

# The Restoration Workshop



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# My background

- been in IT since the mid '90s
- primarily (Microsoft) platform development  
*prior to that, I was a polymer chemist*
- disaster recovery architect for a financial services and insurance company in mid 2000's
- onboarded with SharePoint for SPS 2003
- implemented for large and small customers
- managed a team of SharePoint consultants
- Chief SharePoint Evangelist
- teaching, community, development, etc.



# Me & this tutorial?



Disaster  
Recovery

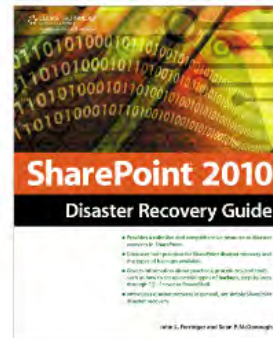
+



SharePoint

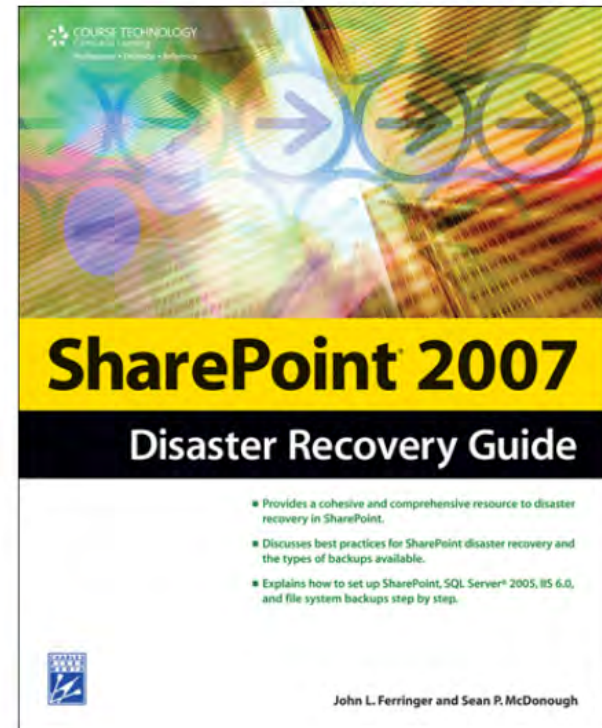
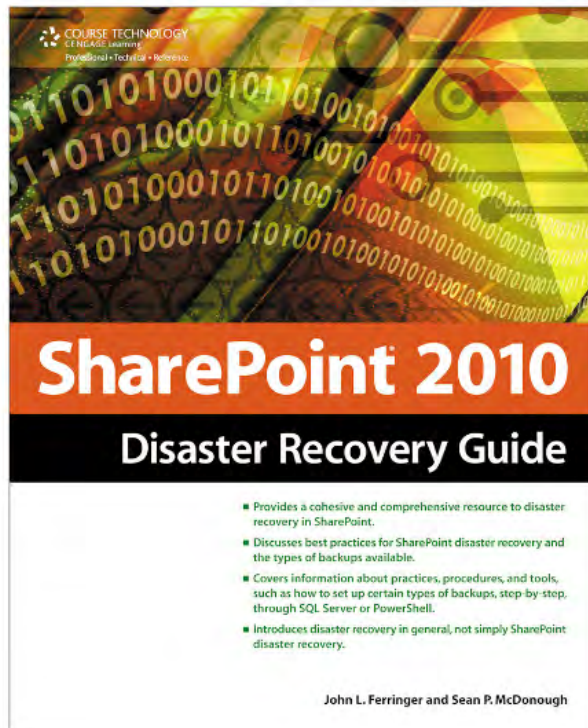


which manifested as ...





which manifested as ...



# Motivation

- Out-of-the-box (OOTB), SharePoint comes packed with a lot of data protection goodness
- In my experience, most admins immediately dismiss the OOTB tools as inadequate without understanding what the tools do and how they operate.
- I wanted to share my knowledge of the OOTB tools, demonstrate how they work, and maybe even trigger some "I didn't know that" revelations

**How this started**

# How this started

Hypermiling  with  
SharePoint Data Protection



Hypermililing?



Wikipedia article page for "Hypermiling".

Navigation: Article **Talk** Read Edit View history Search

# Hypermiling

From Wikipedia, the free encyclopedia



To comply with Wikipedia's [lead section guidelines](#), the **introduction of this article may need to be rewritten**. Please discuss this issue on the [talk page](#) and read the [layout guide](#) to make sure the section will be inclusive of all essential details. *(July 2011)*


**Hypermiling** is the act of driving using techniques that [maximize fuel economy](#). Those who practice these techniques are referred to as "hypermilers."<sup>[1]</sup>

Hypermiling can be practiced in any vehicle regardless of its [fuel economy](#). It gained popularity as a result of the [rise in gasoline prices during the 2000s](#).<sup>[2]</sup> Some hypermiling techniques are illegal in some jurisdictions because they are dangerous.<sup>[3]</sup>

In 2008, the word *hypermiling* was selected as the best new word of the year by [New Oxford American Dictionary](#).<sup>[4]</sup>

Look up *hypermiling* in Wiktionary, the free dictionary.

Contents [hide]



Please discuss this  
[layout guide](#) to make  
all essential details.

**Hypermiling** is the act of driving using techniques that [maximize fuel economy](#). Those who practice these techniques are referred to as "hypermilers."<sup>[1]</sup>

Hypermiling can be practiced in any vehicle  
popularity as a result of the [rise in gasoline](#)

How do we extend this concept to SharePoint?



Hypermiling?

The owner's manual for my Prius



**2005** **Owner's**  
**Manual**

*For your safety and comfort,  
read carefully and keep in the vehicle.*

***PRIUS***

# The agenda for this tutorial

二U-7

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## Core Concepts

- Backup and Restore
- Export and Import
- High Availability

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## Common Data Protection Tasks

- Farm Backup/Restore
- Using SQL Server's Tools
- Content Export/Import
- Site Collection Backup/Restore

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## The Art of Restoring: Beyond Content

- Service Applications
- Configuration Data

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## Add-Ons for "Greater Mileage"

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プリウス (北米U)

## Core Concepts

- Backup and Restore
- Export and Import
- High Availability

## Common Data Protection Tasks

- Farm Backup/Restore
- Using SQL Server's Tools
- Content Export/Import
- Site Collection Backup/Restore

## The Art of Restoring: Beyond Content

- Service Applications
- Configuration Data

## Add-Ons for "Greater Mileage"



Core

Concepts



# Core Concepts

- Backup and Restore
- Export and Import
- High Availability



# High Availability

## Protection through redundancy

- SQL Clustering
- SQL Database Mirroring
- SQL Transaction Log Shipping
- SQL Always-On (SQL 2012)

# High Availability

## Protection through redundancy

- SQL Clustering
- SQL Database Mirroring
- SQL Transaction Log Shipping
- SQL Always-On (SQL 2012)

Not on-tap for today's tutorial



# Where we will focus:



- Backup and Restore
- Export and Import

# Where we will focus:



- Backup and Restore
- Export and Import



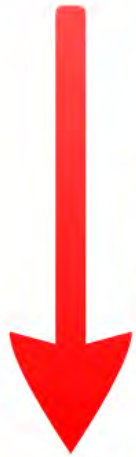
What's the difference?

Let's start with a backup

Source Data:



Source Data:



**Backup**

Backup Set:



The call comes ...



# Backup Set:



# Restore

# Result:





Result:



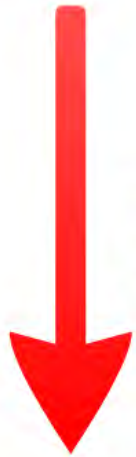
1-to-1 equivalence  
with source data

Now let's look at an export

Source Data:



Source Data:



**Export**

Export Package:



The call comes ...



# Export Package:



# Import

# Result:

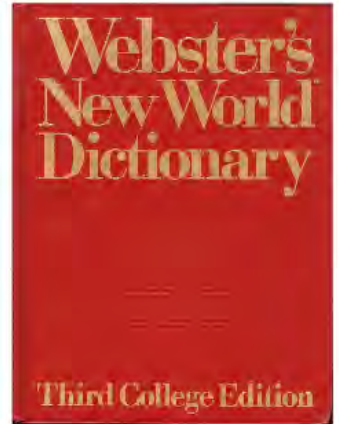


Result:



Not an identical copy of original. Still \$2.00, but a transformation has occurred.

# How I define things




## Backup/Restore

- Captures source data in full-fidelity, 1:1 fashion
- What you put in is exactly what you get back out

## Export/Import

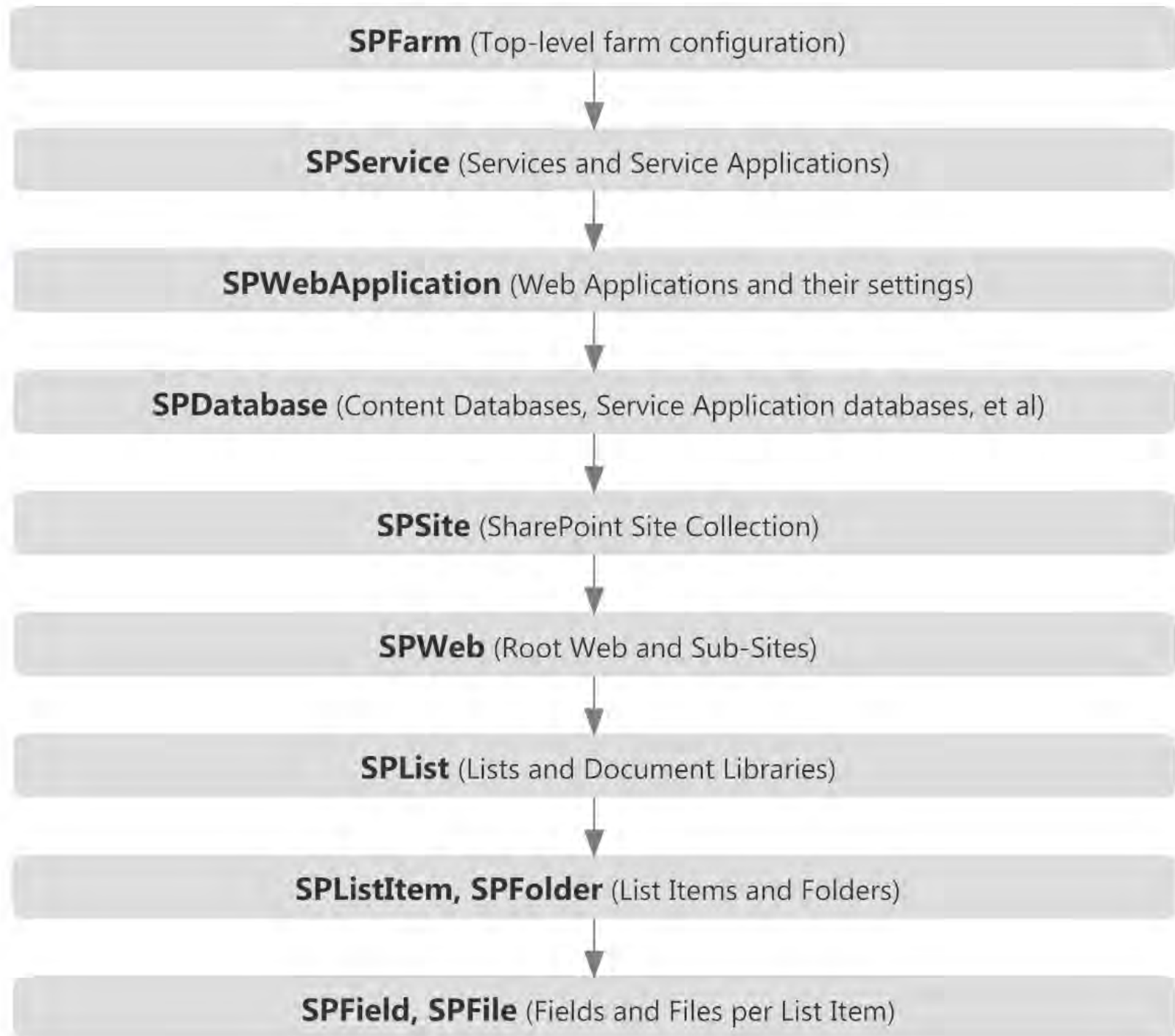
- Captures source data at less than full-fidelity
- Some transformation of data may occur
- You get out a "relevant" subset of what goes in
- More portable and manipulable than backups

A close-up photograph of two hands, one from the top and one from the bottom, with their index fingers extended and touching to form a square frame. The text "So, to take a step back ..." is centered within this frame. The background is plain white.

So, to take a  
step back ...



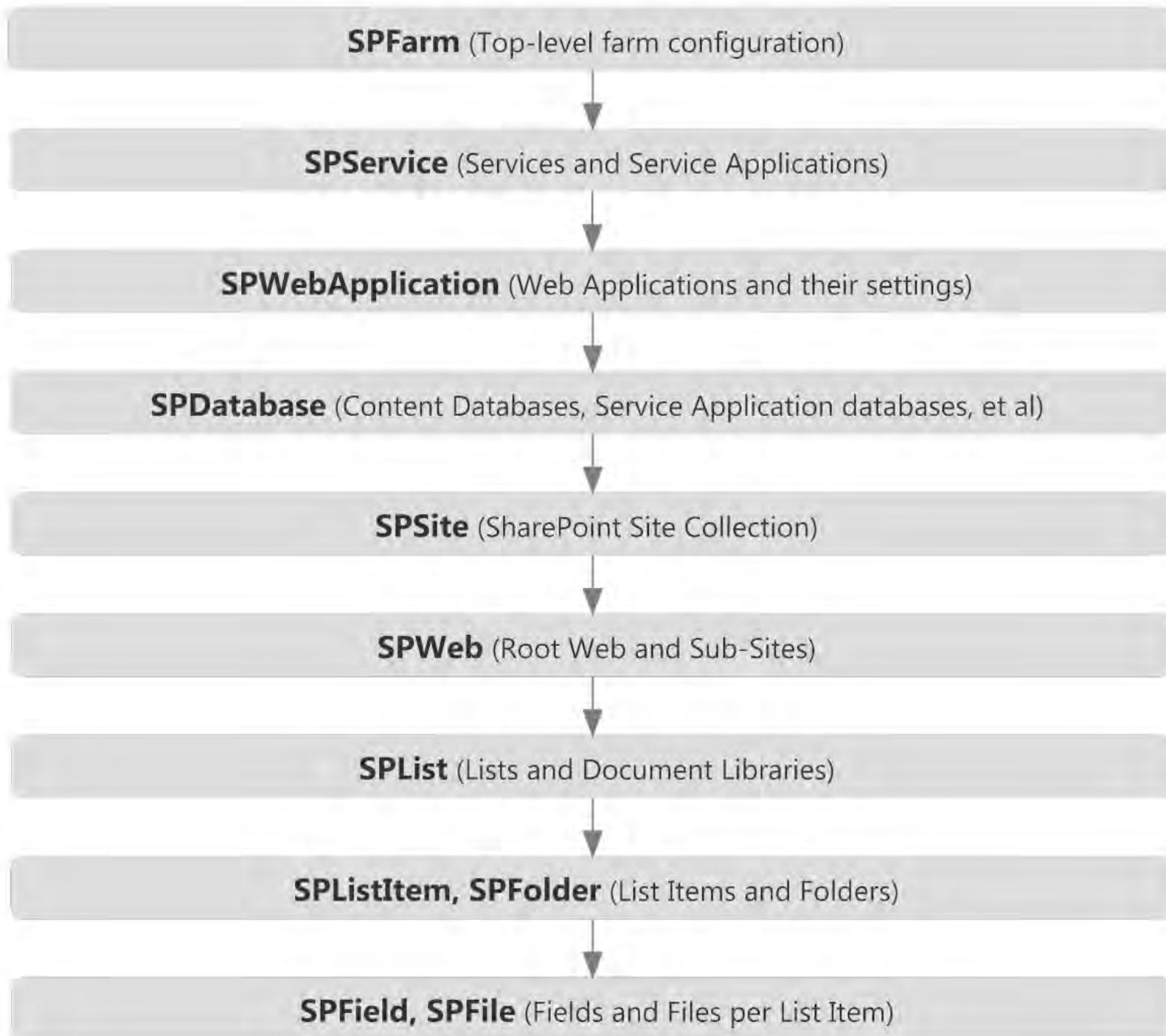
# SharePoint Object Model Hierarchy



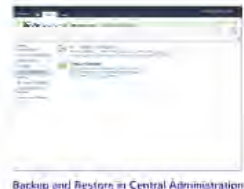
Parent




Children






Farm Backup & Restore




Granular Backup


Site Actions  Browse Page SPDEMO\Administrator ▾

Microsoft **SharePoint** 2010 Central Administration ▸ Backup and Restore    
I Like It Tags & Notes

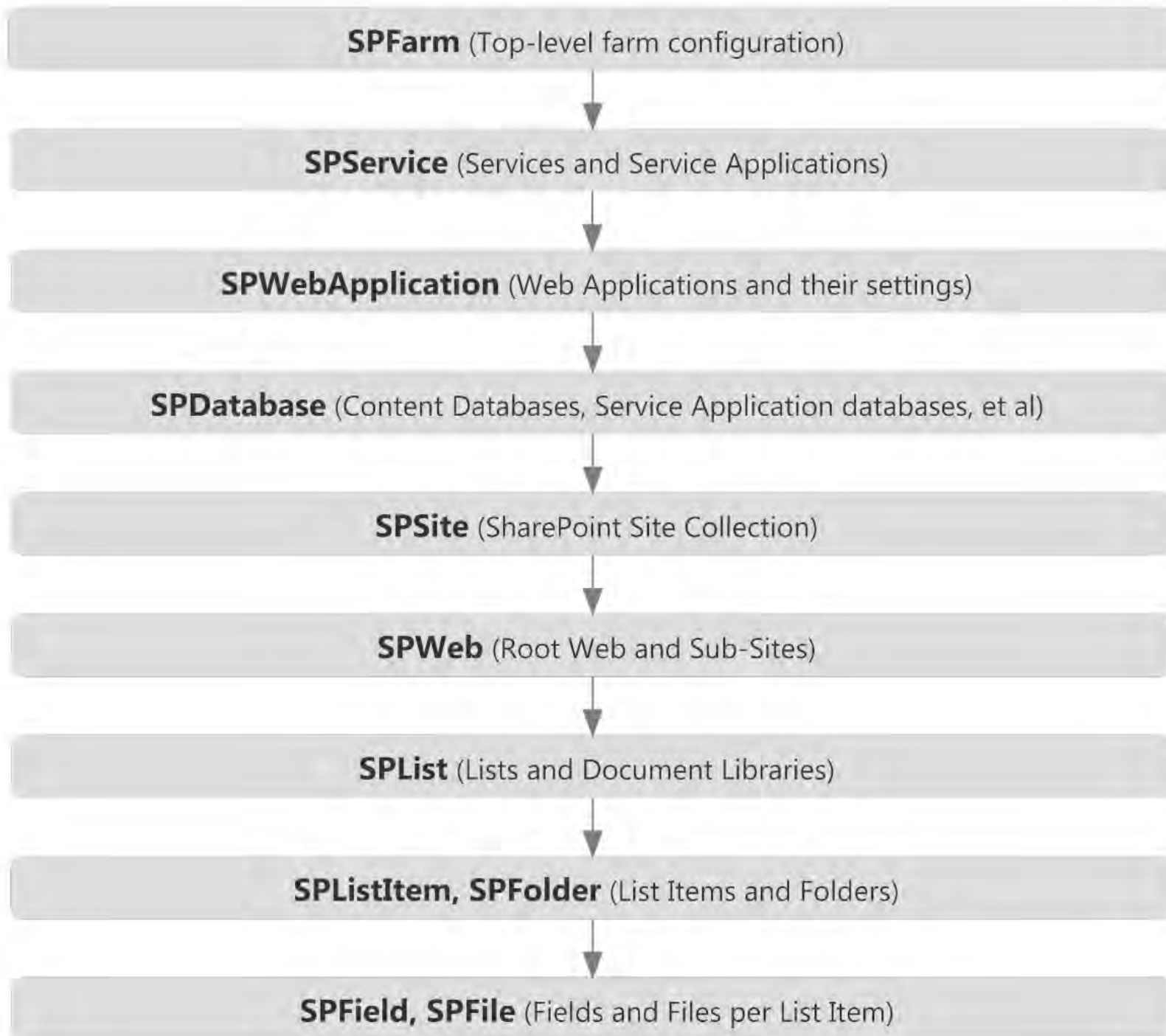


- Central Administration
- Application Management
- System Settings
- Monitoring
- Backup and Restore**
- Security
- Upgrade and Migration
- General Application Settings
- Configuration Wizards

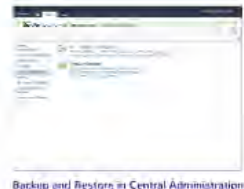
 **Farm Backup and Restore**  
[Perform a backup](#) | [Restore from a backup](#) | [Configure backup settings](#)  
[View backup and restore history](#) | [Check backup and restore job status](#)

 **Granular Backup**  
[Perform a site collection backup](#) | [Export a site or list](#)  
[Recover data from an unattached content database](#) |  
[Check granular backup job status](#)

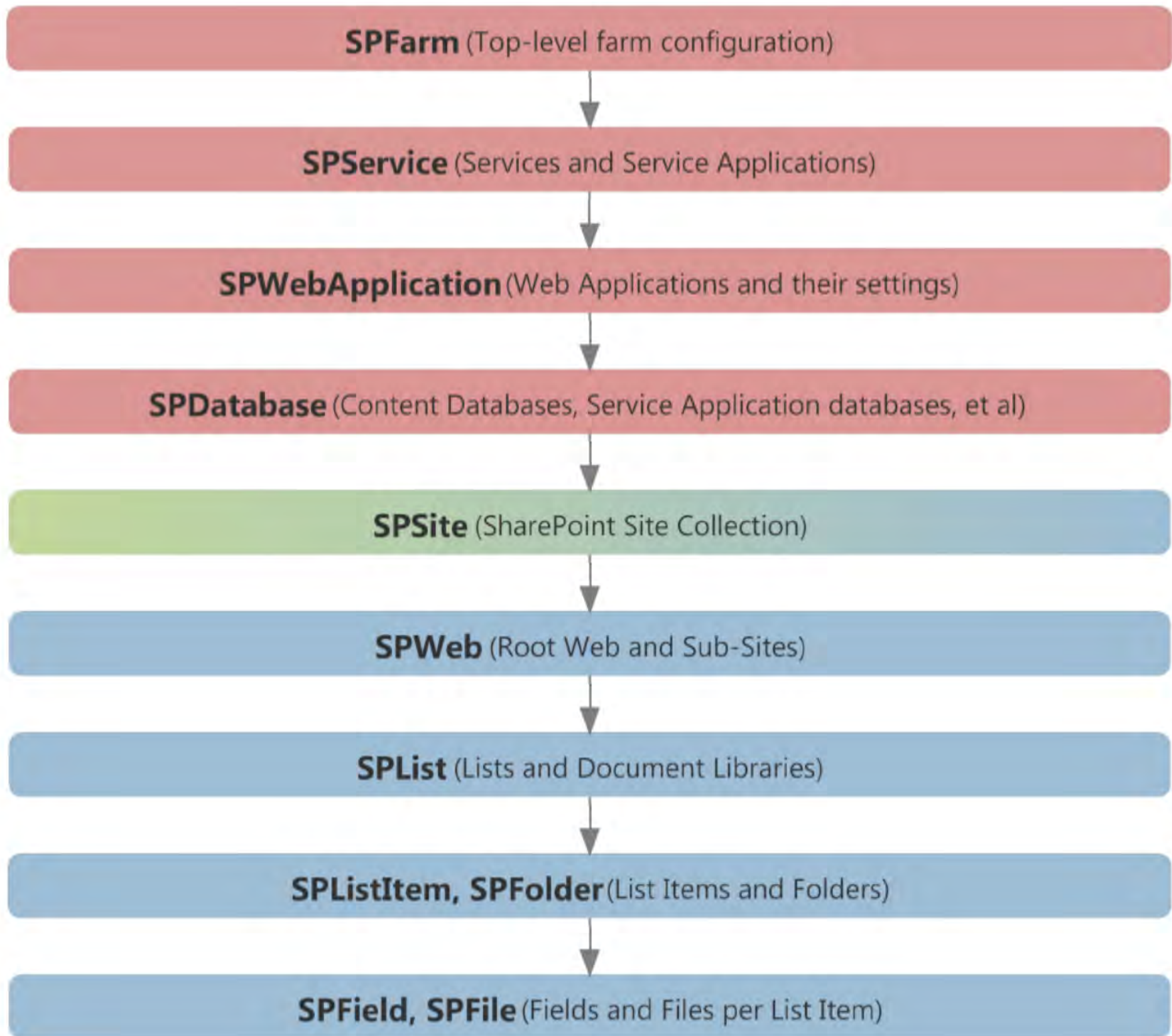
## Backup and Restore in Central Administration



Farm Backup & Restore



Granular Backup



# "Catastrophic" farm protection

- Backup-SPFarm
- Restore-SPFarm
- STSADM -o backup with -filename specified



**SPFarm** (Top-level farm configuration)

**SPService** (Services and Service Applications)

**SPWebApplication** (Web Applications and their settings)

**SPDatabase** (Content Databases, Service Application databases, et al)

SQL Server Database  
backups can also be  
used to great effect  
here



## "Catastrophic"

- Backup-SPFarm
- Restore-SPFarm
- STSADM -o backup

**SPFarm** (Top-level)

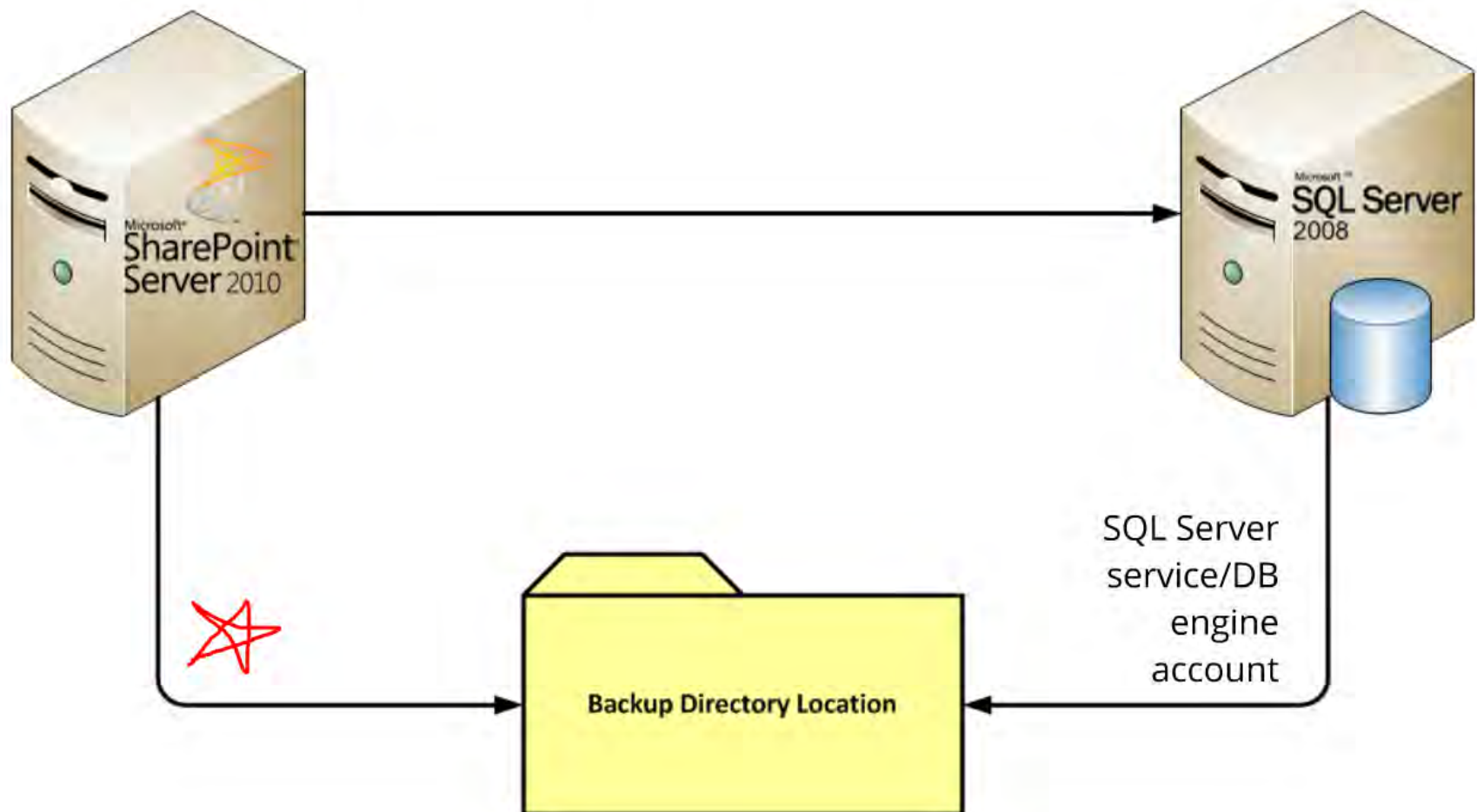
**SPService** (Service)

**SPWebApplication** (Web Application)

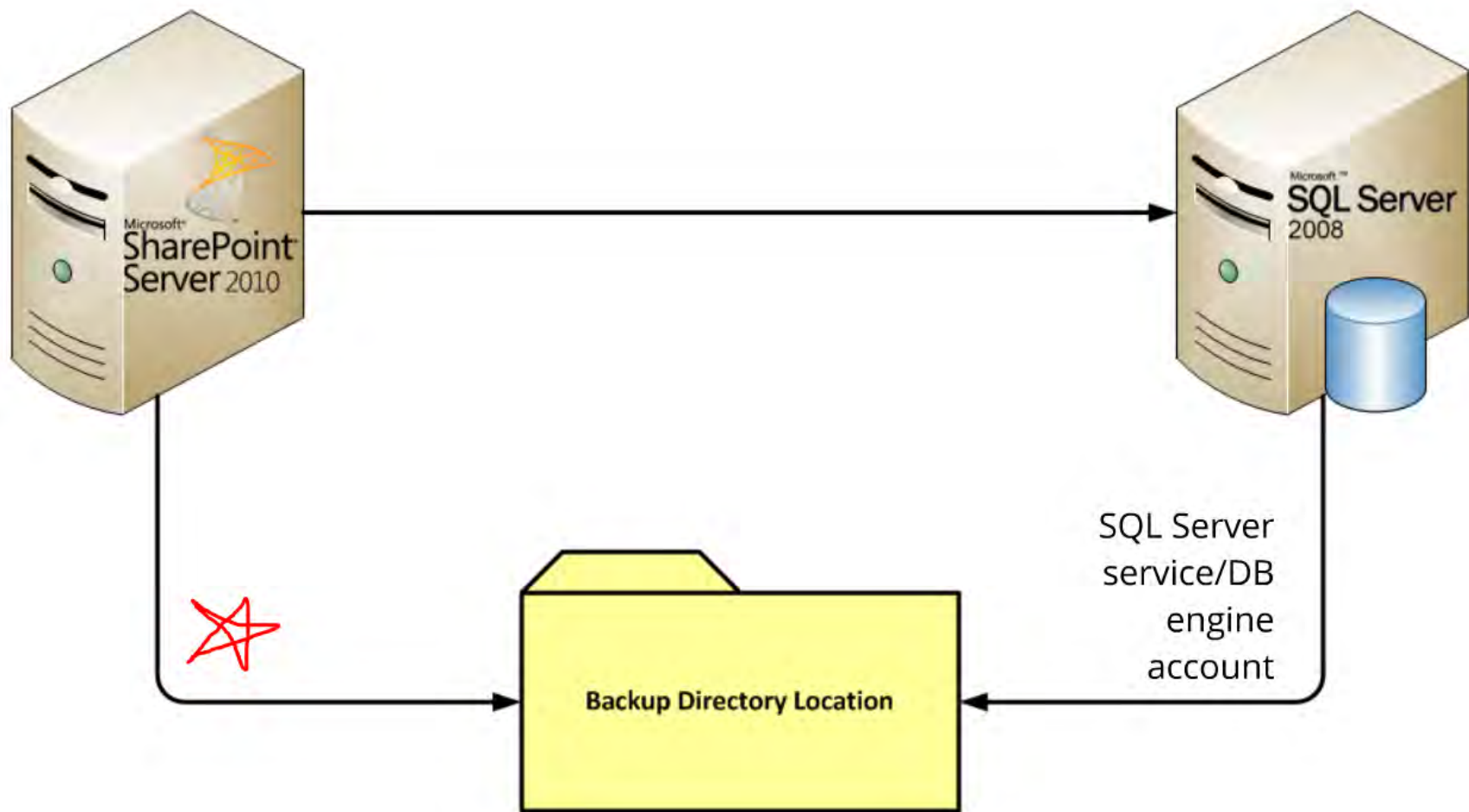
**SPDatabase** (Content Database)

# Tips

- Understand the permissions you need before you begin







Central Admin

★ SharePoint  
Timer Service  
account context

Command Line/PowerShell

★ Your account context! Make sure  
you've got rights. (e.g., through  
Add-SPShellAdmin)

Read/write access required for accounts

# Tips

- Your backup directory location needs to be a UNC path unless you're on a single server (SQL Server + SharePoint)



- Plan your storage! Backups will grow to consume all available disk space unless you somehow groom them ...
- For automated protection, you'll need Windows Task Scheduler

# Tips

- When you do a restore, you'll need an operational (patched\*) SharePoint farm.

Somewhat counter-intuitive until you think through it ...

- Full farm is really only "full" from a SharePoint-centric view of the universe.

You still need protection for decentralized customizations, manual IIS changes, etc.

Component	Type	Description
① Farm	Farm	Content and configuration data for the entire server farm.
② SP301_FarmConfig	Configuration Database	Configuration data for the entire server farm.
③ DriftPath/Farm/Services	Service Settings and Content	Administrator approved content and settings for the server farm.
Settings	Settings	Settings
Data Connections	Data Connections	Administrator-approved data connection files.
Farm Templates	Farm Templates	Administrator-approved farm templates.
④ Examples/User Agents	Example User Agents	The collection of user agents that receive HubPath forms instead of Web pages.
⑤ SharePoint Server - State Service	State Service	Service for storage of temporary state information used by various SharePoint Server features.
⑥ State Service	State Service Application	Microsoft SharePoint Foundation Web Application
⑦ Microsoft SharePoint Foundation Web Application	Web Application	Collection of Web Applications
⑧ MySite/HostWebApp	Web Application	Content and configuration data for this Web application.
⑨ PortalWebApp	Web Application	Content and configuration data for this Web application.
⑩ SSP_Administration	Central Administration	Collection of Web Applications
⑪ SharePoint Central Administration v4	Web Application	Content and configuration data for this Web application.
⑫ SharePoint Server - State Service Proxy	State Service Proxy	State Service Proxy
State Service	State Service Application Proxy	Microsoft SharePoint Foundation
⑬ SharePoint v4	Service-based Code Service	Settings for the Service-based Code Service.
[Resource Pools Group...]	Resource Pool Group	Collection of components grouped together for backup and restore.
[Service-based Code Load Balancer Provider using Popu...]	Service-based Code Load Balancer	Provider using Popu...
[Resource Pools Group...]	Resource Pool Group	Collection of components grouped together for backup and restore.
[Execution Tier Group...]	Execution Tier Group	Collection of components grouped together for backup and restore.
Microsoft SharePoint Server-Diagnostics Service	Microsoft SharePoint Server-Diagnostics Service	Settings for the diagnostics service.
Global Search Settings	Search object in configuration database	Global Search Settings for the farm.
Application Integrity Service	Application Integrity Service	Backend-compatible Business Data Connectivity API.
Microsoft Office Web Apps-Diagnostics Service	Microsoft Office Web Apps-Diagnostics Service	Settings for the diagnostics service.
Microsoft SQL Server Reporting Services-Diagnostics Service	Microsoft SQL Server Reporting Services-Diagnostics Service	Settings for the diagnostics service.
Microsoft SharePoint Foundation-Diagnostics Service	Microsoft SharePoint Foundation-Diagnostics Service	Settings for the diagnostics service.
⑭ Shared Services	Shared Services	Shared Services of the server farm.
⑮ Shared Services Applications	Shared Services Applications	Shared Services Applications of the server farm.
⑯ Shared Services Proxies	Shared Services Proxies	Shared Services Applications of the server farm.

Component	Type	Description
[-] Farm	Farm	Content and configuration data for the entire server farm.
SP2010_FarmConfig	Configuration Database	Configuration data for the entire server farm.
[-] InfoPath Forms Services	Server Settings and Content	Administrator-approved content and settings for the server farm.
Settings	Settings	Settings
Data Connections	Data Connections	Administrator-approved data connection files.
Form Templates	Form Templates	Administrator-approved form templates.
[-] Exempt User Agents	Exempt User Agents	The collection of user agents that receive InfoPath forms instead of Web pages.
[-] SharePoint Server State Service	State Service	Service for storage of temporary state information used by various SharePoint Server features.
[-] State Service	State Service Application	
[-] Microsoft SharePoint Foundation Web Application	Microsoft SharePoint Foundation Web Application	Collection of Web Applications
[-] MySiteHostWebApp	Web Application	Content and configuration data for this Web application.
[-] PortalWebApp	Web Application	Content and configuration data for this Web application.
[-] WSS_Administration	Central Administration	Collection of Web Applications
[-] SharePoint Central Administration v4	Web Application	Content and configuration data for this Web application.
[-] SharePoint Server State Service Proxy	State Service Proxy	
State Service	State Service Application Proxy	
[-] SPUserCodeV4	Microsoft SharePoint Foundation Sandboxed Code Service	Settings for the Sandboxed Code Service.
[Solution Validators Group.]	Backup Group	Collection of components grouped together for backup and restore.
Sandboxed Code Load Balancer Provider using Popularity	Sandboxed Code Load Balancer Provider using Popularity	
[Resource Measures Group.]	Backup Group	Collection of components grouped together for backup and restore.
[Execution Tiers Group.]	Backup Group	Collection of components grouped together for backup and restore.
Microsoft SharePoint Server Diagnostics Service	Microsoft SharePoint Server Diagnostics Service	Settings for the diagnostics service.
Global Search Settings	Search object in configuration database	Crawler impact rules for the farm
Application Registry Service	Application Registry Service	Backwards compatible Business Data Connectivity API.
Microsoft Office Web Apps Diagnostics Service	Microsoft Office Web Apps Diagnostics Service	Settings for the diagnostics service.
Microsoft SQL Server Reporting Services Diagnostics Service	Microsoft SQL Server Reporting Services Diagnostics Service	Settings for the diagnostics service.
Microsoft SharePoint Foundation Diagnostics Service	Microsoft SharePoint Foundation Diagnostics Service	Settings for the diagnostics service.
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# Tips

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You still need protection for decentralized customizations, manual IIS changes, etc.

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SPFarm Farm Services	Server Settings and Content	Administrator-approved content and settings for the server farm.
Settings	Settings	Settings.
Data Connections	Data Connections	Administrator-approved data connection files.
Farm Templates	Farm Templates	Administrator-approved farm templates.
Example User Agents	Example User Agents	The collection of user agents that receive HTML forms instead of Web pages.
SharePoint Server State Service	State Service	Service for storage of temporary state information used by various SharePoint Server features.
State Service	State Service Application	State Service Application.
Microsoft SharePoint Foundation Web Application	Microsoft SharePoint Foundation Web Application	Collection of Web Applications.
WebsiteHostWebApp	Web Application	Content and configuration data for this Web application.
Site Administration	Central Administration	Collection of Web Applications.
SharePoint Central Administration v4	Web Application	Content and configuration data for this Web application.
SharePoint Server State Service Proxy	State Service Proxy	State Service Proxy.
State Service	State Service Application Proxy	State Service Application Proxy.
SharePoint	Microsoft SharePoint Foundation	Microsoft SharePoint Foundation.
SharePoint Code Service	Service-based Code Service	Settings for the Service-based Code Service.
SharePoint Group	Group	Collection of components grouped together for backup and restore.
SharePoint Code Load Balancer Provider using PopUp	Service-based Code Load Balancer Provider using PopUp	Service-based Code Load Balancer Provider using PopUp.
Resource Measures Group	Group	Collection of components grouped together for backup and restore.
Execution Tier Group	Group	Collection of components grouped together for backup and restore.
SharePoint Server Diagnostics Service	Microsoft SharePoint Server	Settings for the diagnostics service.
Diagnosis Service	Diagnosis Service	Settings for the diagnostics service.
Global Search Settings	Search object in configuration database	Global search rules for the farm.
Application Integrity Service	Application Integrity Service	Backend-compatible Business Data Connectivity API.
Microsoft Office Web Apps Diagnostics Service	Microsoft Office Web Apps Diagnostics Service	Settings for the diagnostics service.
Microsoft SQL Server Reporting Services Diagnostics Service	Microsoft SQL Server Reporting Services Diagnostics Service	Settings for the diagnostics service.
Microsoft SharePoint Foundation Diagnostics Service	Microsoft SharePoint Foundation Diagnostics Service	Settings for the diagnostics service.
Shared Services	Shared Services	Shared Services of the server farm.
Shared Services Applications	Shared Services Applications	Shared Services Applications of the server farm.
Shared Services Proxies	Shared Services Proxies	Shared Services Applications of the server farm.

# Exercise

# Plan



*"The Treasure Trove of Lost Goodness"*

- You are an administrator working for a large candy company that collaborates through SharePoint
- Your farm was completely flatlined, and you've been handed a new SharePoint environment (devoid of content) in order to rebuild
- You have backups (in various forms) to use in order to put "Humpty Dumpty" back together again

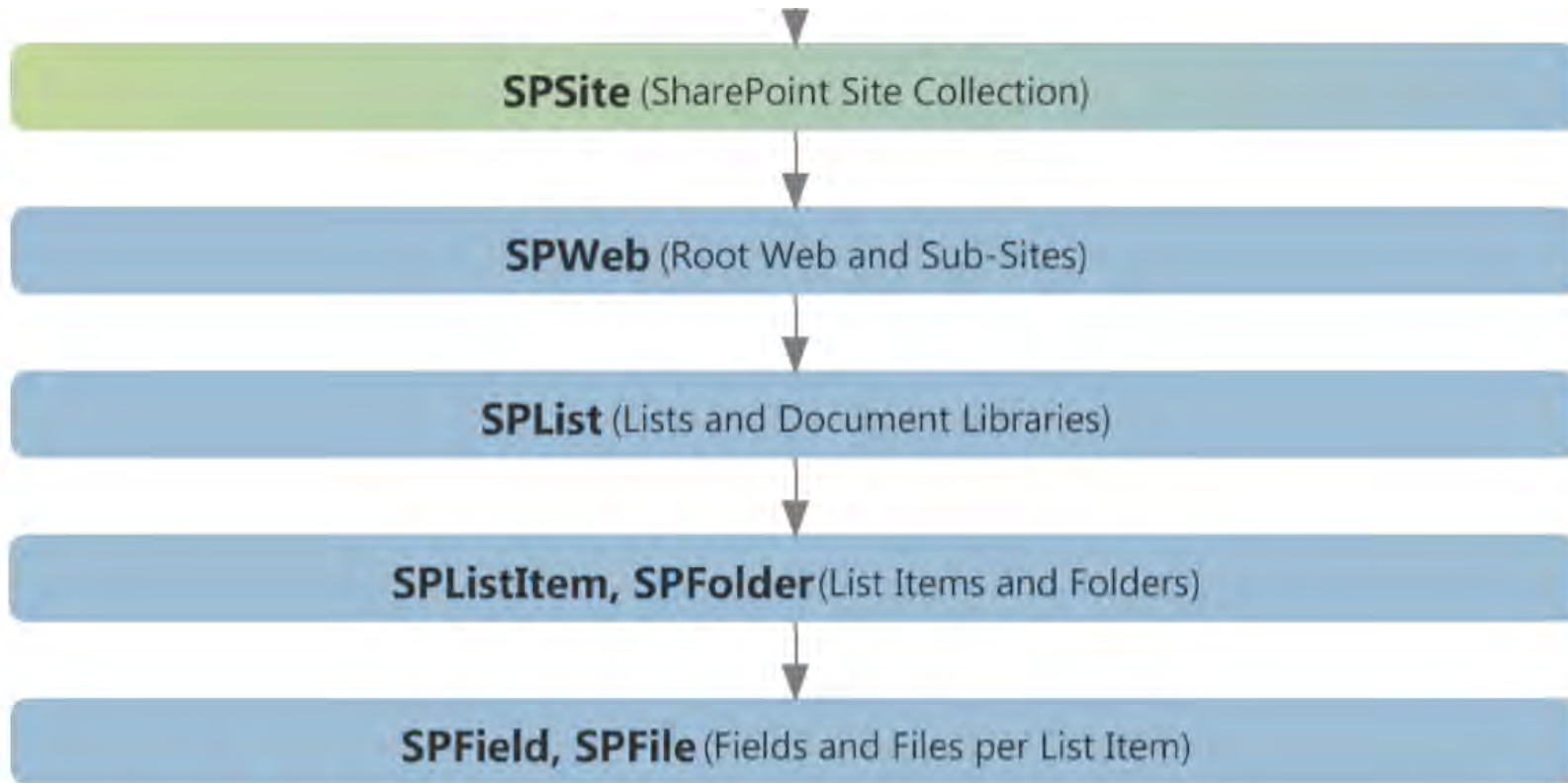
# Exercises

## 1 & 2



*"The Treasure Trove of Lost Goodness"*

1. Restore a web application and content database from a SharePoint backup set
2. Restore a content database from SQL Server backup and mount it into the web application



  
**Content export (via the  
Content Deployment  
API aka PRIME API)**

- Export-SPWeb
- Import-SPWeb
- STSADM -o export
- STSADM -o import



# Tips

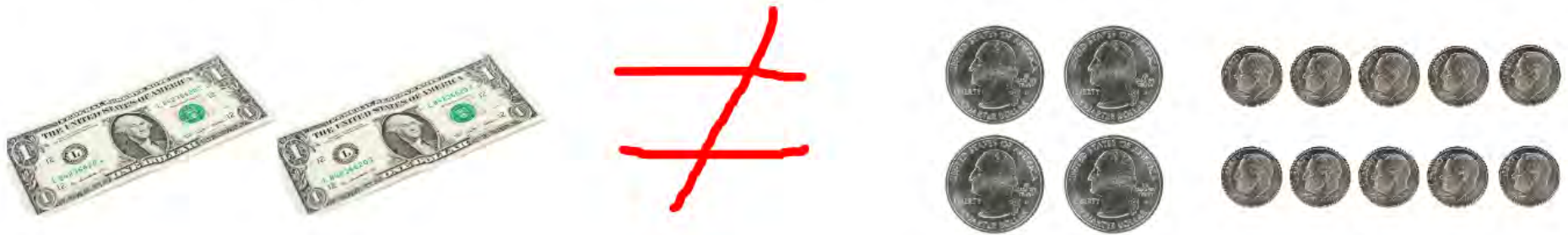
- You (or Timer Service account) require access to export/import location
- Do you have SQL Server Enterprise?  
Consider the -UseSqlSnapshot switch
- Imports must be done from the command line, but Exports can be done in Central Admin (much easier)

# Tips

- Unattached database recovery is your friend: use it (via Central Administration)
- Publishing sites cause problems for some export/import operations.
- Be careful if you are importing into a (sub-) site that is based on a template that is different from the source (export) site or sub-site

# Remember

- Content deployment is an export process



## What you lose:

- alerts
- audit trails
- change log history
- recycle-bin items
- workflow tasks/state
- ...

# Exercises

## 3 & 4



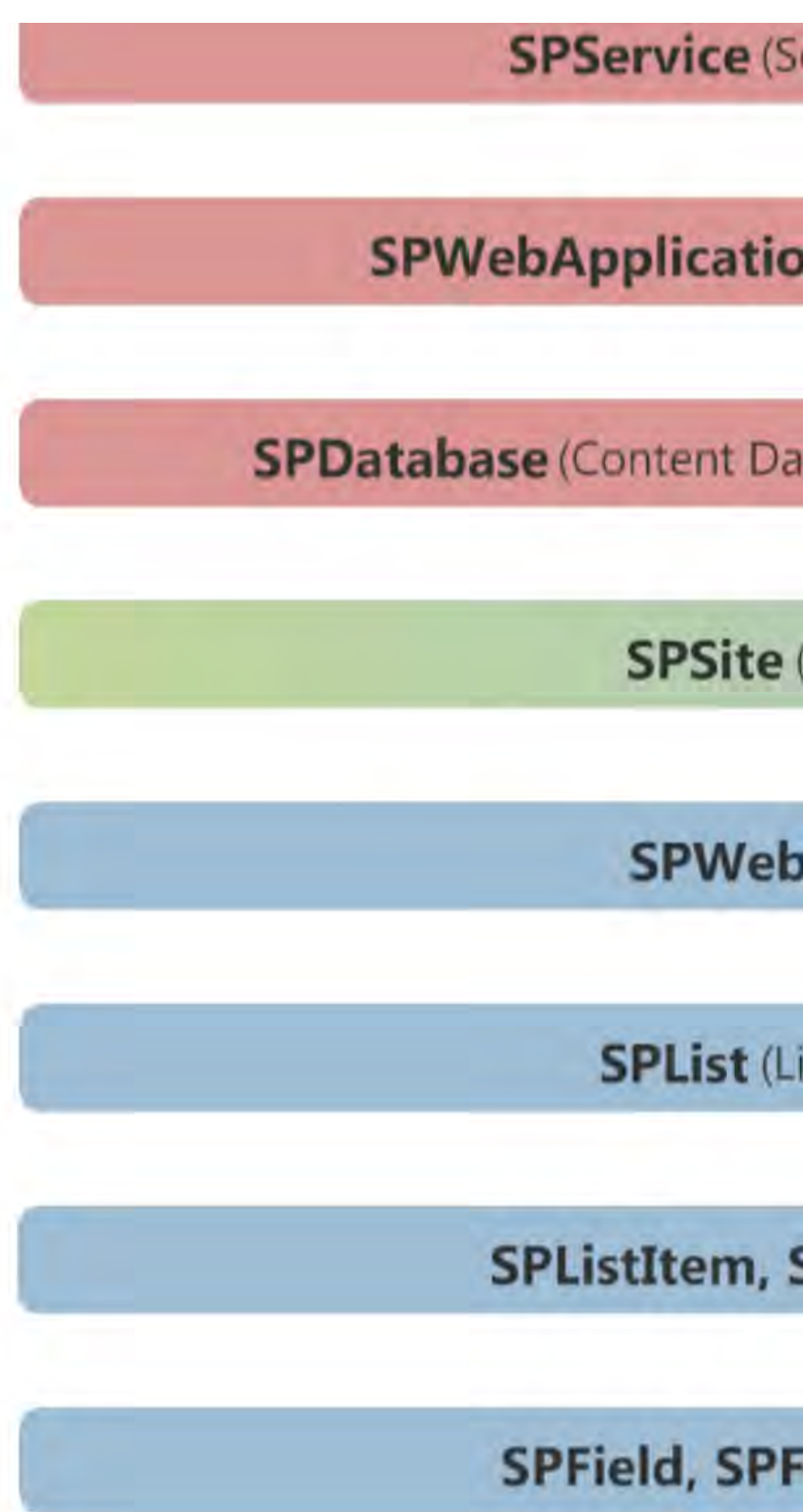
*"The Treasure Trove of Lost Goodness"*

3. Restore another content database for unattached DB export of the Caramel list
4. Execute library exports from the Chocolate and PeanutButter site collections

*Save the export packages for subsequent exercises ...*

# Site Collection backup

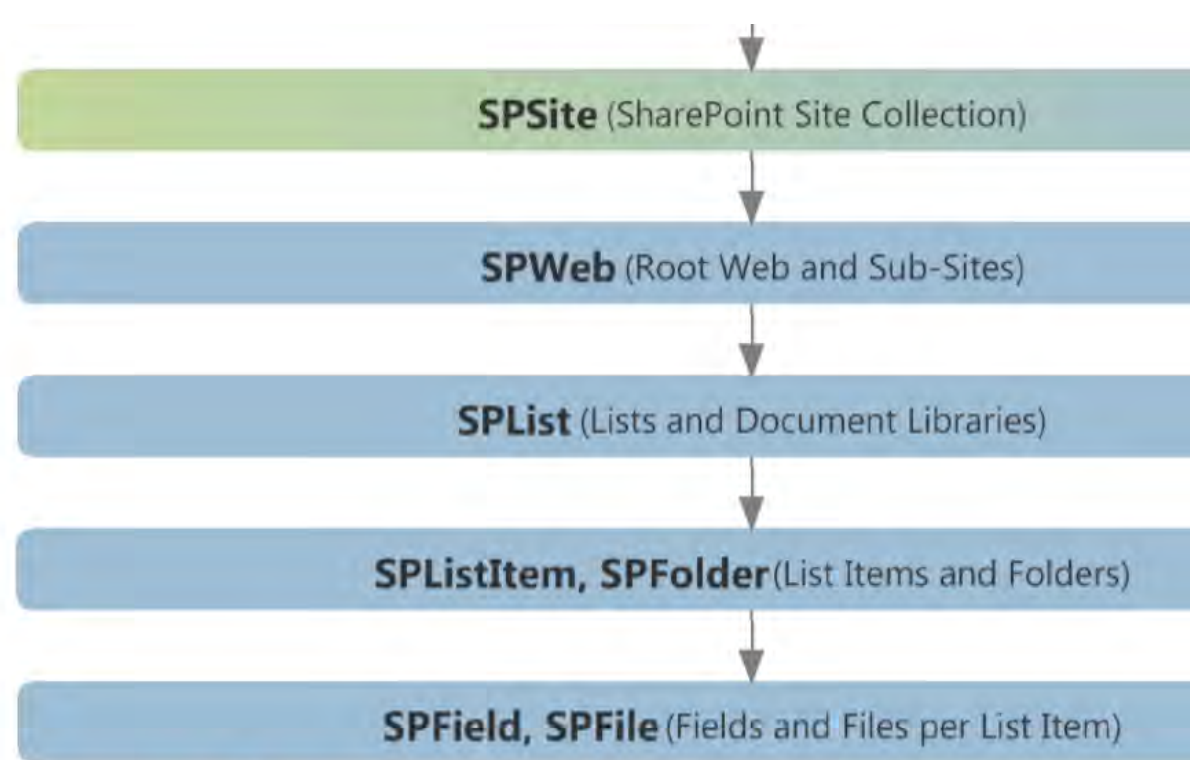
- Backup-SPSite
- Restore-SPSite
- STSADM -o backup with -url specified



# Site Collection backup

- Backup-SPSite
- Restore-SPSite
- STSADM -o backup with -url specified

Yes, site collections can be both backed-up and exported.



Content export (via the Content Deployment API aka PRIME API)

# Tips

- Stay away from the -NoSiteLock switch
- Do you have SQL Server Enterprise?  
Consider the -UseSqlSnapshot switch
- The recycle bin and gradual site deletion jobs can impact your restore operations
- GUID collisions happen. It's okay; create another database to restore to the same (source) Web Application

# Exercises

## 5 & 6



*"The Treasure Trove of Lost Goodness"*

5. Restore the primary Treasure Trove site collection from site collection backup file
6. Import the three lists (into Treasure Trove) that had previously been exported

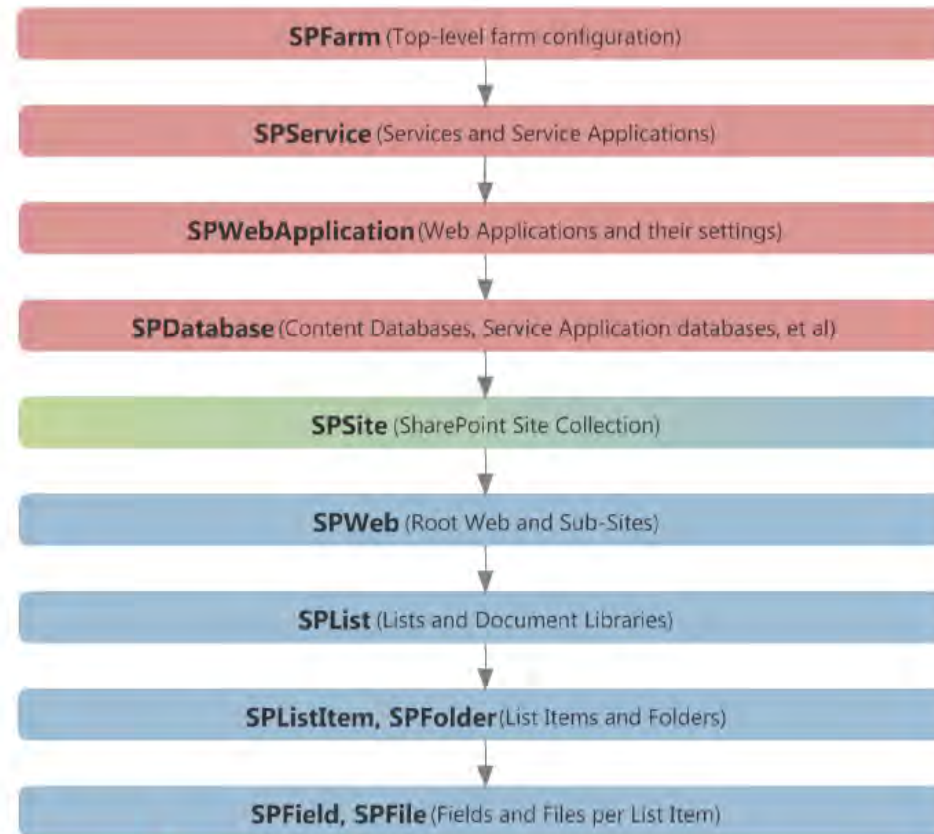


SQL Server Database backups can also be used to great effect here

## "Catastrophic" farm protection

- Backup-SPFarm
- Restore-SPFarm
- STSADM -o backup with -filename specified

Backup and export "cheat sheet"



## Site Collection backup

- Backup-SPSite
- Restore-SPSite
- STSADM -o backup with -url specified

Yes, site collections can be both backed-up and exported.

## Content export (via the Content Deployment API aka PRIME API)

- Export-SPWeb
- Import-SPWeb
- STSADM -o export
- STSADM -o import

# The Art of Restoring

# The Art of Restoring



Beyond Content ...

Backup is  
a science

Backup is  
a science

Restore  
is an art





From here on out,  
actual results  
depend on many  
different factors

Net: a particular operation  
may succeed, fail, or both  
based on data, environment,  
configuration, time of day,  
phase of moon ...

# Service Applications

- are unique in that they typically house both configuration and content
- Despite a common Service Application Framework, each service app is unique and has its own twists/eccentricities
- present some of the more difficult restore challenges

# Bad news

Service application  
restores can be hard





# Bad news

Service application  
restores can be hard



# Good news

OOTB tools are well-  
positioned for restores!

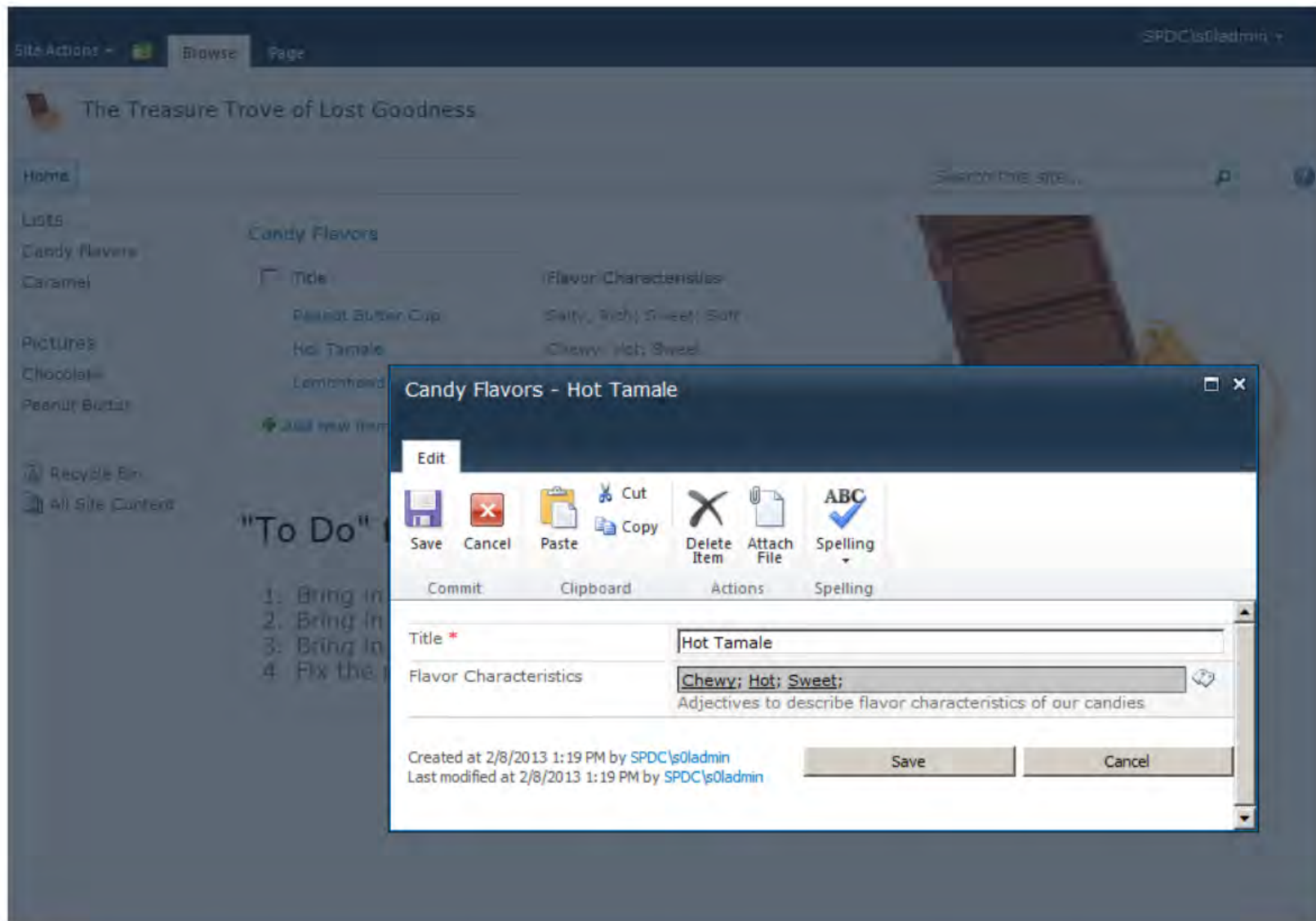


# Let's look at the Treasure Trove site's service application lineup

The screenshot displays a SharePoint site titled "The Treasure Trove of Lost Goodness". The site has a navigation menu with "Home" and "Search this site...". A "Lists" section is visible, containing "Candy Flavors", "Caramel", "Pictures", "Chocolate", and "Peanut Butter". The "Candy Flavors" list is expanded, showing a table with columns "Title" and "Flavor Characteristics". The "Hot Tamale" item is selected, and its "Edit" dialog box is open. The dialog box contains the following information:

Title *	Hot Tamale
Flavor Characteristics	<u>Chewy</u> ; <u>Hot</u> ; <u>Sweet</u> ; Adjectives to describe flavor characteristics of our candies

At the bottom of the dialog box, it shows the creation and modification details: "Created at 2/8/2013 1:19 PM by SPDC\j0ladmin" and "Last modified at 2/8/2013 1:19 PM by SPDC\j0ladmin". There are "Save" and "Cancel" buttons at the bottom right of the dialog box.



- Secure Store Service App: Missing
- Managed Metadata Service App: No Terms

- Secure Store Service App: Missing
- Managed Metadata Service App: No Terms

# Common Options

- Restore entire service app from backup
- Rebuild using restored (SQL Server) databases



# Exercises

## 7 & 8



*"The Treasure Trove of Lost Goodness"*

7. Restore Secure Store Service  
Application from full-farm backup

8. Rebuild Managed Metadata Service  
Application from SQL Server DB backup

# Configuration-Only Backup and Restore



# Configuration-Only Backup and Restore



What exactly is it? ... and is it useful?

# What exactly is it?

- an extension of the existing catastrophic backup/restore API
- components report their "portable" configuration data
- captured as a standard backup set
- backup set can then be restored either in-place (to restore a farm's previous settings) or out-of-place (to copy one farm's settings to another)





... and is it useful?

## Captures the following:

- Antivirus settings
- Information rights management (IRM) settings
- Outbound e-mail settings
- Diagnostic logging settings
- Customizations deployed as trusted solutions

# Captures the following:

- Antivirus settings
- Information rights management (IRM) settings
- Outbound e-mail settings
- Diagnostic logging settings
- Customizations deployed as trusted solutions

Does that list look a  
little "lite" to you?



Site Actions SPDC\sladmin

**Central Administration** » Restore from Backup - Step 2 of 3: Select Component to Restore

Select the components to restore.

If a component is listed, but cannot be selected, it is either because the backup does not contain the component or there was an error during the backup. You can see the associated error message under the Backup Failure Message heading.

To continue with the restoration process, click **Next**. To select a different backup file that contains a different set of components, click **Previous**.

**Central Administration**

- Application Management
- System Settings
- Monitoring
- Backup and Restore
- Security
- Upgrade and Migration
- General Application Settings
- Configuration Wizards

**Readiness**

- No backup or restore in progress. [Backup and Restore Job Status](#)
- Timer service is running.
- Administration service is running.

**Select component to restore**

Select the top-level component to restore.

Select	Component	Type	Backup Failure Message
<input type="checkbox"/>	<input type="checkbox"/> Farm	Farm	
<input type="checkbox"/>	<input type="checkbox"/> SP2010_FarmConfig	Configuration Database	
<input type="checkbox"/>	<input type="checkbox"/> Solutions	Solutions	
<input type="checkbox"/>	<input type="checkbox"/> ideraseselfservicerecovery.wsp	Solution	
<input type="checkbox"/>	<input type="checkbox"/> sharepointbac.wsp	Solution	
<input type="checkbox"/>	<input type="checkbox"/> InfoPath Forms Services	Server Settings and Content	
<input type="checkbox"/>	<input type="checkbox"/> Settings	Settings	
<input type="checkbox"/>	<input type="checkbox"/> Data Connections	Data Connections	
<input type="checkbox"/>	<input type="checkbox"/> Form Templates	Form Templates	
<input type="checkbox"/>	<input type="checkbox"/> Exempt User Agents	Exempt User Agents	
<input type="checkbox"/>	<input type="checkbox"/> SharePoint Server State Service	State Service	
<input type="checkbox"/>	<input type="checkbox"/> State Service	State Service Application	
<input type="checkbox"/>	<input type="checkbox"/> Microsoft SharePoint Foundation Web Application	Microsoft SharePoint Foundation Web Application	
<input type="checkbox"/>	<input type="checkbox"/> MySites Web Application	Web Application	
<input type="checkbox"/>	<input type="checkbox"/> Restoration Tutorial Web App	Web Application	
<input type="checkbox"/>	<input type="checkbox"/> WSS_Administration	Central Administration	
<input type="checkbox"/>	<input type="checkbox"/> SharePoint Central Administration v4	Web Application	
<input type="checkbox"/>	<input type="checkbox"/> SharePoint Server State Service Proxy	State Service Proxy	
<input type="checkbox"/>	<input type="checkbox"/> State Service	State Service Application Proxy	
<input type="checkbox"/>	<input type="checkbox"/> SPUserCodeV4	Microsoft SharePoint Foundation Sandboxed Code Service	
<input type="checkbox"/>	<input type="checkbox"/> [Solution Validators Group.]	Backup Group	
<input type="checkbox"/>	<input type="checkbox"/> Sandboxed Code Load Balancer Provider using Popularity	Sandboxed Code Load Balancer Provider using Popularity	
<input type="checkbox"/>	<input type="checkbox"/> [Resource Measures Group.]	Backup Group	
<input type="checkbox"/>	<input type="checkbox"/> [Execution Tiers Group.]	Backup Group	
<input type="checkbox"/>	<input type="checkbox"/> Microsoft SharePoint Server Diagnostics Service	Microsoft SharePoint Server Diagnostics Service	
<input type="checkbox"/>	<input type="checkbox"/> Global Search Settings	Search object in configuration database	
<input type="checkbox"/>	<input type="checkbox"/> Application Registry Service	Application Registry Service	
<input type="checkbox"/>	<input type="checkbox"/> Microsoft Office Web Apps Diagnostics Service	Microsoft Office Web Apps Diagnostics Service	
<input type="checkbox"/>	<input type="checkbox"/> Microsoft SQL Server Reporting Services Diagnostics	Microsoft SQL Server Reporting Services Diagnostics	
<input type="checkbox"/>	<input type="checkbox"/> Microsoft SQL Server Reporting Services SharePoint Integration Diagnostics	Microsoft SQL Server Reporting Services SharePoint Integration Diagnostics	
<input type="checkbox"/>	<input type="checkbox"/> Microsoft SharePoint Foundation Diagnostics Service	Microsoft SharePoint Foundation Diagnostics Service	
<input type="checkbox"/>	<input type="checkbox"/> Shared Services	Shared Services	
<input type="checkbox"/>	<input type="checkbox"/> Shared Services Applications	Shared Services Applications	
<input type="checkbox"/>	<input type="checkbox"/> Shared Services Proxies	Shared Services Proxies	

Previous      Next      Cancel

# Restore: content + config

## Central Administration ▸ Restore from Backup - Step 2 of 3: Select Component to Restore



Select the components to restore.

If a component is listed, but cannot be selected, it is either because the backup does not contain the component or there was an error during the backup. You can see the associated error message under the Backup Failure Message heading.  
To continue with the restoration process, click **Next**. To select a different backup file that contains a different set of components, click **Previous**.



## Central Administration

- Application Management
- System Settings
- Monitoring
- Backup and Restore
- Security
- Upgrade and Migration
- General Application Settings
- Configuration Wizards

## Readiness

- No backup or restore in progress. [Backup and Restore Job Status](#)
- Timer service is running.
- Administration service is running.

## Select component to restore

Select the top-level component to restore.

Select	Component	Type	Backup Failure Message
<input type="checkbox"/>	▣ Farm	Farm	
<input type="checkbox"/>	▣ Solutions	Solutions	
<input type="checkbox"/>	▣ sharepointbac.wsp	Solution	
<input type="checkbox"/>	▣ InfoPath Forms Services	Server Settings and Content	
<input type="checkbox"/>	Settings	Settings	
<input type="checkbox"/>	Data Connections	Data Connections	
<input type="checkbox"/>	Form Templates	Form Templates	
<input type="checkbox"/>	▣ Exempt User Agents	Exempt User Agents	
<input type="checkbox"/>	Microsoft SharePoint Foundation Web Application	Microsoft SharePoint Foundation Web Application	
<input type="checkbox"/>	WSS_Administration	Central Administration	
<input type="checkbox"/>	▣ SPUserCodeV4	Microsoft SharePoint Foundation Sandboxed Code Service	
	[Solution Validators Group.]	Backup Group	
	Sandboxed Code Load Balancer Provider using Popularity	Sandboxed Code Load Balancer Provider using Popularity	
	[Resource Measures Group.]	Backup Group	
	[Execution Tiers Group.]	Backup Group	
	Microsoft SharePoint Server Diagnostics Service	Microsoft SharePoint Server Diagnostics Service	
	Microsoft Office Web Apps Diagnostics Service	Microsoft Office Web Apps Diagnostics Service	
	Microsoft SQL Server Reporting Services Diagnostics	Microsoft SQL Server Reporting Services Diagnostics	
	Microsoft SQL Server Reporting Services SharePoint Integration Diagnostics	Microsoft SQL Server Reporting Services SharePoint Integration Diagnostics	
	Microsoft SharePoint Foundation Diagnostics Service	Microsoft SharePoint Foundation Diagnostics Service	

Previous

Next

Cancel

# Restore: configuration only

is

store

migration

ation

Wizards



Administration service is running.

### Select component to restore

Select the top-level component to restore.

- | Select                   | Component  |
|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> Farm                    |
| <input type="checkbox"/> | <input type="checkbox"/> Solutions               |
| <input type="checkbox"/> | <input type="checkbox"/> sharepointbac.wsp       |
| <input type="checkbox"/> | <input type="checkbox"/> InfoPath Forms Services |
| <input type="checkbox"/> | Settings   |
| <input type="checkbox"/> | Data Connections                                 |
| <input type="checkbox"/> | Form Templates                                   |
| <input type="checkbox"/> | <input type="checkbox"/> Exempt User Agents      |

# Exercises

## 9 & 10



*"The Treasure Trove of Lost Goodness"*

9. Perform a configuration-only backup against another farm's restored farm configuration database
10. Restore the farm solution store from the configuration-only backup set

# The Problem of the Cart and the Horse

Restore

We've focused almost exclusively on putting SharePoint back together

# The Problem of the Cart and the Horse





Restore

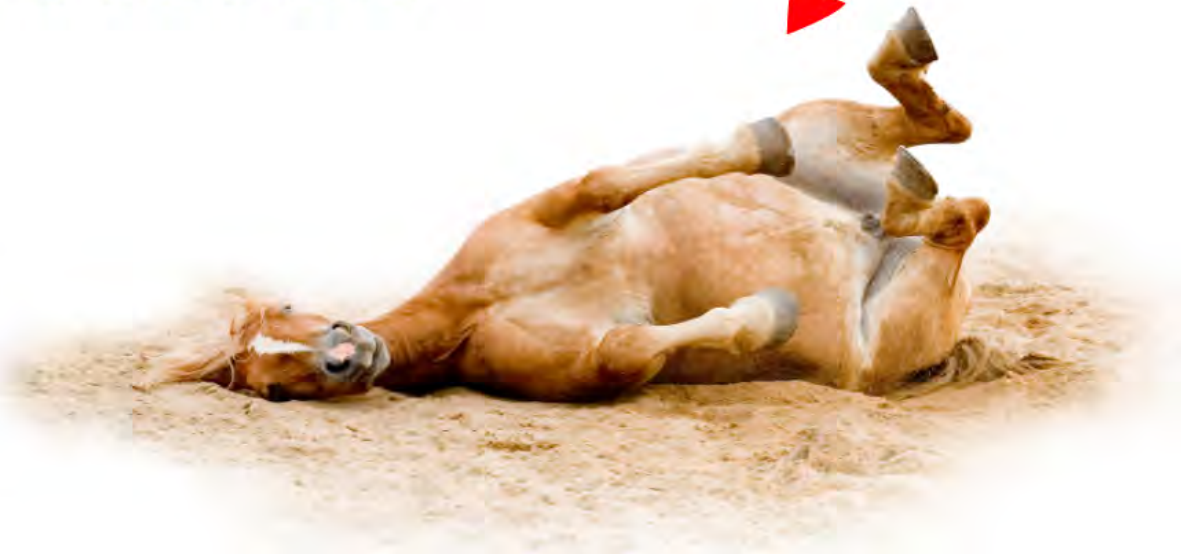
We've focused almost exclusively on putting SharePoint back together

Average Backup

# The Problem of the Cart and the Horse



If your backups aren't predictable, reliable, and maintained, then the cart itself is relatively useless



**My Solution**

# My Solution : SharePointBAC

The screenshot shows a web browser window displaying the CodePlex project page for "SharePoint Backup Augmentation Cmdlets". The browser address bar shows the URL "http://sharepointbac.codeplex.com/". The page header includes the CodePlex logo, navigation links for "Register" and "Sign In", and a search bar. The main content area features a navigation menu with tabs for "HOME", "SOURCE CODE", "DOWNLOADS", "DOCUMENTATION", "DISCUSSIONS", "ISSUE TRACKER", "PEOPLE", and "LICENSE". Below the navigation menu, there are links for "Page Info" and "Change History (all pages)", along with "Follow (19)" and "Subscribe" buttons. The "Project Description" section explains that the cmdlets provide additional PowerShell capabilities for SharePoint 2010 backups. The "Target Audience" section describes the intended users as SharePoint 2010 administrators. The "Capabilities" section lists specific gaps addressed by the cmdlets, such as determining backup space consumption and error handling. On the right side, there is a search bar for "Search Wiki & Documentation", a large purple "download" button, and a table of project statistics including current version (1.0.0), date (Apr 6, 2012), status (Stable), and download count (107). An "ACTIVITY" table shows page views, visits, and downloads over a 7-day period.

CodePlex Project Hosting for Open Source Software Register Sign In Search all projects

## SharePoint Backup Augmentation Cmdlets

HOME SOURCE CODE DOWNLOADS DOCUMENTATION DISCUSSIONS ISSUE TRACKER PEOPLE LICENSE

Page Info Change History (all pages) ★ Follow (19) Subscribe

### Project Description

The SharePoint Backup Augmentation Cmdlets (SharePointBAC) provide administrators with additional PowerShell cmdlets to complement and extend SharePoint 2010's native backup and restore capabilities. SharePointBAC makes it possible to groom backup sets, archive backups, and more.

### Target Audience

I created this solution for a very specific audience: SharePoint 2010 administrators who protect their farms through scripts that are built using the out-of-the-box (OOTB) backup and restore PowerShell cmdlets. Sometimes this approach is deliberate and by choice, and sometimes it is out of necessity (e.g., due to limited resources); regardless, I think that the OOTB PowerShell cmdlets do an admirable job of providing protection for most small to mid-size SharePoint environments.

### Capabilities

Unfortunately, there are some pretty significant capability gaps that administrators have to work around when building their PowerShell backup scripts. That's where the SharePoint Backup Augmentation Cmdlets come in. The cmdlets address several gaps, including the following:

- » Information on backup operations: The SharePoint Backup Augmentation Cmdlets (via the **Get-SPBackupCatalog** cmdlet) make it easy to determine how much space your backups are consuming, whether or not there were errors on the last backup, how long backup operations take to run, and more.

Search Wiki & Documentation

download

CURRENT	SharePointBAC (1.0.0)
DATE	Fri Apr 6, 2012 at 3:00 AM
STATUS	Stable
DOWNLOADS	107
RATING	0 ratings

### ACTIVITY

PAGE VIEWS	VISITS	DOWNLOADS
2936	1513	201

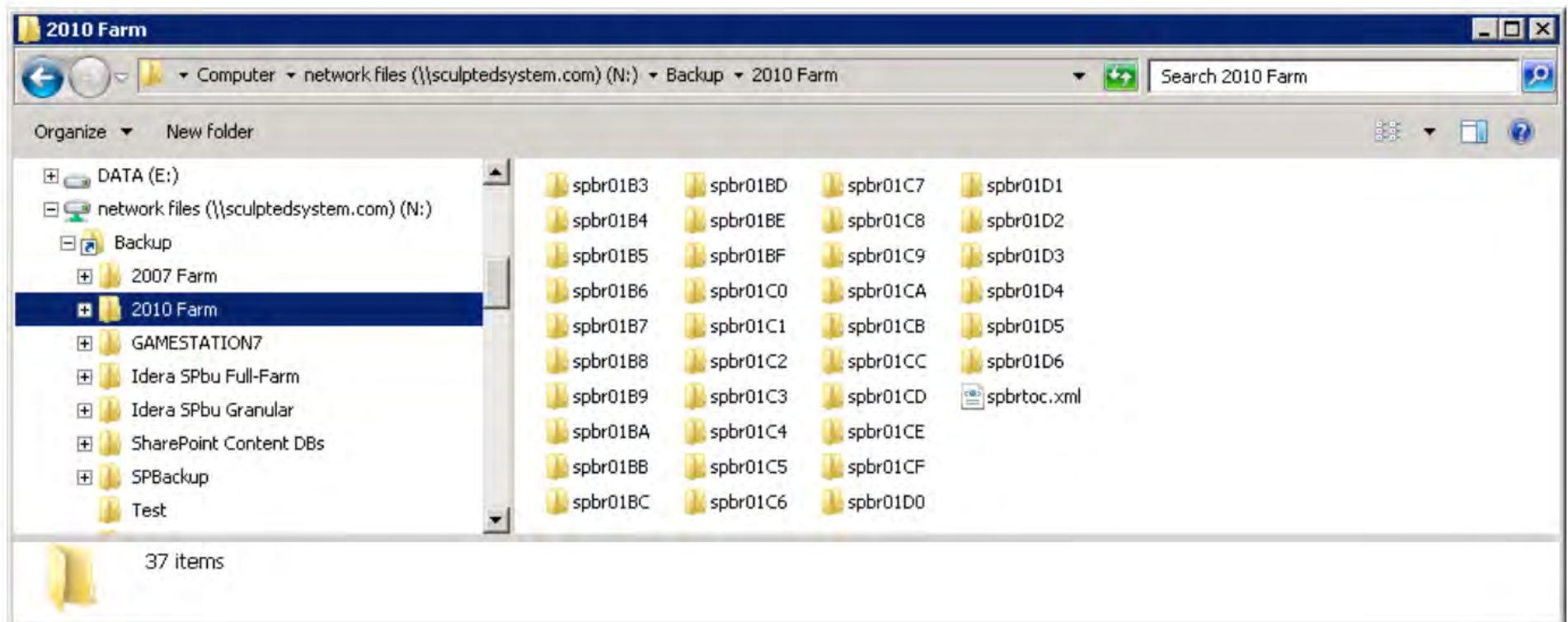
Days: 7 30 All Details

**Consider a small farm  
with ~ 10GB of data ...**

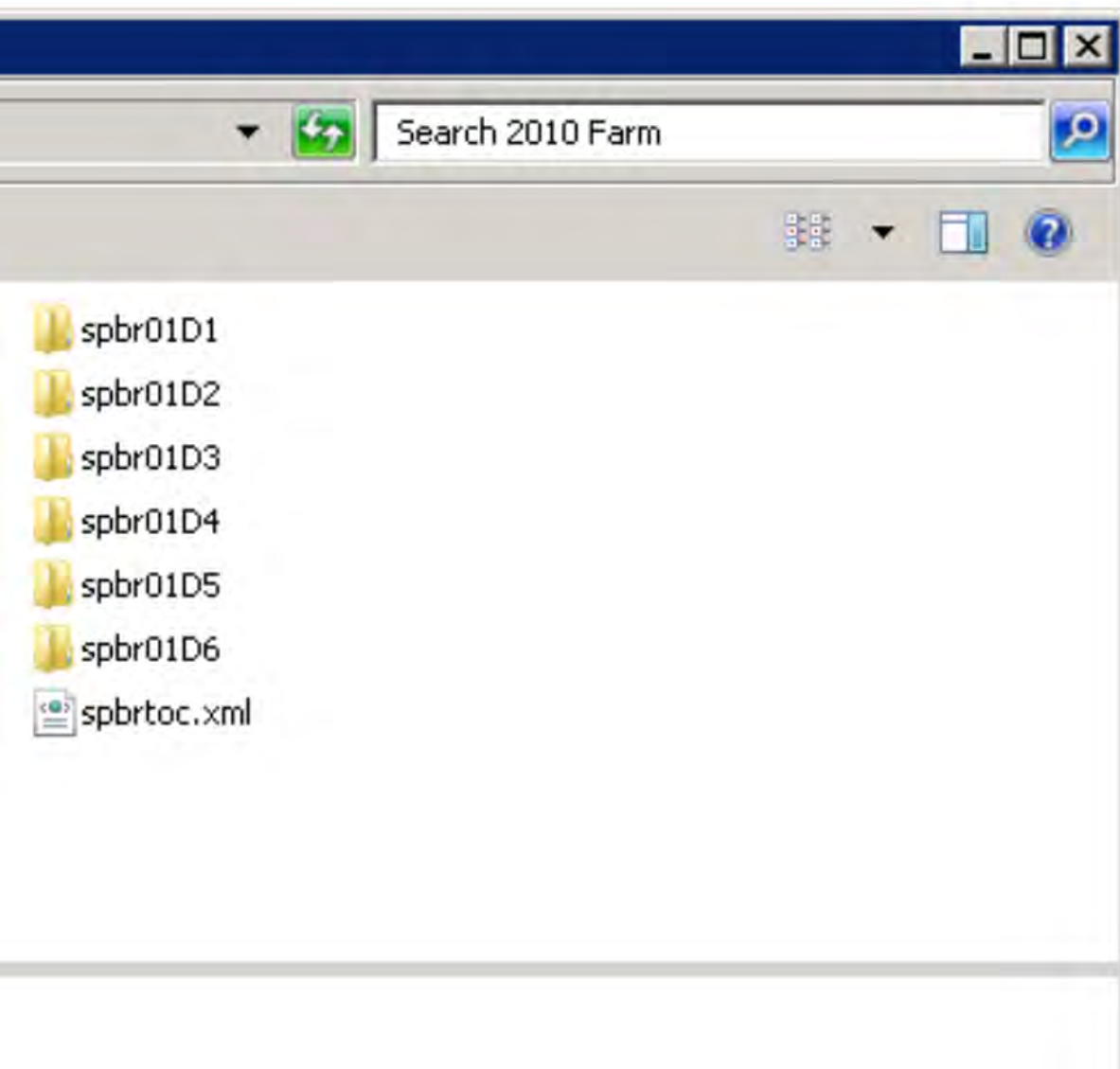
**Consider a small farm  
with ~ 10GB of data ...**

... which just happens to be  
one of my home environments

... which just happens to be  
one of my home environments



# Environments



**Small footnote:**

01D6 (hex) is  
470 (decimal)

SharePointBAC has  
been part of my  
backup strategy for  
470 days



To learn more about the backup "catalog" itself:

- `Get-SPBackupCatalog`



# • Get-SPBackupCatalog

```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\ > Get-Help Get-SPBackupCatalog

NAME
    Get-SPBackupCatalog

SYNOPSIS
    This cmdlet is used to retrieve a backup catalog object (SPBackupCatalog) that represents a SharePoint farm backup location. A backup catalog is defined as the top-level folder that contains a table of contents file (spbrtoc.xml) and zero or more backup set folders (as spbrxxxx subfolders). SPBackupCatalog objects provide information about the backup catalog specified and can also be used as input for other operations that modify the backup catalog.

SYNTAX
    Get-SPBackupCatalog [-CatalogPath] <String> [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]

DESCRIPTION
    This cmdlet is used to retrieve a backup catalog object (SPBackupCatalog) that represents a SharePoint farm backup location. A backup catalog is defined as the top-level folder that contains a table of contents file (spbrtoc.xml) and zero or more backup set folders (as spbrxxxx subfolders). SPBackupCatalog objects provide information about the backup catalog specified and can also be used as input for other operations that modify the backup catalog.

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RELATED LINKS
    Export-SPBackupCatalog
    Remove-SPBackupCatalog
    Send-SPBackupStatus

REMARKS
    To see the examples, type: "get-help Get-SPBackupCatalog -examples".
    For more information, type: "get-help Get-SPBackupCatalog -detailed".
    For technical information, type: "get-help Get-SPBackupCatalog -full".

PS C:\Users\ > _
```

```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\ > Get-SPBackupCatalog

CatalogPath           : \\sculptedsystem.com\Network Files\Backup\2010 Farm
CatalogSize           : 103900376195
DifferentialBackupCount : 30
FullBackupCount       : 6
IsValidCatalog        : True
LastBackupErrorCount  : 0
LastBackupDuration    : 00:24:46
LastBackupFinish      : 2/18/2013 4:55:01 AM
LastBackupMethod      : Full
LastBackupPath        : \\sculptedsystem.com\Network Files\Backup\2010 Farm\spbr01D6\
LastBackupRequestor   : SCULPTEDSYSTEM\
LastBackupSize        : 7759328727
LastBackupStart       : 2/18/2013 4:30:15 AM
LastBackupTopComponent : Farm
LastBackupWarningCount : 0
SizePercentageOfLastFull : 100

PS C:\Users\ >
```

## NAME

Get-SPBackupCatalog

## SYNOPSIS

This cmdlet is used to retrieve a backup catalog object (SPBackupCatalog) that represents a SharePoint farm backup location. A backup catalog is defined as the top-level folder that contains a table of contents file (spbrtoc.xml) and zero or more backup set folders (as spbrxxxx subfolders). SPBackupCatalog objects provide information about the backup catalog specified and can also be used as input for other operations that modify the backup catalog.

## SYNTAX

```
Get-SPBackupCatalog [[-CatalogPath] <String>] [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

## DESCRIPTION

This cmdlet is used to retrieve a backup catalog object (SPBackupCatalog) that represents a SharePoint farm backup location. A backup catalog is defined as the top-level folder that contains a table of contents file (spbrtoc.xml) and zero or more backup set folders (as spbrxxxx subfolders). SPBackupCatalog objects provide information about the backup catalog specified and can also be used as input for other operations that modify the backup catalog.

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## RELATED LINKS

- Export-SPBackupCatalog
- Remove-SPBackupCatalog
- Send-SPBackupStatus

## REMARKS

To see the examples, type: "get-help Get-SPBackupCatalog -examples".  
For more information, type: "get-help Get-SPBackupCatalog -detailed".  
For technical information, type: "get-help Get-SPBackupCatalog -full".

```
CatalogPath           : \\sculptedsystem.com\Network Files\Backup\2010 Farm
CatalogSize           : 103900376195
DifferentialBackupCount : 30
FullBackupCount       : 6
IsValidCatalog        : True
LastBackupErrorCount  : 0
LastBackupDuration    : 00:24:46
LastBackupFinish      : 2/18/2013 4:55:01 AM
LastBackupMethod      : Full
LastBackupPath        : \\sculptedsystem.com\Network Files\Backup\2010 Farm\
                        sphr01D6\
LastBackupRequestor   : SCULPTEDSYSTEM\
LastBackupSize        : 9759328727
LastBackupStart       : 2/18/2013 4:30:15 AM
LastBackupTopComponent : Farm
LastBackupWarningCount : 0
SizePercentageOfLastFull : 100
```

```
PS C:\Users\ >
```

# Common need:

I'd like to understand what's happening with my backups without having to manually review logs every day.

To send an email status for the last backup run:

- `Send-SPBackupStatus`

# • Send-SPBackupStatus

```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\ > Get-Help Send-SPBackupStatus

NAME
    Send-SPBackupStatus

SYNOPSIS
    This cmdlet is used to send an e-mail to one or more recipients to communicate the backup status of a specific backup catalog. This is commonly done following a backup to let administrators know that a backup has taken place, if the backup contains errors, where the backup set was created, and more. E-mail messages are sent using the farm's configured outbound e-mail settings.

SYNTAX
    Send-SPBackupStatus [-Identity] <SPBackupCatalogPipeBind> [-OnErrorOnly <SwitchParameter>] [-Recipients] <String> [-Subject] <String> [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]

DESCRIPTION
    This cmdlet is used to send an e-mail to one or more recipients to communicate the backup status of a specific backup catalog. This is commonly done following a backup to let administrators know that a backup has taken place, if the backup contains errors, where the backup set was created, and more. E-mail messages are sent using the farm's configured outbound e-mail settings.

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RELATED LINKS
    Get-SPBackupCatalog

REMARKS
    To see the examples, type: "get-help Send-SPBackupStatus -examples".
    For more information, type: "get-help Send-SPBackupStatus -detailed".
    For technical information, type: "get-help Send-SPBackupStatus -full".

PS C:\Users\ > _
```

```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\ > $catalog = Get-SPBackupCatalog
PS C:\Users\ > $catalog | Send-SPBackupStatus -Recipients "soIace@fuse.net"
PS C:\Users\ > _
```

Mon 2/18/2013 12:05 PM  
soIace@fuse.net  
SharePoint Status Report: Last Backup for Catalog "[\sculptedsystem.com\Network Files\Backup\2010 Farm](#)"  
To: soIace@fuse.net

### SharePoint Status Report: Last Backup

The following summary was generated at 12:05 PM on Monday, February 18, 2013

#### General Backup Information

Backup Set Location	<a href="#">\sculptedsystem.com\Network Files\Backup\2010 Farm\spb01D6\</a>
Top Component	Farm
Backup Method	Full
Requested By	soIace@fuse.net

#### Backup Execution Details

Backup Initiated	11:30 PM on Sunday, February 17, 2013 (Eastern Standard Time)
Backup Completed	11:55 PM on Sunday, February 17, 2013 (Eastern Standard Time)
Duration	24 minutes and 46 seconds
Backup Set Size	9.09 GB
Errors	0
Warnings	0

PS C:\Users\ > Get-Help Send-SPBackupStatus

## NAME

Send-SPBackupStatus

## SYNOPSIS

This cmdlet is used to send an e-mail to one or more recipients to communicate the backup status of a specific backup catalog. This is commonly done following a backup to let administrators know that a backup has taken place, if the backup contains errors, where the backup set was created, and more. E-mail messages are sent using the farm's configured outbound e-mail settings.

## SYNTAX

```
Send-SPBackupStatus [-Identity] <SPBackupCatalogPipeBind> [-OnErrorOnly <SwitchParameter>] [-Recipients] <String> [[-Subject] <String>] [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]
```

## DESCRIPTION

This cmdlet is used to send an e-mail to one or more recipients to communicate the backup status of a specific backup catalog. This is commonly done following a backup to let administrators know that a backup has taken place, if the backup contains errors, where the backup set was created, and more. E-mail messages are sent using the farm's configured outbound e-mail settings.

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## RELATED LINKS

Get-SPBackupCatalog

## REMARKS

To see the examples, type: "get-help Send-SPBackupStatus -examples".  
For more information, type: "get-help Send-SPBackupStatus -detailed".  
For technical information, type: "get-help Send-SPBackupStatus -full".

```
PS C:\Users\ > $catalog = Get-SPBackupCatalog
PS C:\Users\ > $catalog | Send-SPBackupStatus -Recipients "solace@fuse.net"
PS C:\Users\ > _
```



Mon 2/18/2013 12:05 PM

[solace@fuse.net](mailto:solace@fuse.net)

SharePoint Status Report: Last Backup for Catalog "[\\sculptedsystem.com\Network Files\Backup\2010 Farm](#)"

To:  [solace@fuse.net](mailto:solace@fuse.net)

## SharePoint Status Report: Last Backup

The following summary was generated at 12:05 PM on Monday, February 18, 2013

### General Backup Information

Backup Set Location	<a href="#">\\sculptedsystem.com\Network Files\Backup\2010 Farm\spbr01D6\</a>
Top Component	<b>Farm</b>
Backup Method	<b>Full</b>
Requested By	<b>solace@fuse.net</b>

### Backup Execution Details

Backup Initiated	<b>11:30 PM on Sunday, February 17, 2013 (Eastern Standard Time)</b>
Backup Completed	<b>11:55 PM on Sunday, February 17, 2013 (Eastern Standard Time)</b>
Duration	<b>24 minutes and 46 seconds</b>
Backup Set Size	<b>9.09 GB</b>
Errors	<b>0</b>
Warnings	<b>0</b>

# Common need:

Backups will grow to consume all my available storage. I'd like an automated way of keeping that under control.

To groom the backup catalog to remove old backup sets:

- `Remove-SPBackupCatalog`



# • Remove-SPBackupCatalog

```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\ > Get-Help Remove-SPBackupCatalog

NAME
    Remove-SPBackupCatalog

SYNOPSIS
    This cmdlet is used to selectively remove backup sets from a backup catalog
    - a process known as "grooming." This permits retention of backup sets bas
    ed on a count or size limit, and it prevents a backup catalog from growing
    over time to consume all storage available to it.

SYNTAX
    Remove-SPBackupCatalog [-EntireCatalog <SwitchParameter>] [-Identity] <SPBa
    ckupCatalogPipeBind> [-IgnoreBackupSetErrors <SwitchParameter>] [-RetainCo
    unt <Int32>] [-RetainSize <Int64>] [-AssignmentCollection <SPAssignmentC
    ollection>] [<CommonParameters>]

DESCRIPTION
    This cmdlet is used to selectively remove backup sets from a backup catalog
    - a process known as "grooming." This permits retention of backup sets bas
    ed on a count or size limit, and it prevents a backup catalog from growing
    over time to consume all storage available to it.

    Copyright (C) 2011 Sean P. McDonough. Use of these cmdlets is at your own r
    isk. Sean P. McDonough assumes no liability. For more information on the Sh
    arePoint 2010 Backup Augmentation Cmdlets, see http://sharepointbac.codeple
    x.com.

RELATED LINKS
    Get-SPBackupCatalog

REMARKS
    To see the examples, type: "get-help Remove-SPBackupCatalog -examples".
    For more information, type: "get-help Remove-SPBackupCatalog -detailed".
    For technical information, type: "get-help Remove-SPBackupCatalog -full".

PS C:\Users\ > _
```

```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\ > $catalog = Get-SPBackupCatalog
PS C:\Users\ > $catalog | Remove-SPBackupCatalog -RetainCount 6 -Confirm
:$false
PS C:\Users\ > _
```

Deletion is a sensitive topic. I understand.

- -RetainCount and -RetainSize can be combined to restrict based on catalog size and backup count (note: size trumps count)
- Remove-SPBackupCatalog will not let you accidentally wipe-out all backups; you need to use -EntireCatalog to clear all backup sets
- Grooming will not allow "good" backup sets (i.e., those without errors) to get wiped from rotation unless -IgnoreBackupSetErrors is used

**NAME**

Remove-SPBackupCatalog

**SYNOPSIS**

This cmdlet is used to selectively remove backup sets from a backup catalog - a process known as "grooming." This permits retention of backup sets based on a count or size limit, and it prevents a backup catalog from growing over time to consume all storage available to it.

**SYNTAX**

Remove-SPBackupCatalog [-EntireCatalog <SwitchParameter>] [-Identity] <SPBackupCatalogPipeBind> [-IgnoreBackupSetErrors <SwitchParameter>] [[-RetainCount] <Int32>] [[-RetainSize] <Int64>] [-AssignmentCollection <SPAssignmentCollection>] [<CommonParameters>]

**DESCRIPTION**

This cmdlet is used to selectively remove backup sets from a backup catalog - a process known as "grooming." This permits retention of backup sets based on a count or size limit, and it prevents a backup catalog from growing over time to consume all storage available to it.

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**RELATED LINKS**

Get-SPBackupCatalog

**REMARKS**

To see the examples, type: "get-help Remove-SPBackupCatalog -examples".  
For more information, type: "get-help Remove-SPBackupCatalog -detailed".  
For technical information, type: "get-help Remove-SPBackupCatalog -full".

```
Administrator: SharePoint 2010 Management Shell
PS C:\Users\ > $catalog = Get-SPBackupCatalog
PS C:\Users\ > $catalog | Remove-SPBackupCatalog -RetainCount 6 -Confirm
:$false
PS C:\Users\ > _
```

I don't  
want to  
see this  
happen!

## Deletion is a sensitive topic. I understand.

- -RetainCount and -RetainSize can be combined to restrict based on catalog size and backup count (note: size trumps count)
- Remove-SPBackupCatalog will not let you accidentally wipe-out all backups; you need to use -EntireCatalog to clear all backup sets
- Grooming will not allow "good" backup sets (i.e., those without errors) to get wiped from rotation unless -IgnoreBackupSetErrors is used



# A couple of other tricks

I'd like to zip-up and archive some backup sets before removing them.

- **Export-SPBackupCatalog**

I need to restore from a backup set in another environment (with a different backup location)

- **Set-SPBackupCatalog**

# PowerShell Script

## BackupFarm.ps1

### Application Event Log

Level	Date and Time	Source
Warning	2/17/2013 11:00:01 PM	SharePoint Foundation
Information	2/17/2013 11:03:48 PM	YSS
Information	2/17/2013 11:30:00 PM	BackupFarm.ps1
Information	2/17/2013 11:30:00 PM	BackupFarm.ps1
Information	2/17/2013 11:30:03 PM	BackupFarm.ps1
Information	2/17/2013 11:30:03 PM	BackupFarm.ps1
Information	2/17/2013 11:30:03 PM	BackupFarm.ps1
Information	2/17/2013 11:30:03 PM	BackupFarm.ps1
Information	2/17/2013 11:55:03 PM	BackupFarm.ps1
Information	2/17/2013 11:55:03 PM	BackupFarm.ps1
Information	2/17/2013 11:55:03 PM	BackupFarm.ps1
Information	2/17/2013 11:55:03 PM	BackupFarm.ps1
Information	2/17/2013 11:55:03 PM	BackupFarm.ps1
Information	2/17/2013 11:55:03 PM	BackupFarm.ps1
Information	2/17/2013 11:55:03 PM	BackupFarm.ps1
Warning	2/18/2013 12:00:02 AM	SharePoint Foundation
Warning	2/18/2013 12:00:02 AM	SharePoint Foundation

Log Name:	Application
Source:	BackupFarm.ps1
Event ID:	10011
Level:	Information
User:	N/A
Op Code:	
Logged:	2/17/2013 11:55:03 PM
Task Category:	(3)
Keywords:	Classic
Computer:	VMSS-SP2010;sculptedsystem.com
More Information:	<a href="#">Event Log Online Help</a>

```
1 <#
2 .SYNOPSIS
3     A very basic full-farm backup script for SharePoint 2010 environments
4 .DESCRIPTION
5     This backup script creates a full-mode backup of the farm every Sunday nig
6     other nights of the week, it creates differential backups. After each back
7     grooming is carried out to see if some reduction is necessary.
8 #>
9
10 # Indicate the backup is about to begin
11 New-EventLog -LogName "Application" -Source "BackupFarm.ps1" -ErrorAction sil
12 Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10000
13
14 # Ensure that the SharePoint cmdlets are loaded before continuing
15 Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10001
16 $spCmdlets = Get-PSSnapin Microsoft.SharePoint.PowerShell -ErrorAction silent
17 if ($spCmdlets -eq $Null)
18 { Add-PSSnapin Microsoft.SharePoint.PowerShell }
19 Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10002
20
21 # Establish any baseline values needed
22 $backupLocation = "\\sculptedsystem.com\Network Files\Backup\2010 Farm"
23 $retainBackupCount = 6
24
25 # Get the day of the week to determine if this will be a full backup or diffe
26 # backup; then carry out the backup.
27 $today = (Get-Date).DayOfWeek
28 Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10003
29
30 if ($today -eq "Sunday")
31 {
32     Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10
33     Backup-SPFarm -Directory $backupLocation -BackupMethod Full
34     Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10
35 }
36 else
37 {
38     Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10
39     Backup-SPFarm -Directory $backupLocation -BackupMethod Differential
40     Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10
41 }
42
43 # Groom the backup set to ensure that we maintain a max of six full backups
44 Write-EventLog -LogName "Application" -Source "BackupFarm.ps1" -EventID 10004
```

You certainly don't need to use my script and PowerShell cmdlets ...

You certainly don't need to use my script and PowerShell cmdlets ...

... but you need a maintenance plan for your backups.



If you don't,  
you're gambling

# A Couple More Free Tools

(to give you some  
additional options)

- \* John Ferringer's farm backup script
- \* Chris O'Brien's content deployment wizard

(links in "Resources" at end of presentation)





# John Ferringer's Farm Backup (PowerShell) Script

```
<#
.SYNOPSIS
  Backs up a SharePoint farm on a scheduled basis.

.DESCRIPTION
  At its core, the BackupSharePoint script backs up a SharePoint farm. When run as a
  scheduled task, it generates a full farm backup once a week and runs incremental
  backups all other days. It also deletes the oldest backup based on a retention
  storage management.

.PARAMETER
  -drive <string[]>
    Indicates the drive letter of the server where the script is running. The script
    also assumes this drive also hosts the shared directory for backups.
  -backupDir <string[]>
    The shared UNC path for your backups to be stored in.
    Example: \\<YOUR SHAREPOINT SERVER>\<YOUR BACKUP FOLDER>
  -fullBackupDay <string[]>
    The day that a full backup should be run on.
    Example: "Sunday"
  -configDBInstance <string[]>
    The SQL Server Database Server and Instance name hosting the configuration
    database. Example: "<YOUR SQL SERVER>\<YOUR SQL INSTANCE>"
  -configDBName <string[]>
    The name of the farm's SharePoint configuration database.
    Example: "<YOUR CONFIG DB>"
  -nbrDaysRetained <string[]>
    The number of days that backups should be retained.
  -Computer <string[]>
    The name of the computer the script is being run on. If not specified, the
    will default to the local computer name environment variable.

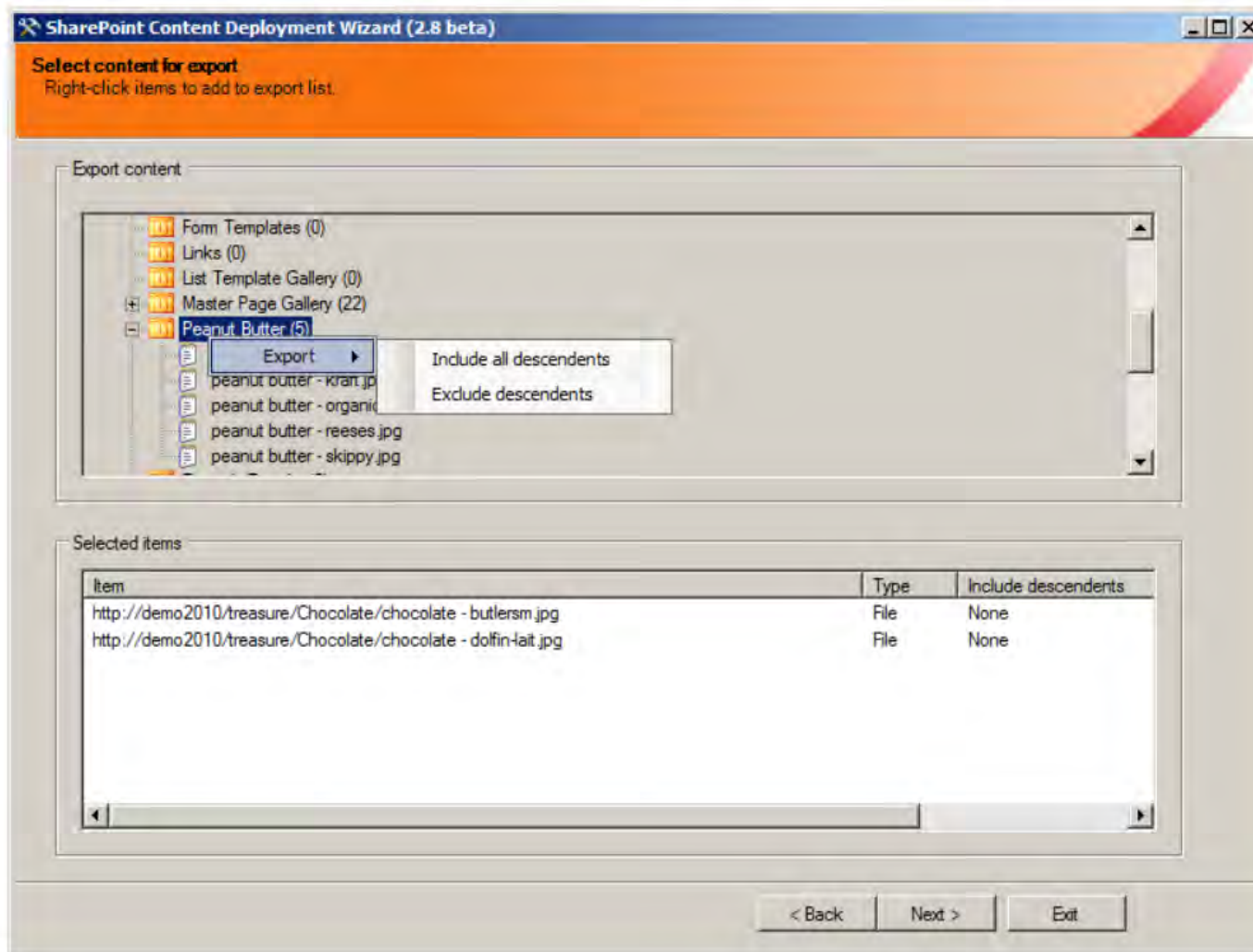
.EXAMPLE
----- EXAMPLE 1 -----
.\BackupSharePoint.ps1 -drive "C:" -backupDir "\\server\backups" -fullBackupDay "Sunday" -configDBInstance sql\sql01 -nbrDaysRetained 14

This command generates a backup of a SharePoint 2010 environment on a scheduled task. In case the backup command
```

- Great as-is or as a starting point for your own farm protection script
- Works for SharePoint 2007 and SharePoint 2010
- Includes backup directory rotation to avoid complete consumption of all available storage space

# Chris O'Brien's Content Deployment Wizard

Provides significantly enhanced content export and import functionality in an easy-to-use UI



# Resources

Backup and recovery overview (SharePoint Server 2010)

- <http://technet.microsoft.com/en-us/library/ee663490>

Configuration-Only Backup and Restore in SharePoint 2010

- <http://sharepointinterface.com/2010/09/10/configuration-only-backup-and-restore-in-sharepoint-2010/>

A Tale of Two Cmdlets

- <http://sharepointinterface.com/2010/10/03/a-tale-of-two-cmdlets/>

Scheduling SQL backups for SharePoint

- <http://www.toddklindt.com/blog/Lists/Posts/Post.aspx?ID=248>

Limitations of STSADM -o export/import related to publishing sites

- [http://blogs.technet.com/b/stefan\\_gossner/archive/2009/05/27/limitations-of-stsadm-o-export-import-related-to-publishing-sites.aspx](http://blogs.technet.com/b/stefan_gossner/archive/2009/05/27/limitations-of-stsadm-o-export-import-related-to-publishing-sites.aspx)

# Resources

## Gradual Site Collection Deletion

- <http://reality-tech.com/2012/04/04/gradual-site-collection-deletion/>

## The Importance of Consistency when Creating SharePoint Backups

- <http://www.idera.com/Downloads/ProdCollateral/Consistency-Creating-SharePoint-Backups.pdf>

## Use PowerShell to Back Up Your SharePoint Farm

- <http://blogs.technet.com/b/heyscriptingguy/archive/2011/06/22/use-powershell-to-back-up-your-sharepoint-farm.aspx>

## SharePoint Backup Augmentation Cmdlets (SharePointBAC)

- <http://sharepointbac.codeplex.com/>

## SharePoint Content Deployment Wizard

- <http://spdeploymentwizard.codeplex.com/>

# Resources

## Restore a Service Application in SharePoint 2010

- [http://technet.microsoft.com/en-us/library/ee428305\(v=office.14\).aspx](http://technet.microsoft.com/en-us/library/ee428305(v=office.14).aspx)

# Sean P. McDonough



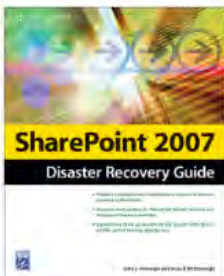
Twitter: @spmcdonough

Blog: <http://SharePointInterface.com>

About: <http://about.me/spmcdonough>



**SharePoint 2010 Disaster Recovery Guide**  
<http://tinyurl.com/SPDRGuide2010>



**SharePoint 2007 Disaster Recovery Guide**  
<http://tinyurl.com/SPDRGuide2007>