



Programming Guide

Hedsam X

AD Integration

V1.0

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1. Introduction

With Active Directory integration, you can run multiple simultaneous synchronization jobs. You must define a unique ID for each job. You can synchronize an individual person or user only in one synchronization job.

The Hedsam X users who were imported through the AD integration can log into the browser user interface, API, and mobile application using the AD interface. In this case, the user password is not saved in the Hedsam X database.

You can use the company's AD interface to import and export Hedsam users, import Hedsam persons and set the person's access rights to inactive in the Hedsam X system.

The Hedsam X AD integration interface requires Hedsam X Webserver version 1.7.4 or newer. The Hedsam X AD integration has its own time-limited license.

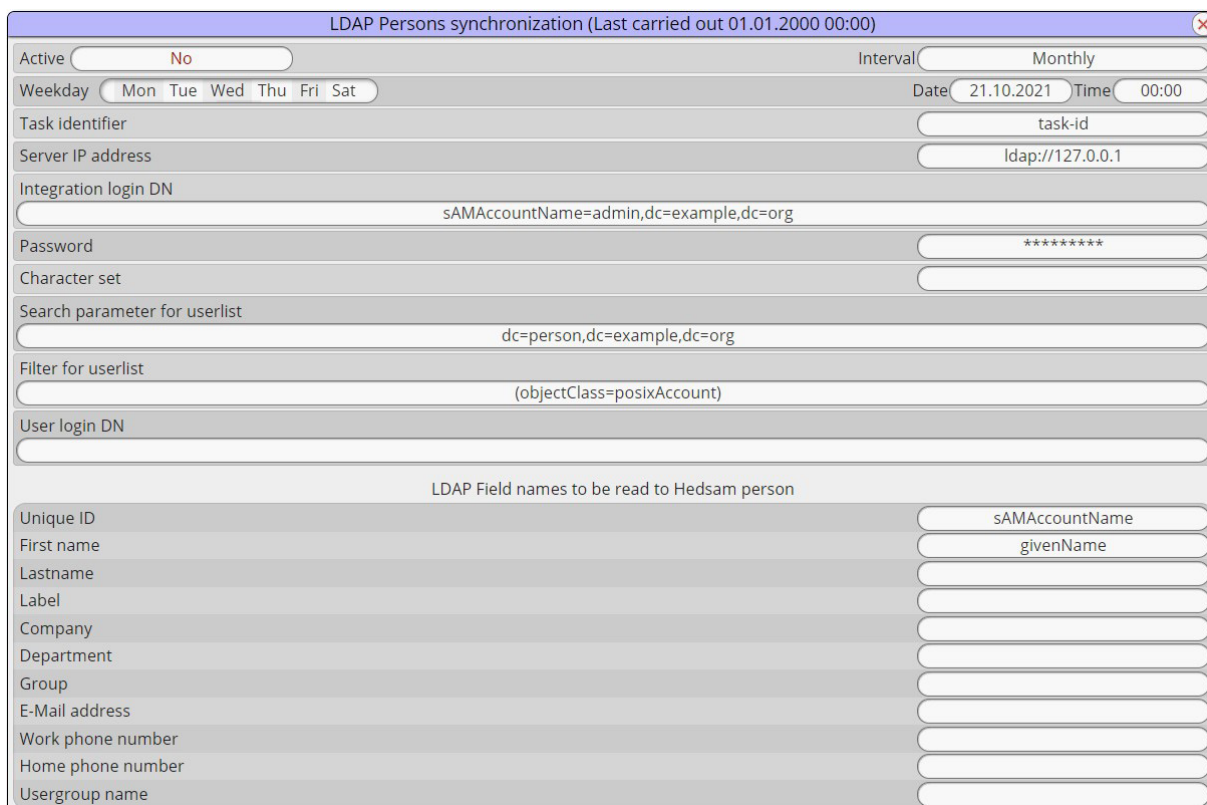
The AD integration interface uses Lightweight Directory Access Protocol (LDAP). For the AD integration communication, you can use encrypted LDAPS connection (recommended) or unencrypted LDAP connection. To use the LDAPS connection, you must install signed certificates on the AD server.

The Hedsam X AD integration does not have a preferred Active Directory software, but the software must support the LDAP protocol. Hedengren Security does not offer support for configuring customer's AD software. Note that each AD integration is its own case and its configuration may require local IT support.

2. Settings

To configure the settings, select **Settings > Scheduled tasks** in the browser user interface menu. Select a new task **LDAP Persons synchronization** or modify the current task.

1. **Active:** select **Yes**.
2. **Interval:** select **Daily**, or if you want to run the operation once a month, select **Monthly**.
3. **Weekday:** select the weekdays when the operation is run, or set the exact **Date**.
4. **Time:** set the time when synchronization is run.
5. **Task identifier:** type an identifier for the task. Each task must have a unique identifier.
6. **Server IP address:** type the address for the AD server. We recommend an encrypted LDAPS connection.
7. **Integration login DN:** type the login DN for logging in.
8. **Password:** type the password for logging in.
9. **Character set:** by default, leave this field empty (UTF-8).
10. **Search parameter for userlist:** type a search parameter for the LDAP interface to filter, for example, the company/organisation level.
11. **Filter for userlist:** type a filter for the userlist to refine, for example, the users to be imported.



LDAP Persons synchronization (Last carried out 01.01.2000 00:00)	
Active	No
Interval	Monthly
Weekday	Mon Tue Wed Thu Fri Sat
Date	21.10.2021
Time	00:00
Task identifier	task-id
Server IP address	ldap://127.0.0.1
Integration login DN	sAMAccountName=admin,dc=example,dc=org
Password	*****
Character set	
Search parameter for userlist	dc=person,dc=example,dc=org
Filter for userlist	(objectClass=posixAccount)
User login DN	
LDAP Field names to be read to Hedsam person	
Unique ID	sAMAccountName
First name	givenName
Lastname	
Label	
Company	
Department	
Group	
E-Mail address	
Work phone number	
Home phone number	
Usergroup name	

2.1 Hedsam X Persons

You can retrieve the following LDAP field names from the Active Directory to the Hedsam X access control system:

- **Unique ID** (mandatory)

The unique ID populates the Hedsam X person's **Extra info** field. Do not change this value in the Hedsam X person information.

- **First name**
- **Last name**
- **Label**
- **Company**
- **Department**
- **Group**
- **E-Mail address**
- **Work phone number**
- **Home phone number**

If you remove a person or move a person, for example, to a different group in the Active Directory, the person's details are not included in the next synchronization and, as a result, the person is set inactive. The person is not removed.

2.2 Hedsam X Users

The user logs into the system with the following credentials to use browser registration, mobile app registration and the API.

- **Username** (mandatory)
During the first synchronization, the unique ID is marked in the **Description** field
ldap:username
- **Password**
If you do not give a password search parameter, logging in is done using the AD interface.
- **Usergroup name**
Search parameter for the user's usergroup name. The usergroup rights are controlled through the Hedsam X user interface.

If you remove a person or move the person, for example, to a different group in the Active Directory, the user's details are not included in the next synchronization and, as a result, the user is removed from the Hedsam X database.

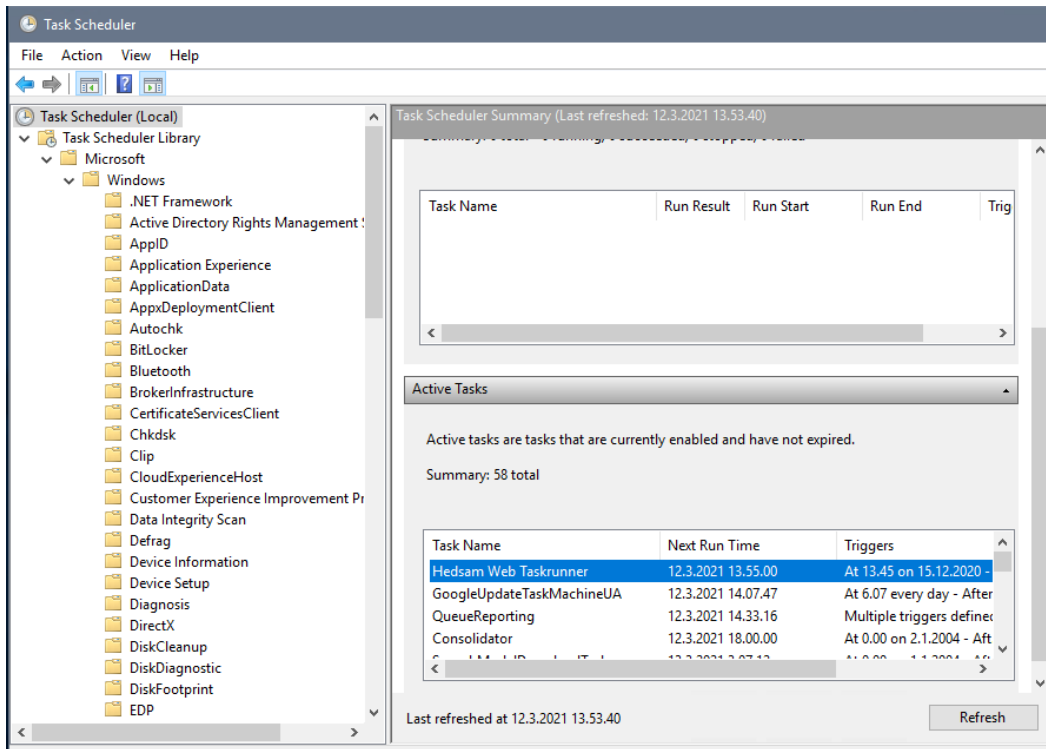
3. Synchronization

The Hedsam X web server checks for scheduled tasks at 5 minute intervals.

The task is named *Hedsam WEB Taskrunner*. The task is installed during the web server installation.

You can run a scheduled LDAP synchronization, but only once a day.

You can view the scheduled tasks in the **Windows Task Scheduler** window.



4. Connection Test

1. Set the scheduled task interval temporarily to **Repeated**.
2. In the **Task Scheduler** window, right-click the **Hedsam Web Taskrunner** service, and select **Disable**.
3. Open the command prompt window (cmd).
4. Go to the web server installation directory, for example *C:\Hedengren\Hedsam\Webserver\1.7.4*.
5. Run the following command: `python task-runner.p`

The program imports the user or makes a modification according to the setting.

During this process, a Hedsam user (or web user) which matches the filtered parameters is added to the database.