



REST API's im Delivery Server und Apache Solr Integration

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Agenda

- REST API
- Apache Solr
- Anwendungsbeispiele

REST API

Delivery Server Version:

- Ab Version 16.0

Dokumentation

- Swagger UI - <http://swagger.io/swagger-ui/>
- Direkte Testmöglichkeit

Welche API gibt es?

- Suche mit Apache Solr und OpenText InfoFusion Search
- Kommentar Tempo Social
- Reporting

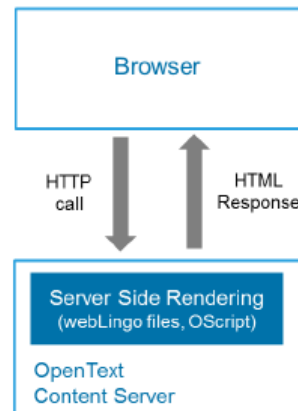
Warum REST API?

REST API

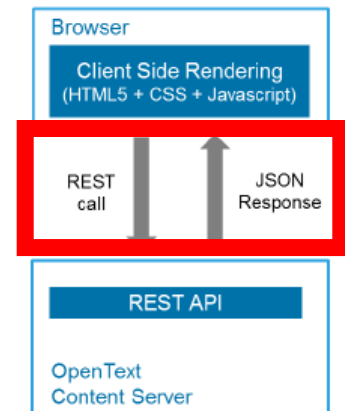
Content Server 16

- Based on REST API
- HTML5, JavaScript, CSS
- Based on Widgets used in integrations like SAP, Oracle, SharePoint
- New URL Syntax

Classical Content Server UI

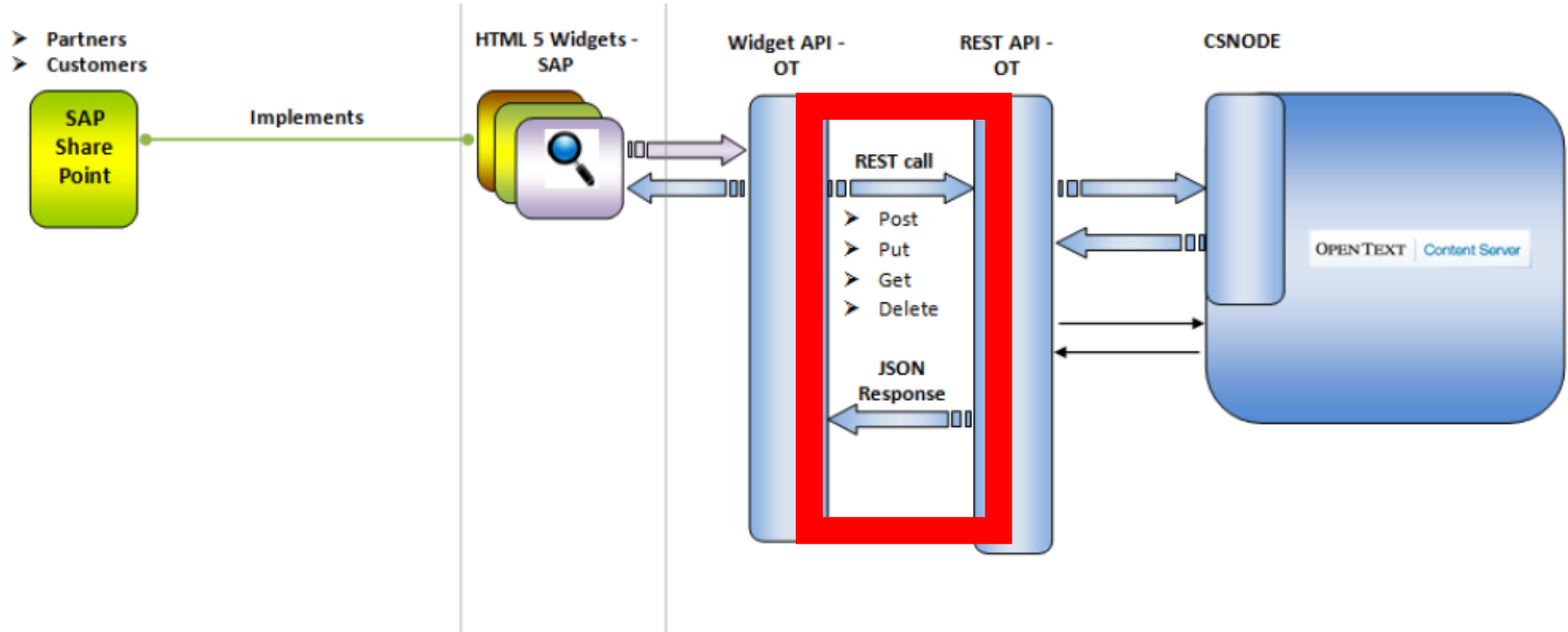


New Content Server UI



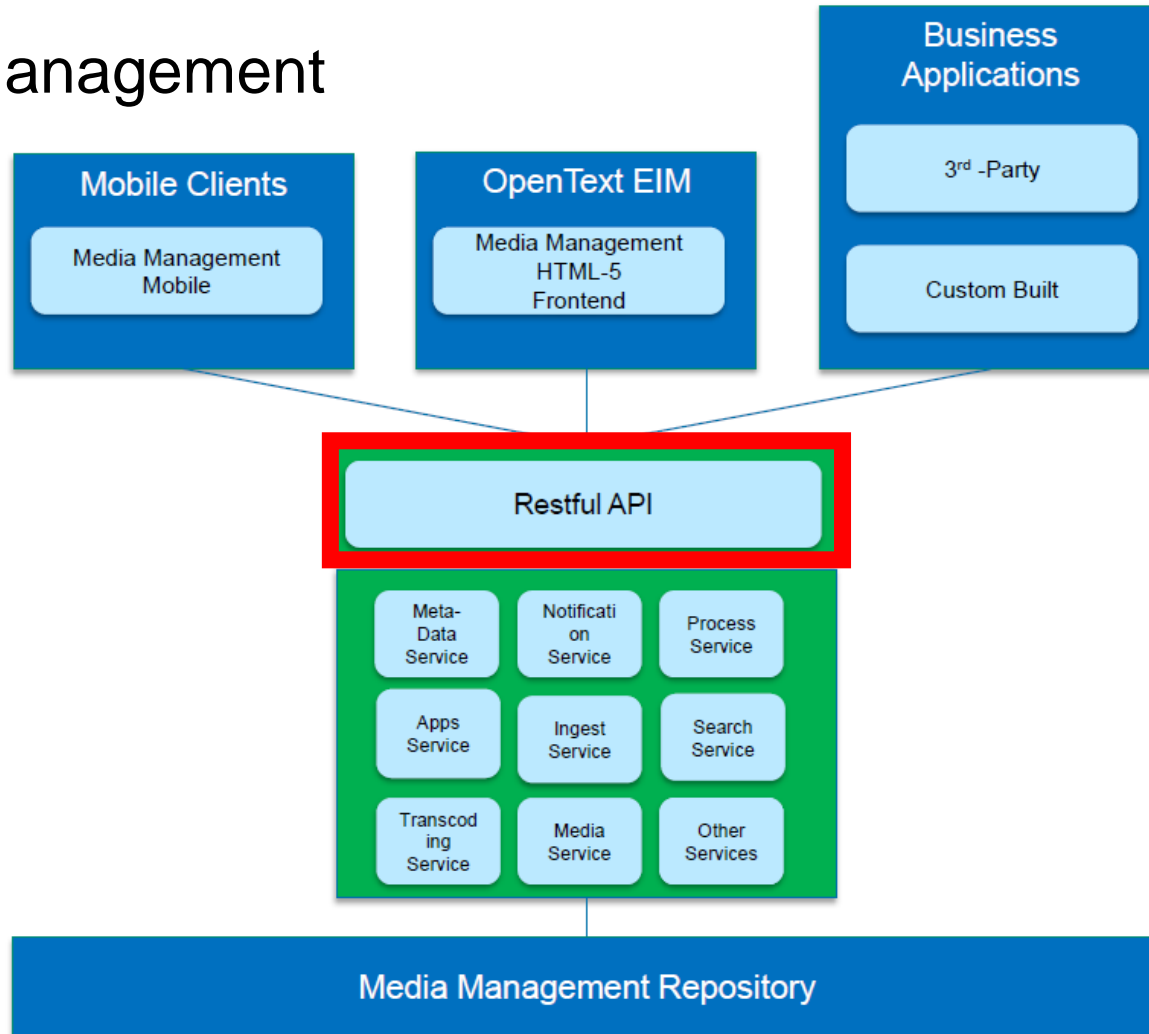
REST API

Content Server UI Widget



REST API

Media Management



REST API

Web Site Management

The screenshot displays the OPENTEXT Web Site Management Administrator interface. The top navigation bar includes 'Settings', 'Help', 'Log Off', and a search box. Below this is a secondary navigation bar with tabs for 'Homepage', 'SmartEdit', 'SmartTree', 'Asset Manager', 'Tasks', 'Search', and 'Server Manager'. The main content area is titled 'FOLDERS' and shows a tree view on the left with folders: 'CSS files', 'Images', 'Images [Design]', 'JS', and 'Video'. The 'Images' folder is selected, showing a list of files with columns for 'Thumbnail', 'Name', 'Modification date', 'Size', and 'MIME type'. The file list includes 'add-and-remove.png', 'big_ben_1080.jpg', 'big_ben_400.jpg', 'big_ben_680.jpg', 'big_ben_880.jpg', 'blog.png', and 'bootstrap-logo-144.png'. The bottom status bar shows 'User name: martin', 'Project: Xample-2016-03-09', and 'Language Variant: English'.

OPENTEXT™ | Web Site Management ADMINISTRATOR

Settings | Help | Log Off | Search

Homepage | SmartEdit | SmartTree | Asset Manager | Tasks | Search | Server Manager | Project

FOLDERS

- CSS files
- Images
- Images [Design]
- JS
- Video

Images 1-25 of 40 Results | 1 of 2 Pages

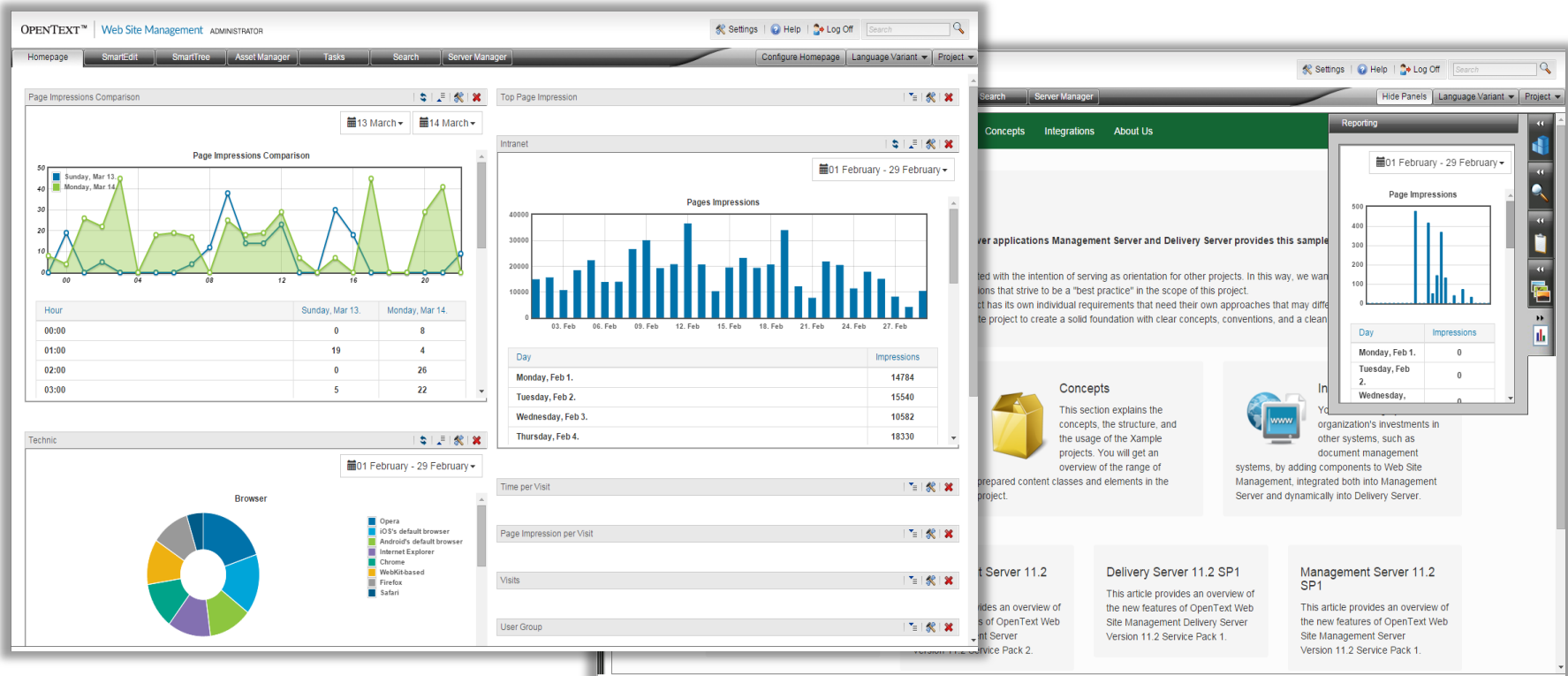
Upload | Create Folder | Delete

Thumbnail	Name	Modification date	Size	MIME type
	add-and-remove.png	7/16/2013 8:36:11 AM	10.7 KB	image/png
	big_ben_1080.jpg	2/15/2016 3:30:57 PM	166.7 KB	image/jpeg
	big_ben_400.jpg	2/15/2016 4:21:40 PM	37.7 KB	image/jpeg
	big_ben_680.jpg	2/15/2016 4:21:29 PM	79.3 KB	image/jpeg
	big_ben_880.jpg	2/15/2016 4:21:18 PM	125.1 KB	image/jpeg
	blog.png	2/11/2013 9:36:42 AM	59.5 KB	image/png
	bootstrap-logo-144.png	7/16/2013 3:56:37 PM	16.4 KB	image/png

User name: martin | Project: Xample-2016-03-09 | Language Variant: English

REST API

Web Site Management



REST API

API STANDARD | Internal Use Only

OPENTEXT

API Standard

OpenText Engineering

A Pragmatic REST Approach

Version 1.0

REST API

URL zum ansprechen der API

- Protokoll + Hostname + Port: <http://localhost:8080>
- Webapplikation: <http://localhost:8080/cps/rde>
- Neues Servlet: <http://localhost:8080/cps/rde/rest>
- Version der API: <http://localhost:8080/cps/rde/rest/v1>
- Die gewünschte API: <http://localhost:8080/cps/rde/rest/v1/solr>
- Die Funktion der gewählten API:
<http://localhost:8080/cps/rde/rest/v1/solr/select>
- Parameter:
<http://localhost:8080/cps/rde/rest/v1/solr/select?project=xample&...>

Apache Solr

Apache Solr Integration

Apache Solr Integration

Voraussetzungen für Solr REST API?

- Apache Solr Version $\geq 5.x$
- REST API nutzt immer den **Default Suchkonnektor**

List of Search Engine Connectors													
No.	<input type="checkbox"/>	Name	Description	Assigned projects	Active	Use for indexing	Default	Index queue server	Action				
1	<input type="checkbox"/>	Apache Solr			✓	■	<input checked="" type="radio"/>	wsm16 ▾	Copy	Delete	Export	Restart	
2	<input type="checkbox"/>	ContentServer			✓	■	<input type="radio"/>	wsm16 ▾	Copy	Delete	Export	Restart	
3	<input type="checkbox"/>	InfoFusion			✓	■	<input type="radio"/>	wsm16 ▾	Copy	Delete	Export	Restart	

Apache Solr Integration

Seit Version 5 nun mit eigenem Server!

***Best Practices – Web Management Delivery Server
Search Integration with Apache Solr 5.x***

<https://knowledge.opentext.com/knowledge/cs.dll/Properties/62921918>

Anwendungsbeispiele

Ohne DynaMents eine Website-Suche und
Autovervollständigen

Anwendungsbeispiele

Suche - [/rest/v1/solr/select](#)

- Volltextsuche mit Solr Query Syntax

Autovervollständigen #1 - [/rest/v1/solr/autocomplete](#)

- Vorschläge für Suchbegriff

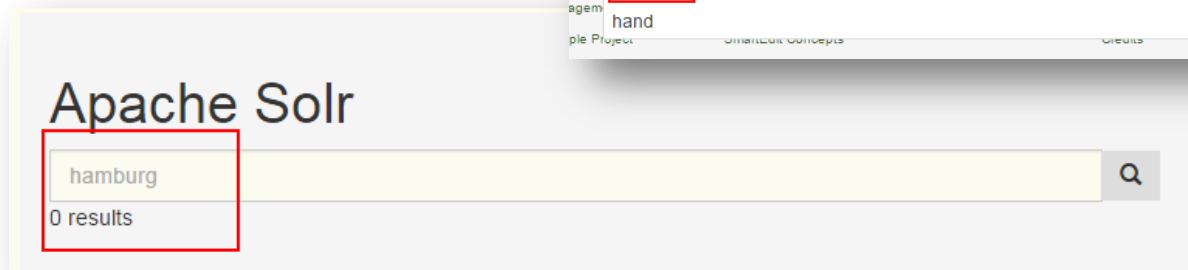
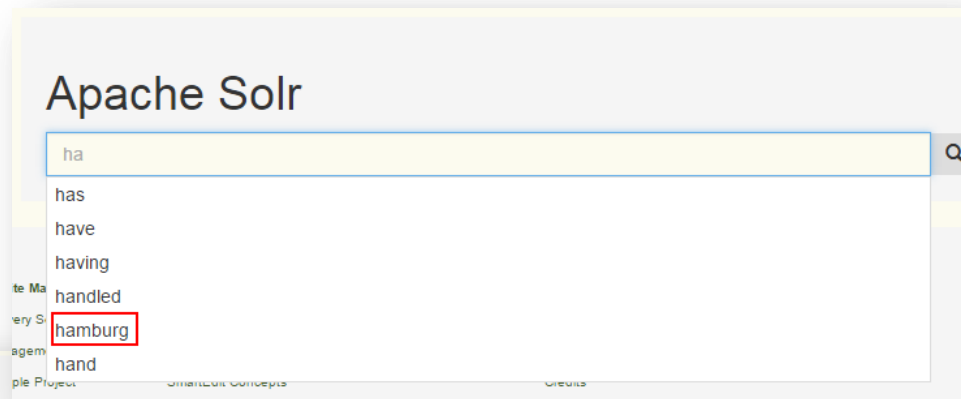
Autovervollständigen #2 - [/rest/v1/solr/suggest](#)

- Vorschläge für Suchbegriff

Anwendungsbeispiele

Warum zwei unterschiedliche Autovervollständigen?

- Das Problem der Personalisierung. Der Benutzer bekommt Suchbegriffe vorgeschlagen zu Inhalten, auf die er gar keinen Zugriff hat.



Anwendungsbeispiele

Warum zwei unterschiedliche Autovervollständigen?

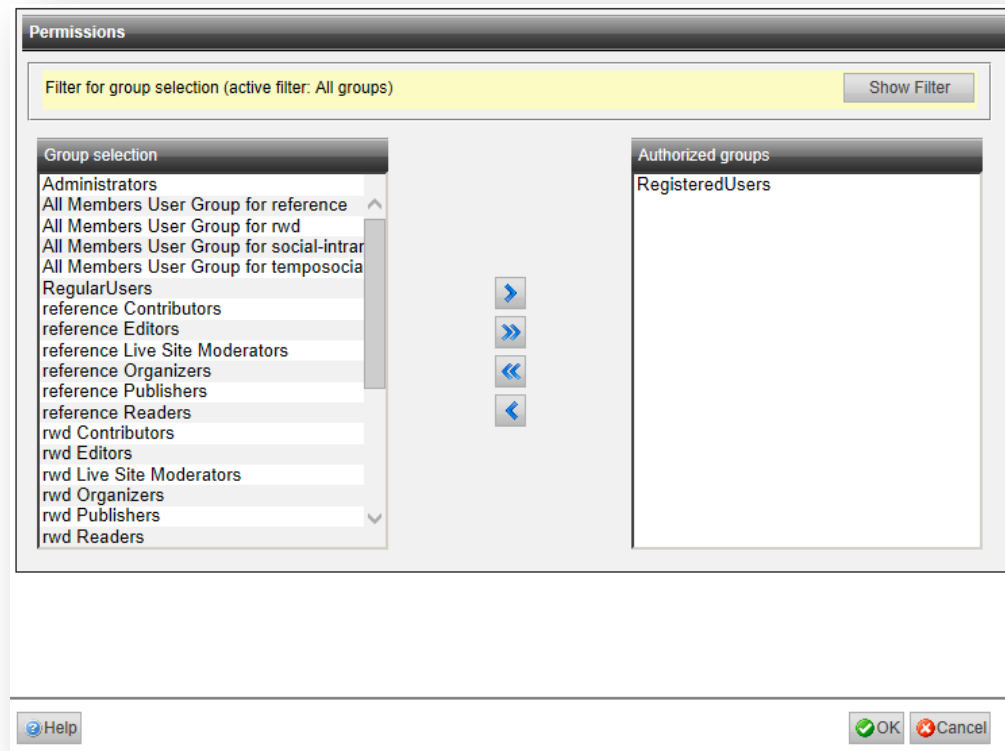
- Lösung: Autovervollständigen #1 - `/rest/v1/solr/autocomplete`
 - Beachtet die Permission Constraint

The screenshot shows a web application interface with a green navigation bar at the top containing links for 'Xample | Xample Pr', 'Xample Project 16.0', 'Web Site Management', 'Concepts', 'Integrations', and 'About Us'. A 'Sign Out: william' button is located in the top right corner. The main content area is titled 'Apache Solr' and features a search bar with the text 'hamburg' and a 'Search' button. Below the search bar, there are three columns of data: 'cms_keywords', 'cms_releasedby', and 'cms_lastmodifier'. The 'cms_releasedby' and 'cms_lastmodifier' columns show a value of 'kate 1'. A pagination bar indicates '1 results for hamburg, page 1 / 1'. Below the search results, there is a section titled 'SmartEdit Concepts' with a sub-heading 'SmartEdit Concepts Hamburg' and a brief description. The date 'Tuesday 7 Jun 2016' is displayed at the bottom. Two autocomplete dropdowns are overlaid on the left side of the page, showing suggestions for the text 'ha' and 'ha|'. The first dropdown shows suggestions like 'ha', 'have', 'has', 'having', 'handled', and 'hand'. The second dropdown shows suggestions like 'ha|', 'have', 'has', 'having', 'handled', and 'hamburg'. Red boxes highlight the 'Sign Out: william' button, the search bar, the pagination bar, and the 'hamburg' suggestion in the second dropdown.

Anwendungsbeispiele

Permission Constraint?

- Seit Delivery Server Version 11.0
- Seiten-Berechtigung mit Benutzergruppen
 - Import DynaMent
 - CMS Element



Anwendungsbeispiele

Autocomplete **versus** Suggest

- Autocomplete verwendet Facettieren

```
<requestHandler name="/autocomplete" class="solr.SearchHandler">
  <!-- default values for query parameters can be specified, these
       will be overridden by parameters in the request
  -->
  <lst name="defaults">
    <str name="facet">true</str>
    <str name="f.autocomplete.facet.limit">5</str>
    <str name="facet.mincount">1</str>
    <str name="facet.field">autocomplete</str>
    <str name="q">*:*</str>
    <str name="rows">0</str>
  </lst>
</requestHandler>
```

Anwendungsbeispiele

Autocomplete **versus** Suggest

- Suggest verwendet eine Rechtschreibprüfung

```
<requestHandler name="/suggest" class="solr.SearchHandler">
  <lst name="defaults">
    <str name="df">content_suggest</str>
    <str name="spellcheck">true</str>
    <str name="spellcheck.dictionary">suggest</str>
    <str name="spellcheck.onlyMorePopular">true</str>
    <str name="spellcheck.count">10</str>
    <str name="spellcheck.collate">true</str>
  </lst>
  <arr name="components">
    <str>suggest</str>
  </arr>
</requestHandler>

<searchComponent class="solr.SpellCheckComponent" name="suggest">
  <lst name="spellchecker">
    <str name="name">suggest</str>
    <str name="classname">org.apache.solr.spelling.suggest.Suggester</str>
    <str name="lookupImpl">org.apache.solr.spelling.suggest.fst.FSTLookup</str>
    <str name="field">content_suggest</str> <!-- the indexed field to derive suggestions from -->
    <str name="storeDir">./suggestdictionary</str>
    <str name="buildOnOptimize">true</str>
    <str name="buildOnCommit">true</str>
    <str name="buildOnStartup">false</str>
  </lst>
  <str name="queryAnalyzerFieldType">text_suggest</str>
</searchComponent>
```


Anwendungsbeispiele

Parameter: /solr/select

- **project**: Name des Delivery Server Projekt
- **nativequery**: Apache Solr Query Parameter

Parameter: /solr/suggest

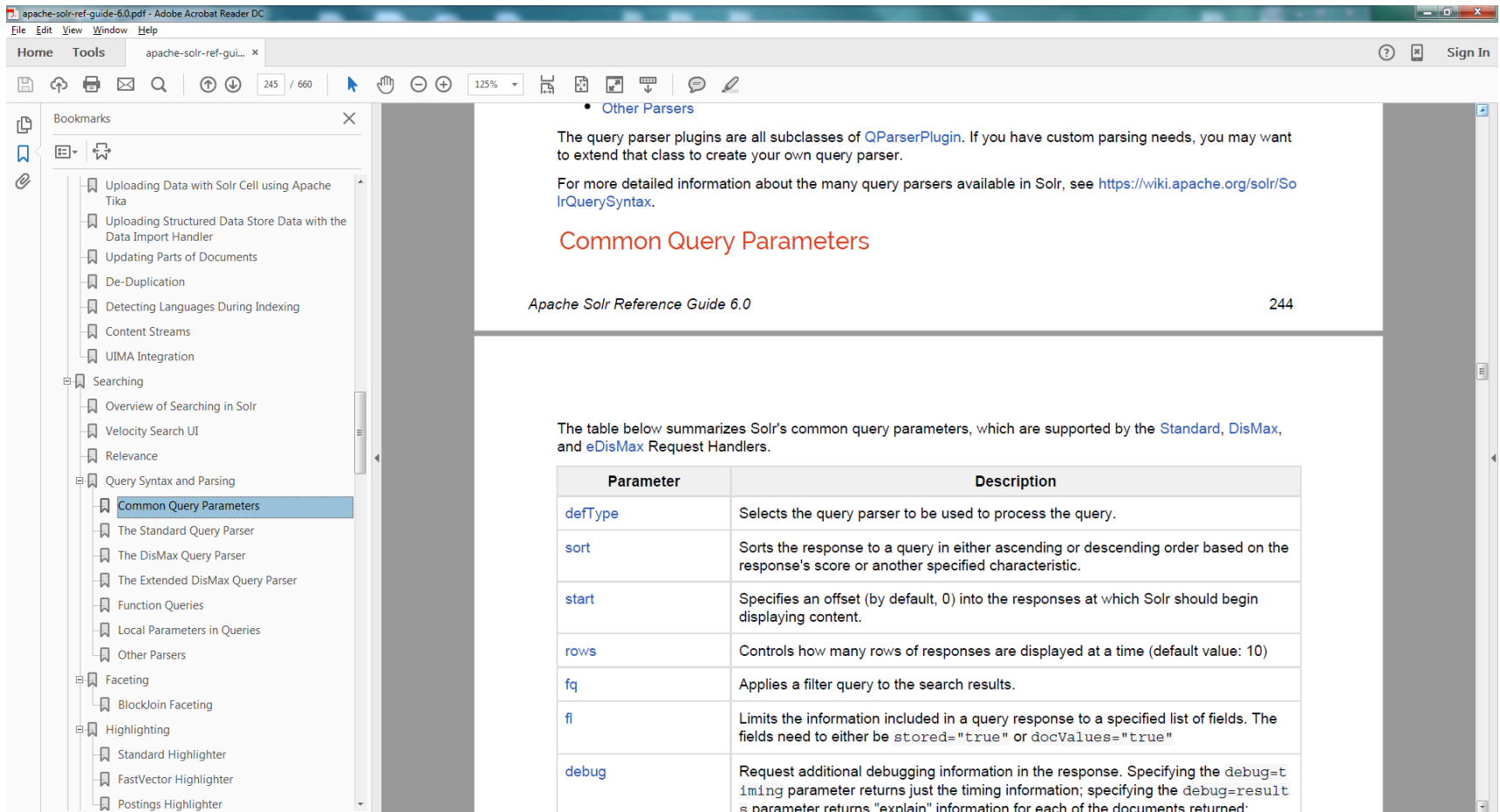
- **project**: Name des Delivery Server Projekt
- **q**: Suchbegriff

Parameter: /solr/autocomplete

- **project**: Name des Delivery Server Projekt
- **q**: Suchbegriff

Anwendungsbeispiele

Parameter: /solr/select



The screenshot shows a PDF document titled "apache-solr-ref-guide-6.0.pdf" in Adobe Acrobat Reader DC. The document content is as follows:

Other Parsers

The query parser plugins are all subclasses of `QParserPlugin`. If you have custom parsing needs, you may want to extend that class to create your own query parser.

For more detailed information about the many query parsers available in Solr, see <https://wiki.apache.org/solr/SolrQuerySyntax>.

Common Query Parameters

Apache Solr Reference Guide 6.0 244

The table below summarizes Solr's common query parameters, which are supported by the `Standard`, `DisMax`, and `eDisMax` Request Handlers.

Parameter	Description
<code>defType</code>	Selects the query parser to be used to process the query.
<code>sort</code>	Sorts the response to a query in either ascending or descending order based on the response's score or another specified characteristic.
<code>start</code>	Specifies an offset (by default, 0) into the responses at which Solr should begin displaying content.
<code>rows</code>	Controls how many rows of responses are displayed at a time (default value: 10)
<code>fq</code>	Applies a filter query to the search results.
<code>fl</code>	Limits the information included in a query response to a specified list of fields. The fields need to either be <code>stored="true"</code> or <code>docValues="true"</code>
<code>debug</code>	Request additional debugging information in the response. Specifying the <code>debug=timing</code> parameter returns just the timing information; specifying the <code>debug=results</code> parameter returns "explain" information for each of the documents returned:

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