

# 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_i.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: ?\Lucene90DocValuesData  Mi!k
Lucene90_0 e(Y;RooGaoiI(
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: ?\Lucene90FieldsIndexMeta  Mi!k
LIP_TIMSTA: 1685697735025
***** 3. row *****
LIP_ID: 5381

```

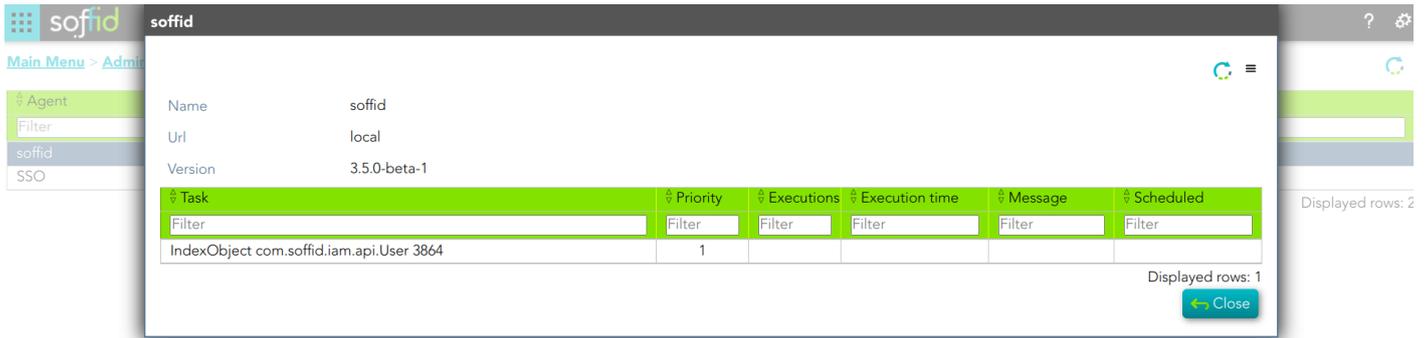
# soffid agent

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:



The screenshot shows a modal window titled "soffid" with a sidebar on the left containing "Agent", "Filter", "soffid", and "SSO". The main content area displays the following details:

- Name: soffid
- Url: local
- Version: 3.5.0-beta-1

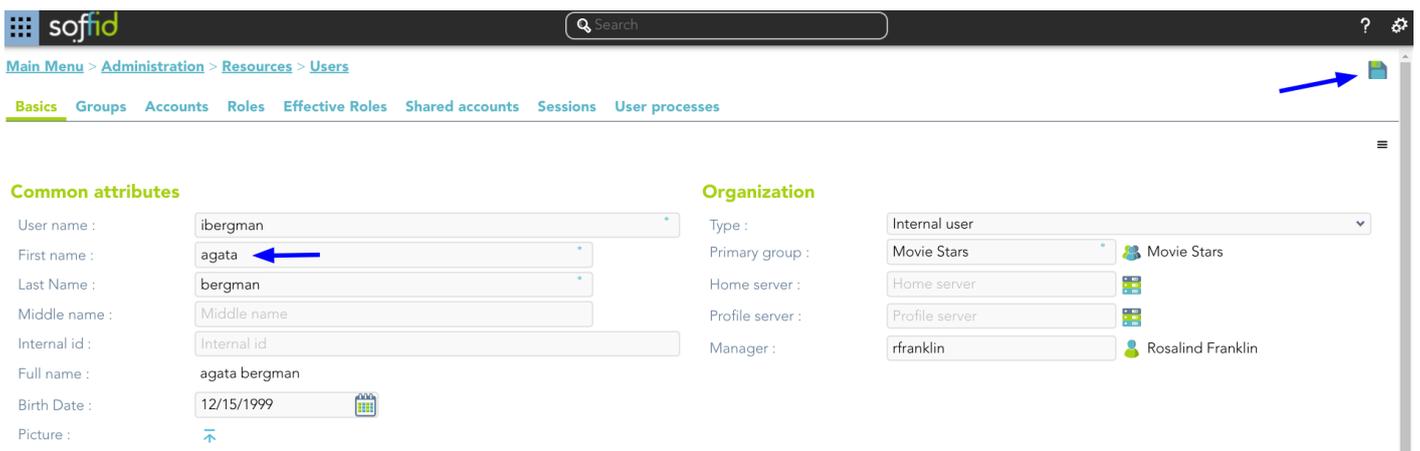
Task	Priority	Executions	Execution time	Message	Scheduled
IndexObject com soffid iam api User 3864	1				

At the bottom right, it says "Displayed rows: 1" and has a "Close" button.

# Step-by-step

## Example 1

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



The screenshot shows the "soffid" user management interface. The breadcrumb trail is "Main Menu > Administration > Resources > Users". A blue arrow points to a document icon in the top right corner. The form is divided into "Common attributes" and "Organization" sections.

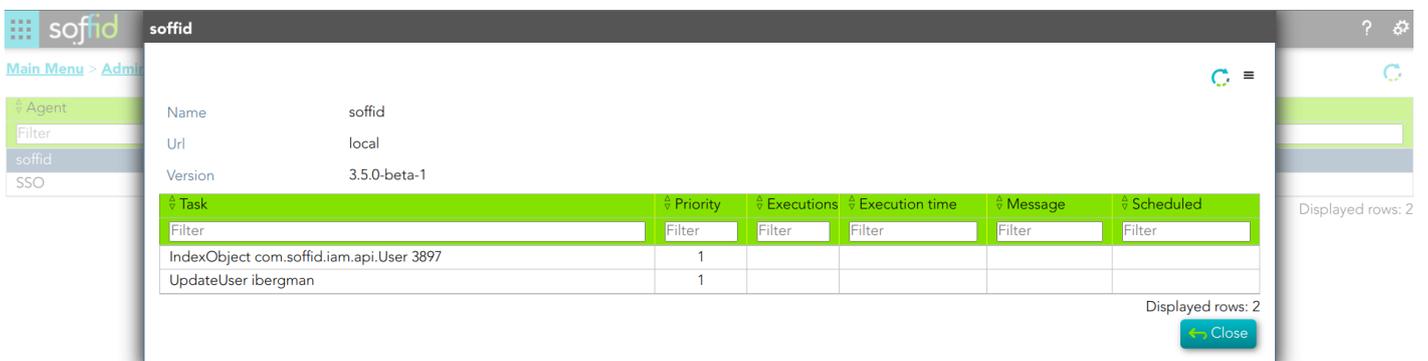
**Common attributes:**

- User name: ibergerman
- First name: agata (with a blue arrow pointing to the input field)
- Last Name: bergman
- Middle name: Middle name
- Internal id: Internal id
- Full name: agata bergman
- Birth Date: 12/15/1999
- Picture: [icon]

**Organization:**

- Type: Internal user
- Primary group: Movie Stars (with a blue arrow pointing to the dropdown)
- Home server: Home server
- Profile server: Profile server
- Manager: rfranklin (with a blue arrow pointing to the dropdown)

2. New tasks are created and executed.



The screenshot shows the same "soffid" modal window as before, but now with two tasks listed in the table:

Task	Priority	Executions	Execution time	Message	Scheduled
IndexObject com soffid iam api User 3897	1				
UpdateUser ibergerman	1				

At the bottom right, it says "Displayed rows: 2" and has a "Close" button.

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.

```

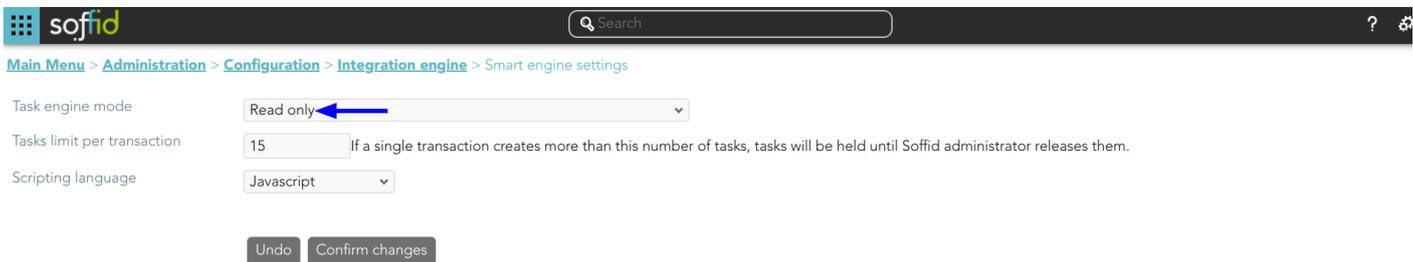
MariaDB [soffid_35x]> select * from SC_LUNIND;
+-----+-----+-----+-----+
| LIP_ID | LIP_NAME                               | LIP_TEN_ID | LIP_TIMSTA |
+-----+-----+-----+-----+
| 5378  | master/com.soffid.iam.api.User         | 1          | 1685711801976 |
| 5784  | master/com.soffid.iam.api.Group  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

```

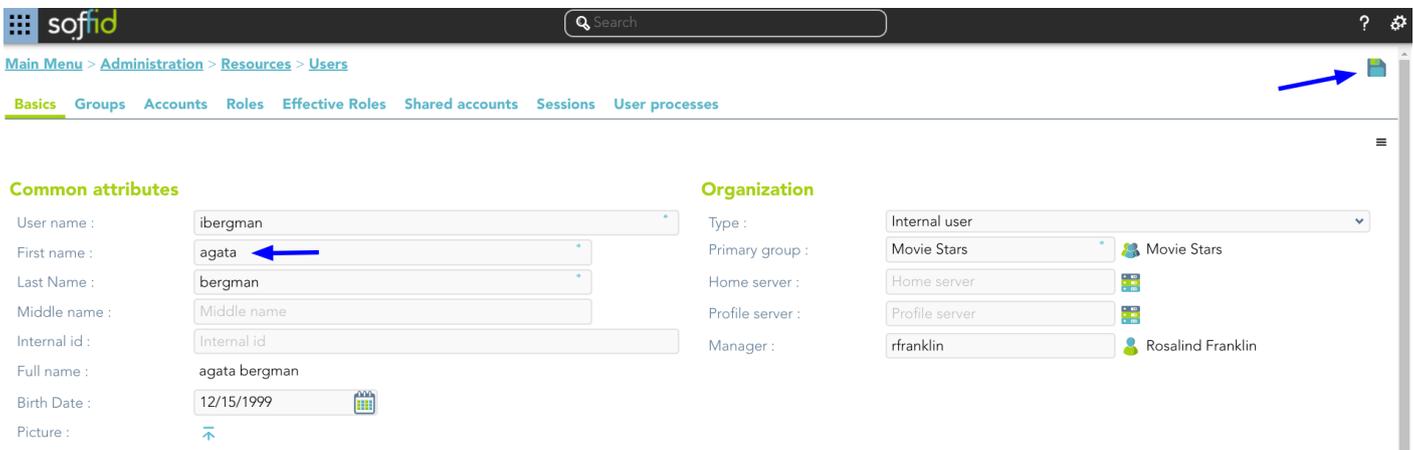
5. When the following search will be performed, the very first thing to do is check the database file. If it is necessary update the file system and finally perform the search.

## 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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Revision #3

Created 5 June 2023 13:42:00 by pgarcia@soffid.com

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