



**EXPERTS
INSIDE**

SHAREPOINT 2013 SEARCH ANALYTICS

Analytics have been completely revised in SharePoint 2013. Some of the core tech in the previous FAST release have been fused together with enterprise search to create a new and powerful analytics engine.

#PowerShell #CustomSolution #PowerPivot #Architecture

REFERENT

*Nicki Borell
Consultant / Evangelist
Sharepoint & SQL Server
MCSE, MCDBA, MCITP, MCT*



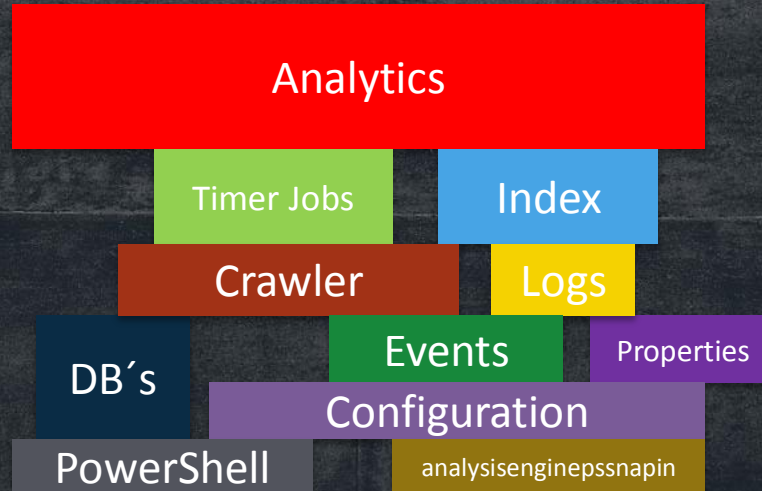
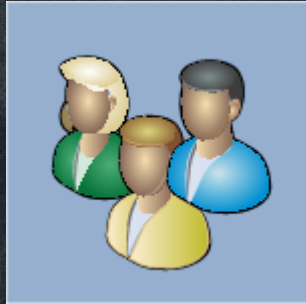
*Kontakt:
nicki.borell@expertsinside.com
<http://www.expertsinside.com>
<https://twitter.com/NickiBorell>*

<http://www.sharepointtalk.net>

Founder & CTO: BORUFA GmbH – visual based content management



SHAREPOINT 2013 SEARCH ANALYTICS



TOPICS

Some
fundamentals

Search
Analytics

Usage
Analytics

Events

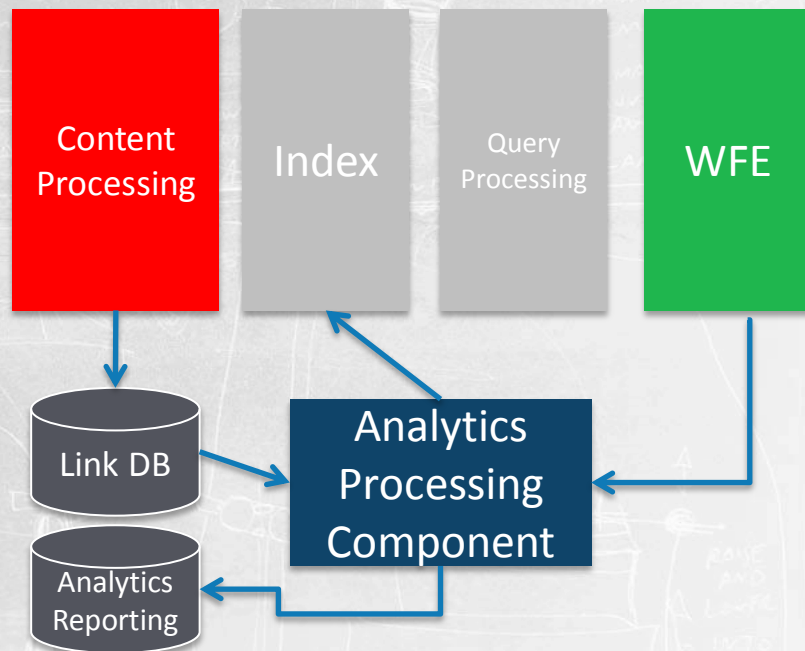
Manage
Analytics

Getting
Reports

SOME FUNDAMENTALS

Architecture:

- **Analytics Processing Component**
 - Hosts the analytics roles Search analytics & Usage analytics
- **Link database**
 - stores information about searches and crawled content. Data in this database is processed from Search analytics role.
- **Analytics reporting database**
 - stores statistical information, such as usage event counts. The information in this database is used to create reports.



SOME FUNDAMENTALS

The different types of analyses:

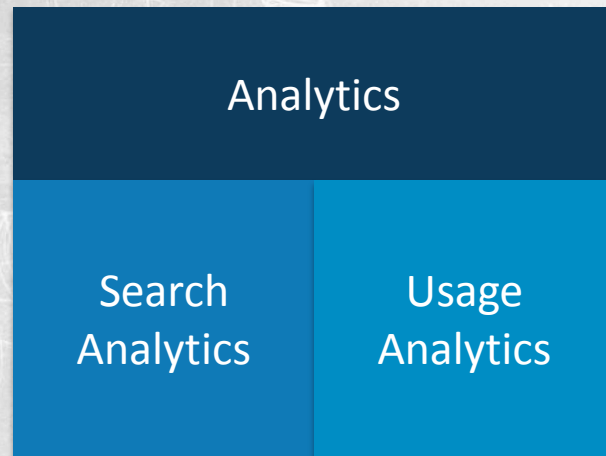
*Analytics Processing Component runs **two** main types of analyses:*

Search analytics

- *analyzes content in the search index,*

Usage analytics:

- *analyzes the user actions.*



SEARCH ANALYTICS

Task 1:

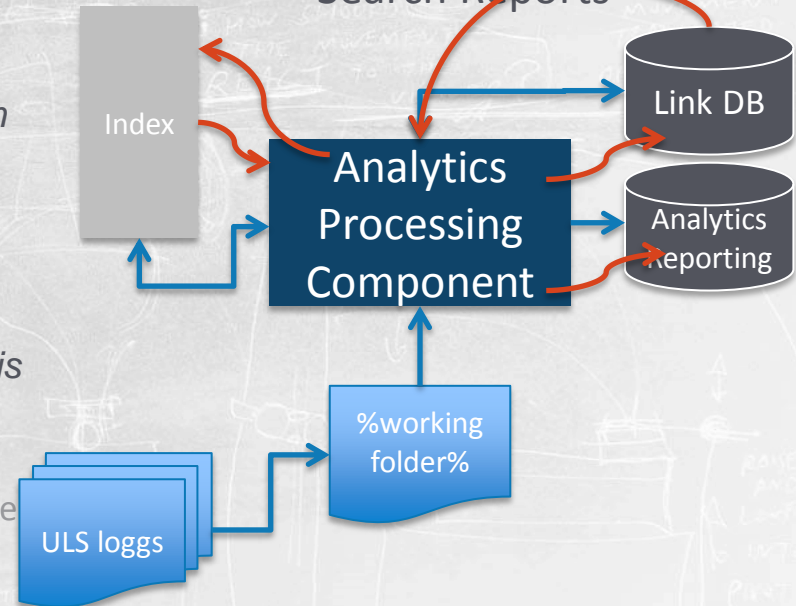
1. Search analytics extracts information such as links and anchor text from content in the search index.
2. The extracted information is stored in the Link database together with information about clicks on search results.

Task 2:

1. The information in the Link database is further processed in several sub-analyses.
2. Information that results from the search analyses is used to enrich items in the search index with information to help improve relevance and recall,
 - and is stored in the Analytics Reporting database
 - and included in reports.

Analyses in search analytics:

- Anchor text processing
- Click Distance
- Search Clicks
- Social Tags
- Social Distance
- Deep Links
- Search Reports



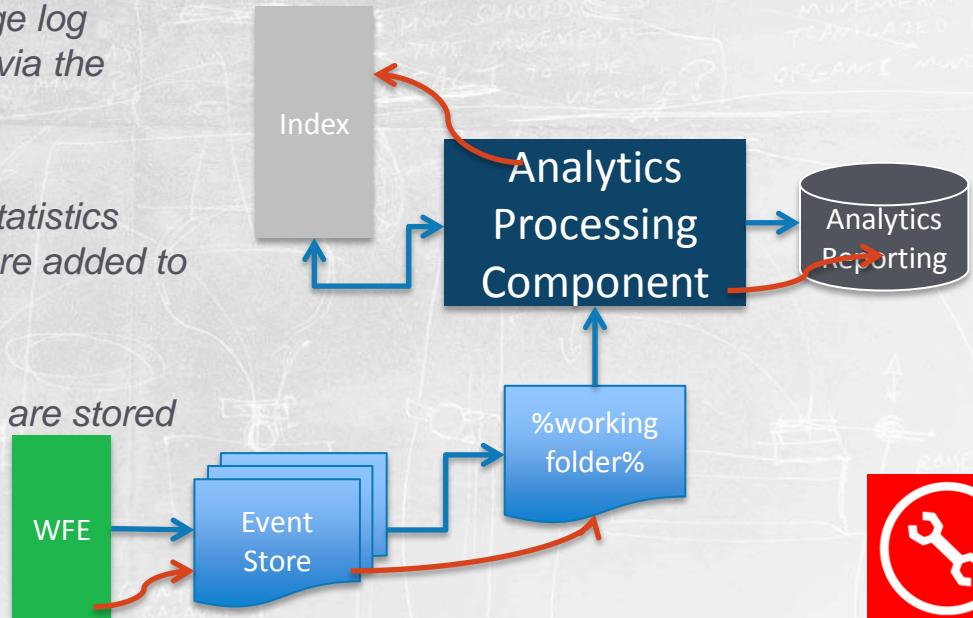
USAGE ANALYTICS

Task 1:

- Usage analytics is about analyzing usage log information received from the front-end via the event store.

Task 2:

- Usage analytics generates usage and statistics reports. The results from the analyses are added to the items in the search index.
- In addition, results from usage analytics are stored in the analytics reporting database.



USAGE ANALYTICS

SharePoint Server 2013 includes the following default user usage events:

- Views
- Recommendations displayed
- Recommendations clicked


In addition to the default events, you can add up to twelve custom events.

All usage events are counted per item, site collection, and tenant.

EVENTS

Usage event types in SharePoint Server 2013

- You can create up to twelve custom usage event types by using Windows PowerShell.
 - A custom usage event has several properties
- You have to add code to the place where the event occurs - for example, when a page loads, or when a user clicks a link or a button.
- This data is then sent to the analytics processing component, where it is recorded and processed.



```
AppEventTypeId           : e2f978ff-7be2-4242-  
EventTypeId              : 256  
EventName                 : UseFulPage  
LifeTimeManagedPropertyName : UsageEvent1LifeTime  
RecentManagedPropertyName  : UsageEvent1Recent  
ApplicationName           :  
RecommendationWeight       : 10  
RelevanceWeight            : 10  
RecentPopularityTimeframe  : 14  
AggregationType            : Count  
Rollups                    : SiteSubscriptionId,  
TailTrimming               : 2  
Options                    : None  
IsReadOnly                 : False
```



MANAGE ANALYTICS

- *Timer Jobs*
- *PowerShell for SharePoint 2013 Analytics Feature*
- *Microsoft.Office.Server.Search.Analytics namespace*
- *Files & Folder Locations*

MANAGE ANALYTICS

TIMER JOBS

Usage Analytics:

- *Usage Analytics Timer Job for Search Application Search*
 - Periodically schedules processing of the Usage Analytics analysis
- *SharePoint Foundation Usage Data Processing*
 - Checks for expired usage data at the farm level and deletes the data
- *SharePoint Foundation Usage Data Import*
 - Imports usage log files into the event store

Search Analytics:

- *Analytics Event Store Retention*
 - Periodically cleans up the Event Store and the Reporting Database
- *Analytics Timer Job for Search Service Application*
 - Periodically schedules analytics for Search Service Application



MANAGE ANALYTICS

POWERSHELL FOR SHAREPOINT 2013 ANALYTICS FEATURE

- *Analytics feature is not part of the common SharePoint PowerShell Snapin*
- *get a full list of available commands:*
 - Get-Command -Module analysisenginepssnapin
- *Get / Set settings for component*
 - Get-AnalysisConfiguration [-Name] <string>...
 - Set-AnalysisConfiguration [-Name] <string>...
- *Display all Analytics Job status info:*
 - Get-Analysis

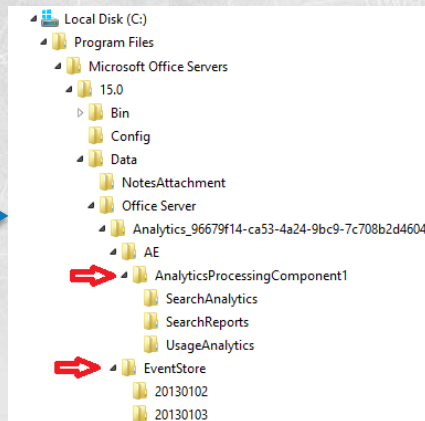
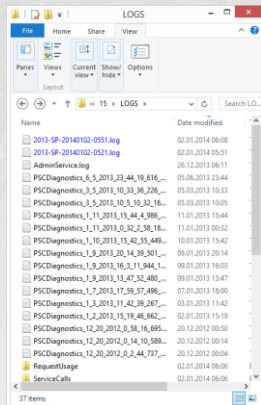
```
#Set up the Analytics powershell environment
Add-PSSnapin Microsoft.SharePoint.PowerShell
Add-PSSnapin hostcontrollerpssnapin
Add-pssnapin junopssnapin
Add-pssnapin searchcorepssnapin
Add-pssnapin enginepssnapin
Add-pssnapin analysisenginepssnapin
$env:CERES_REGISTRY_PRODUCT_NAME = "Office Server\15.0\Search\Ceres"
Connect-System -Uri (Get-
SPEnterpriseSearchServiceApplication).SystemManagerLocations[0]
-ServiceIdentity (Get-SPEnterpriseSearchServiceApplication).ServiceIdentity
Connect-AnalysisEngine -NodeName
```



FILES & FOLDER LOCATIONS

Uls Logs

Office Server
%working
folder%



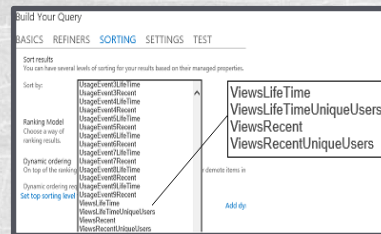
GETTING REPORTS

- *Out of the box reports*
- *Custom Solutions with PowerPivot*
- *PowerShell & custom code*

OUT OF THE BOX REPORTS

-  Most Popular Items

- Site Administration
 - Regional settings
 - Site output cache
 - Term store management
- Popularity Trends
- Content and structure
 - Manage catalog connections



- *Search Analytics:*

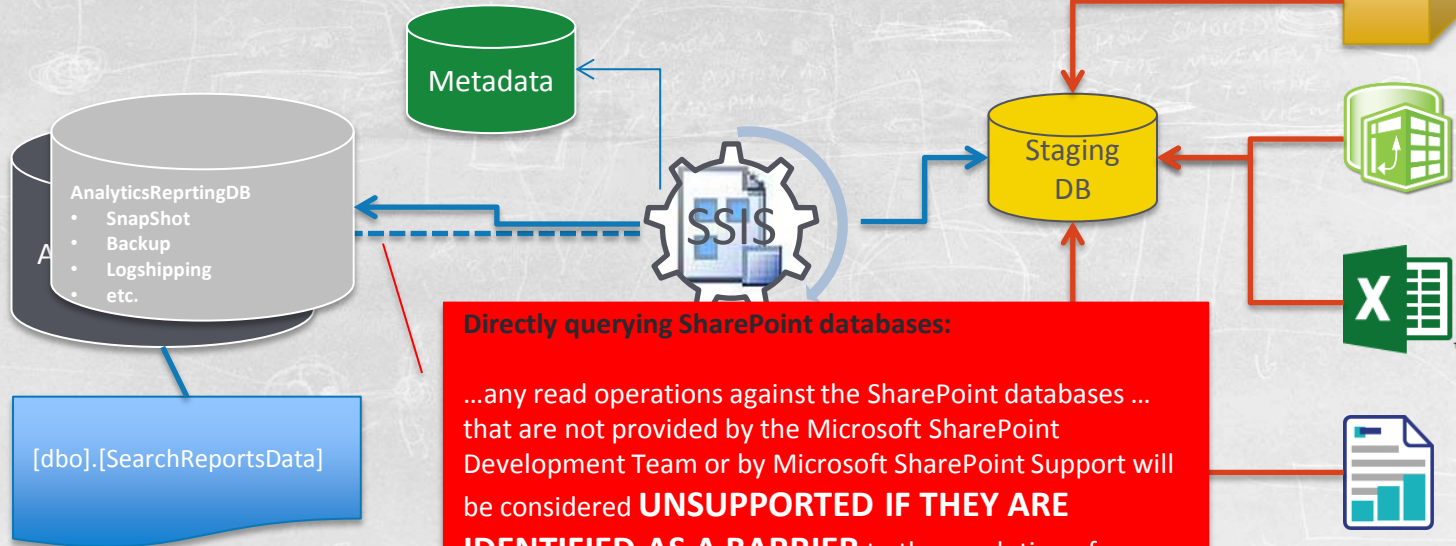
Search Administration

- Diagnostics
- Crawl Log
- Crawl Health Reports
- Query Health Reports
- Usage Reports

- Site Collection Administration
- Recycle bin
- Search Result Sources
- Site collection output cache
- Popularity and Search Reports
- Variations Settings

GETTING REPORTS

CUSTOM SOLUTIONS WITH POWERPIVOT



...any read operations against the SharePoint databases ... that are not provided by the Microsoft SharePoint Development Team or by Microsoft SharePoint Support will be considered **UNSUPPORTED IF THEY ARE IDENTIFIED AS A BARRIER** to the resolution of a Microsoft support engagement.

<http://support.microsoft.com/kb/841057>



GETTING REPORTS

POWERSHELL & CUSTOM CODE

PowerShell (thx to Radu Tut):

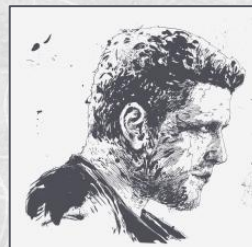
Get Usage Report:

- `$searchApp.GetRollupAnalyticsItemData ...`

Get Search Report:

- `$searchApp.GetSearchReport ...`

Custom Code:



```
Select Administrator: SharePoint 2013 Management Shell
PS C:\Users\Administrator.Contoso> $result

EventId      : 1
SiteId       : 1d9ae3a6-7ca7-4ec9-9e8e-3b775c74a7fe
ScopeId      : 00000000-0000-0000-0000-000000000000
TenantId     : 00000000-0000-0000-0000-000000000000
ItemId       : 1d9ae3a6-7ca7-4ec9-9e8e-3b775c74a7fe
LastProcessingTime : 07.12.2013 23:00:00
CurrentDate  : 02.01.2014 00:00:00
TotalHits    : 73
TotalUniqueUsers : 5
LastProcessingHits : 4
LastProcessingUniqueUsers : 1

PS C:\Users\Administrator.Contoso>
```



HELPFULL LINKS

- *How to get analytics reports programmatically in SharePoint 2013?*
 - <http://social.technet.microsoft.com/Forums/de-DE/54310f5f-e8a3-469e-86a3-63781b91670d/how-to-get-analytics-reports-programmatically-in-sharepoint-2013?forum=sharepointdevelopment>
- *Overview of analytics processing in SharePoint Server 2013*
 - <http://technet.microsoft.com/en-us/library/jj219554.aspx>
- *Microsoft.Office.Server.Search.Analytics namespace:*
 - <http://msdn.microsoft.com/en-us/library/office/microsoft.office.server.search.analytics.aspx>
- *Analytics Feature @SharePointTalk.net*
 - <http://www.sharepointtalk.net/search/label/Analytics>
- *Custom Event:*
 - <http://technet.microsoft.com/en-us/library/jj715889.aspx>
- *Directly querying SharePoint databases*
 - <http://support.microsoft.com/kb/841057>
 - http://blogs.msdn.com/b/brian_farnhill/archive/2013/12/04/directly-querying-sharepoint-databases.aspx

WHEN YOU
NEED US,
WE'LL BE
THERE.

....Questions?!

Kontakt:

nicki.borell@expertsinside.com

<http://www.expertsinside.com>

<https://twitter.com/NickiBorell>

<http://www.sharepointtalk.net>

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