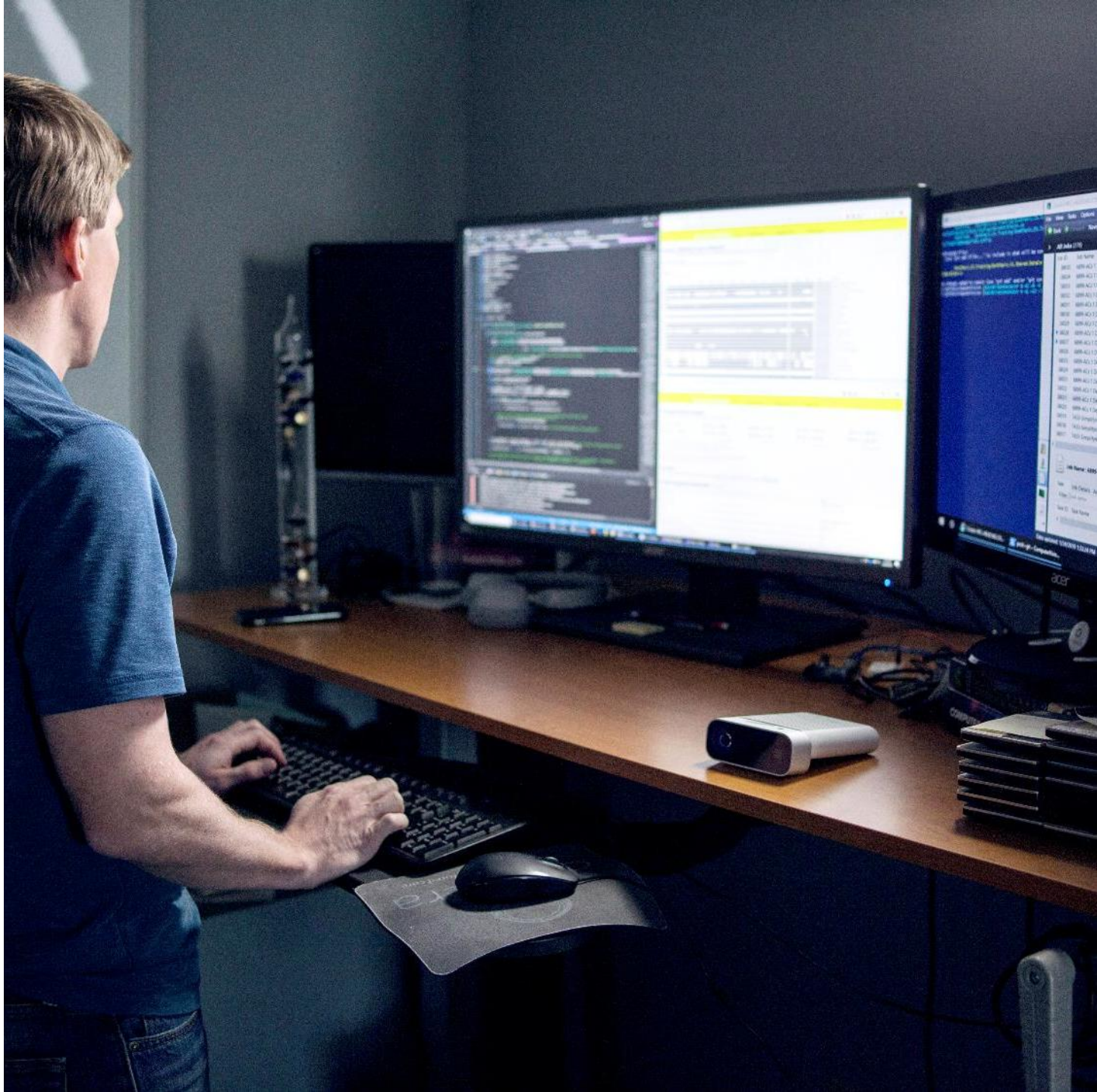
Microsoft

WorkshopPLUS: SharePoint Server Administration

Troubleshooting: Logging



Agenda

1 Logging

Various SharePoint logs

Setup logs

Configuration logs

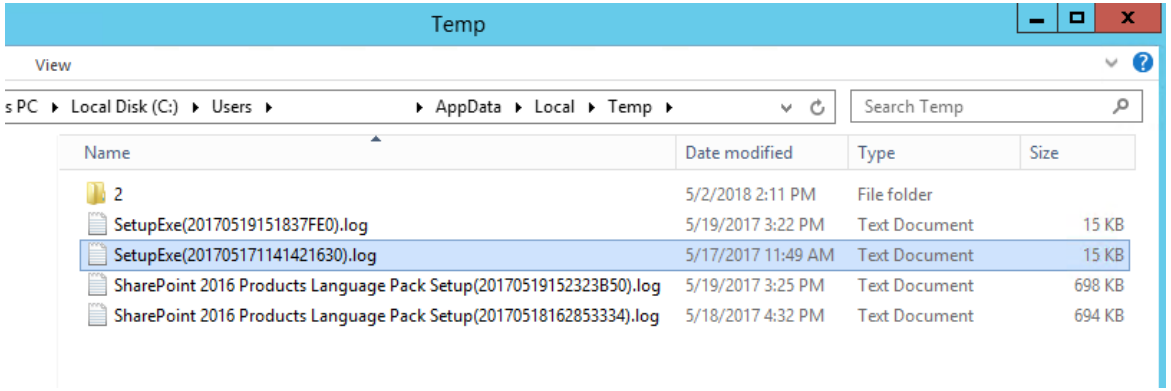
Upgrade logs

ULS (Trace) logs

SharePoint Setup logs

Setup logs

- Helps in troubleshooting setup failures
- Contains the list and status of the MSI packages installed for Microsoft SharePoint Server
- Create for installation of SharePoint and Language packs

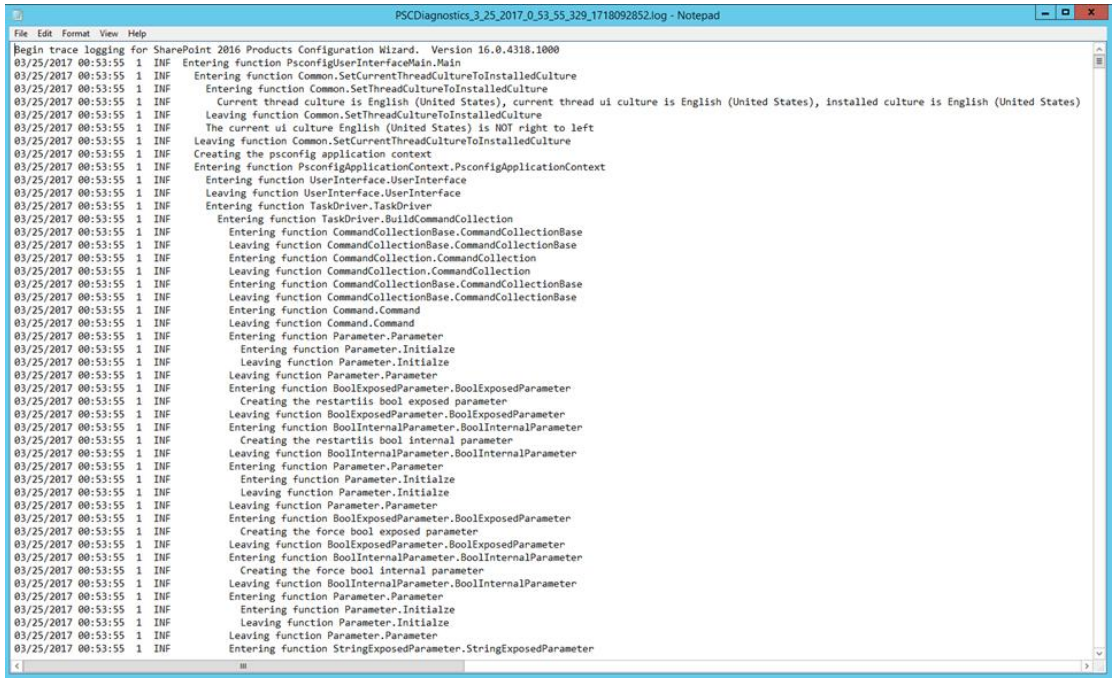


Log location:
%temp%
Name:
SetupExe(xxxxxxxxxx).log

SharePoint Configuration logs

Configuration logs

- Contain errors that occur during the post-setup configuration process
- Indicate whether each entry is of information or error type



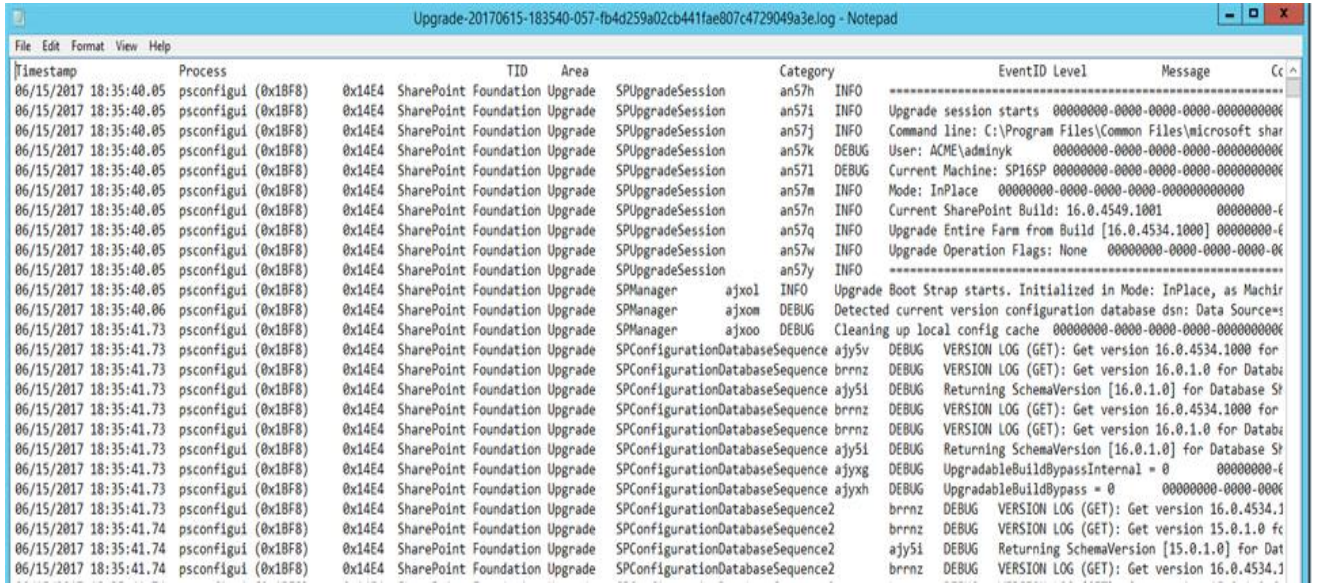
Log location:
%COMMONPROGRAMFILES%\Microsoft Shared\Web server extensions\16\LOGS\

Name:
PSCDiagnostics_MM_DD_YYYY_HH_MM_SS_MS_XXX_XXXXXXXX.log

SharePoint Upgrade logs

Upgrade logs

- Whenever you perform an upgrade of a content database, an upgrade log is generated.
- To verify that upgrade has succeeded, you can review the upgrade log.
- All errors are logged in a separate log file.



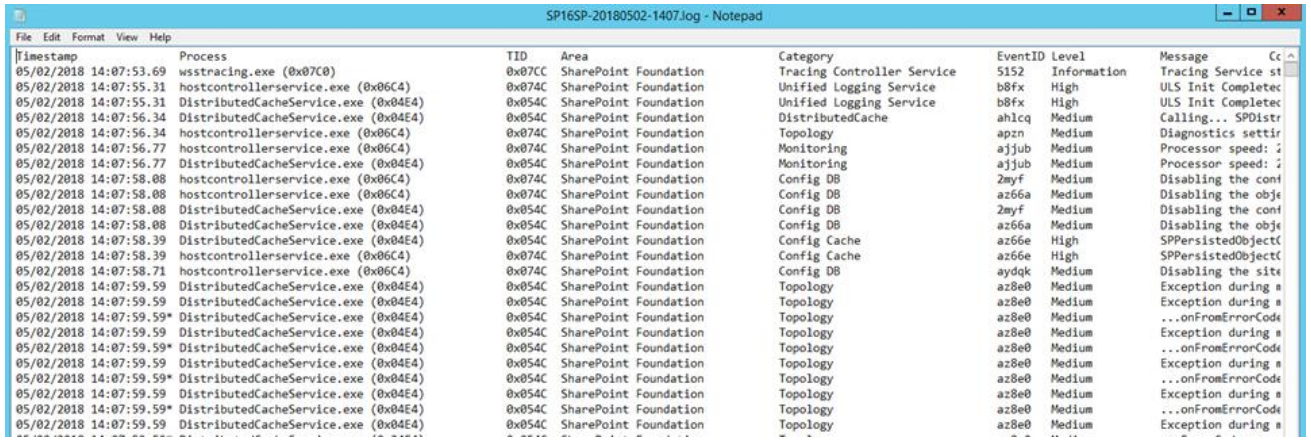
Log location:
%COMMONPROGRAMFILES%\Microsoft Shared\Web server extensions\16\LOGS\

Name:
Upgrade Log : Upgrade-YYYYMMDD-HHMMSS-SSS-<GUID>.log
Upgrade Error Log: Upgrade- YYYYMMDD-HHMMSS-SSS-<GUID>-error.log

SharePoint ULS (Trace) logs

ULS logs

- ULS (Unified Logging Service) logs are a robust logging system used by SharePoint.
- Helps in troubleshooting SharePoint client-side and server-side issues.
- The default log location can be changed to a custom location.



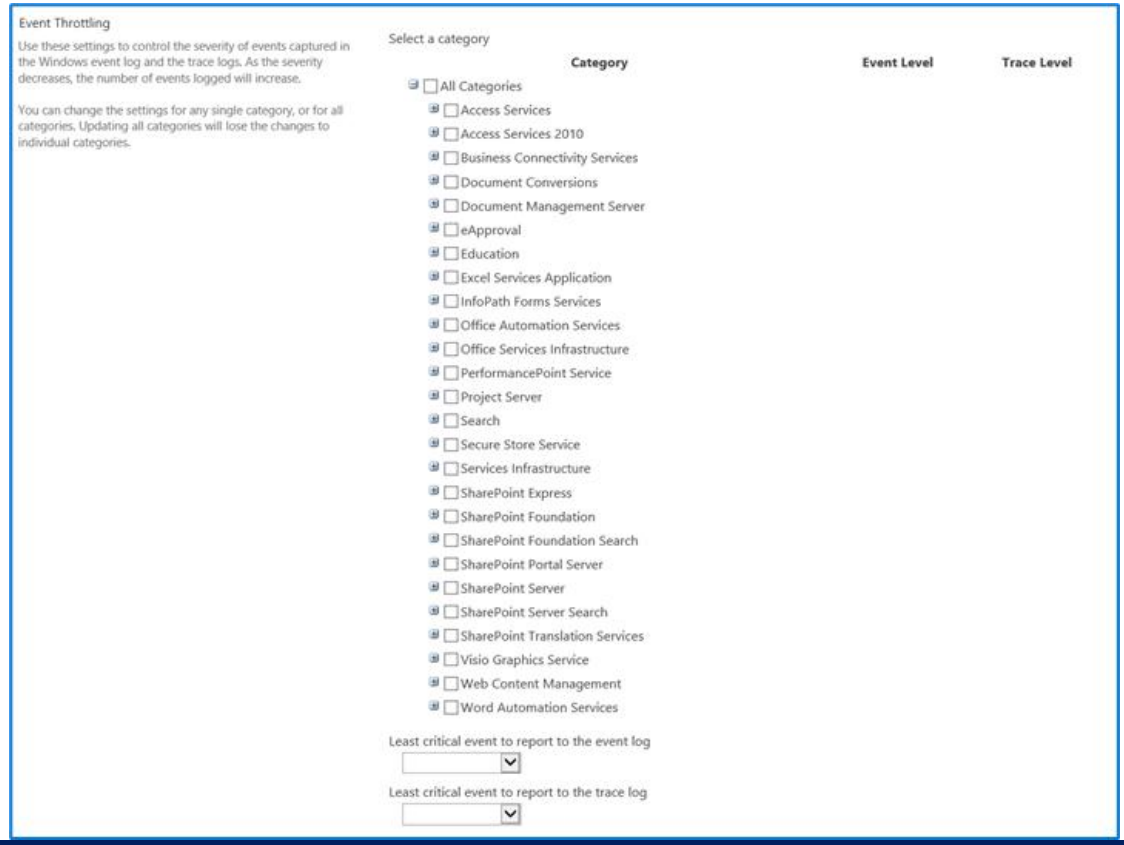
Log location:
%COMMONPROGRAMFILES%\Microsoft Shared\Web server extensions\16\LOGS\

Name:
{ServerName}YYYYMMDD-HHMM.log

Configure logging system - Logging categories

ULS logs

- Configure logging level
  - Configure Event and Trace log level
  - Via Central Administration: Monitoring > Configure Diagnostic Logging
  - Via PowerShell: Get-SPLogLevel, Set-SPLogLevel and Clear-SPLogLevel



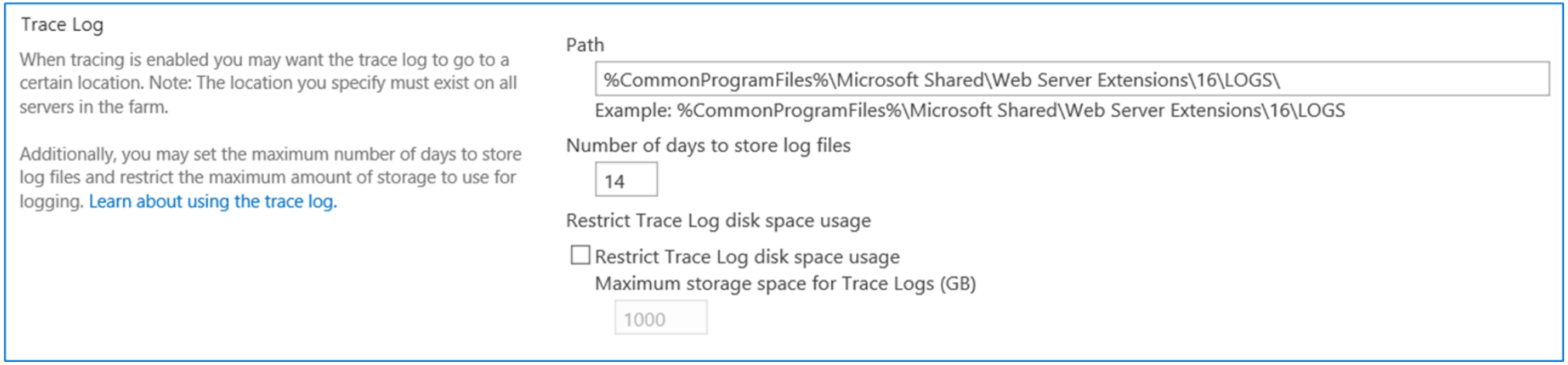

```
PS C:\> Set-SPLogLevel -TraceSeverity Verbose -Identity General

PS C:\> Get-SPLogLevel | Clear-SPLogLevel
```

Configure logging system - Log settings

Configure trace logging

- Configure logging folder, history and max size

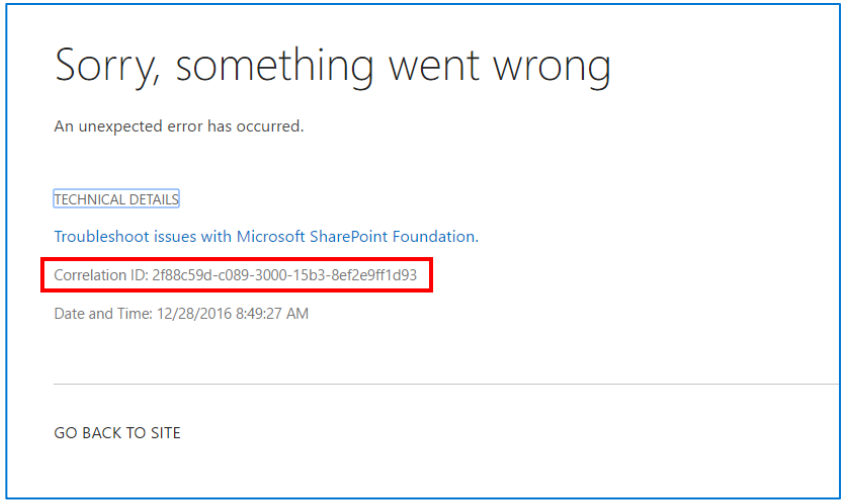
- Via Central Administration: Monitoring > Configure Diagnostic Logging
- Via PowerShell: Get-SPDiagnosticConfig and Set-SPDiagnosticConfig



Correlation IDs

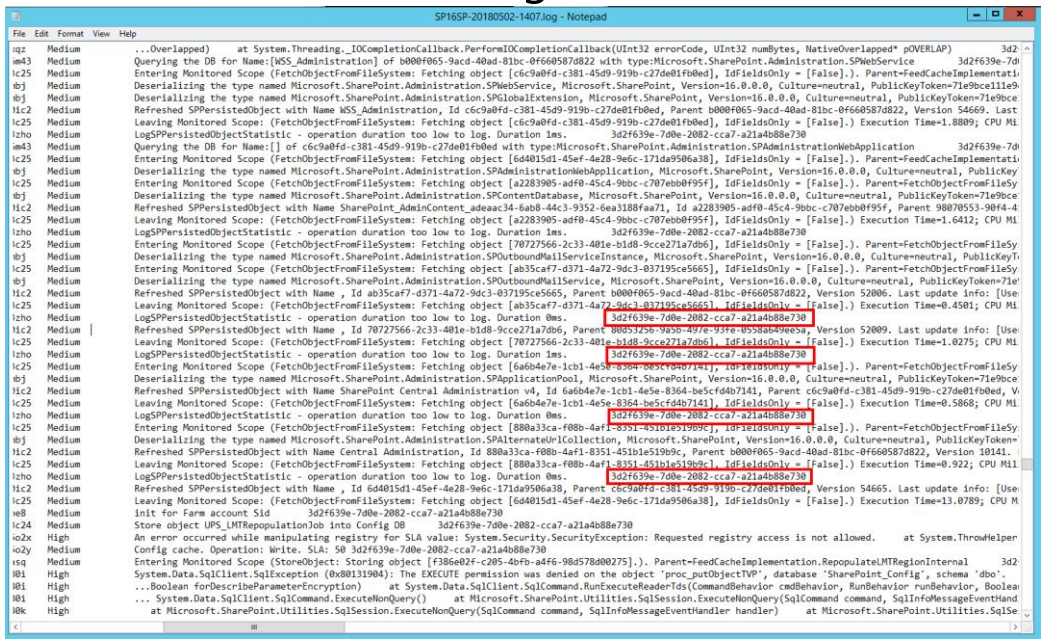
Correlating logs

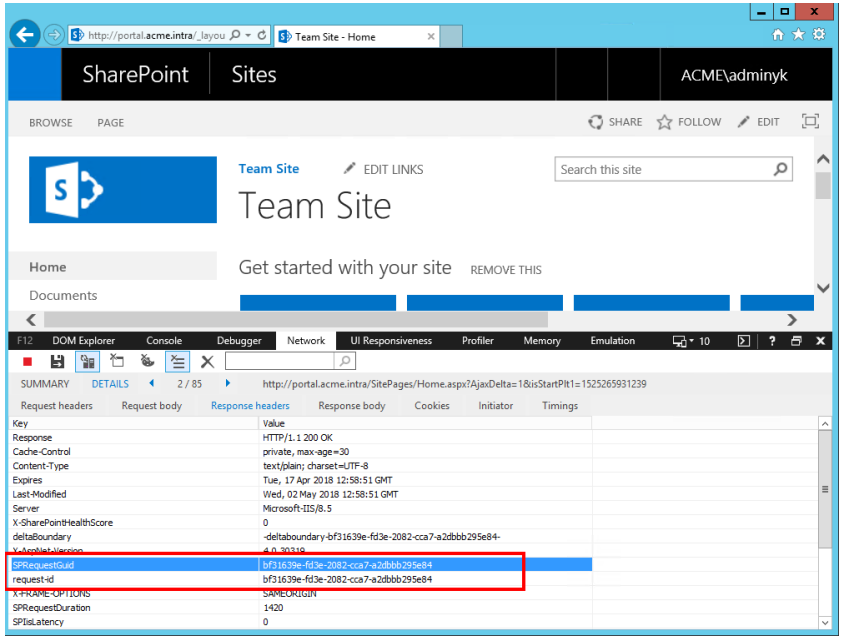
- A correlation ID is generated for each request.
- The correlation ID is available on many locations.



Error messages

ULS Log





HTTP headers

Using Correlation ID

Using Correlation IDs

- Use Merge-SPLogFile to retrieve all log entries of a specific Correlation ID **and** its child processes

IMPORTANT: Default timeframe is the last hour!

```
PS C:\> Merge-SPLogFile -Correlation b235639e-cd86-2082-cca7-a9d8000c2cd5 -Path C:\log.txt

PS C:\> Merge-SPLogFile -Correlation b235639e-cd86-2082-cca7-a9d8000c2cd5 -Path C:\log.txt
        -StartTime "01/05/2018 09:00" -EndTime "02/05/2018 12:00“
```

Other useful logs

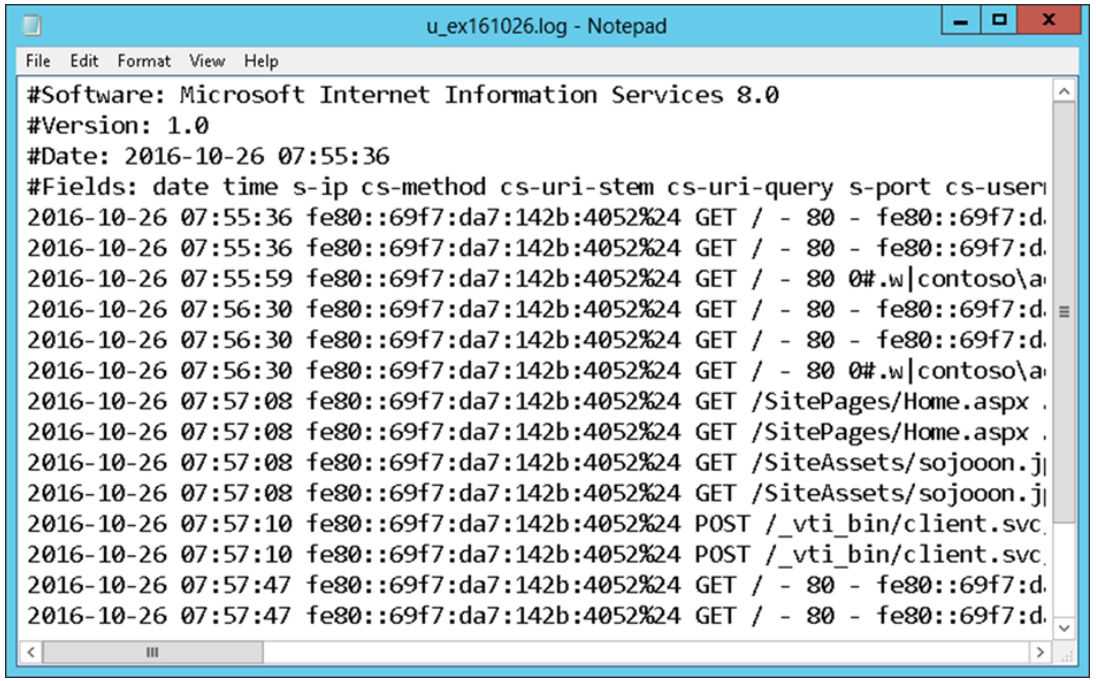
Internet Information Services (IIS) logs

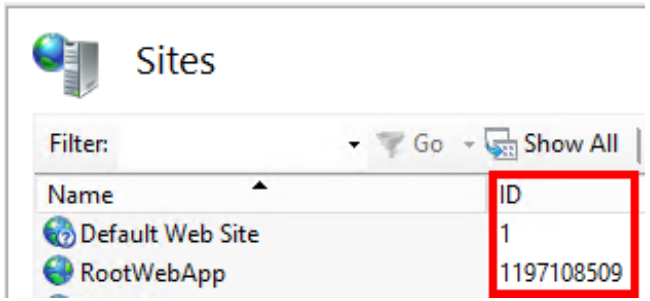
Event logs

IIS logs

IIS logs

- Record data for a SharePoint web server in various fields such as - Client IP address, Server IP address, Method, HTTP status, Cookie and Protocol Sub status
- Helps to diagnose the SharePoint errors



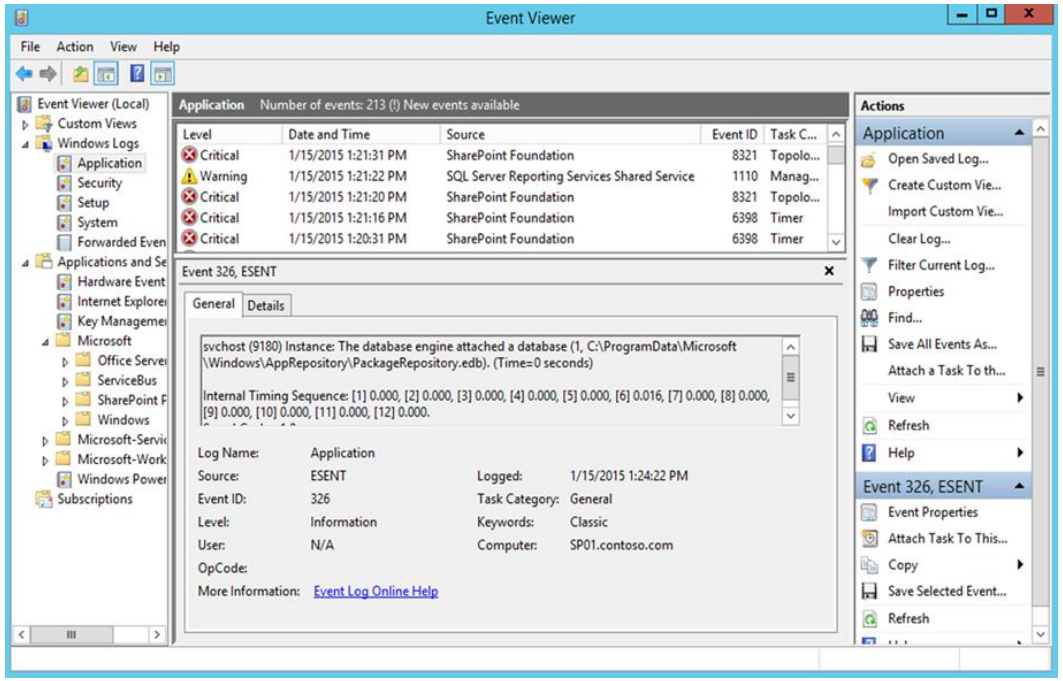


Default location:
C:\inetpub\logs\LogFiles\W3SVC<website_id>

Event logs

Event logs

- Have the same purpose as any operating system or application logs
- Can help diagnose problems with SharePoint

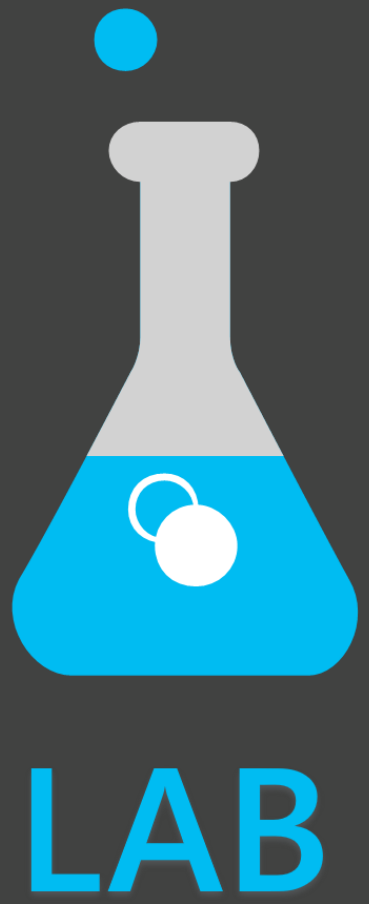


Lab 5.1: Review the various logs in SharePoint

Objectives

After completing this lab, you will be able to:

- Find and review log files used with SharePoint



Knowledge Check

Which are the four SharePoint logs?

- Setup, Configuration, Upgrade and ULS logs

Which two non-SharePoint logs are also available?

- IIS and Event logs

Where can the Correlation ID be found?

- Error messages, HTTP Header, ULS logs

Questions?

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