Operation

Operation

The Lucene index information is stored in files arranged in a folder structure. This folder structure is replicated in every Soffid Console and every Sync Server and also is saved in the database.

In case an instance (Docker, Kubernetes, or stand-alone) detects an inconsistency, the information will be overwritten with the database data.

When you update an object, marked as the textual index, a task will be created. The **soffid agent** will execute this task and the Sync Server will update the database tables related to the textual index.

Folder structure

The folder structure is the following:

- **../index/<TENANT>/<SOFFID_OBJECT>**

Example

1. Here you are the folder structure for the Soffid Console

```
root@da8136799e55:/opt/soffid/iam-console-3/index/master# ll
total 16
drwxr-x--- 4 root root 4096 Jun  2 09:58 ./
drwxr-x--- 3 root root 4096 Jun  2 08:53 ../
drwxr-x--- 2 root root 4096 Jun  2 09:58 com.soffid.iam.api.Group/
drwxr-x--- 2 root root 4096 Jun  2 10:45 com.soffid.iam.api.User/
root@da8136799e55:/opt/soffid/iam-console-3/index/master#
```

```
root@da8136799e55:/opt/soffid/iam-console-3/index/master# cd com.soffid.iam.api.Group/
root@da8136799e55:/opt/soffid/iam-console-3/index/master/com.soffid.iam.api.Group# ls
_1f.fdm  _1f.kdi             _1f_Lucene90_0.tim  _1p.fdt  _1p.kdm             _1p_Lucene90_0.tip  _1q.si   _1s.cfs
_1f.fdt  _1f.kdm             _1f_Lucene90_0.tip  _1p.fdx  _1p_Lucene90_0.doc  _1p_Lucene90_0.tmd  _1r.cfe  _1s.si
_1f.fdx  _1f_Lucene90_0.doc  _1f_Lucene90_0.tmd  _1p.fnm  _1p_Lucene90_0.dvd  _1p.si              _1r.cfs  segments_1n
_1f.fnm  _1f_Lucene90_0.dvd  _1f.si              _1p.kdd  _1p_Lucene90_0.dvm  _1q.cfe             _1r.si   write.lock
_1f.kdd  _1f_Lucene90_0.dvm  _1p.fdm             _1p.kdi  _1p_Lucene90_0.tim  _1q.cfs             _1s.cfe
root@da8136799e55:/opt/soffid/iam-console-3/index/master/com.soffid.iam.api.Group#
```

2. And the folder structure for the Sync Server

```
root@17beaa887a1e:/opt/soffid/iam-sync/index/master# ll
total 16
drwxr-xr-x 4 root root 4096 Jun  2 11:00 ./
drwxr-xr-x 3 root root 4096 Jun  2 09:39 ../
drwxr-xr-x 2 root root 4096 Jun  2 11:00 com.soffid.iam.api.Group/
drwxr-xr-x 2 root root 4096 Jun  2 10:45 com.soffid.iam.api.User/
root@17beaa887a1e:/opt/soffid/iam-sync/index/master#
```

```
root@17beaa887a1e:/opt/soffid/iam-sync/index/master/com.soffid.iam.api.Group# ls
_1f_1.liv  _1f.kdi             _1f_Lucene90_0.tip  _1p.fnm             _1p_Lucene90_0.dvm  _1q.cfs  _1s.cfs      write.lock
_1f.fdm    _1f.kdm             _1f_Lucene90_0.tmd  _1p.kdd             _1p_Lucene90_0.tim  _1q.si   _1s.si
_1f.fdt    _1f_Lucene90_0.doc  _1f.si              _1p.kdi             _1p_Lucene90_0.tip  _1r.cfe  _1t.cfe
_1f.fdx    _1f_Lucene90_0.dvd  _1p.fdm             _1p.kdm             _1p_Lucene90_0.tmd  _1r.cfs  _1t.cfs
_1f.fnm    _1f_Lucene90_0.dvm  _1p.fdt             _1p_Lucene90_0.doc  _1p.si              _1r.si   _1t.si
_1f.kdd    _1f_Lucene90_0.tim  _1p.fdx             _1p_Lucene90_0.dvd  _1q.cfe             _1s.cfe  segments_1o
root@17beaa887a1e:/opt/soffid/iam-sync/index/master/com.soffid.iam.api.Group#
```

Database

The database tables involved:

- **SC_LUINPA**
- **SC_LUNIND**

Example

1. The database structure

```
MariaDB [soffid_35x]> select * from SC_LUNIND;
+--------+---------------------------------+------------+---------------+
| LIP_ID | LIP_NAME                        | LIP_TEN_ID | LIP_TIMSTA    |
+--------+---------------------------------+------------+---------------+
|   5378 | master/com.soffid.iam.api.User  |          1 | 1685702740517 |
|   5774 | master/com.soffid.iam.api.Group |          1 | 1685703228965 |
+--------+---------------------------------+------------+---------------+
```

```
MariaDB [soffid_35x]> select * from SC_LUINPA \G;
*************************** 1. row ***************************
    LIP_ID: 5379
LIP_LIN_ID: 5378
  LIP_NAME: _v_Lucene90_0.dvd
 LIP_ORDER: 0
LIP_TEN_ID: 1
  LIP_DATA: ?◆lLucene90DocValuesData    ◆Mi◆◆!k
                                        mr◆
Lucene90_0 e(Y;R◆◆oGa◆◆Йr◆◆(◆◆        ◆◆◆
LIP_TIMSTA: 1685697735029
*************************** 2. row ***************************
    LIP_ID: 5380
LIP_LIN_ID: 5378
  LIP_NAME: _v.fdm
 LIP_ORDER: 0
LIP_TEN_ID: 1
  LIP_DATA: ?◆lLucene90FieldsIndexMeta   ◆Mi◆◆!k
                                         mr◆ ◆◆
      0                ◆?         0       6          ◆A         0       $      ◆(◆◆        ◆◆
LIP_TIMSTA: 1685697735025
*************************** 3. row ***************************
    LIP_ID: 5381
```

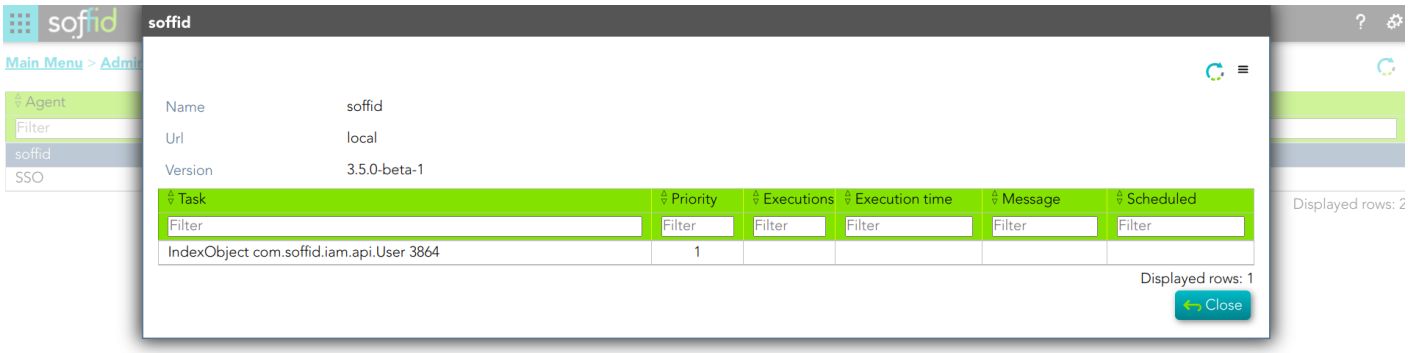
soffid agent

You can check the soffid agent status by visiting the Sync Server monitoring page:

> Main Menu > Administration > Monitoring and reporting > Sync server monitoring

Example

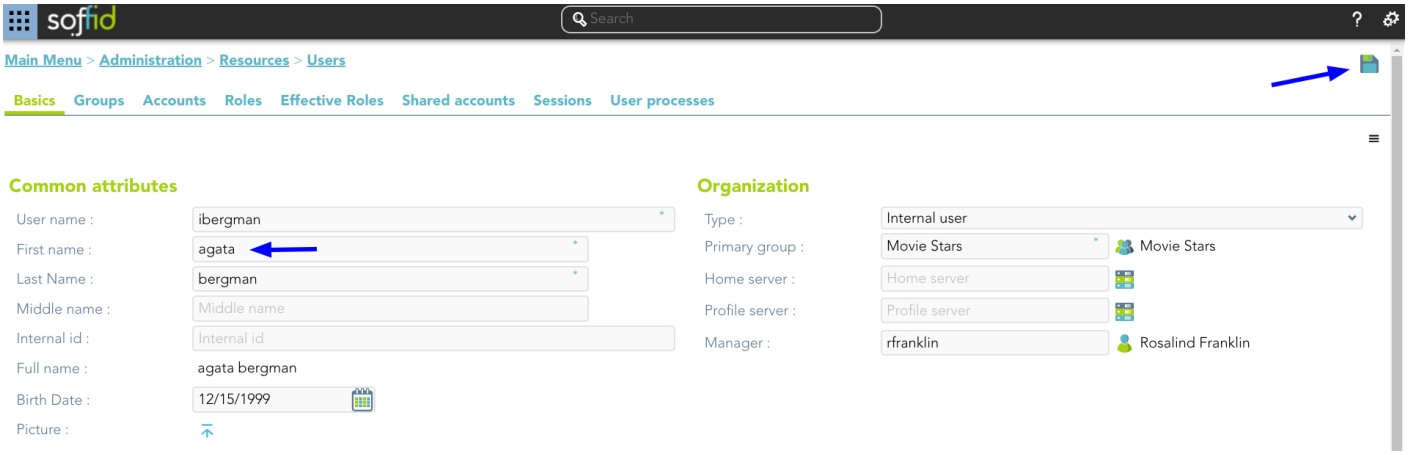
1. A soffid agent pending task:



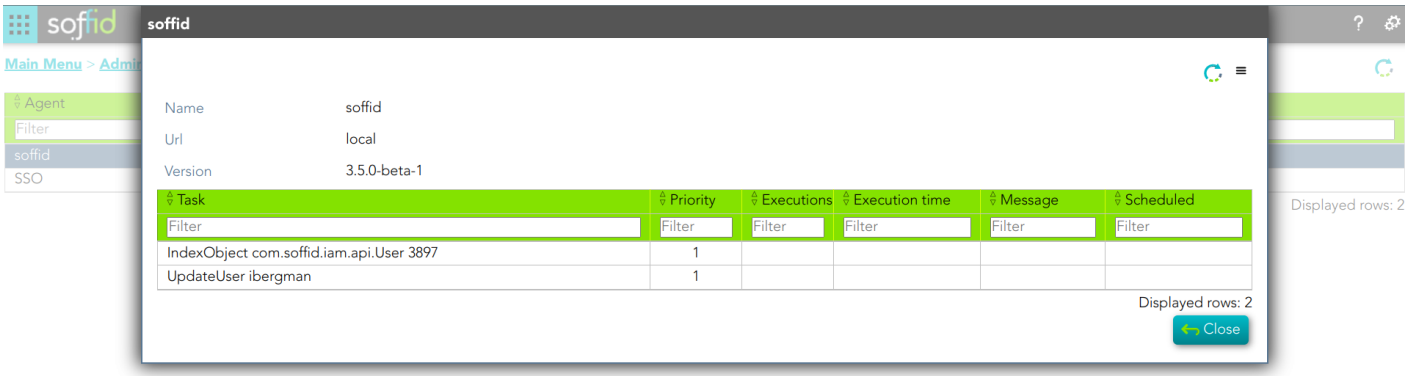
Step-by-step

Example 1

1. You update one user's data and save the changes.



2. New tasks are created and executed.



3. Then Sync Server indexes the updated text and places the index file.

```
root@da8136799e55:/opt/soffid/iam-console-3/index/master/com.soffid.iam.api.User# ls -al
total 108
drwxr-x--- 2 root root 4096 Jun  2 13:23 .
drwxr-x--- 4 root root 4096 Jun  2 09:58 ..
-rw-r----- 1 root root  405 Jun  2 10:42 _12.cfe
-rw-r----- 1 root root 2437 Jun  2 10:42 _12.cfs
-rw-r----- 1 root root  350 Jun  2 10:42 _12.si
-rw-r----- 1 root root  405 Jun  2 13:16 _15.cfe
-rw-r----- 1 root root 2608 Jun  2 13:16 _15.cfs
-rw-r----- 1 root root  350 Jun  2 13:16 _15.si
-rw-r----- 1 root root   67 Jun  2 09:40 _b_2.liv
-rw-r----- 1 root root  405 Jun  2 09:22 _b.cfe
-rw-r----- 1 root root 3463 Jun  2 09:22 _b.cfs
-rw-r----- 1 root root  385 Jun  2 09:22 _b.si
```

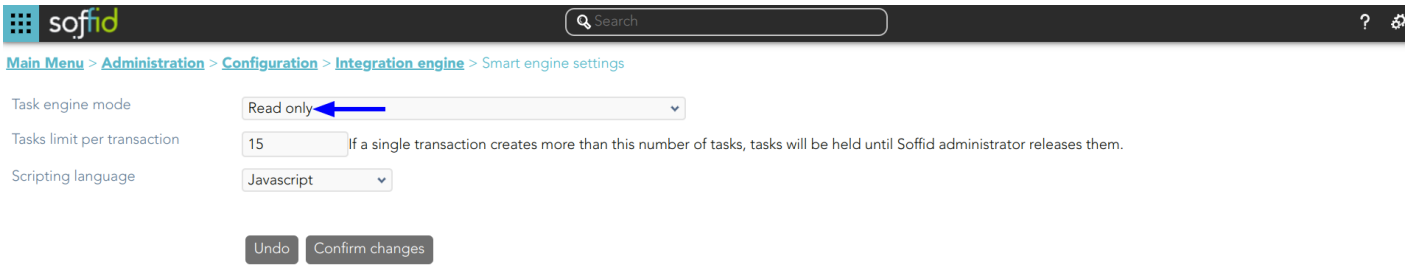
4. Then Sync Server and updates the database table SC_LUNIND by upgrading the LIP_TIMSTA field of the User object or by creating a new record if it did not previously exist.

```
MariaDB [soffid_35x]> select * from SC_LUNIND;
+--------+--------------------------------+------------+---------------+
| LIP_ID | LIP_NAME                       | LIP_TEN_ID | LIP_TIMSTA    |
+--------+--------------------------------+------------+---------------+
|   5378 | master/com.soffid.iam.api.User |          1 | 1685711801976 |
|   5784 | master/com.soffid.iam.api.Group |          1 | 1685703660618 |
+--------+--------------------------------+------------+---------------+
```

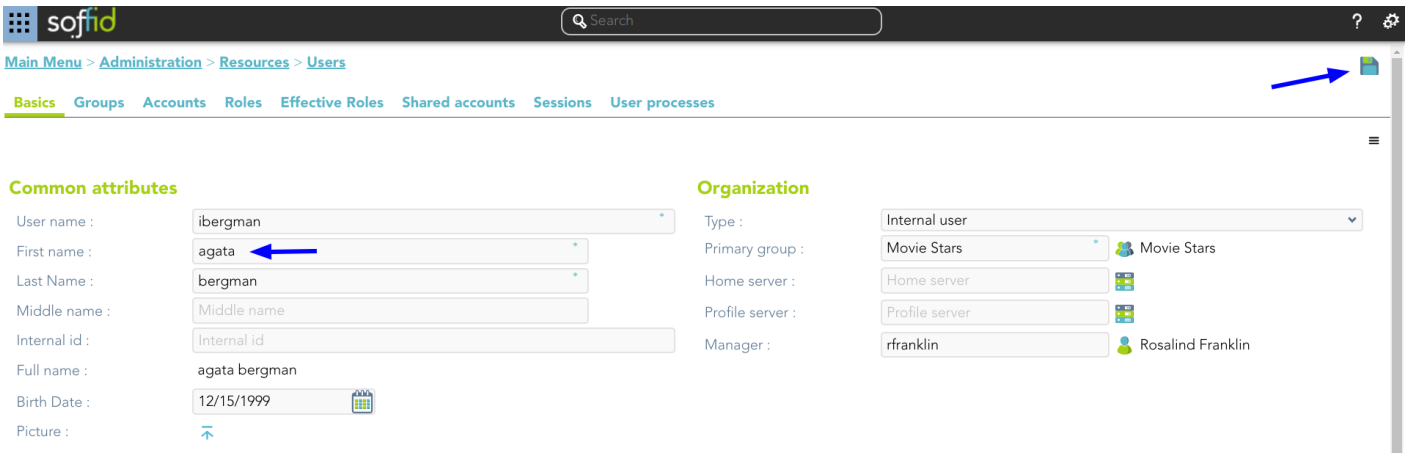
5. When the following search will be performed, the very first thing to do is check the database file. If it is necessary update the file system and finally perform the search.

Example 2

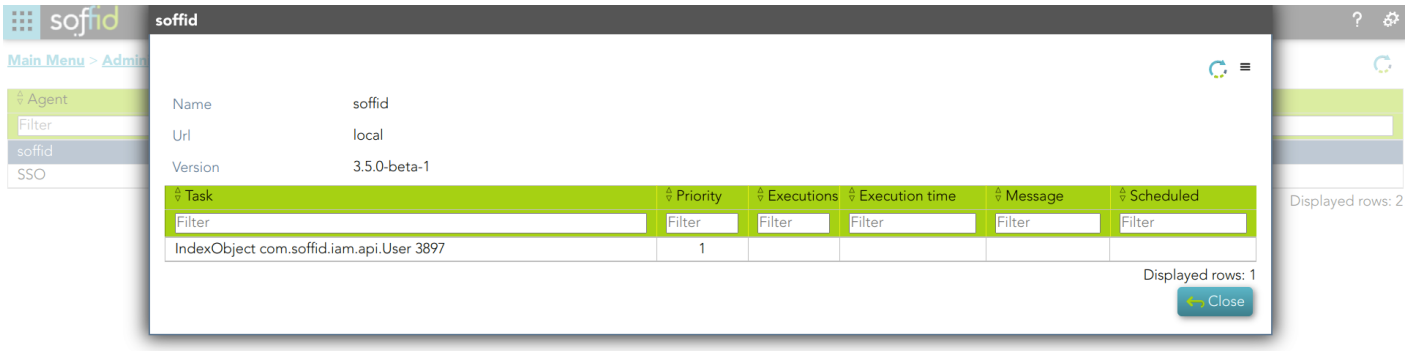
1. The task engine mode is Read only



2. You update one user's data and save the changes.



3. A new task is created and executed



4. Then Sync Server indexes the updated text and places the index file.

5. Then Sync Server and updates the database table SC_LUNIND by upgrading the LIP_TIMSTA field of the User object or by creating a new record if it did not previously exist.

6. When the following search will be performed, the very first thing to do is check the database file. If it is necessary update the file system and finally perform the search.

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