

Ten Things to Look for in a SharePoint Recovery Tool

*Written by
Ilya Sotnikov
Product Manager, SharePoint Management Solutions
Quest Software, Inc.*



White Paper

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World Headquarters
5 Polaris Way
Aliso Viejo, CA 92656
www.quest.com
e-mail: info@quest.com
U.S. and Canada: 949.754.8000

Please refer to our Web site for regional and international office information.

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INTRODUCTION

An increasing number of businesses rely on Microsoft SharePoint products and technologies for collaboration environments, intranet portals, document management systems, composite applications and external-facing web sites. They are recognizing the growing importance of content stored in SharePoint and expect their IT administrators to have processes in place to safeguard this data. These administrators need to be able to quickly restore the SharePoint service or specific content in case of failure, corruption or accidental deletion.

SharePoint's built-in tools can assist in backup and elementary recovery scenarios, but their capabilities are limited. They are designed primarily for self-service recovery of deleted items and do not provide effective granular recovery. Therefore, when critical data has to be restored to SharePoint, IT administrators often have to undertake a lengthy manual process that sometimes involves other groups within IT, such as SQL Server DBAs or backup operators.

How long would it take you to locate, verify, and restore a particular critical document using native tools—minutes, hours, or even days? Could your organization survive the loss of mission-critical data for prolonged periods of time? Even if your organization does not have a formal service level agreement (SLA) in place, there is likely a certain expectation about how long it should take to restore lost content.

To minimize restore times and meet their SLAs, organizations need more than SharePoint's built-in tools. This white paper identifies ten key criteria to help you choose the right SharePoint recovery tool.

TEN THINGS TO LOOK FOR IN A SHAREPOINT RECOVERY TOOL

1. Leverage your backup infrastructure, don't create new one

SharePoint stores all its data and most of configuration settings in SQL databases, and almost every organization has an established SQL Server backup process in place. However, SQL Server backup is often in hands of SQL DBAs or backup operators, who know all about the backups but often do not have the necessary SharePoint knowledge and access permissions to restore a SharePoint document or a site. Therefore, the SharePoint administrator will need to coordinate with other IT groups to locate and use the backup in order to perform the recovery, resulting in longer restoration times.

To mitigate possible delays, SharePoint administrators often create additional, more granular, backups. These can be site collection level done with the built-in STSADM.exe utility or third-party solutions. As a result, the same data is being backed up twice by different administrator teams resulting in higher maintenance and storage costs.

A quality SharePoint recovery tool should enable the SharePoint administrator to use existing backups of SharePoint data, and require minimal or no involvement from SQL DBAs or backup operators to restore the content.

2. Restore exactly what you need, not just what the tools allow

As a SharePoint administrator, you need to address user calls regardless of whether a single list item, document library or a site restore is requested. The restoration process should not become more complicated or introduce new steps if the scope of the restoration is different from the scope of the deletion (e.g., restore several documents from a deleted doc library).

The native tools either require that you restore exactly the item that was deleted from the Recycle Bin or only allow you to restore the entire scope of the backup, such as the entire site collection if you are making STSADM.exe site collection backups.

Look for a solution that can address all restoration requests and is flexible and granular enough to recover exactly the data that is needed. The scope of restoration should not determine whether you restore more data than requested or go through additional steps.

3. Recover content with zero data loss

Most native solutions that granularly restore data to SharePoint create new items and documents in the background, and then re-create the item's properties and links. Most of the content and metadata is usually restored accurately, but certain fields (such as creation and modification timestamps or author and last modifier properties) can be lost as a part of data recovery. For example, data may be lost when you export and import data with STSADM.exe or restore a site with SharePoint Designer.

Not only this can be confusing for SharePoint users, but depending on the industry and jurisdiction, it can also jeopardize company's compliance with government regulations.

You don't have to accept this data loss. Choose a tool that restores all content and metadata exactly as it was when the backup was taken, including all default and custom fields, previous item or document versions, security permissions, views and alerts, workflow associations, and states.

4. Spend minutes on recovery, not days

Time is critical in most, if not all, of the restore operations. A recovery solution should be fast, and mitigate possible dependencies and delays. It is important to understand which of the following factors can impact restoration time and why:

- a) The time it takes for an administrator to start working on the user's restore request. Often, administrators who are in charge of recoveries maintain overall SharePoint farm operations and may have other responsibilities. If an administrator is working on higher priority tasks, recovery operation can be delayed.
- b) The time required to find and locate the requested data. Users who call for a recovery may not have complete and accurate information about when the content they need was deleted, where it had been located prior to deletion, or not remember the exact document name.
- c) The time needed for cross-team communications if SQL DBAs or backup operators need to retrieve the necessary tape (if the backup file has already been moved to tape) and mount the backup copy of the SQL database to the staging environment.
- d) Finally, the time required to write the data back to SharePoint.

A good SharePoint recovery solution will address all of these factors to facilitate restoration and ensure that precious time is not wasted in any stage of the recovery process.

5. Get data back even without SharePoint

Unfortunately, there may be times when you need to get data from SharePoint and it is down. For example, in a disaster recovery situation, a document might be urgently required or a particular site might need to be brought back online before the entire server or SharePoint farm can be restored. Or you might need data from a historical backup of a decommissioned SharePoint instance to complete an investigation or revive an old project.

Make sure the recovery tool you choose can address these scenarios. You should be able to restore any content from a backup to a different SharePoint location, such as a single-server installation that provides you with emergency access to data. The tool should be able to save files and document libraries to your desktop or file share if no SharePoint is available, as well as allow you manually add a historical backup as a restoration source.

6. Build a simple, unified and repeatable recovery process

The native tools that allow granular content recovery also require you to know how backups are created and what the available infrastructure is. With these tools, you may not always be able to restore the data into its original location. Depending on the scope of the recovery, you may need to use interim staging environments and a combination of export and import operations.

A quality recovery tool should provide the same, simple and repeatable process for recovery regardless of its scope. It should require minimum or no training for help desk or junior IT personnel who have basic knowledge of SharePoint. It should also require minimal or no involvement of other groups within IT.

7. Ensure you can restore after installing service packs and patches

Regular backups are worthless if the data in backup files does not remain valid and usable after hotfixes, update rollup and service packs are installed on SharePoint servers. Unfortunately, this is one of the known limitations of the native granular backup and recovery solutions.

End users don't know and don't care about updates to the SharePoint environment and expect a request to restore deleted data to be completed quickly. Look for a tool that can restore the data from a backup created prior to the installation of a hotfix or service pack, to ensure that all of your backups remain valid.

8. Maintain role separation for operations efficiency and security

Most SharePoint environments already have an established delineation of duties between different IT groups, which may include SQL DBAs, the SharePoint operations team, and help desk. While all three are likely to be involved in the data backup and recovery processes, there are certain obstacles to getting the most out of this role separation. Operations with the native content recovery solutions require elevated privileges to access the data in the backup files and production systems. The resulting security concerns may not let you use available resources in the most efficient manner.

Locating the data you need to restore is usually the most time-consuming task in a recovery operation. Answering the user call, locating the right backup, and identifying the specific content that needs to be restored can take time. And even though these tasks do not require special skills or knowledge, they are often performed by advanced administrators because of the access level required.

And many times, advanced SharePoint administrators need to involve other teams, such as SQL DBAs, because they don't have access to the database backup files.

Make sure the recovery tool you choose fits into your current roles structure. It should not dictate the processes and roles, but should enable each of the IT team members perform their specific tasks without requesting elevated privileges or content access. Operations that require administrative access rights should be performed using a service account and securely audited to prevent unauthorized access to the data.

9. Automate recovery and file export

In some cases, you might need to automate recovery or reporting. A quality tool will allow you to use the command-line to automatically search available backups, restore data and generate reports on its findings. It should also provide commands to automatically export documents or document libraries to the file system.

10. Be prepared for disaster recovery

In a disaster recovery situation, the recovery process can be complex. It can involve restoring multiple databases, re-configuring various services across multiple servers in the farm, and reconnecting them all to work together. Unless you've got a detailed, step-by-step disaster recovery procedure document prepared in advance, you may find it difficult to tell where you are in the process in order to estimate how long it will take to restore all data and services.

A quality SharePoint recovery tool will be able to help guide you through a farm restoration. It should create a detailed checklist of the actions required to return the SharePoint farm to an operational state and verify each components' availability in real time so you can quickly assess where you are in the recovery process.

CONCLUSION

Organizations need more powerful and flexible recovery options than native SharePoint tools provide. As you evaluate recovery tools, make sure that the tool you choose offers the features you need to quickly restore accidentally deleted items, restore your critical SharePoint sites in an emergency, and keep your environment secure and usable.

Quest Recovery Manager for SharePoint is an enterprise-level solution that provides granular recovery of data for SharePoint 2003 and 2007. It can recover anything in the backup of your SharePoint content database—individual documents, lists, document libraries, sites, workspaces, site collections—and restore it to any SharePoint instance or a file system. Best of all, you can use your existing backups you; no proprietary platforms or site- or item-level backups are required. Additional information about Recovery Manager is featured in the attached appendix.

ABOUT THE AUTHOR

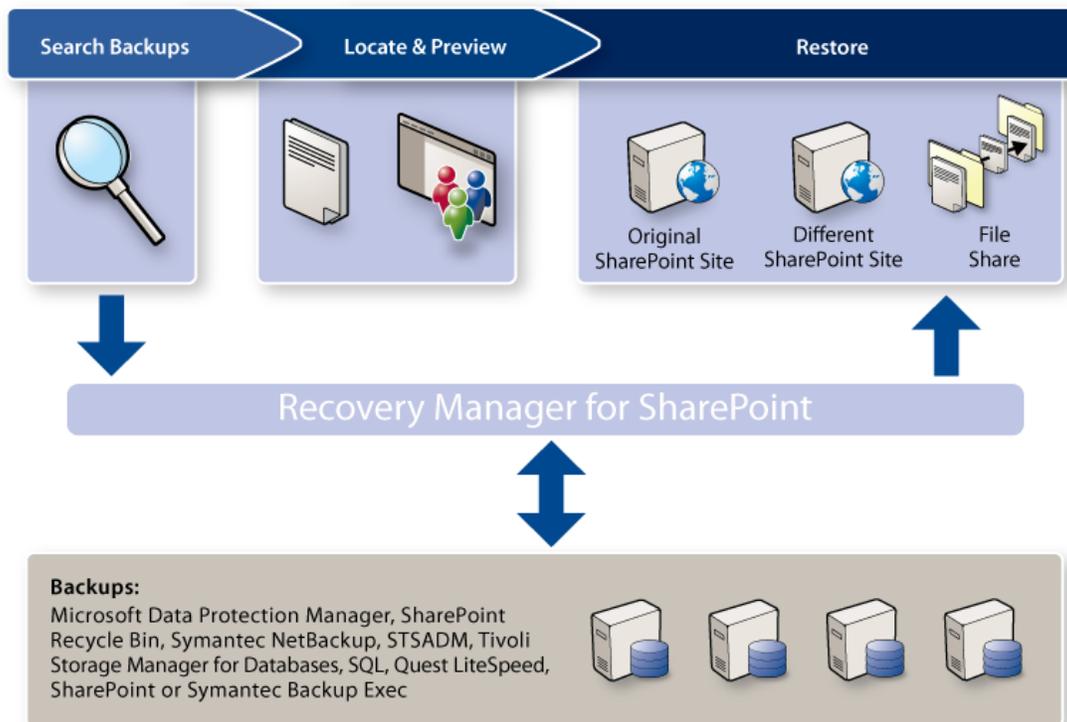
Ilia Sotnikov is a Quest product manager for Microsoft SharePoint management and recovery solutions. He works with Quest customers and partners, as well as various internal groups, to determine best practices and product direction for Quest Site Administrator for SharePoint and Quest Recovery Manager for SharePoint.

Ilia joined Quest as a part of the Aelita Software acquisition in 2004; he has worked on various migration and management products for enterprise deployments of Microsoft Exchange Server and SharePoint products and technologies.

He is a regular contributor to the "SharePoint for All" community at <http://www.sharepointforall.com/> and his blog can be found at <http://blog.sharepoint-recovery.com/>

APPENDIX: QUEST RECOVERY MANAGER FOR SHAREPOINT

Quest Recovery Manager for SharePoint is a solution for granular SharePoint content restoration that can plug into your existing backup infrastructure and processes to ensure the fastest and most cost-efficient data restores. Recovery Manager can recover anything in your backup—individual documents, lists, document libraries, sites, workspaces, site collections—and restore it to any SharePoint instance or a file system.



Unlike many solutions designed for SharePoint backup, Recovery Manager is designed to simplify the data restoration process for the SharePoint administrators. To leverage the existing backup infrastructure, it automatically discovers new backups as they become available and analyzes them so you can easily find the data you need. The discovery and analysis process can be scheduled so that when you get a restoration request, you simply log on to the Recovery Manager console or open Recovery Manager Web Access, search for the document or site you need from one or all of your backups, and restore the missing data.

Recovery Manager can find the backup, analyze its contents, and provide detailed search results as long as you are using one or more of the following formats:

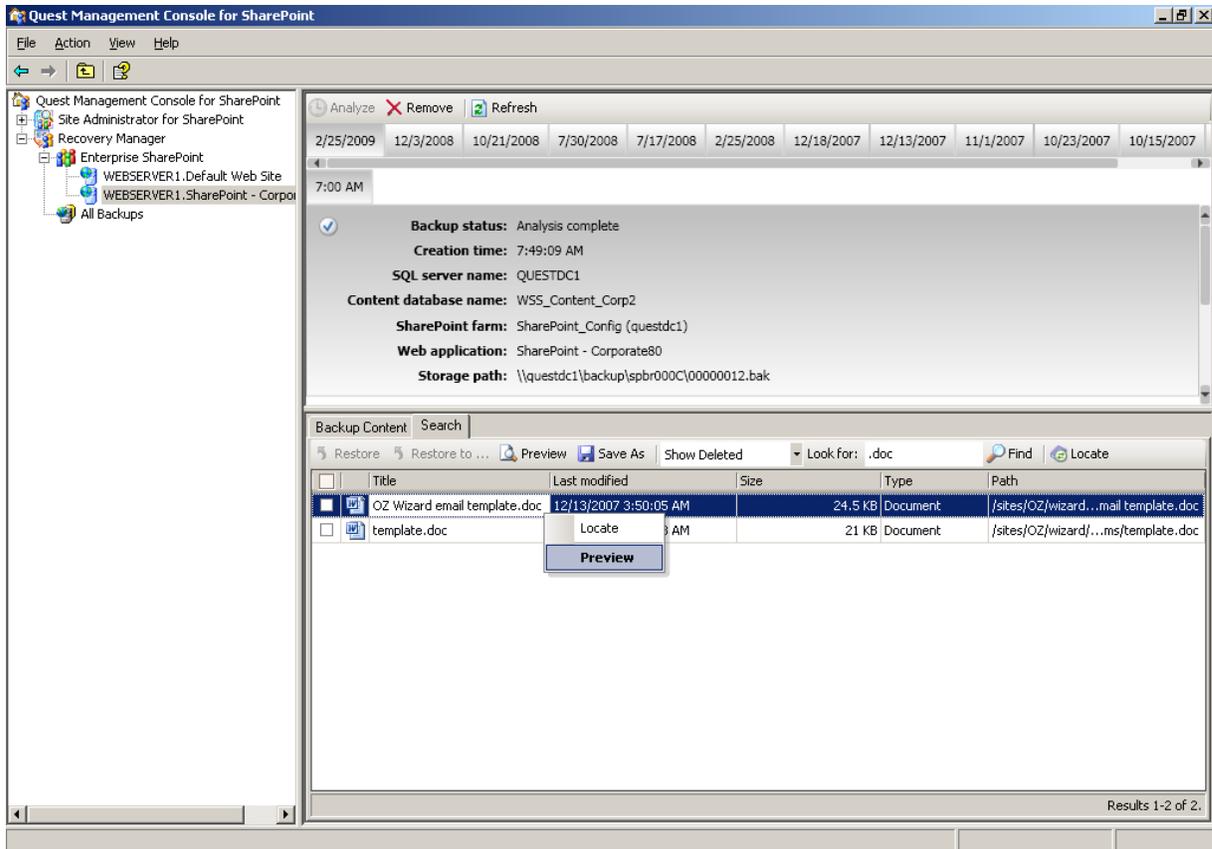
- Microsoft SQL Server native backup mechanisms
- SharePoint Central Administration backup
- STSADM.exe catastrophic backup (stsadm.exe -o backup - backupmethod full)
- Quest LiteSpeed for SQL Server (backups stored on disk or in Tivoli Storage Manager)
- Microsoft Systems Center Data Protection Manager
- IBM Tivoli Storage Manager for Databases
- Symantec NetBackup for Microsoft SQL Server
- Symantec Backup Exec Agent for Microsoft SQL Server

The search and restore process does not require opening the backup software management tools, and is the same regardless of which tool created the backups. If your company decides to switch from one backup mechanism to another, your experience with Recovery Manager will remain the same and no process changes will be required to restore SharePoint data.

With Recovery Manager, all content and metadata is restored exactly as it was at the time when backup was taken. This includes all default and custom fields, previous item or document versions, security permissions, views and alerts, workflow associations, and states. There is virtually no difference between the original data and the content restored with Recovery Manager.

To facilitate the restore process, Recovery Manager enables you to quickly find what your users need, even if they don't know the file's exact name, location or when it was last available. You can:

- **Search** by part of the item title across all available backups or limit the scope of the search by web applications and backup date range.
- **Compare** the contents of a backup file to the live environment in order to identify items and documents that have been deleted since the backup was created.
- Use the **Locate** feature anywhere in the search results to see the exact item location within SharePoint hierarchy and quickly get the context information.
- **Preview** the files from backup to ensure you restore exactly what the user needs.



Locating and previewing a document with Quest Recovery Manager for SharePoint

Recovery Manager can separate search tasks from actual recovery operations. You can allow help desk or junior IT staff search for data across backups and SharePoint Recycle Bins using Recovery Manager Web Access. If a user is granted search-only permissions, Web Access will expose enough metadata to locate the necessary content and allow the user to submit a recovery request, but will not allow the user to access or retrieve the data. Requests are then queued for the Recovery Manager administrator for review and approval.



Help desk operators can find data in backups and submit restoration request with Recovery Manager for SharePoint Web Access

Recovery Manager is designed with security in mind, and all restore operations are tracked in the Windows event log. Each event includes information on who initiated the operation; whether the operation previewed a file, restored it to SharePoint, or saved it; details about the content and backup; and the destination for restore. This audit trail can help you ensure the product is not used to improperly access data.

Recovery Manager can restore the data from a backup created prior to the hotfix or Service Pack installed, so all your backups remain valid. Note that Recovery Manager cannot restore data across WSS versions; data from backup created for a WSS v2 farm cannot be restored to WSS v3 or MOSS 2007.

Recovery Manager completely supports automated recovery and file export by providing a set of PowerShell cmdlets that allow administrators to list available backups, search within them, restore deleted items and lists, save a report on the findings, and export documents and document libraries to the file system.

Recovery Manager also includes a companion tool, Disaster Recovery Advisor, which analyzes the live SharePoint configuration database or the configuration database backup and guides you through the process of WSS v3 or MOSS 2007 farm restoration.

ABOUT QUEST SOFTWARE, INC.

Quest Software, Inc., a leading enterprise systems management vendor, delivers innovative products that help organizations get more performance and productivity from their applications, databases, Windows infrastructure and virtual environments. Quest also provides customers with client management through its ScriptLogic subsidiary and server virtualization management through its Vizioncore subsidiary. Through a deep expertise in IT operations and a continued focus on what works best, Quest helps more than 100,000 customers worldwide meet higher expectations for enterprise IT. Quest Software can be found in offices around the globe and at www.quest.com.

Contacting Quest Software

Phone: 949.754.8000 (United States and Canada)
Email: info@quest.com
Mail: Quest Software, Inc.
World Headquarters
5 Polaris Way
Aliso Viejo, CA 92656
USA
Web site www.quest.com

Please refer to our Web site for regional and international office information.

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From SupportLink, you can do the following:

- Quickly find thousands of solutions (Knowledgebase articles/documents).
- Download patches and upgrades.
- Seek help from a Support engineer.
- Log and update your case, and check its status.

View the **Global Support Guide** for a detailed explanation of support programs, online services, contact information, and policy and procedures. The guide is available at: http://support.quest.com/pdfs/Global_Support_Guide.pdf