristics of other job objects, repeat Steps 3 and 4 of this procedure. |
| Setting Job Object limits | Use the procedure on page 5-8 to specify values for the parameters in the WIN tab of the Job Editing form. |
| Defining additional Microsoft Windows jobs | You can create additional Microsoft Windows jobs by clicking the WIN tab of the Job Editing form. For information about defining jobs, see Chapter 3 of the <i>CONTROL-M/Desktop User Guide</i> . |
| Viewing jobs you have created or modified | Click Cancel in the WIN tab the Job Editing form to go to the Active environment to view the jobs you have created or modified. |

Configuration Parameters

Configuration parameters can be modified using the utilities described in this chapter, or using the CONTROL-M/Agent GUI. For more information about starting the GUI, see [“Using the CONTROL-M/Agent GUI” on page 2-9](#).

CONTROL-M/Agent Configuration

The CONTROL-M/Agent configuration parameters in Table A-1 can be modified by using the **ctmagcfg** utility. For information about this utility, see [“ctmagcfg Utility” on page 4-8](#).

Table A-1 CONTROL-M/Agent Configuration Parameters (Part 1 of 3)

| Parameter | Description |
|--|--|
| Agent-to-Server Port Number | <p>CONTROL-M/Server and CONTROL-M/Agent communicate by means of two TCP/IP ports. This parameter specifies the port in the Server computer that receives data from the Agent computer.</p> <ul style="list-style-type: none"> • The value specified must match the value assigned to the Agent-to-Server Port Number parameter on the Server computer. • Verify that the specified port number is not used for any other purpose. • Specify a numeric value from 1025 to 65535, inclusive. Default: 7005 |
| Authorized CONTROL-M/Server Hosts | <p>Names of all CONTROL-M/Server hosts authorized to send requests to this Agent. The primary CONTROL-M/Server host must be included.</p> <ul style="list-style-type: none"> • Use the “ ” symbol to separate host names. • Do not include spaces between host names. • Default: Name of the primary CONTROL-M/Server host. <p>Note: Specify names, not IP addresses.</p> |

Table A-1 CONTROL-M/Agent Configuration Parameters (Part 2 of 3)

| Parameter | Description |
|--------------------------------------|--|
| AutoEdit Inline | Flag that indicates whether AutoEdit variables defined in a CONTROL-M job are set as Environment variables in the user job environment. Valid values are: Y = AutoEdit variables are set. N = AutoEdit variables are not set. Default. This parameter can only be changed after completing the installation. |
| Comm Trace | Flag that indicates whether CONTROL-M/Agent – CONTROL-M/Server communication packets are written to a file. Valid values: 1 (on), 0 (off). Default: 0 . If set to 1 , log files are created for analysis by support staff. |
| Common Event Mechanism | Flag for specifying if all control modules, not just the default control module, should be able send messages to the Tracker process without waiting for the tracker polling interval. Messages are sent using the port specified in the Tracker Port parameter to inform the Tracker that a job ended. Valid values are: Y = Use the Common Event Mechanism. Default. N = Do not use the Common Event mechanism. Only the default control module can send messages directly to the Tracker process. Note: When CONTROL-M/Agent is upgraded from an earlier version, the default is N for backward compatibility. |
| CTMS Address Mode | This flag enables you to handle situations in which the Agent can contact the Server by IP address but not by name. Valid values: null and IP . If set to IP , a “track all” request from an authorized Server causes the value of the Primary CONTROL-M/Server host configuration parameter to be set to the IP address of the Server that sent the request. |
| Daily Log File Enabled | Valid values: Y , N . Default: Y If set to Y , a daily Log file with the name daily_PROCLOG_<YYYYMMDD>.log is created in directory <CONTROL-M/Agent home>\DATA . Job begin, job end, New Day procedure, and sysout copy messages are written to this log file. |
| Days to Retain Log Files | Number of days to retain programmer debug, communication trace, and Daily log files in the proclog directory. Default: 1 |
| Diagnostic Level | Flag that indicates whether to generate diagnostic messages. Valid values: 0–4 Level 0 generates no diagnostics. Level 4 generates maximum diagnostics. This parameter is for systems support use and can only be changed after completing the installation. |
| Primary CONTROL-M/Server Host | Host computer for the CONTROL-M/Server that receives and executes requests from this Agent. Default: Computer on which the installation was made. |
| Protocol version | Server-Agent communication protocol version. Default: 06 |

Table A-1 CONTROL-M/Agent Configuration Parameters (Part 3 of 3)

| Parameter | Description |
|------------------------------------|---|
| Listen to Net Card | <p>The network name or IP address for CONTROL-M/Agent for Microsoft Windows 2000 support of multiple IP interfaces (network cards) for a single computer. Valid values are:</p> <ul style="list-style-type: none"> • The network name or IP address of a specific card. • The reserved value *ANY for all network cards. <p>This helps ensure that CONTROL-M/Agent will receive requests regardless of which IP interface is used to send those requests.</p> |
| Server-to-Agent Port Number | <p>CONTROL-M/Server and CONTROL-M/Agent communicate by means of two TCP/IP ports. This parameter specifies the port in the Server computer that sends data to the Agent computer.</p> <ul style="list-style-type: none"> • The value specified must match the value assigned to the Server-to-Agent Port Number parameter on the Server computer. • Verify that the specified port number is not used for any other purpose. • Specify a numeric value from 1025 to 65535, inclusive. Default: 7006 |
| SSL | <p>SSL support for CONTROL-M/Agent for Microsoft Windows. When SSL support is implemented in CONTROL-M/Server it makes a one-time request to set this parameter automatically for each associated Agent. This request requires 2 to 5 minutes for each Agent. Setting this parameter manually can save time if a large number of Agents work with CONTROL-M/Server. For more information about setting this parameter manually, see "ctmagcfg Utility" on page 4-8.</p> |
| TCP/IP Timeout | <p>Communication timeout in seconds. Specify a numeric value greater than or equal to zero. Default: 60</p> |
| Timeout for Agent utilities | <p>Maximum time (in seconds) the Agent waits after sending a request to CONTROL-M/Server. Default: 600</p> |
| Tracker Polling Interval | <p>Time in seconds that the Tracker waits for a message from a running job before it examines the status of all jobs for which no message was received. This parameter can only be changed after completing the installation. Default: 60</p> |
| Tracker Port | <p>Number of the port for sending messages to the Tracker process when jobs end. This parameter is used in conjunction with the Common Event Mechanism parameter.</p> |
| Tracker Report to Server | <p>Report the status of the job to CONTROL-M/Server. Use this parameter when CONTROL-M/Server is working behind a firewall. Valid values are:</p> <ul style="list-style-type: none"> • Y – Report the job status. If the Agent is not able to send this report, the job remains in executing status. • N – Do not report the job status. The job status changes to FINISHED when the job has completed execution. |

CONTROL-M Control Module Configuration

The Control Module configuration parameters in Table A-2 can be modified by using the **ctmwincfg** utility. For information about this utility, see [“ctmwincfg Utility” on page 4-19](#).

Table A-2 Control Module Configuration Parameters

| Parameter | Description |
|---|--|
| Add Job Object Statistics to Sysout | Flag that indicates how to handle job object processing statistics. <ul style="list-style-type: none"> • Selected – Statistics are added to the end of the sysout file. Default. • Not selected – Statistics are not added to the sysout file. |
| CD to user 'Home Dir' | Indication if CONTROL-M/Agent should change the directory to the user home directory as defined in the user profile before the user job runs. Valid values: <ul style="list-style-type: none"> • Y – The directory is changed. • N – The directory is not changed. |
| Default Printer | Default printer for job sysout files. Type a printer name in the field box or select a name from the list box. Default: Blank |
| Domain Controller | Name of server managing access to resources and the database. Specify the name of the server in the field box. Default: Blank |
| E-mail User Password | Password for the e-mail user account. This parameter can only be changed after completing the installation. |
| E-mail User Account Profile (MAPI profile) | User e-mail account which the Agent uses to send e-mail. See the appropriate <i>CONTROL-M/Server Administrator Guide</i> for information about the Shout utility. This parameter can only be changed after completing the installation. |
| Job children inside job object | Flag that specifies if procedures invoked by a job can be run outside the Job Object. If so, this prevents a situation in which the original job remains in executing mode until the invoked procedure completes. <ul style="list-style-type: none"> • N – All procedures invoked by the job are run outside the job object. • Y – All procedures invoked by the job are run inside the job object. Default. |
| Logon As User | Flag that specifies which user account is used for the services to log on to. <ul style="list-style-type: none"> • Selected – Jobs are submitted with the permissions and environment variables of the specified user. • Not selected – Jobs are submitted with the permissions and environment variables of the local system account. Default. See “Determining the Owner of Jobs Run on the Agent” on page 2-6 . |
| Logon Domain | The domain is determined by the value of this parameter if <domain> is not specified in <domain>\<username> in the owner parameter of the job definition. If the domain is not specified in the owner parameter or this parameter, the user profile is searched in the trusted domains. <p>Note: BMC recommends that you do not specify a value for Logon Domain.</p> |

Table A-2 Control Module Configuration Parameters

| Parameter | Description |
|------------------------------------|--|
| Run user 'Logon Script' | <p>Indication if a user-defined logon script should be run by the CONTROL-M/Agent before running the standard user logon script. Valid values:</p> <ul style="list-style-type: none"> • Y – The user-defined logon script is run, if it exists. • N – The user-defined logon script is not run. |
| Sysout Name | <p>Flag that determines the prefix for the Sysout file name. Valid values:</p> <ul style="list-style-type: none"> • MEMNAME – The Sysout file prefix is the MEMNAME of the job. • JOBNAME – The Sysout file prefix is the JOBNAME of the job. <p>This parameter can only be changed after completing the installation.</p> |
| Wrap parameters with double quotes | <p>Indication of how parameter values (%%PARMn...%%PARMx) are handled in by CONTROL-M/Agent for Microsoft Windows. Valid values are:</p> <p>1 – If a parameter value contains a blank, it is passed to the operating system enclosed in double quotes. If no blank is in the parameter value, no quotes are included.</p> <p>2 – Parameter values are always passed to the operating system without quotes. If quotes were specified in the job definition, they are removed before the parameter is passed onward by the agent. This option is compatible with the way that these parameters were handled in version 6.0.0x, or 6.1.01 with Fix Pack 1, 2, 3, or 4 installed. In this case, if a parameter value contains a blank, the operating system may consider each string as a separate parameter.</p> <p>3 – All parameters are passed to the operating system enclosed in double-quotes. This causes the operating system to treat all parameter values as strings (not numbers). This option is compatible with the way that parameters were handled by version 6.1.01 with no Fix Pack installed.</p> <p>4 – Parameters are passed to the operating system in exactly the same way that they were specified in the job definition. No quotes are added or removed in this case. This option is compatible with the way that parameters were handled by version 2.24.0x.</p> |

CONTROL-M Agent Services Configuration

These parameters affect the operation of the following CONTROL-M/Agent services:

- Agent service
- Tracker service
- FileWatcher service

Table A-3 System Configuration for CONTROL-M/Agent Services

| Parameter | Description |
|---------------------|--|
| Log on as | <p>User account under which CONTROL-M Agent and CONTROL-M Tracker services will run. Valid values: Local System Account, This Account.</p> <ul style="list-style-type: none"> • Local System Account – Service will log on as the system account. Default. Subparameter: <ul style="list-style-type: none"> • Allow Service to Interact with Desktop – This option can be selected only if the service is running as a local system account. See “Maintaining CONTROL-M/Agent Services” on page 2-2. <ul style="list-style-type: none"> • Selected – the service provides a user interface on a desktop that can be used by whoever is logged in when the service is started. Default. • Unselected – The service does not provide a user interface. • This Account – User account under which CONTROL-M Agent and CONTROL-M Tracker services will run. See “Logon As User” on page A-4. <p>Note: If the owner of any CONTROL-M jobs has a “roaming profile” or if job output (sysout) will be copied to or from other computers, the Logon mode must be set to This Account.</p> |
| Startup Type | <p>How to install CONTROL-M/Agent and CONTROL-M Tracker services. Valid values: Automatic, Manual, Disabled. Recommended value: Automatic.</p> <ul style="list-style-type: none"> • Automatic – Services should start when the system starts. Default. • Manual – User or a dependent service can start services. • Disabled – User or a dependent service cannot start services. |

Index

Symbols

%errorlevel%
 exit code 3-4
_exit script
 utility summary 4-5
_exit utility 3-4
_sleep script
 utility summary 4-5
_sleep utility 3-5

A

Add Job Object Statistics to Sysout
 Control Module configuration parameter
 A-4
Address Book
 e-mail destination 2-25
ag_diag_comm utility
 summary 4-5
ag_ping utility
 summary 4-5
Agent Configuration window 2-10
Agent Data Directory
 Agent Configuration window 2-11
Agent services
 Startup Type parameter 2-5

Agent-to-Server port number
 Agent configuration parameter A-1
 Agent Configuration window 2-11
 matching value 2-11
AutoEdit Inline
 Agent configuration parameter A-2

B

batch mode utilities 4-3

C

Comm Trace
 Agent configuration parameter A-2
communication
 diagnostic report 2-24
 matching value 2-11
 protocol 2-11
 verifying 2-23
configuration parameters 2-10, A-1, A-4
Control Module
 configuration parameters A-4
Control Module (CM) Name
 Agent Configuration window 2-11
CONTROL-M/Agent

- configuration parameters A-1
- description 1-1
- functions 1-3
- starting 2-5
- stopping 2-5
- CONTROL-M/Agent Service Properties
 - dialog box 2-4
- CONTROL-M/EM
 - client components 5-4
- CONTROL-M/Server
 - communication protocol 2-11
 - Server-to-Agent port number 2-11
- CONTROL-M/Servers List
 - modifying 2-15
 - viewing 2-15
- ctmag utility
 - summary 4-5
- ctmagecfg utility
 - summary 4-5
- ctmcontb utility
 - summary 4-5
- ctmcreate utility
 - summary 4-5
- ctmdefine utility
 - summary 4-5
- CTMFW utility
 - execution log file 4-16
- ctmfw utility
 - description 4-10
 - summary 4-5
- ctmgetcm utility 5-4
- ctmkilljob utility
 - summary 4-5
- ctmloadset utility
 - summary 4-6
- ctmorder utility
 - summary 4-6
- ctmpwd utility
 - summary 4-6
- ctmshout utility

- summary 4-6
- ctmstvar utility
 - summary 4-6
- ctmudly utility
 - summary 4-6
- ctmvar utility
 - summary 4-6
- ctmwincfg utility
 - description 4-19
 - summary 4-6

D

- Default
 - CONTROL-M/Agent 1-6
- Default Printer
 - Agent Configuration window 2-11
 - Control Module configuration parameter A-4
- defining
 - Windows 2000 jobs 5-1
- deleting
 - Diagnostics files 2-21
 - Log files 2-19
- destination, e-mail 2-25
- Diagnostic Level
 - setting 2-17
- diagnostic report 2-24
- Diagnostics files
 - deleting 2-21
 - viewing 2-20
- Diagnostics Level
 - Agent configuration parameter A-2
- Domain Controller
 - Control Module configuration parameter A-4
- DOS batch files
 - scripts 3-1

E

- ecactltb utility
 - summary 4-6
- ecaqrtab utility
 - summary 4-6
- e-mail
 - Shout facility 2-25
- E-mail User Account Password A-4
- E-mail User Account Profile A-4
- error message
 - blanks in authorized hosts 2-15
- exit codes
 - %errorlevel% 3-4
 - distinguishing between 3-3
 - scripts 3-3
- exit utility 3-4

F

- file monitor
 - ctmfw utility 4-10
- file transfer monitor
 - ctmfw utility 4-10
- File Watcher utility
 - description 4-10
 - service trace 4-16
- files
 - windows.xml 5-4
- FileWatcher service
 - recommendation 2-4
- functions
 - CONTROL-M/Agent 1-3

G

- graphical user interface 2-9

H

- hosts file 2-23

I

- installing
 - Windows Messaging component 2-25

J

- Japanese 2-27
- JO
 - job object 5-8
- job definition
 - Windows 2000 5-1
- Job Editing form
 - OS panel 5-7
 - overview 5-1
- Job execution time parameter
 - Windows 2000 jobs 5-10
- Job memory parameter
 - Windows 2000 jobs 5-10
- job object
 - JO 5-8
- Job Object Statistics
 - adding to Sysout 2-22
 - check box 2-22

L

- languages
 - Japanese 2-27
- Local System account option
 - CONTROL-M Agent service 2-2
- Log files
 - deleting 2-19
 - viewing 2-18

- Log On tab
 - Service Properties dialog box 2-4
- Logon As
 - Agent configuration parameter A-6
- Logon As User
 - Control Module configuration parameter A-4
- Logon Domain
 - Control Module configuration parameter A-4

M

- mailbox field
 - Windows Messaging Component 2-25
- Maintenance GUI
 - functions 2-9
 - starting 2-10, 2-13, 2-15, 2-17, 2-18
- matching values
 - communication 2-11
- Max work set size parameter
 - Windows 2000 jobs 5-10
- messages
 - JO 5-8
 - job object 5-8
- Microsoft Outlook
 - e-mail destinations 2-25
- Microsoft Windows
 - CONTROL-M parameters 2-13, 2-22
- Min work set size parameter
 - Windows 2000 jobs 5-10
- modifying
 - CONTROL-M/Servers List 2-15
- multiple agents
 - agent parameter 4-4
 - description 1-5
 - installing 1-6

O

- On code parameter scripts 3-2
- On statement parameter scripts 3-2
- Open File dialog box 2-20
- OS panel
 - parameters 5-8
 - Windows 2000 jobs 5-8
- output parameters 4-3

P

- parameter scripts
 - On code 3-2
 - On statement 3-2
- parameters
 - agent 4-4
 - CONTROL-M 2-13
 - output 4-3
 - Windows 2000 jobs 5-8
- permission
 - user rights 2-6
- pinging 2-23
- port number
 - Agent-to-Server 2-11
 - Server-to-Agent 2-11
- Primary CONTROL-M/ Server Host
 - Agent configuration parameter A-2
- Primary CONTROL-M/Server Host
 - Agent Configuration window 2-11
- Priority class parameter
 - Windows 2000 jobs 5-10
- Process execution time parameter
 - Windows 2000 jobs 5-10
- Process memory parameter
 - Windows 2000 jobs 5-10
- PROCLOG retention period 2-21
- Product Directory
 - Agent Configuration window 2-11

- Product Version field
 - Agent Configuration window 2-11
- protocols
 - communication 2-11

R

- retention
 - PROCLOG files 2-21
 - Sysout files 2-21
- REXX language scripts 3-1

S

- Scheduling class parameter
 - Windows 2000 jobs 5-10
- scripts
 - DOS batch files 3-1
 - exit codes 3-3
 - guidelines for writing 3-2
 - length 3-2
 - On code 3-2
 - On statement 3-2
 - REXX language 3-1
 - utilities 3-4
- security
 - user rights 2-6
- server platform
 - verifying communication 2-23
- Server-to-Agent Port Number
 - Agent configuration parameter A-3
- Server-to-Agent port number
 - Agent Configuration window 2-11
 - matching value 2-11
- Service Properties dialog box 2-4
- service trace
 - File Watcher utility 4-16
- Service user accounts 2-2
- setting user rights 2-8

- Shout facility
 - e-mail 2-25
- skeleton
 - Windows 2000 jobs 5-2
- Skeleton Editor 5-2
- sleep utility 3-5
- starting
 - CONTROL-M/Agent 2-2, 2-5
- Startup Type
 - Agent configuration parameter A-6
- Startup Type configuration parameter 2-5
- stopping
 - CONTROL-M/Agent 2-2, 2-5
- Sysout
 - adding Job Object Statistics 2-22
- Sysout files
 - retention 2-21
- Sysout Name
 - Control Module configuration parameter A-5
- System Configuration parameters 2-13

T

- TCP/IP Timeout
 - Agent configuration parameter A-3
 - Agent Configuration window 2-11
- template
 - Windows 2000 jobs 5-2
- This Account field
 - Shout to e-mail 2-25
- Timeout for Agent utilities
 - Agent configuration parameter A-3
- trace file
 - File Watcher utility 4-16
- Tracker Polling Interval
 - Agent configuration parameter A-3
 - Agent Configuration window 2-11
- Tracker Port
 - Agent configuration parameter A-3

U

UNC

- description 3-6

- user interface, graphical 2-9

user rights

- CONTROL-M/Agent 2-6

- description 2-6

- setting 2-8

utilities

- batch mode 4-3

- ctmfw 4-16

- directing output 4-3

- output parameter 4-3

- parameter formats 4-3

- scripts 3-4

- summary 4-5

- workflow 4-1

- parameters 5-8

- skeleton 5-2

- Windows Messaging Component

- Shout to e-mail 2-25

- windows.xml file 5-4

- workflow utility 4-1

V

- verifying communication

- server platform 2-23

viewing

- CONTROL-M/Servers List 2-15

- Diagnostics files 2-20

- Log files 2-18

W

- Western European language characters 2-26

- Western European languages

- special characters 2-26

WIN2K skeleton

- Windows 2000 jobs 5-8

- Windows 2000 jobs

- creating 5-6

- defining 5-1

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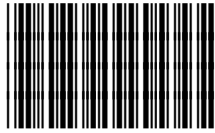
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Notes



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