

Recovering Microsoft® Office SharePoint® Server Data

Granular search and recovery means time and cost savings.



An Altegrity Company

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Introduction

There is no getting around it; to keep their people working, businesses today need to keep them connected. That means the need for collaboration products is growing. As more and more businesses discover the productivity gains to be made by utilizing the information sharing, collaboration, and team discussion aspects of these products, many of them are investing in collaborative data repository tools. These tools keep critical knowledge and information organized and available thereby providing constant and efficient access to it. From the account executive who needs to see a list of clients, to the developer looking for the product specifications, to the manager who must let his team know about a changed milestone on a project's schedule, people need to stay informed. Microsoft® Office SharePoint® Server is one of the fastest growing collaboration products around today. It allows you to create, store, manage, and share all sorts of information. This paper spotlights the issues SharePoint administrators and IT administrators encounter when trying to recover SharePoint data and reveals a solution.

Recovering from Data Loss

Whether a mistake, a malicious effort, or an act of God, accidents happen and data can be lost. When you lose business-critical information that was stored on your SharePoint server, what options are available to you for recovering that data? You could restore the entire content database from your last backup or snapshot. But do you really want to overwrite everything on your production server when all you need to do is search for and restore a few critical items? How severely would your business be impacted by that? An alternative is to have a spare Microsoft® SQL Server® available that you could use as a recovery server. That certainly is a solution, but it is an expensive proposition to say the least. And again, why spend the time and energy to restore the entire database when all you actually need to recover is a few items?

The Need for Granular Recovery

There are a few ways to recover lost SharePoint data. If items were simply deleted and you are fortunate enough to discover this before the first- and second-stage Recycle Bins in SharePoint are emptied, you can recover the items from a Recycle Bin.

However, if you were not that fortunate, you must restore the data from a backup or snapshot of the content database. There are two main ways to do this. One way is to restore the entire backup or snapshot directly to your production server. Going this route eliminates the need, and therefore the expense, of having a recovery server. However, restoring the entire database might take many hours during which time the availability of your SharePoint server could be compromised. You have to consider what impact this will have on your business. In addition, restoring directly to your production server overwrites all of the content currently on it. That is rarely desirable.

The other way is to set up a recovery server that mirrors the configuration of the production SharePoint server. You can then restore the whole site to that recovery server. Since you will not be restoring directly to your production server, you eliminate the risks inherent in that. However, servers are costly and the added expense of the necessary hardware seems exorbitant when all you need to do is search for and recover a few crucial items. Additionally, in order for the restore to work, the configuration of the recovery server must be identical to that of the production server. It is time-consuming to set up the recovery server properly and if the production server configuration was not fully documented, you may not be able to get it set up at all.

If you do not need to restore the entire site, these options seem like a lot of wasted time and expense. There must be a way that allows you to quickly and easily find and restore a few lost items.

Besides the necessity of recovering lost business-critical items, there is another need to consider. As more and more of the teams at your company start using SharePoint to store, manage, and share information; your sites are going to increase in size. You will find yourself restructuring sites with greater frequency. It would be useful to have a tool that allowed you to easily migrate libraries from one site to another existing site or to a whole new site.

Example: Bob, an employee at XYZ Corporation and a new SharePoint user, was tasked with moving critical documents from one SharePoint site to another. Unfortunately, when he was entered as a user into SharePoint, he was given permissions beyond what he should have received. Due to this, when he was trying to move the files, he actually deleted them without realizing what he had done. The mistake was not discovered until it was too late to use the Recycle Bin to recover the documents. The only hope was to recover them from a backup. Pam, the SharePoint administrator, spent two days restoring the whole site from the backup to a recovery server, then searching for the documents and moving them back to the production server.

Maintaining the Integrity of the Data

One of the nearly unavoidable effects of restoring your SharePoint data using many of the tools available today is that the original metadata may be lost or changed. This happens because the recovered item is created under the name of the person doing the recovery and that is usually the SharePoint administrator. This unintentional changing of the records can cause confusion as the administrator is rarely the original author of the item.

The Sarbanes-Oxley Act of 2002 became a U.S. federal law on July 30, 2002. It established mandates and requirements that all publicly traded companies must adhere to for financial reporting; this includes requirements on the retention of original records. With so many records being created, edited, and stored in SharePoint, it is now more important than ever to maintain the integrity of an item's metadata (original author, time/date created, time/date last modified, etc.), even through the process of restoring the item from a SharePoint backup.

It is imperative that IT staff understand and comply with the regulations pertaining to producing documents and other items as formal records versus simply restoring those items for internal business purposes.

Searching for Lost Items

Often, looking for a SharePoint item or document that needs to be restored is like finding a needle in a haystack. Do people ever come to you and say that they need to get a document back, but they do not know exactly when it was lost or where it was located in the site; all they may know is part of its title or who wrote it? With so little to go on, where do you even begin? With many of the tools available today, your only option is to restore likely backups or snapshots one at a time to a recovery server and then painstakingly search through each for the errant document. At times, it seems that it would be less labor-intensive for the user to rewrite the document than it is for you to search for it and restore it. But, that is seldom an option. So, you are left with the task of trying to find the impossible.

It would be helpful to have a way to search through several databases using specific criteria such as item type, keyword, author, or created date, to find the items that need to be restored. A search feature such as this would save hours, possibly even days, of valuable time.

Reasons to maintain the integrity of your SharePoint data:

Conform to regulatory requirements such as those in the Sarbanes-Oxley Act of 2002.

Ensure the item's metadata has not been compromised (in case that becomes important later on).

When was it deleted?

Where was it located?

Who wrote it?

What was its title?

Introducing Ontrack® PowerControls™

Ontrack PowerControls for SharePoint, solves these problems by allowing SharePoint administrators to restore items, such as documents, lists, libraries, folders, attachments, and even entire sites from a previous full backup or snapshot of the content database. It allows you to search across one or more databases. You do not have to fully restore an old backup or snapshot before you can use Ontrack PowerControls for SharePoint because it can search and restore items from an unmounted backup or snapshot of your SharePoint content database.

You can search by a variety of criteria, including item type, keywords, subject, date, and specific users to find the items you need to restore. You can even search through the file stream in attachments. All this allows you to get lost data back online quickly to minimize the cost of restoration and the impact on your business.

Ontrack PowerControls for SharePoint does not require you to change your current SharePoint environment or your normal backup process – the Ontrack PowerControls ExtractWizard can extract SQL data from any SQL Server 2005 or 2008 backup created with Enterprise Manager or SharePoint tools and Site Administrator. Additionally, Ontrack PowerControls ExtractWizard can read the information in your archived backups. All this allows you to restore items from legacy backups as well as from your most recent backup.

Ontrack PowerControls for SharePoint solves the problems that SharePoint administrators face in finding and restoring lost SharePoint items. Because it can search through and extract items from content database backups or snapshots and restore the items to the production server or to another location, it saves time and money. It ensures that corporations always have quick, easy access to the SharePoint data in their backups or snapshots, whether needed for internal purposes, legal reasons, or for any other use.

Yes, there are other options for recovering lost SharePoint data. However, Ontrack PowerControls provides a much more efficient and cost effective solution than other methods.

Major Benefits of Ontrack PowerControls for SharePoint

There are five primary ways you can save time and money by using Ontrack PowerControls for SharePoint:

- » **Minimizes the time to restore an individual document, item, list, folder, library or site.** Ontrack PowerControls for SharePoint saves you time by making it possible to granularly search for and restore items from a previous full backup or snapshot. Items can be restored individually, giving you flexibility and eliminating the need to perform a full site restoration in order to find the items you need.
- » **Eliminates same site restore constraint.** By eliminating the same site restore constraint, Ontrack PowerControls gives you the ability to restore items or sites to the original or alternate SharePoint locations. Ontrack PowerControls allows you to restore directly into your production SharePoint server or directly into a file system. This eliminates the need for an expensive recovery server and the extra steps required to separately import sites back into SharePoint.
- » **Minimizes the time to locate items matching specific criteria.** Ontrack

PowerControls includes an Advanced Find feature that can search across all content databases in an archived SharePoint file, rather than bringing an old backup or snapshot back online for analysis. And you can search by a variety of criteria, including item type, keywords, subject, date, specific users, and file and attachment data.

- » **Maintains data integrity of the SharePoint source and target.** Ontrack PowerControls does not change the metadata of the SharePoint source or target. It maintains data integrity by performing read-only operations on the source files. It will not alter data when accessing the target and maintains metadata integrity throughout the restoration process.
- » **Minimizes the costs involved in restoring lost items.** Ontrack PowerControls for SharePoint eliminates the need to have an expensive recovery server available. Also, since it can read your existing content database backups, there is no need to purchase proprietary software for creating the backups. Your backup process can remain the way it is today.
- » **Simplifies SharePoint site management and consolidation.** As SharePoint sites grow across your organization, the need to restructure, add/remove and consolidate sites increases. Ontrack PowerControls simplifies the process of reorganizing or consolidating sites by allowing you to find and extract individual items or sites and export them to new or alternate sites.

Other Benefits

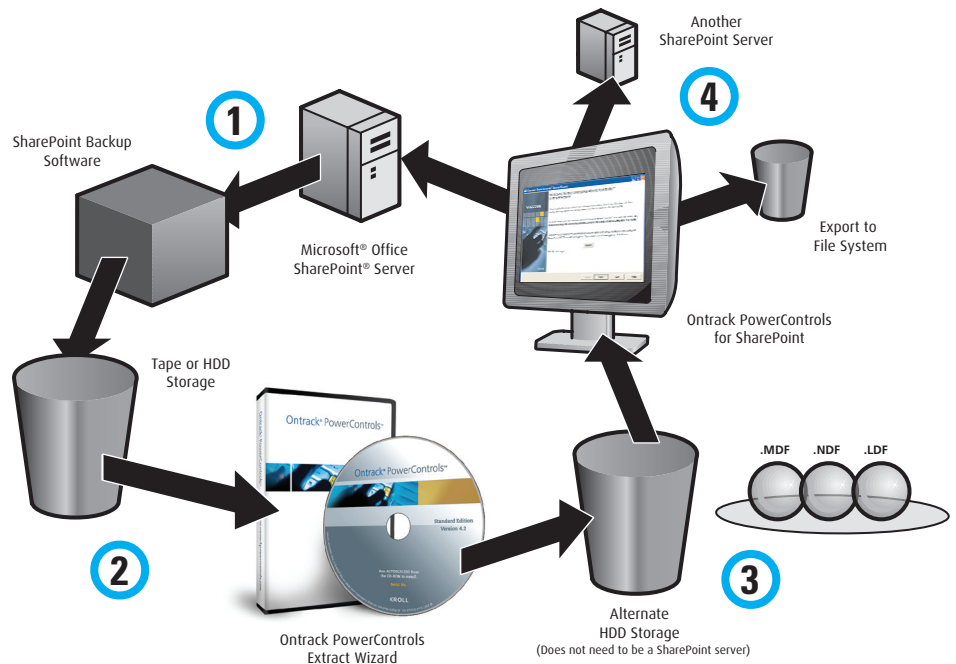
Besides the reasons stated above, there are many other benefits to using Ontrack PowerControls for SharePoint.

- » **Easy to use, yet extremely powerful.** Imagine being able to quickly search for and restore any item from your backups or snapshots – even from archived ones. Ontrack PowerControls ExtractWizard can extract information from your existing native SQL Server 2005 or 2008 backups and also from STSADMIN created farm-level backups. If you are using snapshot technology, simply point Ontrack PowerControls for SharePoint at a previous SQL snapshot.
- » **Search in one or more backups or snapshots.** You can look at more than one source database at a time and search through them all at once – even through the file stream of attachments – to find the items you need to restore. You can even narrow your search by searching in your previous results.
- » **Easy to copy from source to target.** When you locate the items in the source backup or snapshot (previewing the items to make sure you have the correct ones), restoring them is as easy as copying and pasting them into the target location. You can even use drag and drop to copy the items! Ontrack PowerControls for SharePoint preserves the directory structure, item settings (such as permissions, alerts, linked objects, properties, and views), and custom item types of the restored items.
- » **Easy to save attachments and versions.** If an item you have located has a file attached to it, you can save the attachment to a file system. Also, when restoring an item, you can restore all versions of it, or you can choose one or more specific versions to restore.
- » **Export SharePoint data.** You can export individual items, regardless of whether

they are actual documents, to an alternate file system. If the item is not a document, Ontrack PowerControls for SharePoint creates and saves a TXT file for it containing its metadata.

Works with Existing Environment and Backup Process

To better understand how Ontrack PowerControls for SharePoint can be used without changing your existing SharePoint environment or backup process, you need an understanding of the architecture. Figure 1 shows the workflow.



Using Ontrack PowerControls for SharePoint requires no change to your current backup procedure – rather, it works after the backup process has been completed.

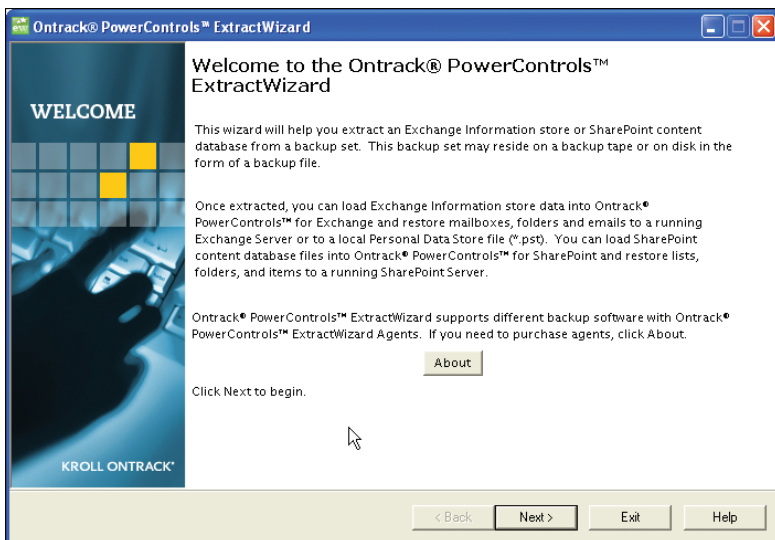
- Step 1:** Your backup software backs up the SharePoint content database or takes a point-in-time snapshot of it, just like normal.
- Step 2:** Ontrack PowerControls ExtractWizard extracts the SQL information in the backup and saves the resulting MDF, NDF, and LDF files to an alternate location. That location is usually HDD storage. If you choose, you can use another SQL server for your alternate location. Note: If you are using snapshot technology, skip this step.
- Step 3:** Ontrack PowerControls can now be used to search the items, lists, libraries, and folders that were in the backed up content database. It can even search in attachments.
- Step 4:** Ontrack PowerControls can restore items, lists, libraries, and folders back to the production SharePoint server or to a SharePoint server at another location. It can also export items to a file system.

Looking Inside Ontrack PowerControls for SharePoint

Although it is an exceedingly powerful piece of software, Ontrack PowerControls for SharePoint is surprisingly simple to use.

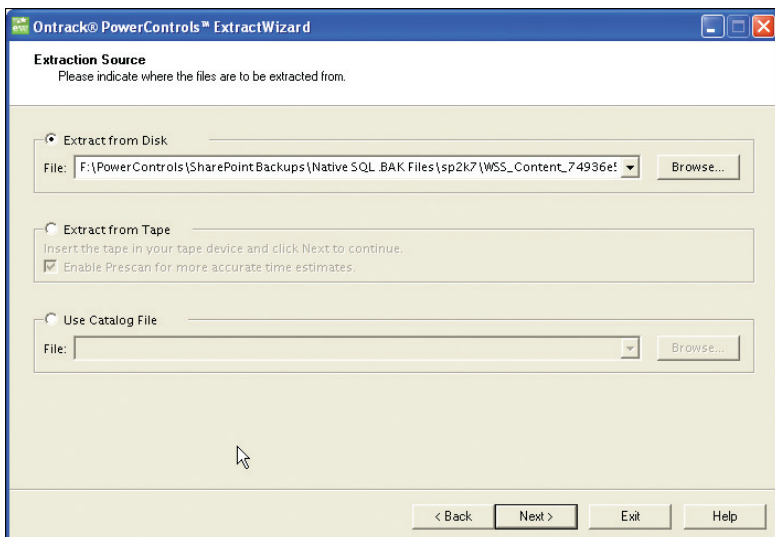
When you need to restore one or more SharePoint items, here are some important points to keep in mind:

- » SharePoint stores information in a SQL Server database and the items, lists, and folders that you would need to recover are stored in content databases.
- » When you do a backup with a native SharePoint tool, BAK files are created. Ontrack PowerControls ExtractWizard extracts the SQL information from the BAK files and places the resulting MDF, NDF, and LDF files where you want them.
- » If you are using snapshot technology as part of your backup process, the snapshots contain all the necessary information. Ontrack PowerControls for SharePoint can directly read the snapshot. It is not necessary to extract data using Ontrack PowerControls ExtractWizard.
- » You can search for and restore items from your last backup or snapshot. There is no need to interrupt the operation of your production SharePoint server.



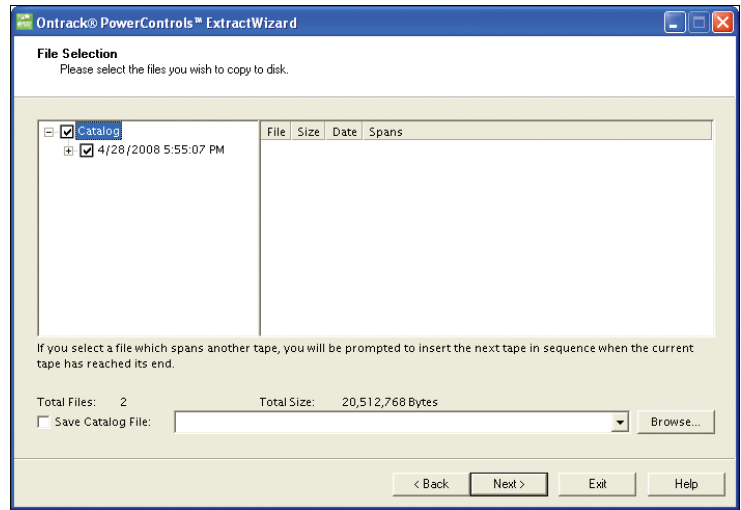
When you have data to restore from a backup, the first thing to do is open Ontrack PowerControls ExtractWizard; this software is included with your Ontrack PowerControls for SharePoint package.

Note: If you want to restore data from a snapshot, there is no need to use Ontrack PowerControls ExtractWizard.

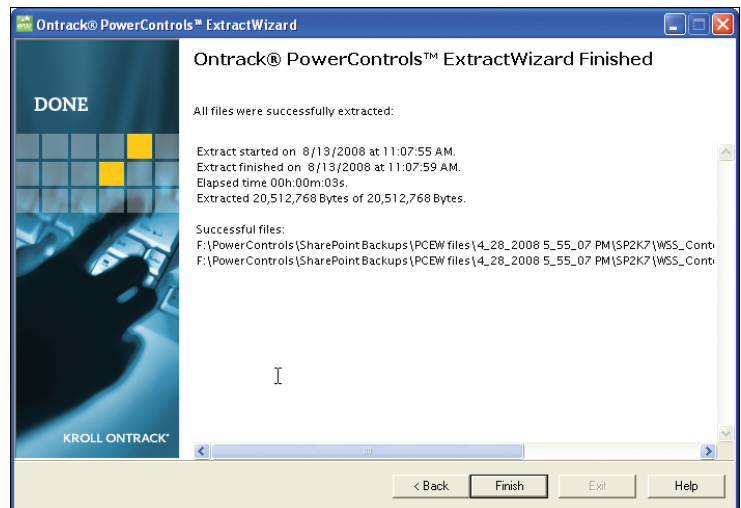


When you run the Ontrack PowerControls ExtractWizard, you first tell it where the backup you want to use is located.

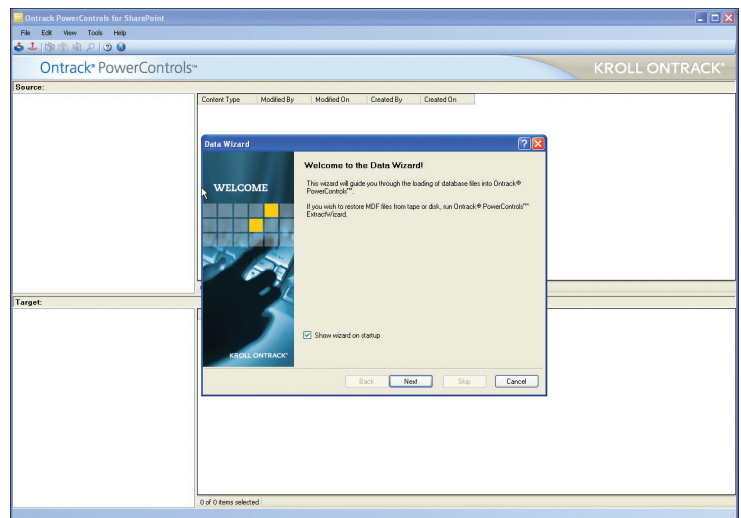
You choose the files you want to restore. Finally, you tell the Ontrack PowerControls ExtractWizard where you want to place the files it extracts. The wizard goes to work reading the backup and saving MDF, NDF, and LDF files to the location you indicated.

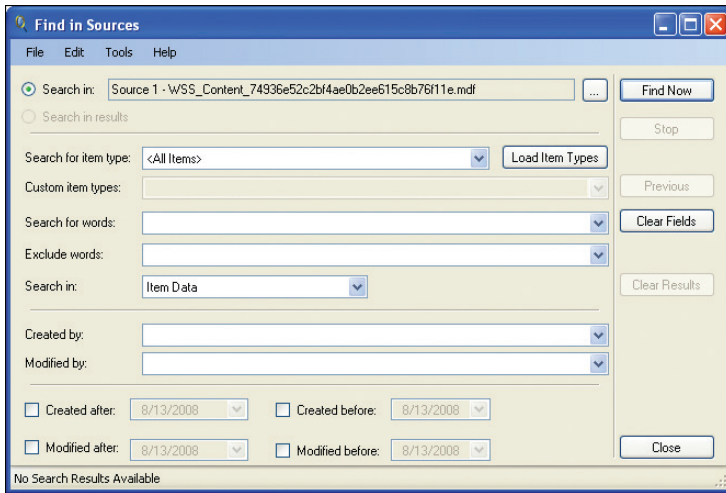


When it is finished, you will see the following screen.



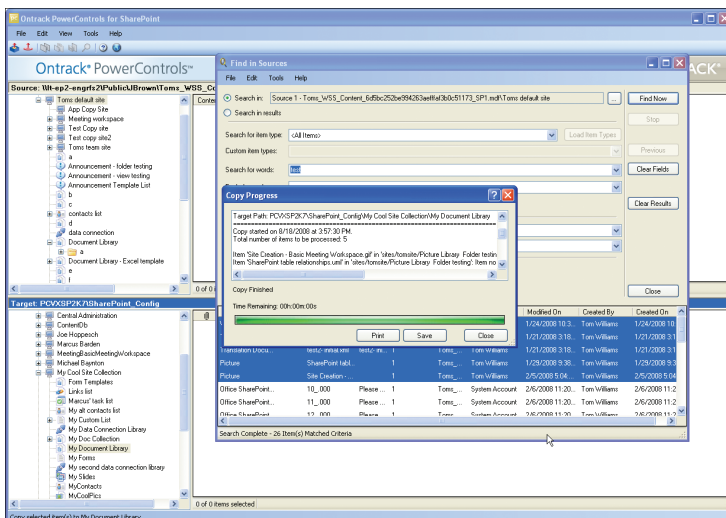
Next, you open Ontrack PowerControls for SharePoint. A Data Wizard runs when you open the software. It walks you through the process of selecting the SharePoint content database backup or snapshot files that contain the items you need to restore (the Source) and the location where you want to copy those items (the Target).





After you open the source files, it is easy to find the specific items and lists you need to restore. Ontrack PowerControls for SharePoint uses a search interface much like the Microsoft® Office Outlook® Advanced Find dialog box. You can search for specific item types, identify keywords to include or exclude, and indicate what you want the wizard to search in. Ontrack PowerControls for SharePoint also allows you to selectively search by the user (Created By and Modified By) and the dates before or after which the item was created or modified.

When you complete your search, Ontrack PowerControls for SharePoint displays all the items and lists that match your search criteria. You can select one item, or any number of items, and drag and drop them to the target folder, or else copy and paste them to the folder. You can also restore an entire list, folder, or library by the same methods. If you need to refine your search even further, Ontrack PowerControls for SharePoint allows you to search only in your previous search results.



As Ontrack PowerControls for SharePoint copies the items you chose, you will see a Copy Progress window that reports on the progress and adds additional information. You can print a report that details your action or save it to a text file.

What to Do Next

As we have learned, granular SharePoint data search and recovery can be challenging. Ontrack PowerControls software for SharePoint offers SharePoint Administrators and IT Administrators a time-saving tool. It allows you to quickly and easily find and restore critical items without the undesirable effect of overwriting everything on your production SharePoint server or the costly expense of having a recovery SharePoint server. And, it does this without changing the item's metadata.

The best way to experience the benefits of Ontrack PowerControls for SharePoint is to try it out. Once you try it, you will see how quick and easy it is to find and restore SharePoint data. To download a free trial edition of Ontrack PowerControls, visit us at www.ontrackpowercontrols.com, or for more information call us at 800.645.3649.

As mentioned in this paper, whether a mistake, a malicious effort, or an act of God, accidents happen and data may be lost. If you have lost business-critical data, do not panic – just use Ontrack PowerControls for SharePoint for your data recovery efforts. You can easily find any item or list in your last backup or snapshot and restore it to your production SharePoint server or to another location. If you find that the SharePoint database or SQL Server files contain severe corruption, you may want to utilize Ontrack Data Recovery, a division of Kroll Ontrack, by calling 800.872.2599, or by visiting us at www.krollontrack.com.

Likewise, if you are faced with a request from the legal department to collect information for a discovery request, Ontrack PowerControls for SharePoint can save you time and money by allowing you to search a backup or snapshot of your SharePoint content database for the items necessary to fulfill that request. The items can then be easily copied to another SQL database for further processing and review. And, all of this is accomplished without altering the source or target files.

If you decide that you would like industry leading expert assistance on your electronic evidence data collection, processing, or production matters, contact Kroll Ontrack at 800.347.6105, or to learn more about all Kroll Ontrack products and services, visit us at www.krollontrack.com.





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