

IBM Tivoli Storage Manager for Enterprise Resource Planning

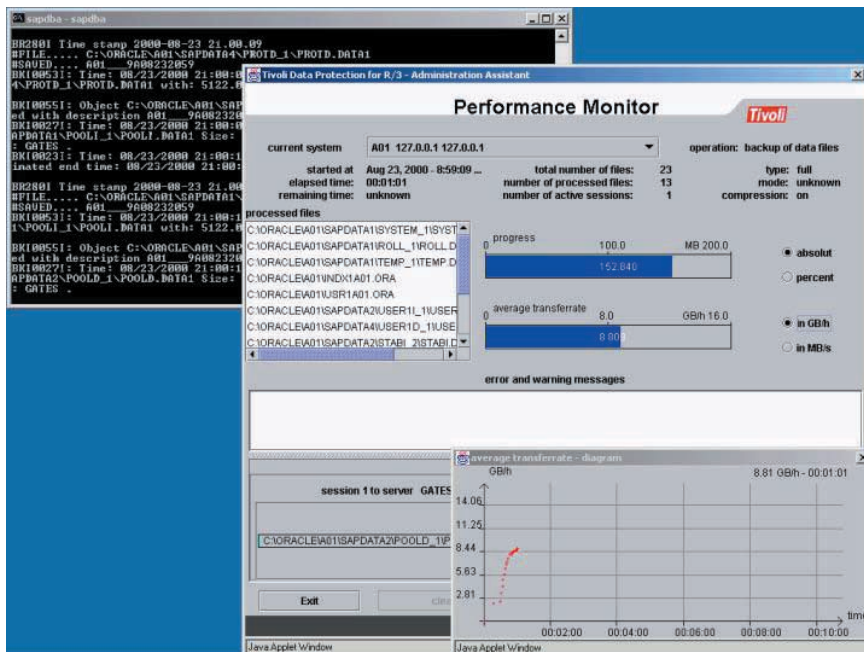
Highlights

- **Achieve consistent data backup and recovery in heterogeneous environments across the enterprise**
- **Manage policies and procedures from a central point**
- **Reduce network bottlenecks with multiple communication paths and storage area network (SAN) exploitation**
- **Connect SAP DBA with IBM® Tivoli Storage Manager**
- **Leverage front-end and backend processing capabilities**
- **Increase administrator productivity with browser-based Administration Assistant**

A proven solution for SAP R/3 data protection

IBM Tivoli® Storage Manager for Enterprise Resource Planning (ERP) is a software module that runs on the SAP R/3 server to provide online “hot” data backups and restores of SAP R/3 data. In conjunction with the Tivoli Storage Manager client software, this module interfaces through a network with a centralized Tivoli Storage Manager data protection server to hold backed-up data.

Specifically designed and optimized for the SAP R/3 environment, Tivoli Storage Manager for ERP focuses on automated operation, optimum performance and increased administrator productivity. It builds on SAP DBA—a set of database administration functions integrated with SAP R/3—for database control and administration. Tivoli Storage Manager for ERP connects SAP DBA with Tivoli Storage Manager to automatically manage the backup repository and leverage resources to serve multiple SAP R/3 systems. As the intelligent interface to SAP DBA, Tivoli Storage Manager for ERP is SAP-certified in heterogeneous environments, supporting large-volume backup, recovery, data cloning and disaster recovery of multiple SAP R/3 systems.



This screen capture shows an ongoing backup of an SAP R/3 system, triggered by SAP DBA (background) and depicted by the Administration Assistant (foreground). The performance monitor of the Administration Assistant displays the average transfer backup rate.

Centralized management

With the optional Administration Assistant feature you can customize and monitor the performance of Tivoli Storage Manager for ERP. This feature assists in the configuration, monitoring, performance analysis and administration of Tivoli Storage Manager for ERP. With a browser-based graphical user interface (GUI), it can operate from either a local or a remote workstation.

Administration Assistant enables policies and processes to be managed from a central point and then quickly and easily replicated across the SAP environment. This can help you provide consistent backup and recovery of critical data across the enterprise—even in “lights-out” operations where you are managing servers remotely without onsite staff—and lets you view the backup status of your SAP R/3 systems at a glance. Administration Assistant provides a fast overview of the backup status of systems, at one time, and a one-step customization process to help avoid native editing of multiple files. It gives you a dynamic visualization of backup and restore performance rather than an analysis of log listings and provides a single point of control instead of multiple logons.

SAN implications

The local area network (LAN)-free support offered by Tivoli Storage Manager for ERP allows disparate servers to access tape libraries through the SAN (library-sharing feature). Data can be sent and retrieved directly from the production system to and from the tape. Especially in restore situations, the LAN-free feature allows administrators to retrieve data directly over the SAN—with virtually no LAN impact.

The solution can be expanded to support SAP R/3 data stored on the IBM Enterprise Storage Server™ (ESS) by leveraging the FlashCopy® function of the ESS. This function can help you avoid backup-related impacts during online backup times. You can make an instant copy of a defined set of disk volumes, allowing immediate access to data on the target volumes and helping greatly reduce the impact of the backup on the production server.

Consistent backup and recovery of critical data

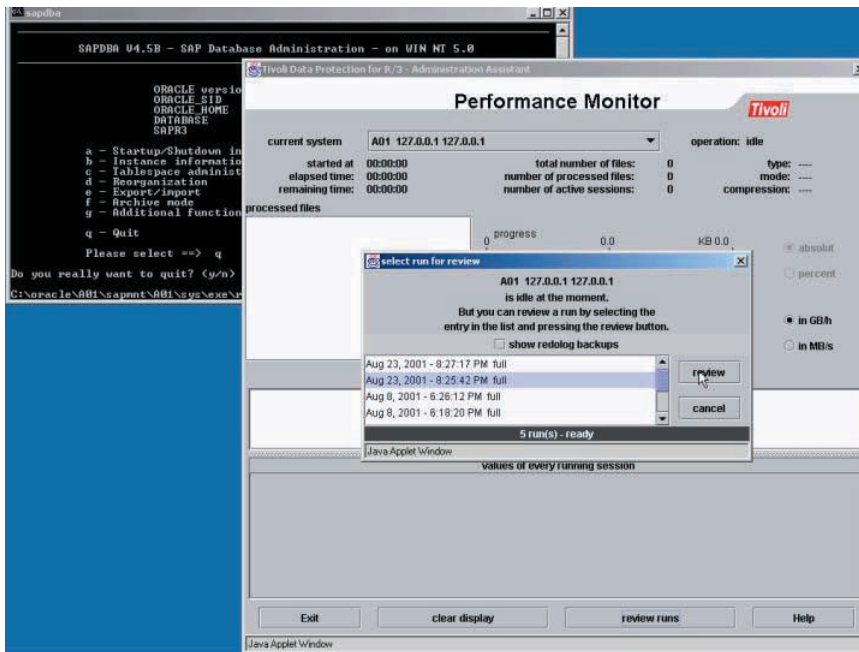
Tivoli Storage Manager for ERP uses native SAP utilities to back up and restore Oracle database objects. These utilities pass the database objects as a temporary list of files.

Tivoli Storage Manager for ERP can receive control with the parameters specified in its profile, sort the files for optimum load balancing and throughput and initiate the specified number of multiple sessions. These sessions execute in parallel and transfer data between the SAP R/3 database and storage devices to maximize overall throughput.

Tivoli Storage Manager for ERP can support incremental backups of the Oracle database using Oracle Recovery Manager (RMAN). An incremental backup saves only those blocks within the database that have been changed since the last full backup, reducing the total amount of data to be backed up.

Tivoli Storage Manager for ERP can connect to the DB2 Universal Database™ and to the SAP R/3-specific BRArchive functions to provide the same automation and productivity functions to DB2 Universal Database customers. It supports DB2® backup modes.

To help reduce network-induced bottlenecks, Tivoli Storage Manager for ERP can simultaneously use multiple communication paths for data transfer with the Tivoli Storage



This screen capture shows the complete function of SAP DBA data (background), before a backup is triggered. The Administration Assistant (foreground) is just selected to review a previous backup session.

Manager server. The number of sessions can be set individually for each path depending on its bandwidth. Multiple Tivoli Storage Manager servers can also be used to back up and restore simultaneously, helping minimize bottlenecks in server capacity.

Flexible availability

With Tivoli Storage Manager for ERP you can store multiple copies of the same Oracle redo log to different physical volumes. You can set a predefined number of

retries in establishing a session. If one server is down, backups and restores can be transferred to and from alternate servers. In addition to the specific Tivoli Storage Manager functions for disaster recovery (copy storage pools), Tivoli Storage Manager for ERP lets you route disaster backups to specific servers at specified times.

Efficient system storage management

A management class can be established within Tivoli Storage Manager for each physical backup device, which allows you to take full advantage

of the parallel backup and restore capabilities of Tivoli Storage Manager for ERP. The inquire function enables queries to the Tivoli Storage Manager server for backup IDs and file names currently stored in the server. Used by the SAP DBA utilities, this function can also be invoked by the administrator from the SAP DBA GUI or from the command line to list backed-up files. With the backup-by-version function you can retain multiple versions of the stored data in Tivoli Storage Manager. Password authentication lets you protect the backup copies against unauthorized access.

Tivoli Storage Manager for ERP provides front-end and backend processing capabilities, allowing you to call up a program or command before or after execution. Status information on the backup and restore process is provided through Simple Network Management Protocol traps and can be transferred to Tivoli Enterprise™. Messages are sent to the server, which can in turn pass status to a network management tool. For statistical purposes, Tivoli Storage Manager for ERP provides information about the data volume transferred and the associated elapsed time. You can then generate a report to show which

Supported platforms for Tivoli Storage Manager for ERP

Server platforms

Tivoli Storage Manager Server 4.1.x, 4.2.x or 5.1.x

SAP R/3 3.0C to F, 3.1 up to I, 4.0 up to 4.6D, 6.10

Supported SAP R/3 databases: DB2 Universal Database, Oracle

Operating systems

	Databases		
	<i>DB2 Universal Database</i>	<i>Oracle SAP DBA</i>	<i>Oracle RMAN</i>
Microsoft® Windows NT®	32-bit	32-bit	32-bit
Microsoft Windows® 2000	32-bit	32-bit	32-bit
IBM AIX® 4.3.3, 5.1	32-bit	32-/64-bit	32-bit
Hewlett-Packard HP-UX 11, 11i		32-/64-bit	32-bit
Sun™ Solaris™ 7, 8		32-/64-bit	32-bit
Tru64 UNIX® 4.0, 5.1		64-bit	64-bit
Red Hat Linux® 6.1EE		32-bit	32-bit

Requirements for optional Administration Assistant feature

- Data Protection for SAP R/3, Version 3.2 or later
- Assistant Server requires Java™ Runtime Environment, Version 1.2 or higher; JavaMail 1.1.3 or later; and JavaBeans™ Activation Framework extension or JavaBeans Activation Framework (javax.activation)
- Client requires full Java-capable browser (with Java Plug-in, Version 1.2 or later), either Netscape Navigator 4.5 or later or Microsoft Internet Explorer 5.5 or later

file is currently processed and the estimated end time for the current backup or restore process.

Integration with Tivoli Storage Manager and Tivoli Enterprise solutions

Tivoli Storage Manager for ERP and its optional Administration Assistant feature work directly with Tivoli Storage Manager to protect your vital system data and provide data backup and recovery in heterogeneous environments. Tivoli Decision Support and Tivoli Decision Support Guide are available for Tivoli Storage Manager.

These support features help you make factual business decisions about the distribution of software and hardware, as well as help you determine the impact these decisions might have on your company.

To learn more

For information on Tivoli Storage Manager for Enterprise Resource Planning and integrated solutions from IBM, contact your IBM sales representative or visit info.tivoli.com/storageforsuccess



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