

# DBA Quick Start

What do you do when you've fallen into a job as a DBA?

Take a deep breath,  
Find out what you've got,  
And dive right in!

# My story

- Independent Database Consultant
- Database Developer
- Country Coach – programmer to DBA
- Intechgra – Systems Engineer
- OSAC – programmer/DBA
- Lane County - DBA

# Play nice with the other children



# Getting to know the other kids

- Tact – learn it or be quiet!
- Bring a candy bowl
- Go out for coffee
- Find out who does what
- Get out of your chair...
- Learn to listen better



This is the scene you want to avoid...

**Being proactive will help you avoid having your boss hovering in your cube**

# Being Proactive

- Figure out what you've got
- Triage servers and applications
- Backup and Restore Strategy
- Daily Monitoring
- Practice Restoring
- Document Processes and Procedures
- Patching – SQL and OS
- Capacity planning
- DR Planning/Testing
- Training

# Figure out what you've got:

The good, the bad, the ugly

- What type of servers?
- What are the major apps?
- Where are the problem children?
- Who are the worst performers?
- Who does what?
- Where are the black holes?

# Triage

- What are the systems that will cause the IT director to hover in your cube?
- What are most important systems?
- Which SQL jobs are the most critical?
- Which jobs fail often but can be ignored?



# Backup and Restore Strategy

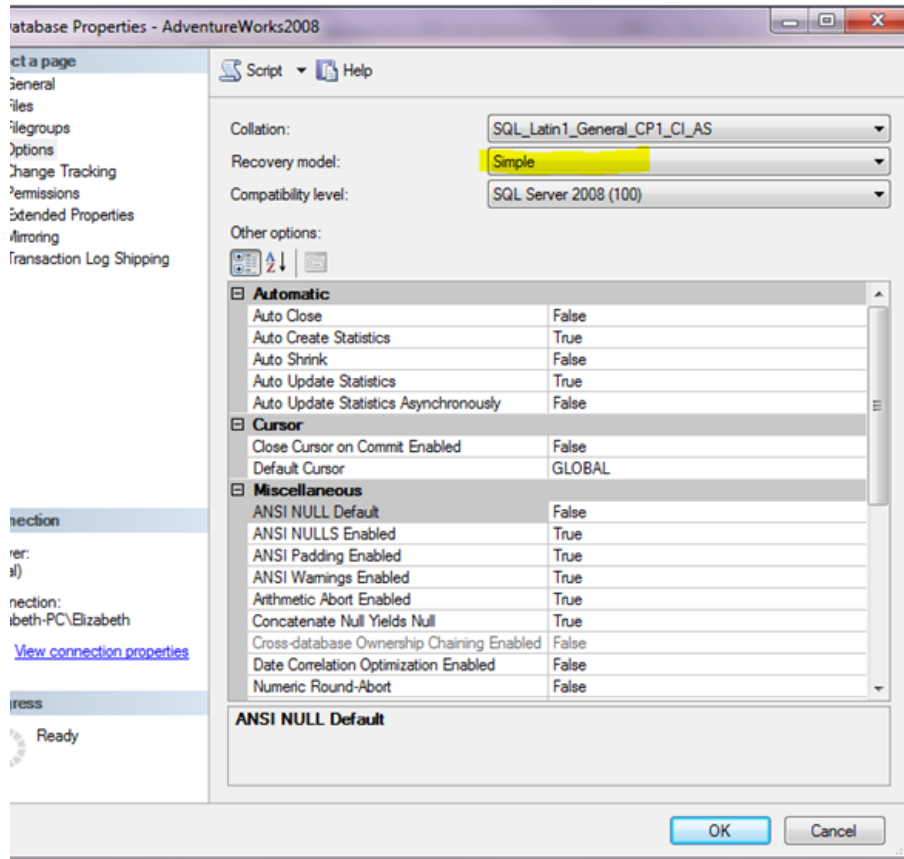
- Review current backup strategy
- Enterprise backups
- Process for retrieving off site backups
- SQL Backup frequency – hourly, daily, weekly

# Recovery Model

How much data can you afford to lose?

- Simple – can't restore to point in time
- Full – every transaction is logged
- Bulk logged – transactions are minimally logged

Changing from Simple to Full Recovery Model



## Recovery Model

TSQL to list Recovery Model for all databases on server:

```
SELECT name AS [Database Name],
recovery_model_desc AS [Recovery Model]
FROM sys.databases
GO
```

# Backup Types

- Full
- Differential
- Transaction Log

Transaction Log Chain

# SQL Database Files

- Primary data file – mdf
- Secondary data files – ndf
- Transaction log file - ldf

# Don't shrink the database!

- Consequences of shrinking
  - Fragmentation
  - Decreased performance
  - Autogrowth events

# Daily Monitoring

- Uptime
- Disk space
- Server processes
- SQL jobs
- Event logs
- Monitoring tools

<http://www.mssqltips.com/sqlservertip/1067/sql-server-performance-monitoring-tools/>

# Why won't my TLOG shrink?

- Purpose of transaction log
- Reasons it gets so large
- When TLOG truncates
- When and how to shrink - 2 steps



# Shrinking TLOG

- TSQL to shrink the TLOG file:
- `dbcc sqlperf(logspace)`
- `use AdventureWorks2008`
- `go`
- `sp_helpfile`
  
- `dbcc shrinkfile(AdventureWorks2008_Log,2048)`

How do you know you have a good backup?

**PRACTICE RESTORING IT**

ase - AdventureWorks2008

Script Help

Destination for restore

Select or type the name of a new or existing database for your restore operation.

To database: AdventureWorks2008

To a point in time: Most recent possible

Source for restore

Specify the source and location of backup sets to restore.

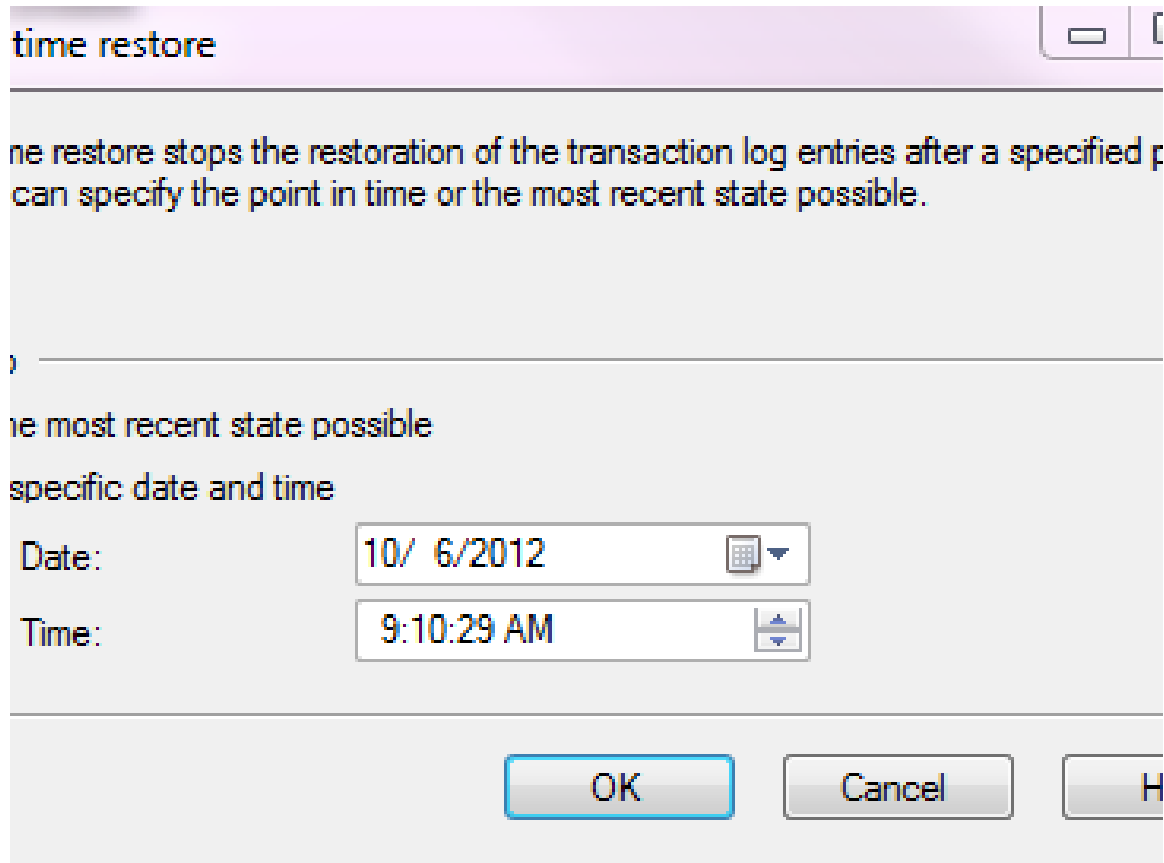
From database: AdventureWorks2008

From device:

Select the backup sets to restore:

Restore	Name	Component	Type	Server	Database	Position	First LSN	Last LSN
<input checked="" type="checkbox"/>	AdventureWorks2008-Full Database Backup	Database	Full	ELIZABETH-PC	AdventureWorks2008	1	42000000063800037	42
<input checked="" type="checkbox"/>	AdventureWorks2008-Differential Database Backup	Database	Differential	ELIZABETH-PC	AdventureWorks2008	1	42000000066100034	42
<input checked="" type="checkbox"/>	AdventureWorks2008-Transaction Log Backup	Transaction Log	Transaction Log	ELIZABETH-PC	AdventureWorks2008	1	42000000061100001	42
<input type="checkbox"/>	AdventureWorks2008-Transaction Log Backup	Transaction Log	Transaction Log	ELIZABETH-PC	AdventureWorks2008	2	42000000067600001	42

## Database Restore



## Restore to a point in time



**Do you ever want to go on vacation?**

# Document Processes and Procedures

- Create documentation for the new DBA
- Server build templates – standardize builds
- Put DBA administrative code in a source safe

# Patching

- OS Patching
- SQL Server

# Capacity Planning

- Track growth of databases and servers
- Create DBA Statistics database
- Plan for new purchases
  
- [http://www.sqlservercentral.com/blogs/steve\\_jones/2010/07/26/sql-university-\\_2D00\\_-capacity-planning-week/](http://www.sqlservercentral.com/blogs/steve_jones/2010/07/26/sql-university-_2D00_-capacity-planning-week/)



# DR Planning/Testing

- Create build documents for each SQL Server
- Create DR document
  - Master is corrupted
  - User database is corrupted
  - Total server failure
  - Move logins to new server
  - Move jobs to new server
  - ....

# Being proactive means a happy boss!



# Training

Free Training Videos:

<http://www.brentozar.com/sql-server-training-videos/>

<http://technet.microsoft.com/en-us/sqlserver/ff977043.aspx>

Free eBook:

<http://www.sqlservercentral.com/articles/books/67441/>

# DBA Checklists

- <http://www.mssqltips.com/sqlservertip/1240/sql-server-dba-checklist/>
- <http://www.simple-talk.com/sql/database-administration/brads-sure-dba-checklist/>
- <http://blog.sqlauthority.com/2010/03/12/sql-server-checklist-for-analyzing-slow-running-queries/>
- <http://www.brentozar.com/sql/blitz-minute-sql-server-takeovers/> - This is a script to find out what to do with a server you've never seen before and have to support.

# SQL Server Websites

- <http://www.sqlservercentral.com/> - This is my favorite SQL website. It's got so much great information and doesn't cost a cent. When I first became a DBA I signed up for their daily newsletter and read it every day. It's still my go to site when I have a SQL problem I can't figure out.
- <http://www.mssqltips.com/>
- <http://blog.sqlauthority.com/author/pinaldave/> - He's got a lot of great tips
- <http://www.brentozar.com/sql/> - This guy is a riot! He is funny and gives great information too!
- <http://www.sqlskills.com/> This site is well written and they cover many topics in depth. They have a bunch of hard hitting SQL Server experts. This site can be really helpful when you need to understand the internals of SQL Server and how they impact performance.