

Batch Processing

NOTE: Batch processing is intended only when a queue has one table type in it. Since the Agent is configured so each **<task>** configuration reads from one queue (whether the **<task>** has multiple parallel threads reading from that queue with the attribute **instances** or just one thread), if the queue has records from different tables in it, this can lead to data discrepancies and batch processing is not recommended to be used.

With batch processing, records are inserted or updated in batches versus being executed one by one. When there are no more records received in the given flush interval, **<batch_flush_interval>**, or when the number of records reaches the maximum batch size, **<max_batch_size>** (whichever happens first), then the **DataSync Agent** will insert or update all the records from the current batch with the use of **<batch_insert/>** and **<batch_update/>**.

Using batch processing can improve the DataSync Agent's overall performance.

To use batch processing with DataSync Agent, configure your agent.xml with the directives below:

Directive	Example	Description
<batch_insert/>		Self closing tag that configures your Agent to batch SQL INSERT statements.
<batch_update/>		Self closing tag that configures your Agent to batch SQL UPDATE statements.
<batch_flush_interval>	<batch_flush_interval> 20 </batch_flush_interval>	Number of seconds that will trigger a batch SQL statement execution. Acceptable values are integers from 1 to 30 (seconds).
<max_batch_size>	<max_batch_size> 200 </max_batch_size>	Number of SQL statements that will trigger a batch SQL statement execution. A larger suggested value is 200.

Example of agent.xml

```
<?xml version="1.0" encoding="ISO-8859-1" standalone="no"?>
<config>
  <agent>
    <subscribe>
      <task>
        <task_name>example_subscribe</task_name>
        <message_connection password="encrypt:MbsPassword" user="MbsUser">amqps://example.perspective.net</message_connection>
        <instance_connection password="encrypt:MbsPassword" user="SnUser">https://example.service-now.com</instance_connection>
        <handler>com.perspective.replicator.sql.SQLSubscriber</handler>
        <decryption_key>Some decryption key here</decryption_key>
        <database_type>mysql</database_type>
        <database_server>localhost</database_server>
        <database_port>3306</database_port>
        <database_user>perspective</database_user>
        <database_password>DbPassword</database_password>
        <database_parms>characterEncoding=UTF-8</database_parms>
        <database>psp_repl</database>
        <batch_insert/>
        <max_batch_size>200</max_batch_size>
      </task>
    </subscribe>
    <max_reads_per_connect>4000</max_reads_per_connect>
    <polling_interval>5</polling_interval>
    <skip_message_set_processing/>
  </agent>
</config>
```