Contacting BMC Software

You can access the BMC Software website at http://www.bmc.com. From this website, you can obtain information about the company, its products, corporate offices, special events, and career opportunities.

United States and Canada

Address
BMC SOFTWARE INC
2103 CITYWEST BLVD
HOUSTON TX 77042-2827
USA

Telephone    Fax
713 918 8800  713 918 8000
800 841 2031

Outside United States and Canada

Telephone  (01) 713 918 8800  Fax  (01) 713 918 8000

© Copyright 1999-2016 BMC Software, Inc.

Your use of this information is subject to the terms and conditions of the applicable End User License Agreement for the product and the proprietary and restricted rights notices included in this documentation. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of BMC Software, Inc.

BMC, BMC Software, the BMC logo, the BMC Software logo, and other BMC marks, and the tagline “Bring IT to Life” are the exclusive properties of BMC Software, Inc., or its affiliates or subsidiaries and are registered or may be registered with the U.S. Patent and Trademark Office and in other countries. All other BMC trademarks, service marks, and logos may be registered or pending registration in the U.S. or in other countries. All other trademarks or registered trademarks are the property of their respective owners.

For BMC Control-M Products that are licensed on the “per CPU – Full Capacity” unit of measurement and installed in an Amazon Web Services (“AWS”) or Microsoft Azure (“Azure”) cloud environment, a license is required for the total number of CPUs in each AWS or Azure instance upon which the Product is installed or which the Product manages, either remotely or locally. For AWS, one CPU is equivalent to one vCPU, as defined by AWS. For Azure, one CPU is equivalent to up to four Virtual Cores (as defined by Azure), rounded up to the closest multiple of four.

IBM® Tivoli® Business Service Manager, IBM Tivoli Workload Scheduler, IBM Cognos, IBM InfoSphere DataStage, IBM iSeries, IBM WebSphere, and AIX® are the trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both.

UNIX® is the registered trademark of The Open Group in the US and other countries.

Linux is the registered trademark of Linus Torvalds.

Oracle and Java are registered trademarks of Oracle and/or its affiliates. Other names may be trademarks of their respective owners.

SAP® R/2 and SAP R/3, SAP Business Objects, and SAP NetWeaver are trademarks or registered trademarks of SAP AG in Germany and in several other countries.

Restricted rights legend
Customer support

You can obtain technical support by using the BMC Software Customer Support website or by contacting Customer Support by telephone or e-mail. To expedite your inquiry, see “Before contacting BMC.”

Support website

You can obtain technical support from BMC 24 hours a day, 7 days a week at (http://www.bmc.com/support). From this website, you can:

- Read overviews about support services and programs that BMC offers
- Find the most current information about BMC products
- Search a database for issues similar to yours and possible solutions
- Order or download product documentation
- Download products and maintenance
- Report an issue or ask a question
- Subscribe to receive proactive e-mail alerts when new product notices are released
- Find worldwide BMC support center locations and contact information, including e-mail addresses, fax numbers, and telephone numbers

Support by telephone or e-mail

In the United States and Canada, if you need technical support and do not have access to the web, call 800 537 1813 or send an e-mail message to customer_support@bmc.com. (In the subject line, enter SupID:<yourSupportContractID>, such as SupID:12345). Outside the United States and Canada, contact your local support center for assistance.

Before contacting BMC

Have the following information available so that Customer Support can begin working on your issue immediately:

- Product information
  - Product name
  - Product version (release number)
  - License number and password (trial or permanent)

- Operating system and environment information
  - Machine type
  - 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 issue
- Commands and options that you used
- Messages received (and the time and date that you received them)
  - Product error messages
  - Messages from the operating system, such as file system full
  - Messages from related software

License key and password information
If you have questions about your license key or password, contact BMC as follows:

- (USA or Canada) Contact the Order Services Password Team at 800 841 2031, or send an e-mail message to ContractsPasswordAdministration@bmc.com.
- (Europe, the Middle East, and Africa) Fax your questions to EMEA Contracts Administration at +31 20 354 8702, or send an e-mail message to password@bmc.com.
- (Asia-Pacific) Contact your BMC sales representative or your local BMC office.

Third party Software
For the provisions described in the BMC License Agreement and Order related to third party products or technologies included in the BMC Product, see https://docs.bmc.com/docs/display/workloadautomation/Control-M+Workload+Automation+Documentation and click Third-party software (TPS).
Contents

Getting Started ................................................................................................................... 6

Control-M architecture ........................................................................................................ 7
Control-M components ........................................................................................................ 8
Control-M/Enterprise Manager ............................................................................................ 8
Control-M/Server ..................................................................................................................... 12
Control-M/Agent and remote hosts .................................................................................... 13
Control-M/Agent and remote hosts .................................................................................... 14
Application Plug-ins ............................................................................................................. 15
Control-M Add-ons ............................................................................................................... 22

Step-by-step scenarios ........................................................................................................ 31
Defining and running a new job ......................................................................................... 31
Editing jobs .......................................................................................................................... 34
Editing in a Workspace ....................................................................................................... 35
Checking in your changes to the database ........................................................................ 36

Task finder ............................................................................................................................ 37
Install and configure your environment ............................................................................. 37
Define and run jobs .............................................................................................................. 40
Define and view services ................................................................................................... 42
Validate definitions using Forecast .................................................................................. 43

V7 to V8 changes ................................................................................................................ 44
Locating V7 items in V8 ................................................................................................. 44
Terminology .......................................................................................................................... 45
Getting Started

Control-M Workload Automation is a solution to your batch processing production control requirements, which lets you automate the scheduling of your batch flows, and lets you monitor the processing of your batch flows.

- View Getting Started Videos.
- Learn about Control-M Workload Automation (on page 7).
- Define and run your first job with Step-by-step scenarios (on page 31).
- Find your way in the Help with the Task finder (on page 37).
- Use the V7 to V8 changes (on page 44) tool to become familiar with the new V8 interface.
Control-M architecture

The following diagram shows the logical architecture of a typical Control-M environment.

The components represent client applications, servers, a database, and other infrastructure that support the functionality, as described in Control-M components (on page 8).
Control-M components

The following table describes the Control-M components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control-M/Enterprise Manager</strong> (on page 8) (Control-M/EM)</td>
<td>Enables you to view, monitor, manage, and intervene in batch flow processing across the entire enterprise.</td>
</tr>
<tr>
<td><strong>Control-M/Server</strong> (on page 12)</td>
<td>Schedule jobs, manages job processing flows, and provides notification of job flow status. Control-M/Server can also schedule jobs on other computers through Control-M agents and remote hosts.</td>
</tr>
<tr>
<td><strong>Control-M/Agent and remote hosts</strong> (on page 13)</td>
<td>Runs and tracks jobs according to its Control-M/Server. You can have a dedicated Control-M/Agent installed on each computer and is controlled by a Control-M/Server, or use agentless computers, known as remote hosts. Jobs are assigned to specific host IDs that identify the Control-M/Agents and remote hosts. For information about Control-M/Agents that run other platforms, see Control-M/Agent and remote hosts (on page 14).</td>
</tr>
<tr>
<td><strong>Application Plug-ins</strong> (on page 15)</td>
<td>Enables you to connect to external applications and run Control-M jobs.</td>
</tr>
<tr>
<td><strong>Control-M Add-ons</strong> (on page 22)</td>
<td>Enables you to use Business Service Management (BSM) features.</td>
</tr>
</tbody>
</table>

Control-M/Enterprise Manager

Control-M/Enterprise Manager (Control-M/EM) is a Control-M Workload Automation component that provides a central point of control for Control-M/Servers. Control-M/EM enables users to do the following:

- View status of job schedules and execution in Control-M environments
- Issue requests for additional information
- Make changes to Production
- Handle problems. Control-M/EM also passes global conditions among Control-M/Servers.

The following figure shows the main sub-components of the Control-M/EM component:
The Control-M/EM includes the following types of sub-components:

- **Control-M/EM clients** (on page 10): Enables you to configure your Control-M environment to generate reports, and define, run, and monitor your job flows.

- **Control-M/EM servers** (on page 11): Enables Control-M/EM components to communicate with Control-M/EM clients and other Control-M/EM components.

- **Infrastructure components** (on page 12): Enables Control-M/EM clients to communicate with the relevant Control-M/EM server and includes the Control-M/EM database.
**Control-M/EM clients**

The following table describes the interfaces to your real-time batch environment and consists of the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control-M Workload Automation</td>
<td>Enables you to define and schedule your production, which Control-M uses to control job processing and handling. You can monitor your production, and intervene when necessary.</td>
</tr>
<tr>
<td>Control-M Configuration Manager (CCM)</td>
<td>Enables you to manage, monitor, configure, and maintain all Control-M components, as well as define security settings and user authorizations.</td>
</tr>
<tr>
<td>Control-M Self Service</td>
<td>Enables you to view your services with a Web-based application and analyze the problematic services and jobs. After you have determined what the problems are, you can resolve them by performing various service and job actions, depending on your authorizations.</td>
</tr>
</tbody>
</table>
| Control-M Workload Change Manager (on page 29) | Enables you to:  
  - Request changes to business workflows in Control-M Workload Automation by creating and submitting requests in Control-M Workload Change Manager web application.  
  - Define standards that comply with your organization's standards when defining folder/job definitions in Control-M Workload Automation. |
| Control-M Reporting Facility | Enables you to define templates that you can use to generate reports that provide important information about your Control-M job flow. |
| Utilities | Enable you to run batch commands to perform specific actions in Control-M Workload Automation. |
| Control-M Workload Automation API | Enables you to use the capabilities of Control-M/EM and Control-M Workload Automation in an open interface for external applications. For more information about the API, see *Control-M/EM API*. |
### Control-M/EM servers
The following table describes the Control-M/EM servers and their functionalities including handling communication between Control-M/EM clients and other Control-M/EM components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
</table>
| **GUI Server (GSR)**               | Handles communication between Control-M/EM clients and Control-M/Server. You can configure multiple GUI Servers in one Control-M/EM environment for load balancing purposes.  
|                                   | The GUI Server connects to each Gateway to transmit requests and receive responses to/from Control-M/Server.                              |
| **Global Conditions Server (GCS)**| Identifies and distributes global conditions used to create job dependencies between Control-M/Server.                                      
|                                   | The GCS connects to each Gateway to receive and transmit prerequisite conditions to the appropriate Control-M/Server.                     |
| **Gateway**                        | Handles communication between the Control-M/EM servers (GUI Server and GCS), to the Control-M/Server.                                         
|                                   | A different gateway is defined for each Control-M/Server (including Control-M for z/OS).                                                   |
| **Configuration Manager Server**   | Receives information from the configuration agents of Control-M/Server and Control-M for z/OS, and handles requests from Control-M Configuration Manager client. |
| **BIM**                            | Monitors critical batch services when your site uses the Control-M Batch Impact Manager Add-on.                                             |
| **Forecast Server**                | Helps you simulate job patterns to validate the schedules for running jobs on a future date. This is supported when your site uses the Control-M/Forecast Add-on. |
| **Self Service Server**            | Monitors Self Service services when your site uses the Control-M Self Service Add-on.                                                       |
| **Web Server**                     | Provides web access for the following web applications using HTTP protocol:                                                             |
|                                   |  Control-M Self Service                                                                                                                |
|                                   |  Web Launch                                                                                                                           |
|                                   |  Control-M Batch Impact Manager web client                                                                                        |
|                                   |  Control-M Workload Change Manager                                                                                                     |
Infrastructure components

The following table describes the Control-M/EM Infrastructure components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control-M/EM Configuration Agent</td>
<td>Provides Control-M/EM server information to the Control-M Configuration Manager (CMS) and handles administrator requests from the Control-M Configuration Manager.</td>
</tr>
<tr>
<td>Control-M/EM database</td>
<td>Provides a database (Oracle, Sybase, MSSQL, or PostgreSQL) where Control-M/EM data resides.</td>
</tr>
<tr>
<td>Naming Service (NS)</td>
<td>Enables each client to locate and connect to the GUI server through the CORBA (Common Object Request Broker Architecture) communication protocol.</td>
</tr>
</tbody>
</table>

Control-M/Server

Control-M/Server schedules jobs, performs load balancing, and handles requests from Control-M/EM. The following lists the Control-M Server types:

- **Control-M/Server**: Defines a distributed system component of Control-M that maintains the Control-M/Server database (including Active Jobs), and sends job-handling requests to agent platforms.
  
  One or more hosts can be controlled by a single Control-M/Server. In older implementations, a Control-M/Server can consist of a single computer. In a server/agent implementation of Control-M, Control-M/Server consists of a server platform and all the agents, and agentless platforms that it handles.

- **Control-M for z/OS**: Defines a Mainframe system component that uses the Control-M Workload Automation client to define and handle job definitions and requests.

The following image shows Control-M/Server and Control-M for z/OS and its related components:
Control-M/Agent and remote hosts

Control-M/Agents submit jobs, perform requests from each Control-M/Server and perform post-processing analysis of completed jobs. A remote host enables you to run jobs on a computer without having to install a Control-M/Agent.

The Control-M/Agent manages the following job handling requests:

- 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 been completed
- Requests to view or edit job script statements
- Requests to view job output or job documentation
- Requests to stop jobs that are currently executing
- Group a number of Control-M/Agents together into a host group to balance processing load
Control-M/Agent and remote hosts

Control-M supports the following Control-M/Agents that run on other platforms:

- **Control-M/Agent for UNISYS 2200**: Supports running jobs on other platforms, and enables you to submit jobs for execution on the agent platform, monitor the jobs, and perform post-processing analysis of output files. The completion status of jobs and the results of post-processing analysis are transmitted to the Control-M/Server. For more information about Unisys job definition, see one of the following:
  - Firefox and Chrome: Control-M/Agent for UNISYS 2200 Help
  - Internet Explorer: Due to security concerns, your browser might not open Control-M/Agent for UNISYS 2200 Help. If this happens, right-click the link, select Save target As and then save the file.

- **Control-M/Agent for MAPPER System for 2200**: Supports running jobs on other platforms, and enable you to submit jobs for execution on the agent platform, monitor the jobs, and perform post-processing analysis of output files. The completion status of jobs and the results of post-processing analysis are transmitted to the Control-M/Server. For more information about MAPPER job definition, see one of the following:
  - Firefox and Chrome: Control-M/Agent for MAPPER System for 2200 Help
  - Internet Explorer: Due to security concerns, your browser might not open Control-M/Agent for MAPPER System for 2200 Help. If this happens, right-click the link, select Save target As and then save the file.

- **Control-M/Agent for iSeries (AS/400)**: Supports running jobs on other platforms, and enable you to submit jobs for execution on the agent platform, monitor the jobs, and perform post-processing analysis of output files. The completion status of jobs and the result of post-processing analysis are transmitted back to the Control-M/Server. You can view and modify the following OS/400 type of jobs: External, Full, Multiple Commands, Program, VT. For more information about iSeries job definition, see one of the following:
  - Firefox and Chrome: Control-M/Agent for iSeries (AS/400) Help
  - Internet Explorer: Due to security concerns, your browser might not open Control-M/Agent for iSeries (AS/400) Help. If this happens, right-click the link, select Save target As and then save the file.

- **Control-M/Agent for TANDEM Guardian**: Supports running jobs on other platforms, and enables you to define jobs, retrieve job parameters, and control jobs running on the Guardian operating system. For more information on TANDEM job definition, see Tandem job parameters.
Application Plug-ins

To bring Control-M functionality to your external, packaged application environment (for example SAP and Oracle E-Business Suite), Control-M provides application plug-ins that enable Control-M/Agents to interface with the external applications.

Control-M supports the following application plug-ins:

- Control-M for Advanced File Transfer (on page 15)
- Control-M for Databases (on page 16)
- Control-M for Oracle E-Business Suite (on page 16)
- Control-M for PeopleSoft (on page 16)
- Control-M for SAP (on page 17)
- Control-M for SAP Business Objects (on page 17)
- Control-M for IBM Cognos (on page 18)
- Control-M for Oracle Business Intelligence (on page 18)
- Control-M for Informatica (on page 19)
- Control-M for Cloud (on page 19)
- Control-M for Business Process Integration Suite
- Control-M for IBM InfoSphere DataStage (on page 20)

Control-M for Advanced File Transfer

Control-M for Advanced File Transfer (AFT) is an FTP/SFTP client that enables you to watch and transfer files from a local host to a remote host, a remote host to a local host, or a remote host to another remote host.

For more information about Control-M for AFT installation, configuration, and job definition, see Control-M for AFT Help (../../Plugins/FILE_TRANS/Web_Help/index.htm).
Control-M for Databases

Control-M for Databases is a control module that enables you to do the following:

- Connect to any supported database from a single computer with secure login, which eliminates the need to provide authentication.
- Define and monitor Stored Procedure, SQL Script, SQL Server Integration Services (SSIS) Package, and Open Query database jobs.
- Integrate database jobs with other Control-M jobs into a single scheduling environment.
- Introduce all Control-M capabilities to Databases, including advanced scheduling criteria, complex dependencies, quantitative and control resources, and variables.

For more information about Control-M for Databases installation, configuration, and job definition, see Control-M for Databases Help (../../Plugins/en-US/DATABASE/Web_Help/index.htm).

Control-M for Oracle E-Business Suite

Control-M for OEBS enables you to perform the following actions:

- Define and schedule new Oracle E-Business requests and request sets
- Extract Oracle E-Business Suite predefined jobs
- Intercept ad hoc jobs
- Monitor active Oracle E-Business Suite jobs
- Trigger Control-M jobs and conditions as a result of ad-hoc events occurring in the Oracle E-Business Suite system
- Integrate Oracle E-Business Suite jobs and other business processing (for example, z/OS jobs or UNIX shell scripts) into a single homogenous scheduling environment.
- Introduce all Control-M capabilities to Oracle E-Business Suite, including advanced scheduling criteria, complex dependencies, Quantitative and Control resources, and AutoEdit variables.

For more information about Control-M for Oracle E-Business Suite installation, configuration, and job definition, see one of the following:

- Firefox and Chrome: Control-M for OEBS Help (.\..\..\data\ApplicationForms\OEBS\Help\OEBS_6401 OLH.chm)
- Internet Explorer: Due to security concerns, your browser might not open the following link. If this happens, right-click the link, select Save target As and then save the file.
  Control-M for OEBS Help (.\..\..\data\ApplicationForms\OEBS\Help\OEBS_6401 OLH.chm)

Control-M for PeopleSoft

Control-M for PeopleSoft is an application plug-in that brings Control-M enhanced scheduling and job handling capabilities to your PeopleSoft environment. It serves as an interface between Control-M and PeopleSoft and enables Control-M to manage PeopleSoft jobs and processes.
Control-M for SAP

Control-M for SAP provides a complete and SAP-certified interface between the worlds of Control-M and the specific SAP environments.

Control-M for SAP enables you to manage both the traditional SAP, planned and automated processes, and the unpredicted real-time, event-driven dynamic job submission. The Control-M for SAP user interface is designed to be based on SAP native terminology, using a similar look and feel. This is to make the Control-M for SAP interface an easy-to-use tool for SAP users, and therefore minimize end-user training needs.

Control-M for SAP also greatly increases batch processing and existing scheduling capabilities in SAP as follows:

- Integrates and manage large quantities of jobs
- Schedules and monitors capabilities between different SAP systems, and between SAP and non-SAP systems
- Networks between jobs
- Controls the workload using logical or real resource availability
- Integrates between my SAP (non R/3) and R/3 components

Control-M for SAP enables you to perform the following actions:

- Define, schedule, and store SAP jobs in the Control-M database
- Run and monitor Control-M/CM for SAP jobs from the Control-M/EM GUI
- Intercept jobs in SAP, then control and monitor them in Control-M
- Create and monitor mass parallel processes (spawned jobs)
- Archive and delete older data as required, using the Control-M solution for SAP Data Archiving
- Use SAP advanced load-balancing mechanism, such as Logon Groups and Job Server Group
- Control advanced job submission options from within Control-M, such as Spool list recipients for a job, and advanced parameter management

For more information about Control-M for SAP job definition, see Control-M for SAP Help (../../../Plugins/en-US/SAP/Web_Help/index.htm).

Control-M for SAP Business Objects

Control-M for SAP Business Objects is a control module that enables you to automate SAP Business Objects report generation for Crystal, Web Intelligence, Desktop Intelligence pre-defined reports and pre-defined Publications. You can also override various SAP Business Objects attributes for specific report instances.
Control-M for SAP Business Objects jobs are integrated with other Control-M jobs into a single scheduling environment. This enables you to control and operate the SAP Business Objects report generation within Control-M. All Control-M capabilities are available for SAP Business Objects jobs, including advanced scheduling criteria, complex dependencies, quantitative and control resources, and variables.


Control-M for IBM Cognos

Control-M for IBM Cognos is an application plug-in that enables you to automate report and job generation for pre-defined IBM Cognos reports and jobs.

For more information about Control-M for IBM Cognos installation, configuration, and job definition, see Control-M for IBM Cognos Help (../../Plugins/en-US/COGNOS/Web_Help/index.htm).

Control-M for Oracle Business Intelligence

Control-M for Oracle Business Intelligence is an application plug-in that enables you to automate report and job generation for pre-defined Oracle Business Intelligence reports and jobs.

For more information about Control-M for Oracle Business Intelligence installation, configuration, and job definition, see Control-M for Oracle Business Intelligence Help (../../Plugins/en-US/ORACLE_BI/Web_Help/index.htm).

Control-M for Oracle Retail

Control-M for Oracle Retail enables you to schedule and monitor your Oracle Retail Merchandising System (RMS) and Oracle Retail Price Management (RPM) jobs.

Control-M for Oracle Retail jobs are integrated with other Control-M jobs into a single scheduling environment. This enables you to control and operate the Oracle Retail batch processing within Control-M, and enables you to do the following:

- Define and monitor Control-M for Oracle Retail jobs, as described in Control-M for Oracle Retail job definition.
- Integrate Oracle Retail jobs with other Control-M jobs into a single scheduling environment, as described in Using Control-M Workload Automation.
- Introduce all Control-M capabilities to Oracle Retail, including advanced scheduling criteria, complex dependencies, quantitative and control resources, and variables, as described in Using Control-M Workload Automation.

For more information about Control-M for Oracle Retail installation, configuration, and job definition, see Control-M for Oracle Retail Help (../../Plugins/en-US/OracleRetail/Web_Help/index.htm).
Control-M for Informatica

Control-M for Informatica is a control module that enables you to automate Informatica workflows. Control-M for Informatica jobs are integrated with other Control-M jobs into a single scheduling environment. This enables you to control and operate the Informatica workflows within Control-M. All Control-M capabilities are available for Informatica jobs, including advanced scheduling criteria, complex dependencies, quantitative and control resources, and variables.

For more information about Control-M for Informatica installation, configuration, and job definition, see Control-M for Informatica Help (../../Plugins/en-US/INFORMATICA/Web_Help/index.htm).

Control-M for Hadoop

Control-M for Hadoop is an application plug-in that connects to the Hadoop framework, enabling the distributed processing of large data sets across clusters of commodity servers.

With Control-M for Hadoop, you can expand your enterprise workload automation business workflows to include tasks running in your Big Data Hadoop cluster from one central location. Control-M for Hadoop jobs are integrated with other Control-M jobs into a single scheduling environment. This enables you to control and operate the Hadoop jobs, query execution within Control-M.

For more information about Control-M for Hadoop installation, configuration, and job definition, see Control-M for Hadoop Help (../../Plugins/en-US/HADOOP/Web_Help/index.htm).

Control-M for Cloud

Control-M for Cloud is a solution that enables you to automate the process of allocating and dynamically changing resources for virtual machines.

Control-M for Cloud can automate the following VMware tasks:

- Power
- Snapshot
- Configuration tasks

Control-M for Cloud can automate the following Amazon EC2 tasks:

- Create
- Start
- Stop
- Reboot
- Terminate

Control-M for Cloud can schedule BladeLogic jobs. Control-M for Cloud jobs are integrated with other Control-M jobs into a single scheduling environment. This enables you to control and operate Amazon EC2, VMware, and BMC BladeLogic tasks within Control-M.

For more information about Control-M for Cloud installation, configuration, and job definition, see one of the following:
Control-M for Web Services, Java, and Messaging

Control-M for Web Services, Java, and Messaging (Control-M for WJM) is a comprehensive integration solution enabling you to expand Control-M job scheduling to on-line and real-time applications and thus implement effective application integration and uses three main industry standard technologies to achieve application integration:

- Java classes and J2EE Enterprise Java Beans (EJBs)
- Web Services
- Message-Oriented Middleware

Control-M for WJM consists of two main components:

- **Control-M for Web Services, Java, and Messaging**: Enables you to schedule remote jobs that use the technologies mentioned above. You can therefore schedule a Java class or an EJB running on a J2EE application server (such as IBM WebSphere, BEA WebLogic, JBoss, SAP NetWeaver and so on). Similarly, the Control-M for WJM enables you to schedule standard Web Services via a new Control-M Web Service job type. Additionally, the Control-M for WJM allows you to create a job that sends a (JMS or IBM WebSphereMQ Series) message to another application’s message queue. After sending a message, the job can optionally wait for a response message back from the application.

- **Control-M Web Services and Messaging API**: Complements Control-M for Web Services, Java, and Messaging by allowing applications to interface with Control-M in order to request scheduling services such as submitting ad hoc jobs, ordering a group of jobs, raising conditions to trigger job flows, tracking jobs’ status and so on.

These functions are available through the use of a Java API, with both elements of Control-M Web Services and Messaging API. These powerful capabilities enable you to implement true event based scheduling. Once a business event occurs within an application, it can easily create or order Control-M jobs to process the event via Java, Web Service or messaging.

For more information about Control-M for Web Services, Java and Messaging job definitions, see Control-M for Web Services, Java, and Messaging ../../Plugins/en-US/BPI/Web_Help/index.htm.

Control-M for IBM InfoSphere DataStage

Control-M for IBM InfoSphere DataStage is an application plug-in that enables you to run and execute pre-defined InfoSphere DataStage jobs.

For more information about Control-M for IBM InfoSphere DataStage job definition, see Control-M for IBM InfoSphere DataStage Help ../../Plugins/en-US/DATASTAGE/Web_Help/index.htm.
Control-M for Backup

Control-M for Backup is an application plug-in that connects to a NetBackup or IBM Tivoli Service Manager (TSM) backup client and enables you to define backup jobs. Control-M for Backup simplifies the process of defining, monitoring, and troubleshooting backup jobs as well as reducing manual scripts and typing errors.

Control-M for Backup enables you to do the following job definition actions:

- Define an incremental or full backup
- Select the required backup policy from the list of policies that are already defined in your backup application, instead of manually typing a script per job (NetBackup)
- Perform a search (with wild cards) on the list of policies that might contain hundreds and more policies (NetBackup)
- Define backup jobs for a group of hosts (NetBackup)
- Automatically generate a job for backup clients which were added into existing policy (NetBackup)

Control-M for Backup enables you to do the following job monitoring actions:

- View native and configurable backup job output including readable error codes
- View backup job status
- Kill backup jobs
- Restart failed jobs on rerun (NetBackup)

Control-M for Backup jobs are integrated with other Control-M jobs into a single scheduling environment, which enables you to do the following:

- Integrate Backup jobs with other Control-M jobs into a single scheduling environment, as described in Planning.
- Introduce all Control-M capabilities to Backup, including advanced scheduling criteria, complex dependencies, quantitative and control resources, and AutoEdit variables, as described in Planning.

For more information about Control-M for Backup job definition, see Control-M for Backup Help (../../../../Plugins/en-US/Backup/Web_Help/index.htm).
Control-M Application Integrator

The Control-M Application Integrator is a web based application that creates custom designed job types that are deployed to the Control-M environment. You can then define and monitor job types in the Planning and Monitoring domains in Control-M Workload Automation, Control-M Workload Change Manager and Control-M Self Service.

For more information, see Control-M Application Integrator Help ../../../etc/ai/help/en-US/Web_Help/index.htm.

Click the following image to view a short overview video about Control-M Application Integrator.

Control-M Add-ons

The following Control-M Add-ons are automatically installed in a trial version, which enables you to use the Add-on functionality. This mode is intended for testing and evaluation, not for use in production. For production, uninstall the trial version, re-install a non-trial version, and then activate the Add-ons from Add-on Activation CDs.
<table>
<thead>
<tr>
<th>Add-on</th>
<th>Description</th>
</tr>
</thead>
</table>
| **Control-M Batch Impact Manager**<br>(on page 23) | Enables you to prevent batch-related failures or external events, such as hardware and network problems, which might cause delays in batch processing that affect the completion time and accuracy of business processes. You can analyze the potential delays before they adversely impact your business by doing the following:  
  - Detect potential delays and errors in critical batch business services  
  - Provide the status of critical batch business services  
  - Allows corrective actions to take place before the business service is affected  
  - View critical batch processes in the IT environment by running a Batch Discovery utility |
| **Control-M/Forecast**<br>(on page 26)       | Enables you to simulate the processing of your batch flows and validate job dependencies and scheduling criteria for any future dates.              |
| **Control-M Self Service**<br>(on page 28)   | Enables users to view services, which are containers of jobs, and analyze the problematic services and jobs through a flow diagram or list display in a Web-based application. After users have determined what the problems are, they can resolve them by performing various service and job actions based on their authorizations. |
| **Control-M Workload Change Manager**<br>(on page 29) | Enables you to:  
  - Request changes to business workflows in Control-M Workload Automation by creating and submitting requests in Control-M Workload Change Manager web application.  
  - Define standards that comply with your organization's standards when defining folder/job definitions in Control-M Workload Automation. |
| **Control-M Workload Archiving**<br>(on page 29) | Enables you to automatically archive job log and output data, from both Mainframe and Distributed systems, in a secure and central repository that is separate from the production environment. |

**Control-M Batch Impact Manager**

BMC Batch Impact Manager is a Control-M Add-on that lets you monitor critical batch services and intervene if delays or problems are detected or anticipated.
Every time a job executes, Control-M collects statistics that it uses to calculate the average run time for that job. This average run time becomes the expected run time for the job. When a job runs, and that job is defined in a business service, BMC Batch Impact Manager compares its actual run time to its average run time from past executions. Based on this comparison, BMC Batch Impact Manager calculates if the business service is expected to finish on time.

BMC Batch Impact Manager enables you to do the following:

- Create a BIM service, as described in BIM Service Definition (on page 25).
- Analyze run time statistics to predict the end time of defined job using one of the following methods:
  - Basic Statistics collection
  - Periodic Statistics definition
- Monitor services, as described in Service Monitor and Business Service Analysis Viewpoint.
- View the critical batch processes in the IT environment, as described in Batch Discovery.

Click the following image to view a short overview video about Batch Impact Manager.
## BIM Service Definition

The following table describes the what jobs in service and provides information on defining, submitting, and tracking a batch service:

<table>
<thead>
<tr>
<th>Action</th>
<th>Description</th>
</tr>
</thead>
</table>
| Jobs in a BIM service         | Identifies the chain of jobs that comprise the critical service, and define a Control-M Batch Impact Manager job at the end of the chain. For more information about identifying the set of jobs in a critical batch service, see the following:
|                               |  - Critical Path
|                               |  - Job dependencies                                                                                                                         |
| Creating a regular folder    | Defines a folder for a service.                                                                                                               |
| Create a BIM job             | Enables you to define a limitations and tolerances in a job that represents the BIM service. If the service appears to be delayed or late, you can make adjustments before the business is adversely affected. Consider the following when defining a BIM job:
|                               |  - **Delayed or Late service:** Enables you to set limitations at what point a delay in a service will adversely impact business. The time by which service must be completed is specified by either a specific time or relative to the ordering time.
|                               |  - **Run time tolerance:** Enables you to set status indicators for jobs in services to determine when to trigger a warning for jobs that finish running too quickly or run too long. This enables you to perform adjustments in Production before any adverse business impact. |
| Ordering jobs                | Enables you to orders the folder for the service that contains the chain of jobs and the BIM job at the end of the chain.                     |
| Analyzing active jobs        | Enables you to monitor the progress of the jobs in the service as they are ordered, as they run, and as they complete.                        |
| Control-M Self Service       | Enables non-Control-M users to monitor the progress of, and extend deadlines for services as they run from a Web browser.                    |
| Service Monitor              | Enables you to analyze services, and locate and resolve problematic jobs. If you have Control-M Batch Impact Manager, the Service Monitor enables you to identify critical batch services that are expected to miss their deadline. |
Jobs in a BIM service

When defining a service, the first step is to identify a set of dependent jobs that represent a critical batch service that must complete by a certain time. Control-M Batch Impact Manager analyzes the performance of this set, or chain, of jobs to calculate if the service will end on time.

After you have identified the chain of jobs, a new Control-M Batch Impact Manager job must be defined so that it, too, depends on the other jobs. The Control-M Batch Impact Manager job must be defined as the last job in the chain. BMC Batch Impact Manager considers any jobs defined above the Control-M Batch Impact Manager job as part of a batch service, as shown in the following figure:

All jobs defined in this figure are part of the critical service because the BIM9559 BMC Batch Impact Manager job depends on them, either directly or indirectly.

Control-M/Forecast

Control-M/Forecast is an Add-on that you can use to validate your batch production modeling. Control-M/Forecast loads and simulates the processing of your batch flows, allowing you to validate job dependencies and scheduling criteria for any future dates.

Every time a job executes, Control-M collects statistics that it uses to calculate the average run time for that job. This average run time becomes the expected run time for the job in Control-M/Forecast.

If BMC Batch Impact Manager is installed, Control-M/Forecast shows all business services and their expected end time.
If you have Control-M/Forecast you can do the following:

- Display when and how often jobs are scheduled by clicking **View Schedule**. For more information about scheduling jobs, see Job scheduling.
- Create dependencies between jobs and allocate resources, as described in Job prerequisites.
- Simulate your job flows for a day in the future, as described in Simulate your job flow.
- Analyze run time statistics to predict the end time of a defined job using one of the following methods:
  - Basic Statistics collection
  - Periodic Statistics definition
- Load and play back an archived event, as described in History.
- View Forecast reports, as described in Generate Forecast reports.
- Perform a Load Operation in batch mode, which enables you to receive Job information, and if you have Control-M Batch Impact Manager Add-on installed, you can receive service information.

### Control-M batch flow scheduling

Job processing definitions are stored in the Job Definition database, and remain unchanged until you modify or delete them. When a job is ordered, a non-permanent copy of the job processing definition is copied to Active Jobs database (Production). You can monitor the status of jobs in all Control-M/Servers. Separating the Active Jobs from the Defined Jobs provides several advantages, including the following:

- The active jobs must only contain those jobs that are scheduled on that day rather than the total of all defined jobs.
- You can modify instructions in the active copy of the job processing definition (for that particular job execution) without modifying the permanent definition.

Jobs can be scheduled (that is, placed in Production) automatically or manually as follows:

- **Automated job scheduling**: Automatically schedules those jobs whose scheduling criteria (defined in its job processing definition) are met. This is the most efficient way to schedule jobs.
- **Manual job scheduling (ordering)**: Manually schedule jobs as needed. To manually schedule jobs or SMART Folder, you can order the job or SMART Folder as follows:
  - Schedule requested jobs whose scheduling parameters indicate that the jobs are eligible for scheduling that day.
  - Schedule requested jobs regardless of whether their scheduling parameters are met that day.

Both options are available from Control-M Workload Automation in Ordering jobs, Order in Control-M/EM API and the cli or em cli utilities, described in Ordering jobs in Utilities.

### Daily automation of job scheduling

Control-M/Server runs the New Day procedure at the same time each day. This procedure includes scheduling the day’s Automatic jobs and running maintenance and cleanup utilities, such as deleting the old jobs from the previous day.
Control-M Workload Automation Getting Started Guide

To handle job automation, the New Day procedure utilizes Specific User Daily jobs defined for the jobs in a folder. The sole purpose of the jobs is to order jobs. Instead of directly scheduling production jobs, the New Day procedure can schedule the Specific User Daily jobs. For more information on setting up Order Method to Automatic or Specific User Daily, see Editing a folder and Defining a Specific User Daily job.

**EXAMPLE:** New Day time is at 5:00 a.m., but 10,000 jobs are not needed until 12:00, another 20,000 jobs are not needed until 3:00 p.m., another 30,000 jobs are not needed until 8:00 p.m.

Instead of all those jobs being scheduled by the New Day procedure at New Day time, the New Day procedure can schedule three specific User Daily jobs, defined as follows, at New Day time:

- One specific user daily job, which schedules the 10,000 jobs, would be submitted at noon.
- One specific user daily job, which schedules the 20,000 jobs, would be submitted at 3:00 p.m.
- One specific user daily job, which schedules the 30,000 jobs, would be submitted at 8:00 p.m.

The Specific User Daily jobs provide an additional advantage. The Control-M administrator is responsible for the New Day procedure, but a site can allow different departments to be responsible for their own Specific User Daily jobs.

On a regular clock, one day ends and a new day begins at midnight. However, you can set the New Day time according to your site’s actual business processing Working Day. For example, if New Day time is 6:00 a.m., then from 6:00 a.m. on August 4th, until 6:00 a.m. on August 5th, the Working Day is August 4th. The date that a job is scheduled in Control-M is called the Original Scheduling Date abbreviated Order date conform to the Working Days, not midnight to midnight calendar days.

**Control-M Self Service**

Control-M Self Service is a Control-M Add-on, which enables you to view your services with a Web-based application and analyze the problematic services and jobs. After you have determined what the problems are, you can resolve them by performing various service and job actions, depending on your authorizations. The following tasks are included in setting up Control-M Self Service:

- Log in to Control-M Self Service through the URL on Windows as follows:
  
  ```plaintext
  http://<Control-M/ EM_Server_Host_Name>:<web_server_port >/SelfService
  ```

  The default web server port is 18080.

- Configure the Self_Service_Server and Control-M Self Service system parameters from the Control-M Configuration Manager, as described in Control-M Self Service system parameters.

- Create service definitions or service rules from the Service Manager, as described in Service definition.

- Enable SSL security, as described in SSL Management.

For more information on Control-M Self Service, see Introduction to Control-M Self Service.
Control-M Workload Change Manager

Control-M Workload Change Manager is a Control-M add-on, which enables you to do the following:

- In Control-M Workload Change Manager web application, application developers/analysts or the web users, can request changes to business job flows by creating and submit them as requests to a Control-M scheduler or check them in to the Control-M Database. These change requests are related to your Control-M definitions in Control-M Workload Automation.

- In Control-M Workload Automation, a Control-M Administrator can create standards to assist schedulers and web users in defining folders/jobs according to your organization's standards.

A Control-M Administrator creates site standards, as described in Site standards management, and then assigns the standards to folders, as described in Assigning a Site standard to a folder/folders. This ensures that when web users, and schedulers define jobs, the job definitions comply with your organization's standards.

Using these standards, web users can create business job flows using a web interface. The web user can either submit the job flow as a request, or check it in to be part of the Control-M Database.

If the web user submits the job flow as a request, the Control-M scheduler receives these requests through Control-M Workload Automation. The requests appear in the Planning-Home page along with his other Workspaces and workflow. For more information on the request workspace, see Request Workspace. The Control-M scheduler works together with the web user, easily communicating through Notes, to review and approve business workflow requests. After the request is approved, the Control-M scheduler checks-in the request to be part of the Control-M database.

For more information on how to setup Control-M Workload Change Manager, see Control-M Workload Change Manager Setup.

Click the following image to view a short overview video about Workload Change Manager.

Control-M Workload Archiving

Control-M Workload Archiving is a Control-M add-on that enables you to automatically archive job log and output data, from both Mainframe and Distributed systems, in a secure and central repository that is separate from the production environment.

When Control-M/Server submits a job to run on an Agent, the Workload Archiving Server archives the job log and output in a separate PostgreSQL or Oracle database for a defined period based on Workload Archiving Policies, as described in Workload Archiving configuration. This enables you to meet organizational audit and compliance requirements, troubleshoot your environment using historical data, and enable/disable users from accessing the archived data based on Control-M/EM authorizations.

Control-M Workload Archiving is installed with a PostgreSQL or Oracle database. For more information, see Control-M Workload Archiving installation.

BMC recommends that you install Control-M Workload Archiving on a dedicated server.

The following procedures describe how to search, duplicate, compare, export, and save archive data:
- Searching for archive data
- Duplicating archive search results
- Comparing archived jobs
- Exporting archived data
- Saving archive data
Step-by-step scenarios

To get started using Workload Automation, you can complete the following step-by-step scenarios:

- **Defining and running a new job** (on page 31): Enables you to define and order a job in the Planning domain, and then view the running job in the Monitoring domain, as described in the following topics:
  - Defining a job (on page 32)
  - Ordering a job (on page 32)
  - Viewing a running job (on page 33)
- **Editing jobs** (on page 34): Enables you to load jobs from the Definition database and check out the Workspace so that you can edit the jobs. You can save a Workspace so that you can keep working on it, even if you close it.
- **Editing in a Workspace** (on page 35): Enables you to use Workspace functionality, and do the following actions:
  - Create a job in your Workspace
  - Use the Properties pane
  - Change the view of the job flow from a Flow Diagram to the List view
  - Search for a job based on specific parameters
  - Create dependencies between jobs
  - Drag and drop a job to another folder
  - Position the jobs within a folder and Workspace
  - Rearrange the Flow Diagram
  - Cut and paste jobs
- **Checking in your changes to the database** (on page 36): Enables you to commit your changes to the Jobs Definition database.

For more information on defining jobs, see Planning.

Defining and running a new job

You can define and run a new job by defining the job, ordering the job and ignore scheduling criteria. When the job starts running, you can monitor the job. The following examples describe how to define, order, and monitor a running job.

- Defining a job (on page 32)
- Ordering a job (on page 32)
- Viewing a running job (on page 33)
Defining a job
This example describes how to define a Dummy OS job.

➢ To define a job:
1. From your desktop, select the **Workload Automation** icon.
2. Log in with your user name and password.
   For assistance with logging in, contact your Control-M Administrator.
3. Select the **Planning** domain, and click the **+** tab.
   A New tab appears. The tab is the **Planning - Home** page.
4. Select **Workspace**.
   A blank Workspace appears with a default name.
5. To view the job templates, from the **Workspace** tab, **New** group, click 🔍.
6. Drag and drop the **Dummy** job template into the Workspace, and select the job.
   The Properties pane for the created job appears on the right.
7. Edit the job.
   For example, you can change the job name and add a description.

Ordering a job
This example describes how to order jobs to be run in production.

➢ To order a job:
1. From the **Workspace** tab, click the **Order** drop-down, and select **Order Workspace**.
   The **Please Confirm** dialog box appears.
2. Click **Yes** to confirm the following message:
   The following message appears: **Folder that is included within selection will be entirely ordered, including jobs that were not loaded into Workspace.**
3. Click **Yes**.
   The **Order** dialog box appears.
4. In the **Parameters** section, select **Ignore scheduling criteria**.
5. Click **Order**.
The Check-in and Order stages appear.

6. Click Done.
   The jobs and folders in the Workspace were checked in and ordered.

Viewing a running job

This example describes how to view a running job that is in Production.

➢ To view a running job:

1. Click 
   The Monitoring domain appears.
2. Click 
   A New tab appears. The tab is the Monitoring - Home page.
3. In the All Viewpoints section, click All Jobs.
   A default Viewpoint appears called All Jobs.
4. In the Viewpoint tab, Actions group, click Find.
   The Find fields appear on the top of the Flow Diagram in the middle pane.
5. In the drop-down list next to the . icon and the field, select the down arrow.
6. Clear all the fields except for Job Name.
7. In the field next to the . icon, type of Job Name you defined, and click OK.
8. To find the job in the field, click .
   Your job is viewable.
Editing jobs

This example describes how to edit jobs and folders, and save the intermediate version as a Workspace.

➤ To edit jobs:
1. Click the Planning domain.
2. Click the tab.
   A New tab appears. The tab is the Planning - Home page.
3. Do one or more of the following:
   - To load jobs and folders from the Job Definition database, click Load Folders and Jobs.
   - To view your jobs according to application or Control-M/Server, in the Hierarchy field, do one of the following:
     - To view your jobs and folders according to your application, select Application and/or Sub Application.
     - To view your jobs and folders according to the Control-M/Server definitions, clear Application and Sub Application.
     Folders are displayed according to the hierarchy you selected.
   - To filter your jobs and folders based on specific fields, do the following:
     a. To view the specific fields to filter, click Filter.
     b. Set the filter fields, as described in Filter parameters.
     c. Click OK where relevant.
     d. Click Filter.
     The filtered entities appear in the Tree view.
4. Select the jobs and folders that you want to load to the Workspace, and click Open.
   The jobs and folders are loaded from database.
5. To check out the Workspace, click .
   If a message appears that the folder is already checked out exclusively, in another Workspace, repeat step 6, and select different jobs and folders.
6. To edit a job, do the following:
   a. Select a job to edit.
      The Job Properties appear in the right pane.
   b. In the Job Properties, click .
   c. In the Job Name field, type a different name.
      The field is updated after you move your cursor to another field.
d. Click Save.

e. In the **Workspace Properties** dialog box, type a Name and Description, and click OK.

The Workspace is saved as a workspace to the Job Definition database. You can close the Workspace, and later reopen it.

### Editing in a Workspace

This example describes how to implement some workspace functionality including, creating jobs, setting properties, changing the view, finding jobs, and creating dependencies between jobs.

➢ **To edit a Workspace:**

1. Click the **Planning** domain.
2. Click the ![New](image) tab.
   
   A **New** tab appears. The tab is the **Planning - Home** page.
3. To open a workspace, click **My Work**.
4. Select a workspace from the list.
   
   The jobs and folders are loaded into the workspace with the default **Map** view in the center pane.
5. From the **Workspace** tab, **New** group (Job palette), drag and drop a Folder into the center pane.
6. If the **Control-M Server Selection** dialog appears, select the Control-M/Server from the drop-down list, and click **OK**.
   
   A folder is created.
7. From the **Workspace** tab, **New** group (Job palette), drag and drop an OS job into the folder you created.
   
   An OS job is created.
8. To edit the fields, if the Synopsis view (summary view) is enabled, click ![Edit](image).
   
   A detailed view of the Job Properties appears in the right pane.
9. Do the following:
   a. In the Description field, type a short description.
      
      The field is updated after you move your cursor to another field.
   b. To create a dependencies between jobs, select **Prerequisites** tab in the **Job Properties** pane.
      
      A detailed view of Prerequisites appears.
   c. To add conditions, in **In Conditions**, select ![Add](image).
      
      The **Conditions Details** box appears.
   d. Type the name of the condition and select an Order date.
   e. Click **OK**.
The Condition is created.

f. Select a job from one folder, and drag and drop it to another folder.

10. To change the view, in the View tab, select List.

The center pane appears with the jobs defined in the List view. You can change the view to be Map view.

11. To rearrange the jobs and folders in the Workspace, click .

Checking in your changes to the database

This example describes how to commit your changes to the Job Definition database. It enables your jobs to be eligible for job submission on the Order date, and when all the prerequisite conditions are met.

➢ To check in your changes to the database:

1. Click .

The Check in window appears.

2. Follow the check-in instructions until the check-in is complete.

3. Click Done.

The folders are checked in to Job Definition database.
Task finder

The following topics describe some common tasks in Control-M:

- Install and configure your environment (on page 37)
- Define and run jobs (on page 40)
- Define and view services (on page 42)
- Validate definitions using Forecast (on page 43)

Install and configure your environment

The following table describes common Administrator tasks such as installing and configuring your Control-M environment:
<table>
<thead>
<tr>
<th>Tasks</th>
<th>Descriptions</th>
</tr>
</thead>
</table>
| Install Control-M           | Enables you to install Control-M with a single installation or install individual components:  
|                              |   - Control-M full installation  
|                              |   - Control-M/Agent installation  
|                              |   - Control-M client installation  
|                              |   - Control-M/EM API Installation                                                                                                               |
| Customize for Languages     | Enables you to configure Control-M products to support Western European and East Asian languages:  
|                              |   - Western European configuration  
|                              |   - East Asian (CJK) configuration                                                                                                                  |
| Upgrade from previous version | Enables you to upgrade Control-M/EM and Control-M/Server from a source environment while preserving your definition and active data, as described in the following topics:  
|                              |   - Control-M/EM Upgrade  
|                              |   - Control-M/Server Upgrade  
|                              | The Control-M/EM upgrade procedure does not upgrade Control-M/EM API.  
|                              | Install and configure Control-M/EM API separately after upgrade, as described in the following topics:  
|                              |   - Control-M/EM API Installation  
|                              |   - Upgrading Control-M/EM API  
|                              |   - Control-M/EM API environment  
|                              | Make changes that are necessary to update your applications and XML requests from previous versions of Control-M/EM API. The following topics describe the changes from previous versions:  
|                              |   - From version 7.0.00 to version 8.0.00  
|                              |   - From version 6.4.01 to version 7.0.00  
<p>|                              |   - From version 6.3.0x to version 6.4.01 |</p>
<table>
<thead>
<tr>
<th>Tasks</th>
<th>Descriptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configure Control-M</td>
<td>Enables you to manage, monitor, configure, and maintain Control-M components and define security settings and user authorizations:</td>
</tr>
<tr>
<td></td>
<td>▪ Defining a Control-M/EM component</td>
</tr>
<tr>
<td></td>
<td>▪ Define user authorizations</td>
</tr>
<tr>
<td></td>
<td>▪ Create and manage alerts</td>
</tr>
<tr>
<td></td>
<td>▪ Implement host restrictions</td>
</tr>
<tr>
<td></td>
<td>▪ Gather diagnostic information</td>
</tr>
<tr>
<td></td>
<td>▪ Manage database</td>
</tr>
<tr>
<td>Configure LDAP</td>
<td>Describes how to configure LDAP users in Control-M:</td>
</tr>
<tr>
<td></td>
<td>▪ Defining LDAP system parameters</td>
</tr>
<tr>
<td></td>
<td>▪ Defining LDAP Groups</td>
</tr>
<tr>
<td>Enhance communications security with SSL</td>
<td>Enables Control-M communications security through the Secure Sockets Layer (SSL) protocol.</td>
</tr>
<tr>
<td>Run Utilities</td>
<td>Enables you to run commands to do actions in Control-M Workload Automation.</td>
</tr>
<tr>
<td>Perform Control-M functions for external applications, see Control-M/EM API.</td>
<td>Enables you to perform Control-M functions in the Control-M Business Integrated Scheduling environment for external applications.</td>
</tr>
<tr>
<td>Log in to a Web server</td>
<td>You can log in to a Web server such as Self Service and Web Launch, through the URL on Windows by typing in the following, and substituting the relevant information: http://&lt;Control-M/EM_Server_Host_Name&gt;:&lt;web_server_port&gt;/&lt;Add-on&gt; The default web server port is 18080.</td>
</tr>
</tbody>
</table>
Define and run jobs

The following table describes common user tasks for defining and running jobs:
<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
</table>
| Define a new job              | Enables you to create a job processing definitions to define general job-specific parameters with information on what to run, where and how to run it. The following topics describe and provide links to common tasks related to defining jobs:  
  - Working in Workspaces  
  - Edit an existing job  
  - Schedule a job  
  - Import/Export job definitions  
  - Set job dependencies  
  - Allocate resources for a job run |
| Run jobs                      | Enables you to order a job to be run on the Order date and when all other prerequisite conditions are met.                                     |
| Monitor current active jobs   | Enables you to monitor the processing of the jobs in your environment, perform critical user tasks, handle problems, and solve various issues. The following topics describe and provide links to common tasks related to monitoring active jobs:  
  - Working in Viewpoints  
  - Active Job analysis  
  - Intervention actions  
  - Alerts Monitor  
  - Service Monitor  
  - Business Service Analysis Viewpoint |
| Access Tools for enhanced functionality | Provides enhanced functionality and control over job definition and execution. You can access the tools from the Tools domain or from the Tools menu in the Planning, Monitoring, History, and Forecast domains. |
| View reports                  | Enables you to generate reports that provide information about your Control-M Job flow, as described in the following topics:  
  - Generate general reports on alerts, audits, authorization, workload distribution, and extreme peak usage  
  - Generate reports on job definitions  
  - Generate reports on running jobs |
**Task** | **Description**
--- | ---
View and replay job runs | Enables you to analyze your accumulated job processing data over a particular period.

**View Parameters** | Enables you to define jobs according to various criteria that you set according to the following types of parameters:
- General parameters
- Scheduling Parameters
- Prerequisites parameters
- Actions parameters

**Define and view services**

The following table describes common tasks for defining and view services:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Define a service</td>
<td>Enables you to view your services, analyze those services and jobs that are problematic. After you have determined what the problems are, you can resolve them by performing various service and job actions.</td>
</tr>
<tr>
<td>Monitor and analyze services from Control-M</td>
<td>Enables you to identify critical batch services that are expected to miss their deadline, analyze the services, and resolve problematic jobs, if you have Control-M Batch Impact Manager installed.</td>
</tr>
<tr>
<td>Monitor services from a web Browser</td>
<td>Enables you to view your work flows (services), and analyze those services and jobs that are problematic. After you have determined what the problems are, you can resolve them by performing various service and job actions.</td>
</tr>
<tr>
<td>Generate Batch Impact Manager reports</td>
<td>Enables you to gather information on SLA analysis, history, detailed business service, active jobs in a selected service, BIM services for a selected job.</td>
</tr>
<tr>
<td>Run the Batch Discovery utility</td>
<td>Enables you to view the critical batch processes in the IT environment.</td>
</tr>
</tbody>
</table>
Validate definitions using Forecast

The following table describes common tasks for forecasting definitions:

<table>
<thead>
<tr>
<th>Task</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Schedule (on page 26)</td>
<td>Displays when and how often jobs are scheduled.</td>
</tr>
<tr>
<td>Simulate job processing</td>
<td>Estimates your scheduling environment behavior with respect to specific dates in the future.</td>
</tr>
<tr>
<td>Generate Forecast reports</td>
<td>Gathers information on workloads, trend analysis, and job execution.</td>
</tr>
<tr>
<td>Run a Forecast utility</td>
<td>Performs a Load Forecast operation in batch mode.</td>
</tr>
</tbody>
</table>
V7 to V8 changes

The V7 to V8 Locator tool is a graphical tool that helps you become familiar with the V8 interface. The following topics help you learn about the changes in Control-M Workload Automation 8.

- **Locating V7 items in V8 (on page 44):** Describes how to easily locate the buttons and menu items that enable you to access the functionality of Control-M in the new V8 interface.
- **What's new:** Includes a summary of What's New in V8, and includes the new features and terminology. You can also find What's Changed in the *Control-M Workload Automation version 8.0.00 Release Notes*.
- **Terminology (on page 45):** Several terms were changed from previous releases in Control-M Workload Automation version 8.0.00. For fields that were changed, see the Previously Known As section in *Parameters for relevant parameters in the Properties pane*.

Locating V7 items in V8

This procedure describes how to locate V7 items in the V8 screen, which enables you to find items in the V8 Control-M Workload Automation client.

➢ **To locate V7 items in V8:**

1. In the Control-M Workload Automation client, click the **File** menu, and select **Help > V7 to V8 Locator**.
   
   The **V7 to V8 Locator** window appears.

2. In the main V7 screen, do one of the following:

   - To locate a Control-M/Desktop Job Editing Form item, click ![image](image1.png).
   - To locate a Control-M/Desktop item, click ![image](image2.png).
   - To locate a Control-M/Enterprise Manager item, click ![image](image3.png).

   The V7 screen appears.

3. In the V7 screen, click a field, menu item or a toolbar.
   
   The keystrokes to get to the item are marked in the V8 screen.

4. To find another item, click anywhere on the screen, and repeat steps 2 - 3.
Terminology

Some terms were changed in Control-M Workload Automation version 8.0.00. The following table lists the old terms and the new ones for this version.

<table>
<thead>
<tr>
<th>Old term</th>
<th>New term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Table</td>
<td>Folder</td>
</tr>
<tr>
<td>Group</td>
<td>Sub Application</td>
</tr>
<tr>
<td>Owner</td>
<td>Run as User</td>
</tr>
<tr>
<td>Author</td>
<td>Created by</td>
</tr>
<tr>
<td>Node</td>
<td>Host (Node group changed to Host group)</td>
</tr>
<tr>
<td>Sysout</td>
<td>Output</td>
</tr>
<tr>
<td>User Daily</td>
<td>Order Method</td>
</tr>
<tr>
<td>Memlib</td>
<td>File path</td>
</tr>
<tr>
<td>Memname</td>
<td>File name</td>
</tr>
<tr>
<td>Overlib</td>
<td>Override path</td>
</tr>
<tr>
<td>AutoEdit</td>
<td>Variable</td>
</tr>
<tr>
<td>Active Jobs File (AJF)</td>
<td>Active Jobs Database</td>
</tr>
</tbody>
</table>

The change has been made both on Control-M/Server and Control-M/EM. Usage of utilities with the old terms are supported, and new utilities with new terms are also supported.