

IBM® Workload Scheduler
Developer's Guide: Driving IBM® Workload Scheduler
Version 10.2.4

Note

Before using this information and the product it supports, read the information in [Notices on page x](#).

This edition applies to version 10, release 2, modification level 4 of IBM® Workload Scheduler (program number 5698-T09) and to all subsequent releases and modifications until otherwise indicated in new editions.

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About this guide

Provides an overview of the guide, with information about changes made to it since the last release, and who should read it. It also supplies information about obtaining resources and support from IBM.

Developer's Guide: Driving IBM Workload Automation introduces you to the application programming interfaces available to drive IBM Workload Automation products from your own applications.

What is new in this release

Learn what is new in this release.

For information about the new or changed functions in this release, see *IBM Workload Automation: Overview*, section *Summary of enhancements*.

For information about the APARs that this release addresses, see the IBM Workload Scheduler Release Notes and the Dynamic Workload Console Release Notes. For information about the APARs addressed in a fix pack, refer to the readme file for the fix pack.

New or changed content is marked with revision bars.

Accessibility

Accessibility features help users with a physical disability, such as restricted mobility or limited vision, to use software products successfully.

With this product, you can use assistive technologies to hear and navigate the interface. You can also use the keyboard instead of the mouse to operate all features of the graphical user interface.

For full information, see the Accessibility Appendix in the *IBM Workload Scheduler User's Guide and Reference*.

Technical training

Cloud & Smarter Infrastructure provides technical training.

For Cloud & Smarter Infrastructure technical training information, see: <http://www.ibm.com/software/tivoli/education>

Support information

IBM provides several ways for you to obtain support when you encounter a problem.

If you have a problem with your IBM software, you want to resolve it quickly. IBM provides the following ways for you to obtain the support you need:

- Searching knowledge bases: You can search across a large collection of known problems and workarounds, Technotes, and other information.
- Obtaining fixes: You can locate the latest fixes that are already available for your product.
- Contacting IBM Software Support: If you still cannot solve your problem, and you need to work with someone from IBM, you can use a variety of ways to contact IBM Software Support.

For more information about these three ways of resolving problems, see the appendix about support information in *IBM Workload Scheduler: Troubleshooting Guide*.

Chapter 1. Introduction to driving IBM Workload Automation

Provides an overview of the entire publication.

Developer's Guide: Driving IBM Workload Automation describes the application programming interfaces which you can use to drive IBM Workload Automation products from your own applications.

Use the REST API application programming interface to create your own GUI or command-line interface to perform all the functions of the command-line programs composer, conman, and planman and the Dynamic Workload Console. This includes performing the following tasks in IBM Workload Scheduler and IBM Z Workload Scheduler:

- Modifying objects in the database
- Submitting workload
- Monitoring the plan
- Performing actions on the plan, such as remedial actions in the event that a job fails

The information about the application programming interfaces is organized as follows:

- [Driving IBM Workload Scheduler with REST API on page 8](#)

Chapter 2. Driving IBM Workload Scheduler with REST API

IBM Workload Scheduler provides a set of fully functional APIs that are implemented based on Representational State Transfer (REST) services. REST APIs let you easily integrate our workload scheduling capabilities with heterogeneous third party environments into complex automated systems. The same product functionalities covered by J2EE APIs are available with REST APIs. REST APIs use an independent programming language and enable easier network configuration and firewall traversal. The following are some examples or scenarios where APIs can be implemented:

- You can develop your own graphical interface to create and modify scheduling definitions and update items in the plan.
- You can update definitions in the database or items in the plan within a script for integration or automation.
- When a specific event occurs within an external product, you can automatically submit a batch workload through IBM Workload Scheduler.
- In a managed file transfer solution, when a specific file arrives, you can submit one or more jobs to elaborate the file, closing the loop on your business process, whether it be bank transactions, a payroll process, or report generation. Your external managed file transfer product starts the business process and IBM Workload Scheduler takes care of the processing, assuring that it is monitored together with the rest of the processes from a single point of control.

The IBM Workload Scheduler REST API provides several services to administer engines, event rules, workload modelling, plans, and security.

REST API V2

REST API V2 have been implemented and are easier to configure, more powerful and flexible. It is highly recommended to use them for any future integration.

Accessing REST APIs

After installing your master domain manager or backup master domain manager, you can access the available REST API services by connecting to the following URL:

```
https://hostname:port_number/twsd
```

where,

hostname

The hostname of the master domain manager or the backup master domain manager.

port_number

The HTTPS port number of the master domain manager or backup domain manager. The default is 31116.

You can try out the REST API services and the operations available for each API on Swagger Docs by connecting to https://MDM_IP_address:tdwbport/twsd/. In the Swagger, you can find the REST API V2s by entering `WA_API3_v2.json` in the search bar. There, click **List Operations** to view the operations available with the service, and then click **Expand Operations** to view details such as, the implementation notes, parameters, and response messages for each method. At the end of the details you can find a **Try it out!** button to see the operation in action.

You can also access some IBM Workload Scheduler REST API samples here: [REST API samples](#).

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