TME 10 Operations Planning and Control

The TME 10 Operations Planning and Control (TME 10 OPC) licensed program is part of TME 10 OPC Operations and Administration discipline. TME 10 OPC supports operations management, providing the foundation for enterprise-wide production workload management.

Whether you control a single-image OS/390* system or complex, multi-vendor networks and systems from a single point of control, TME 10 OPC helps you plan, manage, and automate the production workload.

Using the controller feature, the base OS/390 tracker, the OPC Tracker Agents for other operating platforms, and TME 10 OPC's open interfaces, you can control the workload in virtually any operating environment.

TME 10 OPC is more than just a batch scheduling tool—it is a production management system able to manage all the work running on any system.

OPC was voted best scheduling package by the IBM Mainframe User Information Exchange (IBEX) group, an independent organization.

The State-of-the-Art Solution

TME 10 OPC provides leading-edge solutions to problems in production workload management. It maximizes the throughput of work, optimizes your resources, but lets you intervene manually when required.

Comprehensive Workload Planning

TME 10 OPC constructs operating plans based on user-supplied descriptions of the DP department and its production workload. These plans provide the basis for your service level agreements and give you a picture of the production workload at any point in time. You can simulate the effects of changes in your production workload and in resource availability by generating trial plans.

Good planning is the cornerstone of any successful management technique. Effective planning also helps you maximize return on your investments in information technology.

Centralized Systems Management

From a single point of control, TME 10 OPC analyzes the status of the production work and drives the processing of the workload according to business policies. It supports a multiple-end-user environment, enabling distributed processing and control across sites and departments within your enterprise.

Systems Management Integration

Solutions to today's systems management problems require integration of application programs and processes. TME 10 OPC offers you integration with:

- Agents for controlling the workload on non-MVS platforms
- Other systems management application programs
- Application programs running in Systems Application Architecture* (SAA*) environments.

TME 10 OPC – Working with Other IBM Products

TME 10 OPC interfaces directly with a number of other IBM products providing an integrated approach to the control of complex production workloads.

NetView*. TME 10 OPC lets you schedule WTO operations in conjunction with the production workload processing. Alerts are passed to the NetView program in response to situations that occur while processing the production workload. The NetView program can then trigger TME 10 OPC to perform actions in response to these situations.

Resource Object Data Manager (RODM). It provides a central location for storing, retrieving, and managing the operational resource information needed for network and systems management. You can map an TME 10 OPC special resource to a RODM object. This lets you schedule the production workload considering actual resource availability, dynamically updated.
Automated Operations Control/MVS (AOC/MVS). AOC/MVS initiates automation procedures that perform operator functions to manage MVS components, datasets, and subsystems. AOC/MVS includes an automation feature for TME 10 OPC.

TME 10 Performance Reporter for OS/390 (Performance Reporter) Performance Reporter helps you effectively manage the performance of your system by collecting performance data in a DATABASE 2 (DB2) database and presenting the data in a variety of formats for use in systems management. Performance Reporter uses data from TME 10 OPC to produce summary and management reports about the production workload, both planned and actual results.

Report Management and Distribution System (RMDS). RMDS helps customers increase productivity and reduce the costs of printing by providing a means for storing and handling reports in an MVS environment. When a dialog user requests to view a job log or to automatically rebuild the JCL for a step-level restart, TME 10 OPC interfaces with RMDS.

Information/Management (INFO/MAN). INFO/MAN supports the administration of the systems management process of an enterprise's hardware and software resources. An interface with INFO/MAN is provided for reporting problems detected while processing the production workload.

Resource Access Control Facility (RACF*). RACF is the IBM product for data security. You can use RACF to protect your TME 10 OPC services and data at the level required by the enterprise. With RACF 2.1, you can use an TME 10 OPC reserved resource class to protect your TME 10 OPC resources.

Data Facility Hierarchical Storage Manager (DFHSM). The TME 10 OPC dataset cleanup functions start DFHSM, or the DFSMSHsm* component of DFSMS/MVS*, to recall migrated datasets.

TME 10 Global Enterprise Manager (GEM). TME 10 GEM is the industry's first solution for unifying the management of cross-platform business applications that run businesses and make them competitive. TME 10 GEM helps you manage strategic applications from a unique business systems perspective, focusing your IT resources on keeping these systems healthy and productive. TME 10 OPC has been instrumented to support the Job Scheduling Business System of the TME 10 GEM Systems Management Business System.

In addition to these IBM products, there are also products from other software vendors that work with or process data from TME 10 OPC.

Automation

By automating management of your production workload with TME 10 OPC, you can minimize human errors in workload processing and free your staff for more productive work. Whether you are running one or more systems at a single site—or at several distributed sites—TME 10 OPC helps you automate your production workload by:

- Coordinating all shifts and production work across installations of all sizes, from a single point of control
- Automating complex and repetitive operator tasks, such as:

MVS and JES. TME 10 OPC uses standard MVS and JES interface points to obtain information about the OS/390 workload.

CICS* and IMS*. TME 10 OPC lets you schedule the starting and stopping of started tasks. Because TME 10 OPC tracks the status of started tasks, you can serialize work, such as backups of transaction databases, according to the status of your CICS or IMS subsystems.

LoadLeveler*. LoadLeveler balances the workload for clusters of UNIX** systems. The OPC Tracker Agents for AIX and the other UNIX implementations can integrate with LoadLeveler 1.2.

Integration

TME 10 OPC not only enables integration with other host-system management application programs, but also with application programs running in other operating environments. Through its application programming interface (API), TME 10 OPC can communicate with, and provide data to, application programs running on various platforms, providing an enterprise-wide interface with workload management data.

The TME 10 OPC Workload Monitor/2 is an interface that lets you view and update the TME 10 OPC current plan from a personal workstation. Users can perform tasks using a mouse instead of keystrokes and commands.

Similarly, the TME 10 OPC GUI for Application Description is an interface that lets you view and update the Application Description database from a personal workstation.
Workload Monitoring
In addition to providing a single point of control for the production workload across your systems, TME 10 OPC:

- Monitors the production workload in real time, providing staff with the latest information on the status of the workload so that they can react quickly when problems occur.
- Provides security interfaces that ensure the protection of your services and data.
- Enables manual intervention in the processing of work.
- Reports the current status of your production workload processing.
- Provides reports that can serve as the basis for documenting your service level agreements with users. Your customers can see when and how their work is to be processed.

Automatic Workload Recovery
TME 10 OPC enables processing of the production workload to continue even when system or connection failures occur. If one system fails, TME 10 OPC can restart the processing on another system. When the TME 10 OPC controlling system is running in an OS/390 system complex (sysplex), a hot standby function can automatically transfer control of the production workload to another system in the sysplex. Because TME 10 OPC continues to manage the production workload, should a failure occur you can maintain the integrity of your processing schedules and continue to service your customers.

TME 10 OPC provides automatic recovery facilities for both job and started-task failures. Disaster recoverability of your TME 10 OPC environment is adaptable to a variety of recovery situations.

Productivity
TME 10 OPC represents real productivity gains by ensuring fast and accurate performance through automation. The tasks TME 10 OPC performs not only have to be performed, but they must be done correctly, every time, and as quickly as possible. Many of these tasks, traditionally performed by DP professionals, are tedious and as a result prone to error.

Your DP staff and end users can realize significant productivity gains through TME 10 OPC's:

- Fast-path implementation.
- Immediate response to dialog requests for workload status inquiries. Users are provided with detailed real-time information about production workload processing so that they can detect and promptly correct errors.
- Automation of operator tasks such as error recovery and dataset cleanup.
- Graphical display of production workload dependencies. Users can easily trace the relationships within the flow of the production workload.
- GUI, with its easy-to-use graphical user interface and sophisticated online help facilities.

Growth
As you implement TME 10 OPC automation and control, you can manage greater production workload volumes. TME 10 OPC enables growth within your DP operation by providing:

- Ways of absorbing the increasing batch workload without increasing operations staff
- An open interface for submitting and tracking the workload on operating systems other than MVS
- Interfaces with other system management application programs
- An open interface for programs on other SAA platforms
- Simulation facilities to forecast future workloads.

Investment Protection
Compatibility with earlier products protects your investment in workload management and lets you control the existing workload without disruption. If you are currently using OPC/A Release 2 or OPC/ESA Release 3, you can:

- Easily migrate to TME 10 OPC Version 2 without initial program loading (IPL)
- Use existing JCL and applications without changes
- Use TME 10 OPC Version 2 to continue controlling the production workload on systems that run OPC/A Event Manager Subsystem (EMS) or an OPC/ESA Release 3 tracker.

TME 10 OPC Version 2 Release 2 Highlights
The following is a summary of the functions added in Version 2 Release 2 of TME 10 OPC:

Instrumentation for TME 10 Global Enterprise Manager
TME 10 Global Enterprise Manager (GEM) is the industry's first solution for unifying the management of cross-platform business applications that run businesses and make them competitive. TME 10 GEM helps you to manage strategic applications from a unique business systems perspective, focusing your IT resources on keeping these systems working properly and productively. TME 10 OPC has been enhanced to support the Job Scheduling Business System of the TME 10 GEM Systems Management Business System.

SAP R/3 Support
TME 10 OPC has been enhanced to exploit the Extended Agent technology of the TME 10 Workload Scheduler product. By using this technology, you can now start and track a SAP R/3 job from TME 10 OPC. You can also retrieve and display the job log at the TME 10 OPC controller. This function is available via the TME 10 OPC Tracker Agent for one of the following platforms:

- AIX
- Digital UNIX
- Sun Solaris
TCP/IP Communication Improvements
The TCP/IP communication component that enables the controller to communicate with the TCP/IP connected tracker agents has been restructured to use the standard TCP/IP C–Socket interface. This change enables TME 10 OPC for the latest OS/390 releases and provides for the use of the standard TCP/IP features, such as the KEEPALIVE option.

Catalog Management Enhancements
The logic that TME 10 OPC uses when determining which catalog management actions to perform has been extended to manage the following situations:

- Some steps in a job are not executed, but are flushed. The datasets referred to in those steps are ignored by the catalog management function.
- A dataset referred to with disposition NEW in one step is also referred to in other steps. Logic to determine the action to perform in these cases has been added to the Catalog Management function.

Dataset Delete Function (EQQDELD5) Improvements
The Dataset Delete function has been enhanced to determine the correct action when a dataset referred to with disposition NEW in one step is also referred to in other steps. The Dataset Delete function has also been improved to do the following:

- Delete datasets for which an expiration date was specified.
- Issue diagnostic information when the IDCAMS DELETE command or the DFHSM ARCHDEL command fails to delete a dataset.

Current Plan Occurrence Limit Removal
The maximum number of occurrences in the current plan has been increased from 32767 to 9999999. This enhancement enables you to manage the current plan more flexibly when you have large workloads.

Operations in AD Limit Removal
You can now define up to 255 operations in each Application Description. This enhancement provides for more flexibility in the definition of the workload.

AD and OI Consistency Check
The consistency between the Application Description and the Operator Instruction OPC databases is now enforced by OPC. For instance, whenever an operation is deleted the associated operator instructions is also deleted. Some usability enhancements have also been implemented in the Application Description dialogs when defining operator instructions. For instance, you can now also access temporary operator instructions.

JCL Editing from Application Description Dialogs
You can now customize the TME 10 OPC dialogs so that a library management application used in the customer's environment to manage the production jobs can be invoked from the Application Description OPC dialogs, thus increasing user productivity. New row commands have been added to invoke such an application from the Operation List panel while working with an Application Description.

OPC Control Language Tool
The OPC Control Language (OCL) tool enables you to access and manipulate TME 10 OPC data by using a REXX-like language. Several macro-functions are made available that perform, in a single action, what would require several invocations of the OPC Program Interface functions. The OCL tool acts as an extension to the REXX language processor. Therefore, normal REXX statements can be coded together with OCL statements. This tool runs in a batch TSO session.

Tracker Agents
New Tracker Agents are provided to control the workload on:

- Digital UNIX
- OS/390 Open Edition

SmartBatch Coexistence
TME 10 OPC has been extensively tested to make sure that all the features continue to work correctly when the production workload is under SmartBatch control.

Other Enhancements to Functions
- EQQZSUB5X 16 MB limit removal: because it is no longer necessary to move the JCL buffer below the 16 MB line before submitting it to JES2 or JES3, this processing has been removed from TME 10 OPC.
- To improve the robustness of TME 10 OPC, the STIMER macro is now invoked, wherever the STIMER macro was previously invoked.
- TME 10 OPC Job-Submit user exit (EQQUX001) has been improved by adding two new parameters: WorkstationID and ErrorCode. When ErrorCode is set, TME 10 OPC will not submit the job.
- TME 10 OPC Operation-Status-Change user exit (EQQUX007) has been improved by adding the procstep name to the JOBAREA parameter. This enhancement provides for fully automated problem management.
- Debugging aids for performance problems: new statistics are now produced by TME 10 OPC to trace all the activities performed during the job submission process. These statistics are especially useful when you tune your systems to maximize job throughput in TME 10 OPC. You can dynamically activate and deactivate these statistics by means of new MODIFY commands.

Tracker Agents
The OPC Tracker Agent features let you plan, control, and manage the workload on non-MVS platforms from the controlling system. OPC Tracker Agents are now available for OS/390 Open Edition and Digital UNIX, in addition to the previous ones for: OS/390, AIX/6000* OS/400*, OS/2, Windows NT, HP–UX, SunOS, Sun Solaris, Digital OpenVMS, and Pyramid MIPS ABI.
Machine Requirements
TME 10 OPC runs on any processor that supports MVS/ESA or OS/390.

The TME 10 OPC GUI requires a personal workstation supporting Operating System/2* (OS/2) Warp Version 3 (5622-601), or Version 4 (5622-851) with Communication Manager/2 Version 1.1 (5622-078) or later, or Communication Server Version 4 (5622-878).

Program Requirements
TME 10 OPC requires the functions provided by an MVS control program run in MVS/ESA mode. The job entry subsystem can be JES2 or JES3.

TME 10 OPC requires one of these operating environments:
- MVS/ESA SP Version 4
- MVS/ESA SP Version 5
- OS/390.

To install and maintain TME 10 OPC, you need System Modification Program Extended (SMP/E) Release 8.1 (program number 5668-949).

These IBM licensed programs, or any functionally equivalent programs, are required on the TME 10 OPC controlling system:
- Time Sharing Options/Extensions (TSO/E) 2.2 (program number 5685-025).
- Data Facility Sort (DFSORT*) 1.9 (program number 5740-SM1).
- Interactive System Productivity Facility (ISPF) for MVS Version 4 (program number 5655-042).
- TME 10 OPC Version 2 (program number 5697-OPC). Both the base product (the tracker), and the controller feature are required.
Plan Your Day with TME 10 OPC

Find Out More
If you would like more information about the TME 10 Operations Planning and Control program product, contact your local IBM marketing representative, or drop us a line at:
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