

This blog post describes the procedure to remove a number of transactions from Alfresco SOLR Index so they can be re-indexed from scratch. This procedure could help with upgrading and re-indexing scenarios.

Alfresco SOLR cores (alfresco, archive) include different DOC_TYPE documents:

- **Node:** documents with properties, content and permissions information
- **Acl:** details of document permissions
- **Tx:** details of transactions
- **AclTx:** details of permission changes
- **State:** current status of indexing process

Details on the number of different document types can be obtained by using following URL:

http://localhost:8983/solr/#/alfresco/schema?field=DOC_TYPE

Following steps are required to remove and re-index latest transactions in SOLR Core:

- PURGE desired TX Ids from SOLR Core using [SOLR Admin REST API](#)
- Get transaction properties for desired transaction (Id 40 in the sample below)
- Disable SOLR tracking
- Update (technically is "add") **TRACKER!STATE!TX** Solr Document with properties of desired transaction
- Enable SOLR tracking
- Verify pending transactions are indexed

Properties for the document type "State" include latest indexed transaction and permission list:

[http://localhost:8983/solr/alfresco/select?fl=*,\[cached\]&indent=on&q={!term%20f=DOC_TYPE}State&wt=json](http://localhost:8983/solr/alfresco/select?fl=*,[cached]&indent=on&q={!term%20f=DOC_TYPE}State&wt=json)

```
[
  {
    "id": "TRACKER!STATE!ACLTx",
    "_version_": 1736233537222213632,
    "S_ACLTXID": 9,
    "S_INACLTxID": 9,
    "S_ACLTXCOMMITTIME": 1655799514574,
    "DOC_TYPE": "State",
    "LAST_INCOMING_CONTENT_VERSION_ID": -10},
  {
    "id": "TRACKER!STATE!Tx",
    "_version_": 1736234575631220736,
    "S_TXID": 43,
    "S_INTxID": 43,
    "S_TXCOMMITTIME": 1655799968144,
    "DOC_TYPE": "State",
```

```

    "LAST_INCOMING_CONTENT_VERSION_ID":-10
  }
]

```

In the sample above, for **alfresco** core, latest indexed transaction is **43** with a commit time **1655799968144**

In order to remove transactions 41, 42 and 43 from SOLR Core, get properties for transaction 40.

[http://localhost:8983/solr/alfresco/select?fl=*,\[cached\]&indent=on&q=DOC_TYPE:%22Tx%22%20AND%20TXID:40&wt=json](http://localhost:8983/solr/alfresco/select?fl=*,[cached]&indent=on&q=DOC_TYPE:%22Tx%22%20AND%20TXID:40&wt=json)

```

{
  "id":"TRACKER!TX!80000000000000028",
  "_version_":1736233557160886272,
  "TXID":40,
  "INTXID":40,
  "TXCOMMITTIME":1655799960307,
  "DOC_TYPE":"Tx",
  "int@s_@cascade":0,
  "LAST_INCOMING_CONTENT_VERSION_ID":-10}]
}

```

Remove the transactions from SOLR Core using the [SOLR Admin REST API](#):

```

$ curl --location --request GET
'http://localhost:8983/solr/admin/cores?action=purge&txid=43'

```

```

$ curl --location --request GET
'http://localhost:8983/solr/admin/cores?action=purge&txid=42'

```

```

$ curl --location --request GET
'http://localhost:8983/solr/admin/cores?action=purge&txid=41'

```

This operation may take a while, verify the latest transaction in SOLR Core is the expected one (40 in this example) before moving forward.

[http://localhost:8983/solr/alfresco/select?fl=*,\[cached\]&indent=on&q=DOC_TYPE:%22Tx%22&rows=1&sort=TXID%20desc&start=0&wt=json](http://localhost:8983/solr/alfresco/select?fl=*,[cached]&indent=on&q=DOC_TYPE:%22Tx%22&rows=1&sort=TXID%20desc&start=0&wt=json)

```

{
  "id":"TRACKER!TX!80000000000000028",
  "_version_":1736233557160886272,
  "TXID":40,
  "INTXID":40,
  "TXCOMMITTIME":1655799960307,
  "DOC_TYPE":"Tx",
  "int@s_@cascade":0,
  "LAST_INCOMING_CONTENT_VERSION_ID":-10}]
}

```

Once the transactions have been removed from SOLR Core, the status document **TRACKER!STATE!TX** needs to be modified. Before performing this update, stop Alfresco Search Services and include following configuration in **solrcore.properties** to disable tracking process. You need to set this property in both cores: alfresco, archive.

```
enable.alfresco.tracking=false
```

Once Alfresco Search Services is up & running again, use the following command to update the status with the properties of transaction 40

```
$ curl --location --request POST \
'http://localhost:8983/solr/alfresco/update?commitWithin=1000&overwrite=true&wt=json' \
--header 'Content-Type: application/json' \
--data-raw '[
  {
    "id":"TRACKER!STATE!TX",
    "_version_":1,
    "S_TXID":40,
    "S_INTXID":40,
    "S_TXCOMMITTIME":1655799960307,
    "DOC_TYPE":"State",
    "LAST_INCOMING_CONTENT_VERSION_ID":-10
  }
]'
```

Stop Alfresco Search Services again and revert previous configuration in **solrcore.properties** files

```
enable.alfresco.tracking=true
```

Once Alfresco Search Services is up & running, transactions from Id 40 will be indexed on the regular tracking process. After a while, latest transaction can be verified as 43 in both **TX** and **TRACKER!STATE!TX** documents.

[http://localhost:8983/solr/alfresco/select?fl=*,\[cached\]&indent=on&q={!term%20f=DOC_TYPE}State&wt=json](http://localhost:8983/solr/alfresco/select?fl=*,[cached]&indent=on&q={!term%20f=DOC_TYPE}State&wt=json)

```
{
  "id":"TRACKER!STATE!TX",
  "_version_":1736237510552453120,
  "S_TXID":43,
  "S_INTXID":43,
  "S_TXCOMMITTIME":1655799968144,
  "DOC_TYPE":"State",
  "LAST_INCOMING_CONTENT_VERSION_ID":-10
}
```

[http://localhost:8983/solr/alfresco/select?fl=*,\[cached\]&indent=on&q=DOC_TYPE:%22Tx%22&rows=1&sort=TXID%20desc&start=0&wt=json](http://localhost:8983/solr/alfresco/select?fl=*,[cached]&indent=on&q=DOC_TYPE:%22Tx%22&rows=1&sort=TXID%20desc&start=0&wt=json)

```
{
  "id":"TRACKER!TX!8000000000000002b",
  "_version_":1736237530581303296,
  "TXID":43,
  "INTXID":43,
  "TXCOMMITTIME":1655799968144,
  "DOC_TYPE":"Tx",
  "int@s_@cascade":0,
  "LAST_INCOMING_CONTENT_VERSION_ID":-10
}
```

Additional notes

An alternative approach to disable indexing, contributed by , is the use of [SOLR REST API](#) "disable indexing" action:

<http://localhost:8983/solr/admin/cores?action=disable-indexing>

```
<response>
<lst name="action">
  <lst name="alfresco">
    <bool name="CASCADE">>false</bool>
    <bool name="CONTENT">>false</bool>
    <bool name="ACL">>false</bool>
    <bool name="METADATA">>false</bool>
  </lst>
  <lst name="archive">
    <bool name="CASCADE">>false</bool>
    <bool name="CONTENT">>false</bool>
    <bool name="ACL">>false</bool>
    <bool name="METADATA">>false</bool>
  </lst>
</lst>
</response>
```

This operation doesn't require re-starting the SOLR Server, that may be recommended for some use cases.

In order to restore the indexing process again, use the action in the opposite way:

<http://localhost:8983/solr/admin/cores?action=enable-indexing>

```
<response>
</lst>
<lst name="action">
  <lst name="alfresco">
    <bool name="CASCADE">>true</bool>
    <bool name="CONTENT">>true</bool>
    <bool name="ACL">>true</bool>
    <bool name="METADATA">>true</bool>
  </lst>
```

```
<lst name="archive">
  <bool name="CASCADE">true</bool>
  <bool name="CONTENT">true</bool>
  <bool name="ACL">true</bool>
  <bool name="METADATA">true</bool>
</lst>
</lst>
</response>
```