Set up temporal data

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To compile timestamped "snapshots" of your ServiceNow data, you can configure your DataSync Agent with the **<temporal>** directive. **<temporal>** will allow you to indicate times when your record's data is/was **valid from** and when the data is/was **valid to**.

NOTE: To set up a temporal data, the table you are syncing data to must not contain any records (i.e., Temporal data cannot be captured for tables that are already being synced to a database with a DataSync Agent).

WARNING! If you have already configured an integration with a DataSync Agent and have been saving records in a database, but you would now like to **enable** or **disable** temporal replication, update the value within the **agent.xml**'s **<database>** directive to a new database. Otherwise records will not be processed properly.

Prerequisites

⚠️ First, you will need to install a DataSync Agent and create a ServiceNow dynamic share with an **update** trigger or create a ServiceNow bulk share.

Procedure

To set up a temporal data in a local database, follow these steps:

1

Access your agent.xml configuration file

Navigate to the directory where you saved your **agent.xml** file when installing your DataSync Agent.

2

Add the <temporal> directive

Open your **agent.xml** file in a text editing application. To use the default configurations for syncing temporal data (columns will be named **psp_valid_from** and **psp_valid_to** and the maximum **psp_valid_to** value will be **9999-01-01 01:01:01**), add the **<temporal/>** self-closing tag anywhere within the **<task>** tag. An example of this **agent.xml** is shown below. Otherwise, to create custom configurations for your temporal database, see **Step #3**.

Example agent.xml for default temporal data configurations:

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<config>
    <agent>
        <share/>
        <subscribe>
            <task instances="4">
                <task_name>test_subscribe</task_name>
                <message_connection password="encrypted:vlOtU71yu8N
/EFIJH85SSBtaIt7qEEfvqiqft9VZyYE=" queue="psp.out.replicator.test" use_basic_consume="true"
user="admin">amqps://test.perspectium.net</message_connection>
                <instance_connection password="encrypted:vlOtU71yu8N/EFIJH85SSPN9aF0P5
/YViVwPEVFcGW4=" user="admin">https://mycompany.service-now.com</instance_connection>
                <handler>com.perspectium.replicator.sql.SQLSubscriber</handler>
                <decryption_key>This is my decryption key for testing</decryption_key>
                <database_type>mysql</database_type>
                <database_server>localhost</database_server>
                <database_port>3306</database_port>
                <database_user>testuser</database_user>
                <database_password>testpassword</database_password>
                <database_parms>characterEncoding=UTF-8 & useSSL=false</database_parms>
                <database_column_max_size>251</database_column_max_size>
                <database>psp_repl</database>
                <temporal>
                    <max_datetime>2030-12-31 00:00:00</max_datetime>
                </temporal>
            </task>
        </subscribe>
        <max_reads_per_connect>4000</max_reads_per_connect>
        <polling_interval>5</polling_interval>
        <skip_message_set_processing/>
    </agent>
</config>
```

3

Create custom configurations (optional)

To customize your temporal database table's maximum date & time stamp in the **psp_valid_to** column, add the directive shown below within the **<temporal>** tag, replacing the **red text** with any value you would like to assign for custom configuration.

<max_datetime>2030-12-31 00:00:00</max_datetime>

NOTE: If records already exist in your temporal database table and then the **<maxdatetime>** value is changed, any records that were previously timestamped in the **psp_valid_to** column will not be updated to reflect the newly entered **<max_datetime>** value.

4

Save your agent.xml file

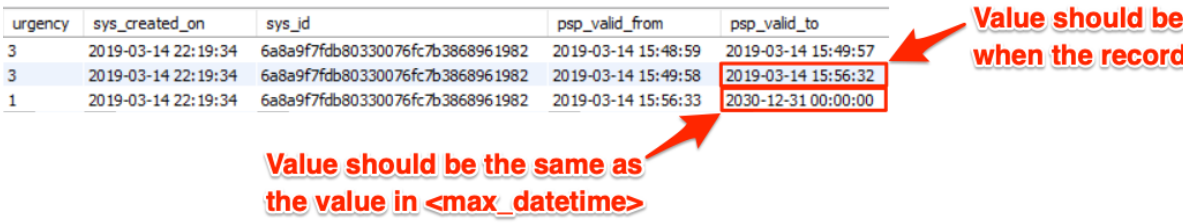
Save the changes you made to your **agent.xml** file and close the file.

5

Confirm temporal data sharing

Log into the database that your DataSync Agent is sharing data to, and confirm that **psp_valid_from** and **psp_valid_to** timestamps are being created and that the **psp_valid_to** timestamp is updated whenever a change is made to the same record.

NOTE: By default, the primary keys for the subscribed table your database will be a composite key comprised of the **sys_id** value, **from** column value, and **to** column value.



Similar topics

- DataSync for ServiceNow manual setup
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- Install the DataSync for ServiceNow Agent
- Start/stop the DataSync for ServiceNow Agent

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