

QuickReporter for ITM: *how to make reporting easy in IBM Tivoli Monitoring*

PRIMEUR *QuickReporter for ITM* is a product providing easy-to-manage reporting functionalities for the new IBM Tivoli Monitoring version 6

PRIMEUR has realized several solutions complementing Tivoli products, also certified by IBM as "Ready for Tivoli". In this document we present a new solution for Tivoli Monitoring (ITM) version 6.1, the new IBM monitoring product based on Candle technologies. ITM 6.1 is complete product that provides many benefits. However, ITM 6.1 neither has reporting features nor provides any out-of-the-box integration to reporting systems. Therefore, PRIMEUR has developed a product, called Quick Reporter for ITM, that provides a simple and effective reporting solution for IBM Tivoli Monitoring 6.

- friendly and powerful interface provided by the Tivoli Enterprise Portal (TEP);
- low impact on system resources on managed systems;
- easy configuration of automation and correlation rules (by means of the Workflow Editor graphical interface);
- collection, storing and consolidation of availability and performance data into a datawarehouse di ITM 6.1, called Tivoli Data Warehouse (TDW) 2.1.

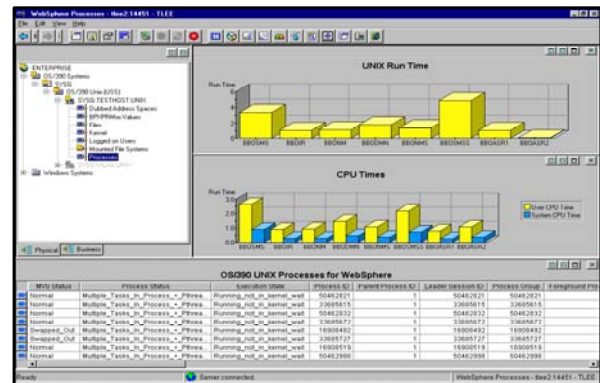


Figure 1 – Tivoli Enterprise Portal

Introduction

Tivoli Monitoring version 6.1 is the new version of IBM monitoring products that offer many benefits, both with respect to the previous ITM 5.x versions and other competing products. Among the most interesting features of ITM 6.1, we can list the following ones:

- simple and rapid installation and configuration;

The only missing feature in ITM 6.1 is the absence of real reporting capabilities. In the following, we present a new product, called **Quick Reporter for ITM**, that PRIMEUR has developed to provide a simple and effective reporting solution for IBM Tivoli Monitoring 6.

QuickReporter for ITM

Being able to present and analyze availability and performance data is very important because it allows you understand how IT infrastructure works, detect trends and therefore effectively support decision making processes.

ITM version 6.1 neither has native reporting features nor does provide any out-of-the-box integration to reporting systems, such as Crystal Reports provided by ITM 5.x (a Crystal Enterprise licence was included).

More precisely:

- the TEP can show simple graphs and charts with historical data contained in TDW but cannot create complex reports, schedule reports and save them in PDF or HTML format for offline viewing;
- historical data stored can be accessed but TDW 2.1 provides no reporting tools.

While it is possible to use market products (such as BusinessObjects, Hyperion, Cognos or others), common experience tells that they require quite an amount of time and development effort, in particular for gaining knowledge of database schemas for each ITM 6.1 agent and to define all (possibly many) needed reports for the interesting metrics. Moreover, these *general purpose* reporting products are very expensive both in terms of software licences and in terms of required expertise, requiring good operational knowledge of their development tools and environments.

QuickReporter for ITM is a PRIMEUR product providing the perfect solution for monitoring environments based on ITM 6. This product makes report generation quick and easy, without any manual operation or costly integrations. The report generation engine is provided by **BIRT** (Business Intelligence and Reporting Tool), the *open source* reporting system developed by the Eclipse project (<http://www.eclipse.org/birt>). Therefore, **QuickReporter for ITM** does not require any other software licence.

The main product features of **QuickReporter for ITM** are:

- a rich library (of hundreds) of **predefined reports** on historical data collected by ITM 6.1 agents, on a daily, weekly and monthly basis and with different report types (*trend, summary or rank*);
- **scheduled report generation** at configurable date and times in either **PDF or HTML format**;
- a simple and user-friendly **Web interface** for configuring reports and target systems and viewing generated reports;
- report customization through **style sheets** and use of the **company logo** in the report header;
- capability to define **custom reports**, for example in order to analyze metrics on data collected by ITM 6 Universal Agent.

QuickReporter for ITM is a simple and ready-to-use solution, easy to install and configure, it does not require any database or reporting skill to the user and thus has a very rapid time to value.

Architecture

The following figure shows **QuickReporter for ITM** architecture and components.

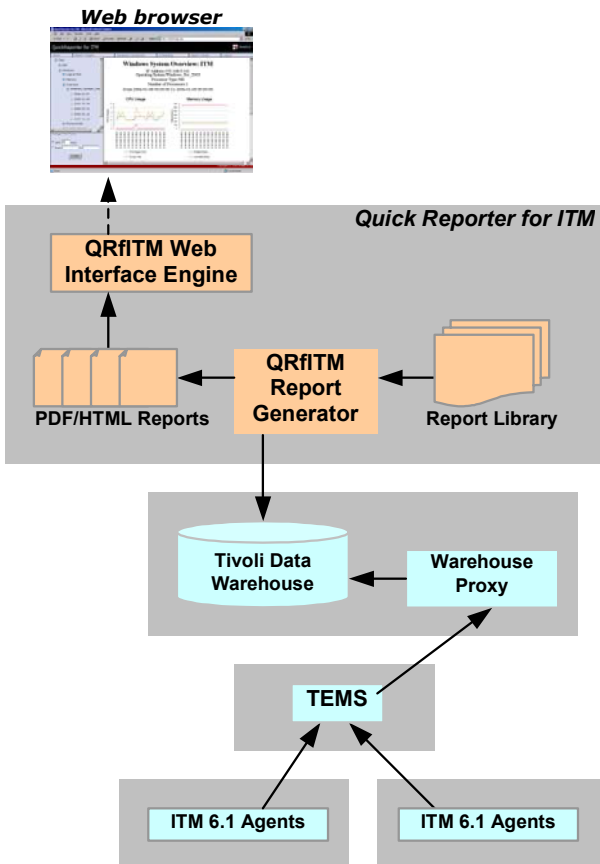


Figure 2 – Architecture and components

The main components are the following:

- **Report Library:** library of report definitions (in XML format);
- **Report Generator:** component generating report, according to defined configuration and scheduling;
- **Web Interface Engine:** component providing the presentation engine of the web interface for report configuration and visualization.

Configuration

From **QuickReporter for ITM** web interface (see following figure) it is possible to choose the desired report category and target

systems to be considered (selected among those present in the datawarehouse).

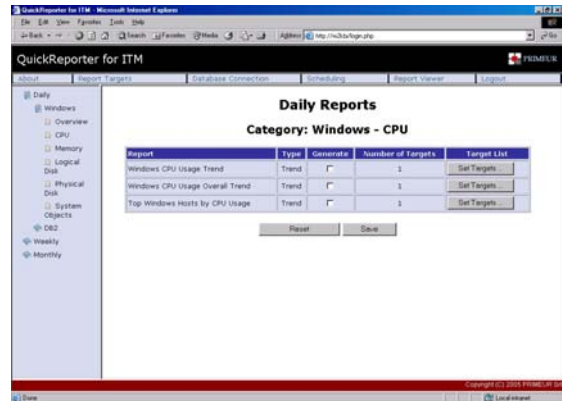


Figure 3 – Reporting configuration

Scheduling options let you specify the date and time for generating daily, weekly and monthly reports (see following figure).

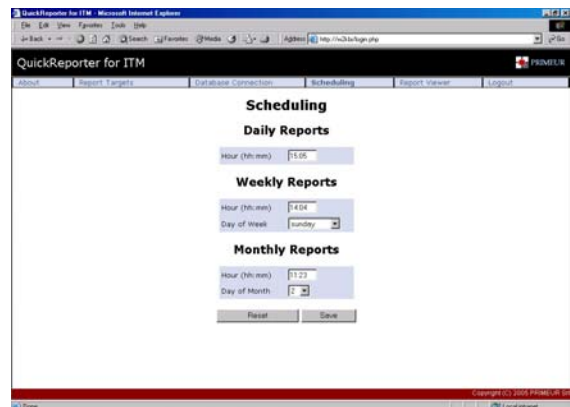


Figure 4 – Scheduling configuration

Report visualization

QuickReporter for ITM reports can be accessed by means of a simple Web interface (see following figure): available reports can be navigated easily and visualized inside a web browser in either HTML or PDF (by means of Acrobat Reader *plugin*) formats. There reports can also be made available (by *linking* them) to internal personnel from company intranet sites, or from outside to possible customers.

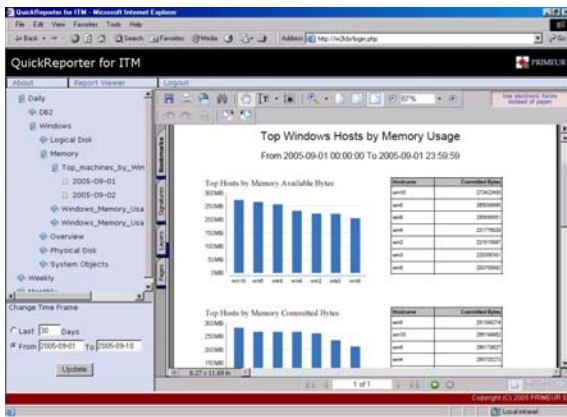


Figure 5 - Viewing reports

Of course, reports can also be saved locally for viewing them *offline*, for printing or sending them by e-mail.

Report catalog

QuickReporter for ITM catalog includes hundreds of reports. The predefined metrics have been defined by leveraging PRIMEUR field experience and by taking into account reports provided by other IBM monitoring products. For each metric the following report types are provided:

- **Trend:** trend of one or more metrics for each system (e.g. *Windows Memory Usage Trend*);
- **Rank:** bar graph of several systems ranked in relation to one or more metrics (e.g. *Top Systems by Windows Memory Usage*);
- **Summary:** average trend of one or more metrics for several systems (e.g. *Windows CPU Usage Overall Trend*);

For example, for Windows systems:

- **Memory:** Available Bytes, Committed Bytes, Cache Bytes, Page Rate;
- **CPU:** % Interrupt Time, % Privileged Time, % User Time, Interrupts/sec;

- **Logical Disk:** % Free, % Used, Free Megabytes, Total Size;
- **Physical Disk:** % Disk Read Time, % Disk Write Time, Disk Bytes/sec;
- **Network Interface:** Bytes Received/sec, Bytes Sent/sec, Packets Outbound Errors, Packets Received Errors;
- **Paging File:** % Usage, % Usage Peak;
- **System:** Processor Queue Length, Number of Processes and Threads;
- **TCP Statistics:** Active Connections.

Moreover, *overview* reports are provided, that is for multiple metrics (see following figure showing *Windows System Overview* report).

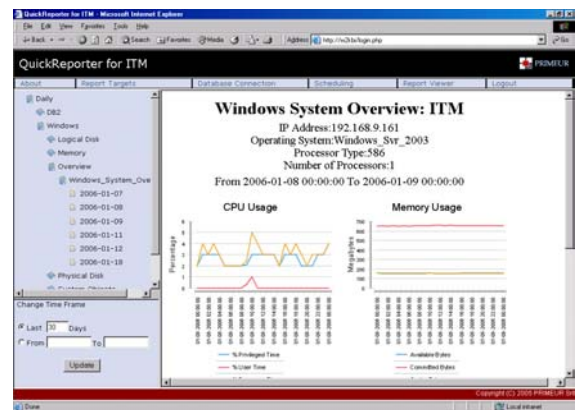


Figure 6 – Windows System Overview report

Support and prerequisites

QuickReporter for ITM supports main ITM 6 agents in every management environment where historical data has been enabled.

QuickReporter for ITM can be installed on Windows XP/2000/2003, RHEL 3.0, SLES 9 systems and supports both Internet Explorer 6 and Mozilla Firefox 1.0 web browsers.

For more informations please contact
ccsys@primeur.com