

Configuring Writer

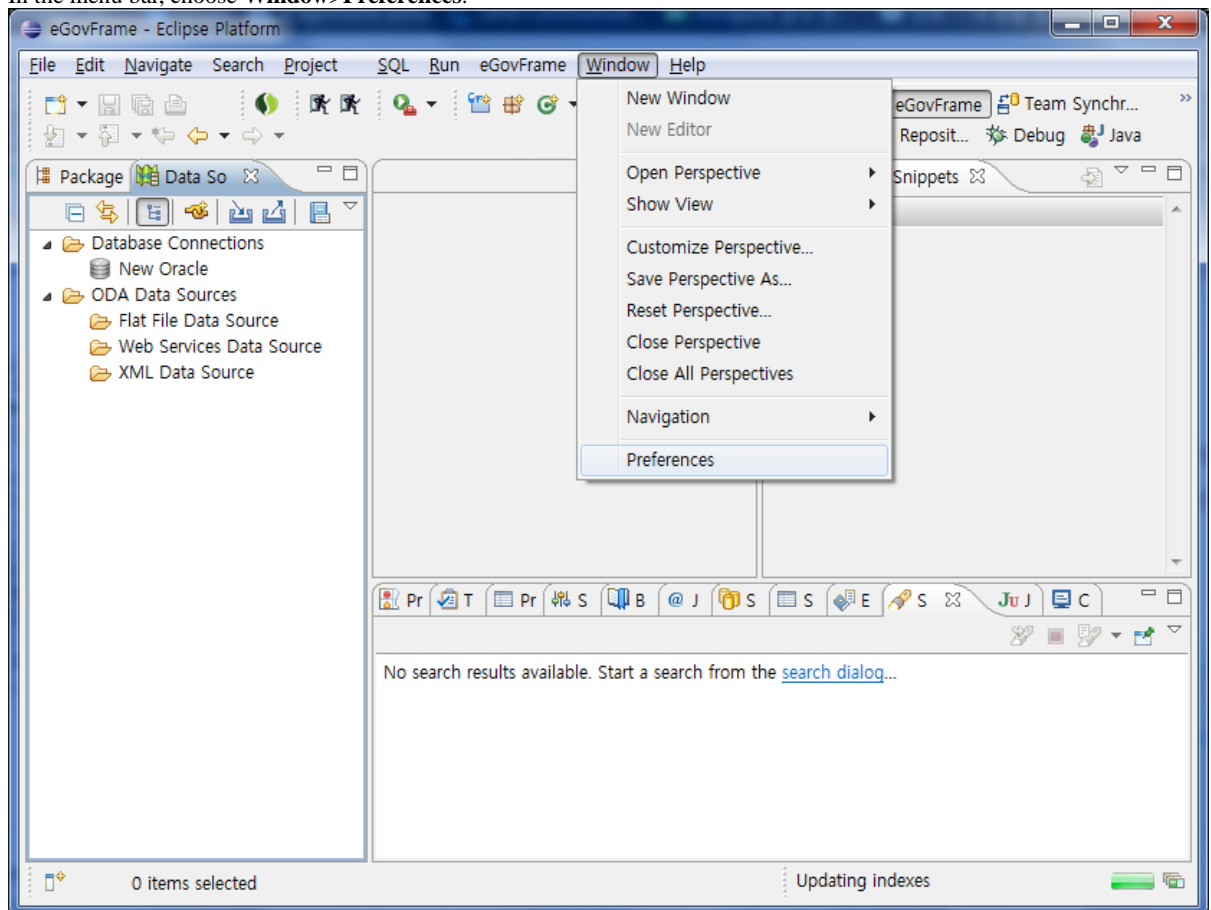
Description

Job Writer provides a management environment where output data used when executing Batch Jobs can be registered and used.

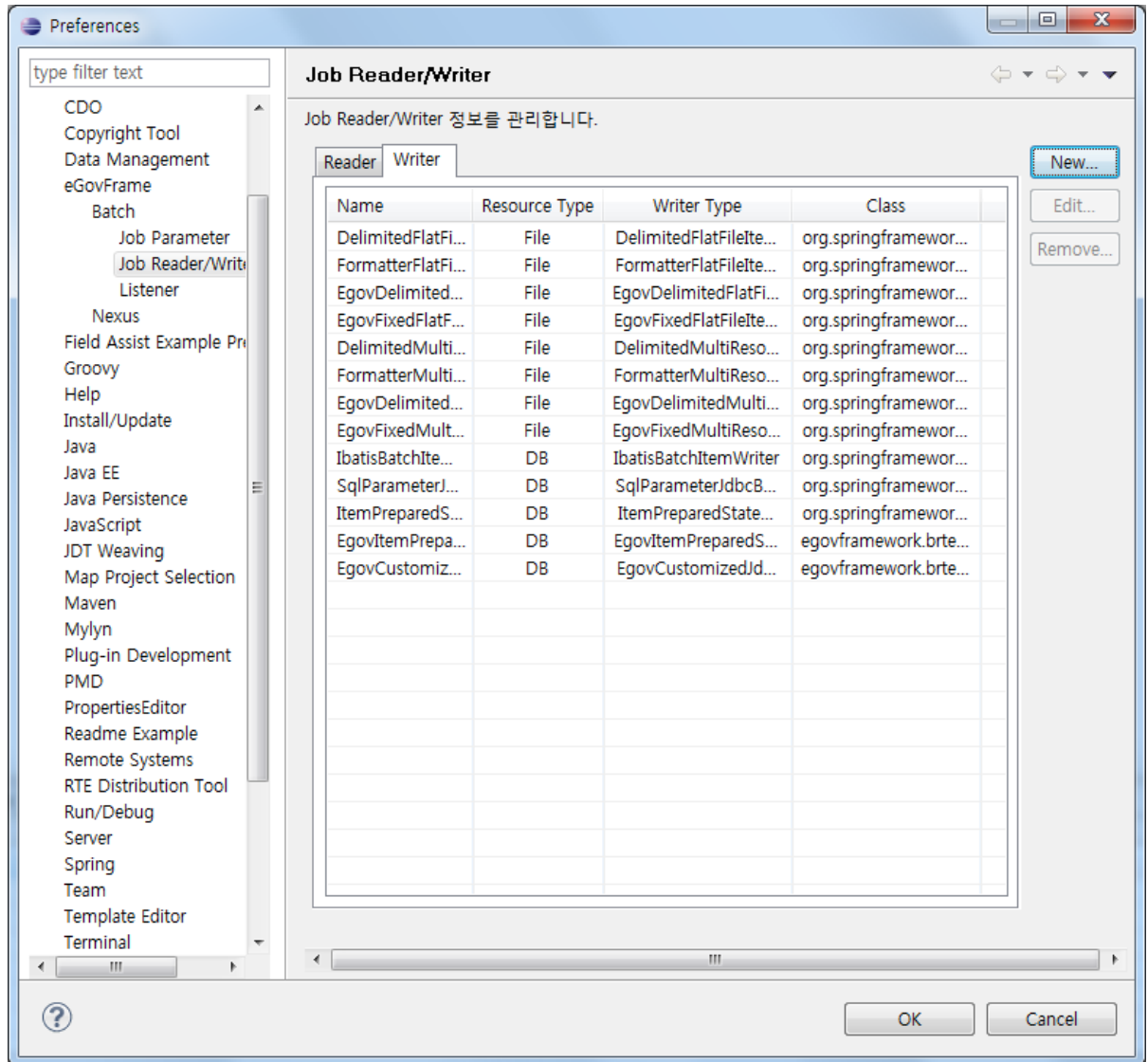
How to Use

Components of Job Writer

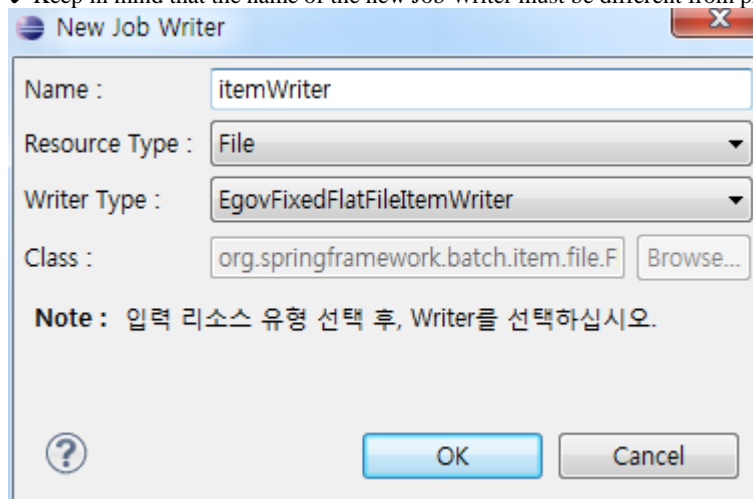
1. In the menu bar, choose **Window>Preferences**.



- From the list on the right side of the Preferences Page, select **eGovFrame>Batch>Job Reader/Writer**, then select the **Job Writer Tab** then click the "New" button.



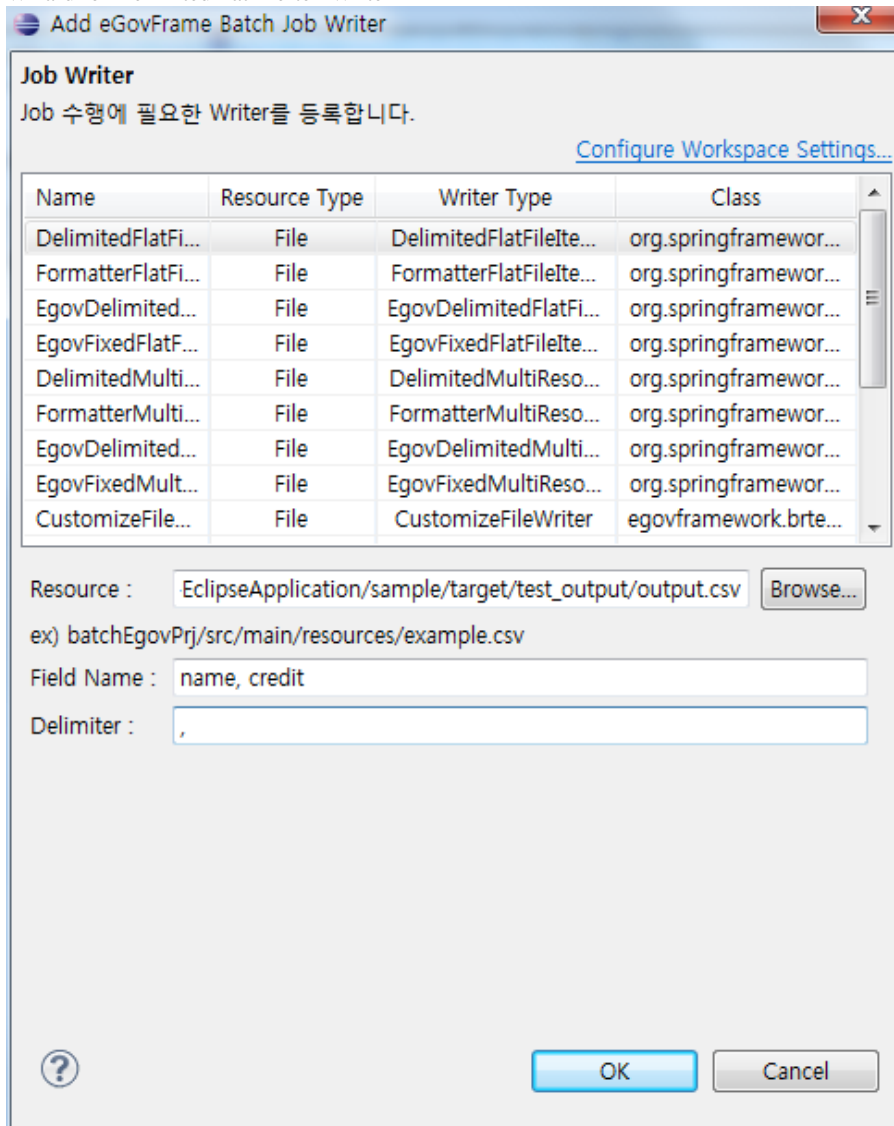
- Input desired name of the Job Writer to be registered and select Resource and Writer Type. Then, select "confirm" to add a new Job Writer.
 ✓ Keep in mind that the name of the new Job Writer must be different from previously added Job Writer.



Description of Each Job Writer

DelimitedFlatFileItemWriter

- Wizard for DelimitedFlatFileItemWriter



- Configuration of respective XML when DelimitedFlatFileItemWriter is used

```
<beanid="TestJob.TestStep1.DelimitedFlatFileItemWriter"class="org.springframework.batch.item.file.FlatFileItemWriter"scope="step">
<propertyname="resource"value="file:./target/test_output/output.csv"/>
<propertyname="lineAggregator">
<beanclass="org.springframework.batch.item.file.transform.DelimitedLineAggregator">
<propertyname="fieldExtractor">
```

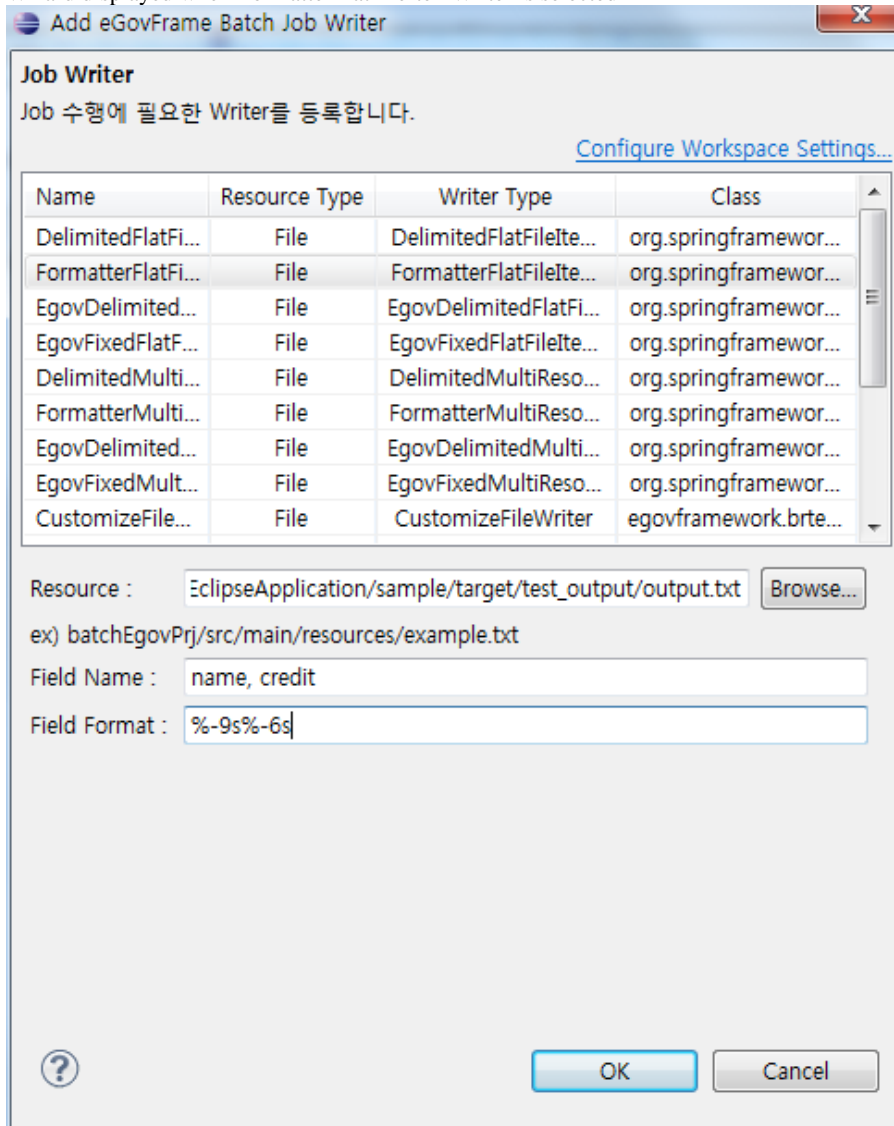
```

<beanclass="org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor">
<propertyname="names" value="name,credit"/>
</bean>
</property>
<propertyname="delimiter" value=","/>
</bean>
</property>
</bean>

```

FormatterFlatFileItemWriter

- Wizard displayed when FormatterFlatFileItemWriter is selected



- Configuration of respective XML when FormatterFlatFileItemWriter is used

```

<beanid="TestJob.TestStep.FormatterFlatFileItemWriter" class="org.springframework.batch.item.file.
FlatFileItemWriter" scope="step">
<propertyname="resource" value="file:./target/test_output/output.txt"/>
<propertyname="lineAggregator">
<beanclass="org.springframework.batch.item.file.transform.FormatterLineAggregator">
<propertyname="fieldExtractor">

```

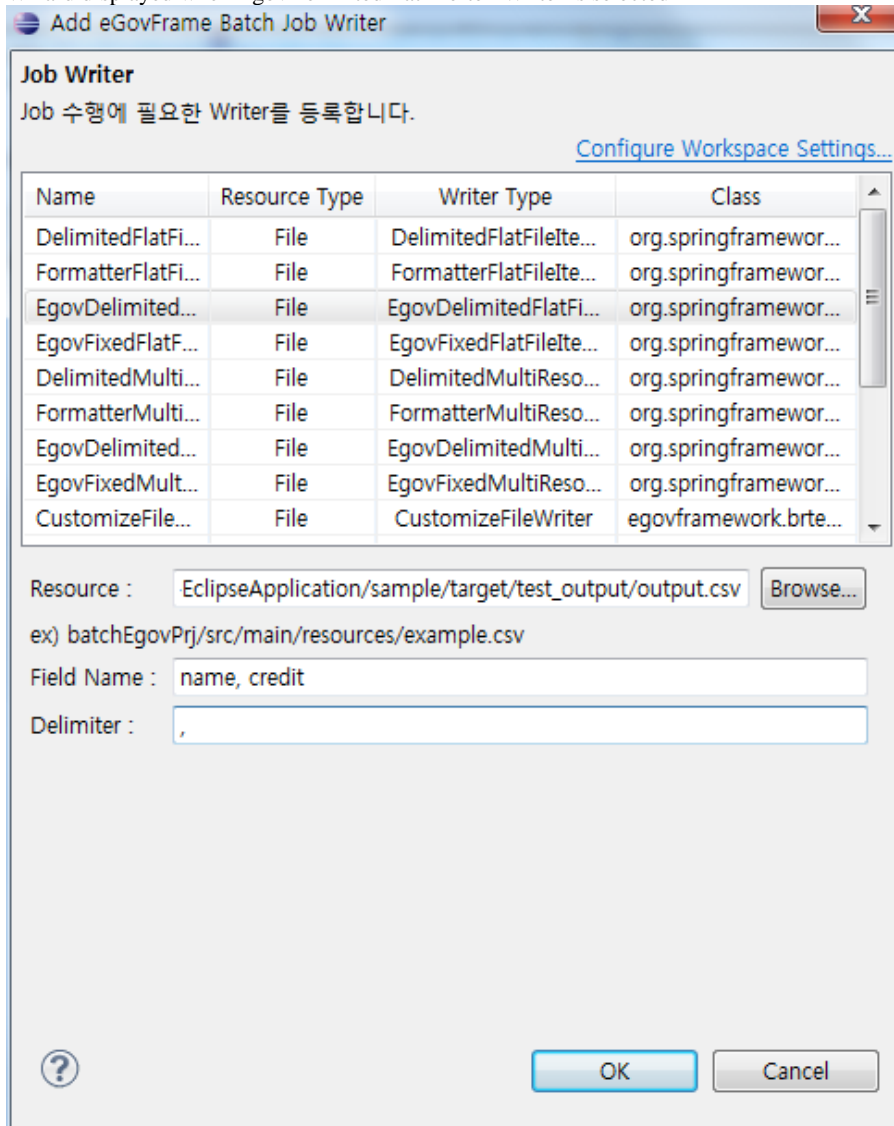
```

<beanclass="org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor">
<propertyname="names" value="name,credit"/>
</bean>
</property>
<propertyname="format" value="%-9s%-6s"/>
</bean>
</property>
</bean>

```

EgovDelimitedFlatFileItemWriter

- Wizard displayed when EgovDelimitedFlatFileItemWriter is selected



- Configuration of respective XML when EgovDelimitedFlatFileItemWriter is used

```

<beanid="TestJob.TestStep.EgovDelimitedFlatFileItemWriter" class="org.springframework.batch.item.file.FlatFileItemWriter" scope="step">
<propertyname="resource" value="file:./target/test_output/output.csv"/>
<propertyname="lineAggregator">
<beanclass="org.springframework.batch.item.file.transform.DelimitedLineAggregator">
<propertyname="fieldExtractor">

```

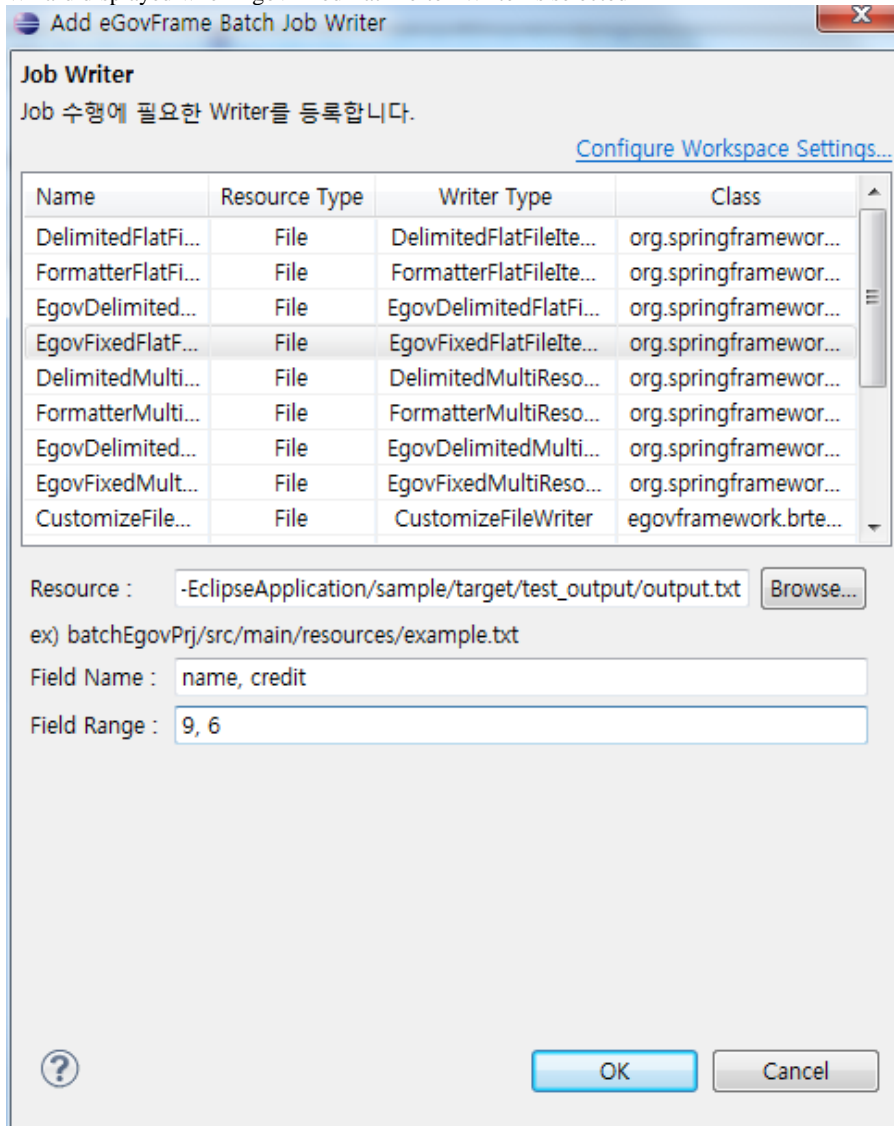
```

<beanclass="egovframework.brte.core.item.file.transform.EgovFieldExtractor">
<propertyname="names" value="name,credit"/>
</bean>
</property>
<propertyname="delimiter" value=","/>
</bean>
</property>
</bean>

```

EgovFixedFlatFileItemWriter

- Wizard displayed when EgovFixedFlatFileItemWriter is selected



- Configuration of respective XML when EgovFixedFlatFileItemWriter is used

```

<beanid="TestJob.TestStep.EgovFixedFlatFileItemWriter" class="org.springframework.batch.item.fil
e.FlatFileItemWriter" scope="step">
<propertyname="resource" value="file:./target/test_output/output.txt"/>
<propertyname="lineAggregator">
<beanclass="egovframework.brte.core.item.file.transform.EgovFixedLengthLineAggregator">
<propertyname="fieldExtractor">

```

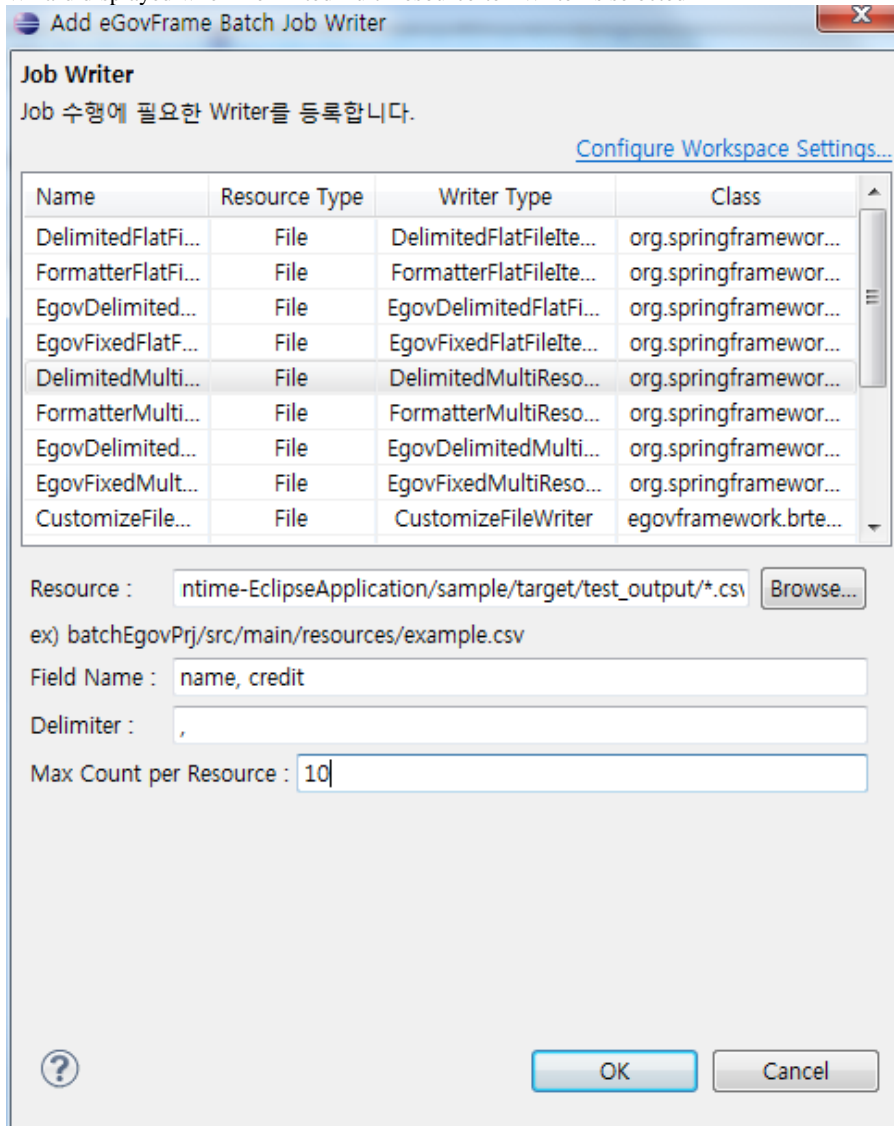
```

<beanclass="egovframework.brte.core.item.file.transform.EgovFieldExtractor">
<propertyname="names" value="name,credit"/>
</bean>
</property>
<propertyname="fieldRanges" value="9,6"/>
</bean>
</property>
</bean>

```

DelimitedMultiResourceItemWriter

- Wizard displayed when DelimitedMultiResourceItemWriter is selected



- Configuration of respective XML when DelimitedMultiResourceItemWriter is used

```

<beanid="TestJob.TestStep.delegateWriter" class="org.springframework.batch.item.file.MultiResourc
eItemWriter" scope="step">
<propertyname="resource" value="file:./target/test_output/*.csv"/>
<propertyname="itemCountLimitPerResource" value="10"/>
<propertyname="delegate" ref="TestJob.TestStep.delegateWriter"/>
</bean>

```

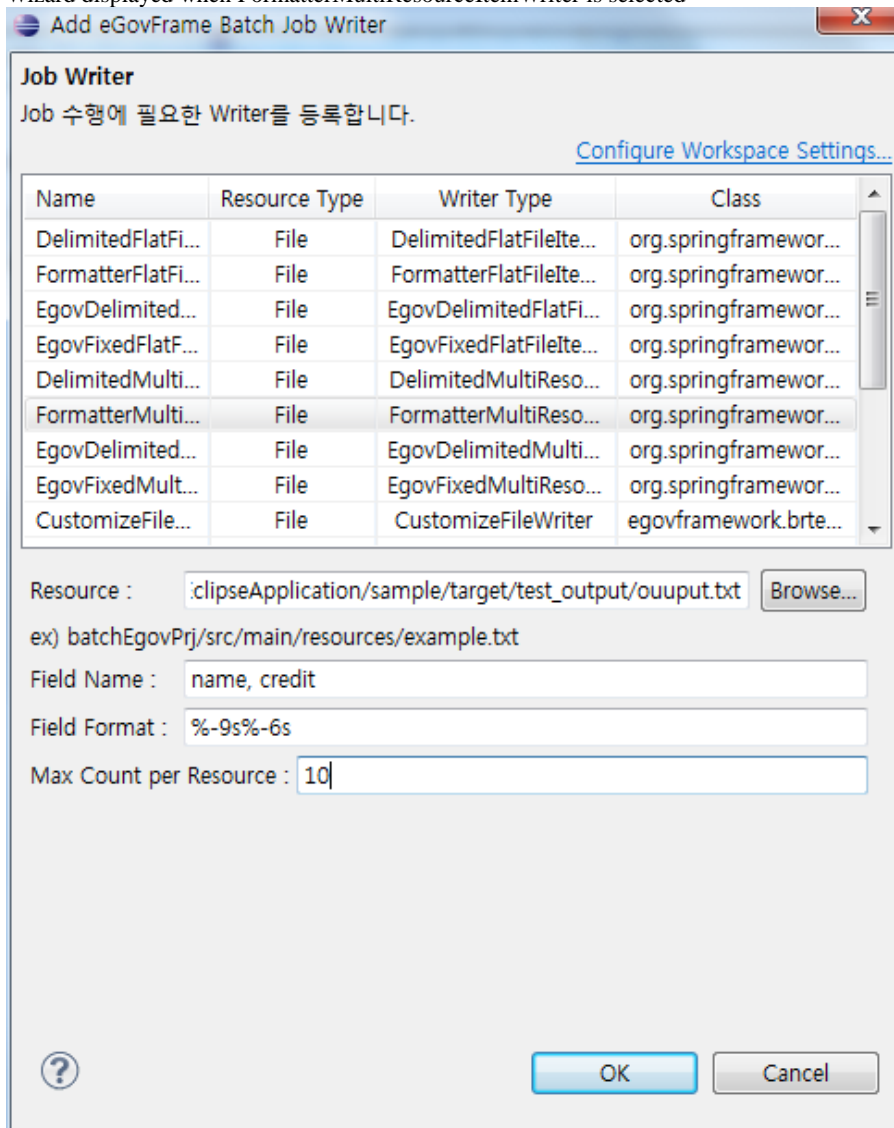
```

<beanid="TestJob.TestStep.delegateWriter" class="org.springframework.batch.item.file.FlatFileItem
Writer"scope="step">
<propertyname="lineAggregator">
<beanclass="org.springframework.batch.item.file.transform.DelimitedLineAggregator">
<propertyname="fieldExtractor">
<beanclass="org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor">
<propertyname="names" value="name, credit"/>
</bean>
</property>
<propertyname="delimiter" value=","/>
</bean>
</property>
</bean>

```

FormatterMultiResourceItemWriter

- Wizard displayed when FormatterMultiResourceItemWriter is selected

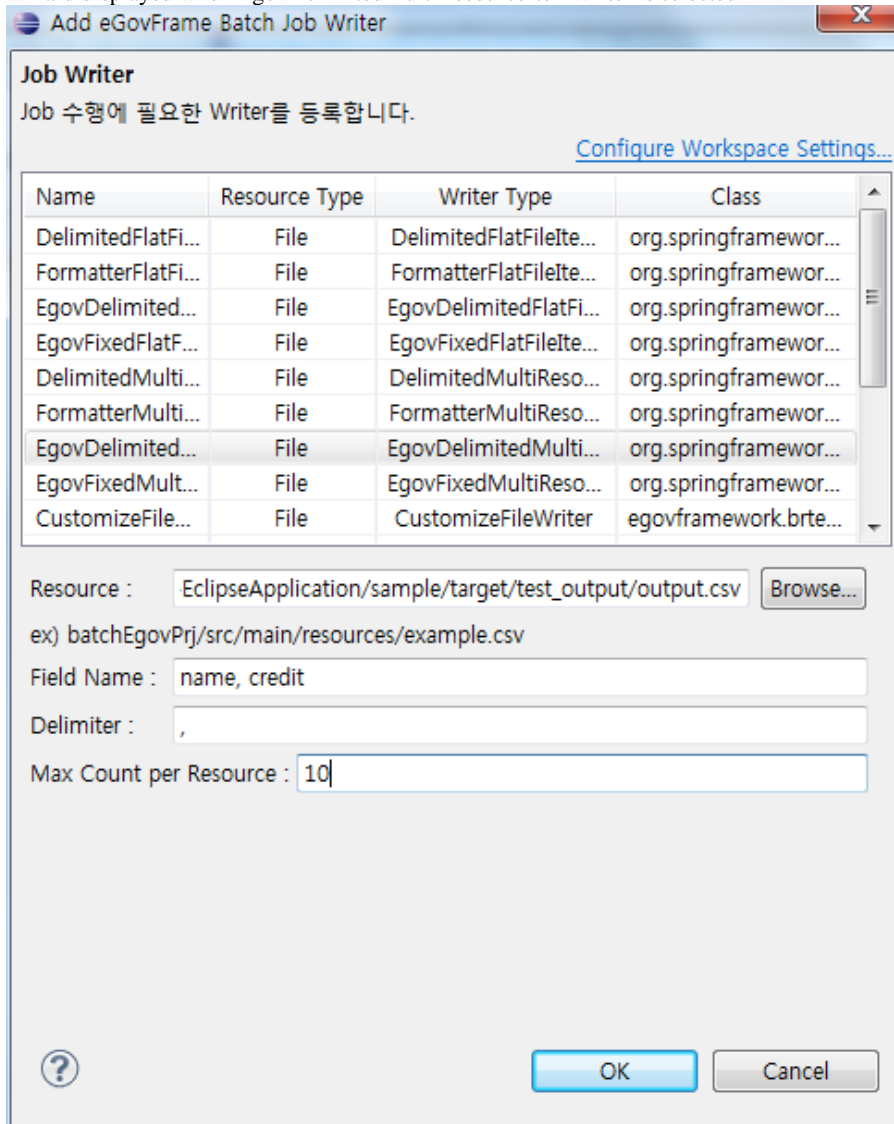


- Configuration of respective XML when FormatterMultiResourceItemWriter is used


```
<beanid="TestJob.TestStep.delegateWriter" class="org.springframework.batch.item.file.MultiResourceItemWriter" scope="step">
<propertyname="resource" value="file:./target/test_output/output.txt"/>
<propertyname="itemCountLimitPerResource" value="10"/>
<propertyname="delegate" ref="TestJob.TestStep.delegateWriter"/>
</bean>
<beanid="TestJob.TestStep.delegateWriter" class="org.springframework.batch.item.file.FlatFileItemWriter" scope="step">
<propertyname="lineAggregator">
<beanclass="org.springframework.batch.item.file.transform.FormatterLineAggregator">
<propertyname="fieldExtractor">
<beanclass="org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor">
<propertyname="names" value="name,credit"/>
</bean>
</property>
<propertyname="format" value="%-9s%-6s"/>
</bean>
</property>
</bean>
```

EgovDelimitedMultiResourceItemWriter

- Wizard displayed when EgovDelimitedMultiResourceItemWriter is selected



- Configuration of respective XML when EgovDelimitedMultiResourceItemWriter is used

```
<beanid="TestJob.TestStep.EgovDelimitedMultiResourceItemWriter" class="org.springframework.batch.item.file.MultiResourceItemWriter" scope="step">
  <propertyname="resource" value="file:./target/test_output/output.csv"/>
  <propertyname="itemCountLimitPerResource" value="10"/>
  <propertyname="delegate" ref="TestJob.TestStep.delegateWriter"/>
</bean>
<beanid="TestJob.TestStep.delegateWriter" class="org.springframework.batch.item.file.FlatFileItemWriter" scope="step">
  <propertyname="lineAggregator">
  <beanclass="org.springframework.batch.item.file.transform.DelimitedLineAggregator">
  <propertyname="fieldExtractor">
  <beanclass="egovframework.brte.core.item.file.transform.EgovFieldExtractor">
  <propertyname="names" value="name,credit"/>
  </bean>
```

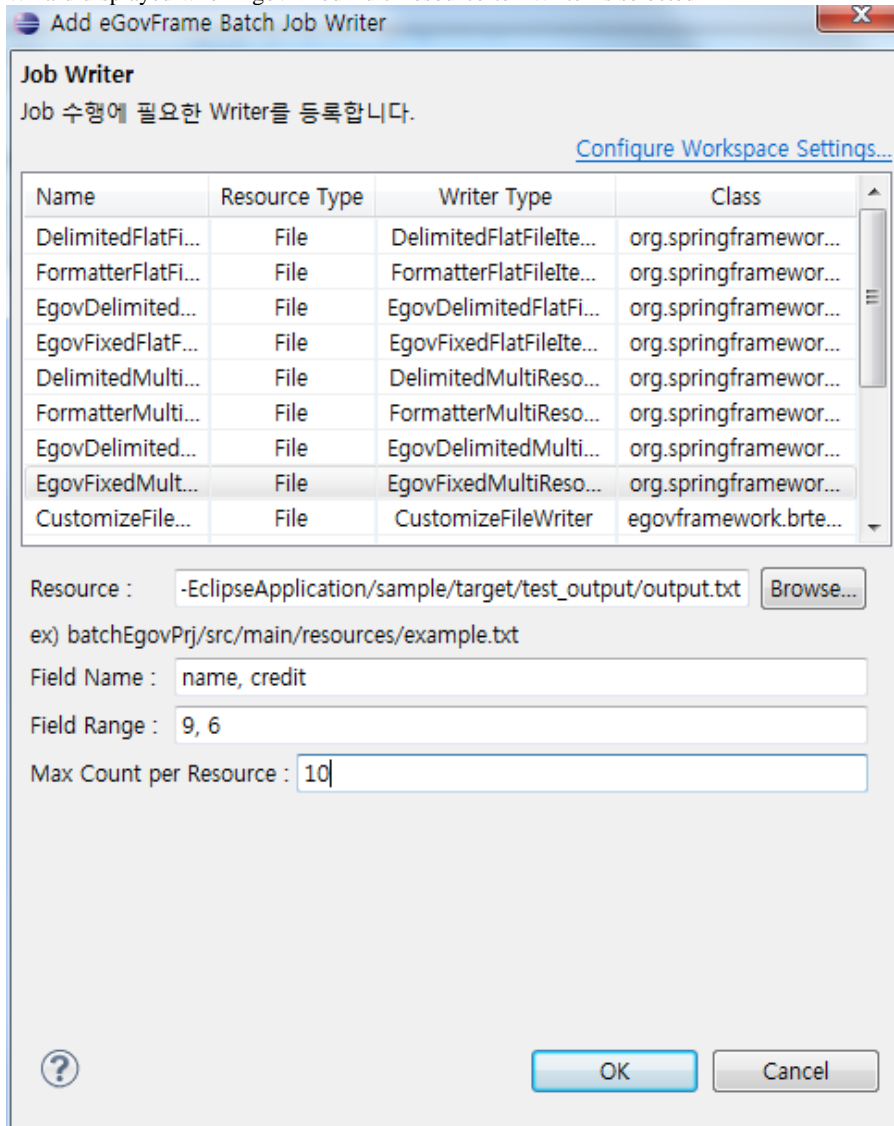
```

</property>
<propertyname="delimiter" value=","/>
</bean>
</property>
</bean>

```

EgovFixedMultiResourceItemWriter

- Wizard displayed when EgovFixedMultiResourceItemWriter is selected



- Configuration of respective XML when EgovFixedMultiResourceItemWriter is used

```

<beanid="TestJob.TestStep.EgovFixedMultiResourceItemWriter" class="org.springframework.batch.item.file.MultiResourceItemReader" scope="step">
<propertyname="resource" value="file:./target/test_output/output.txt"/>
<propertyname="itemCountLimitPerResource" value="10"/>
<propertyname="delegate" ref="TestJob.TestStep.delegateWriter"/>
</bean>
<beanid="TestJob.TestStep.delegateWriter" class="org.springframework.batch.item.file.FlatFileItemWriter" scope="step">
<propertyname="lineAggregator">

```

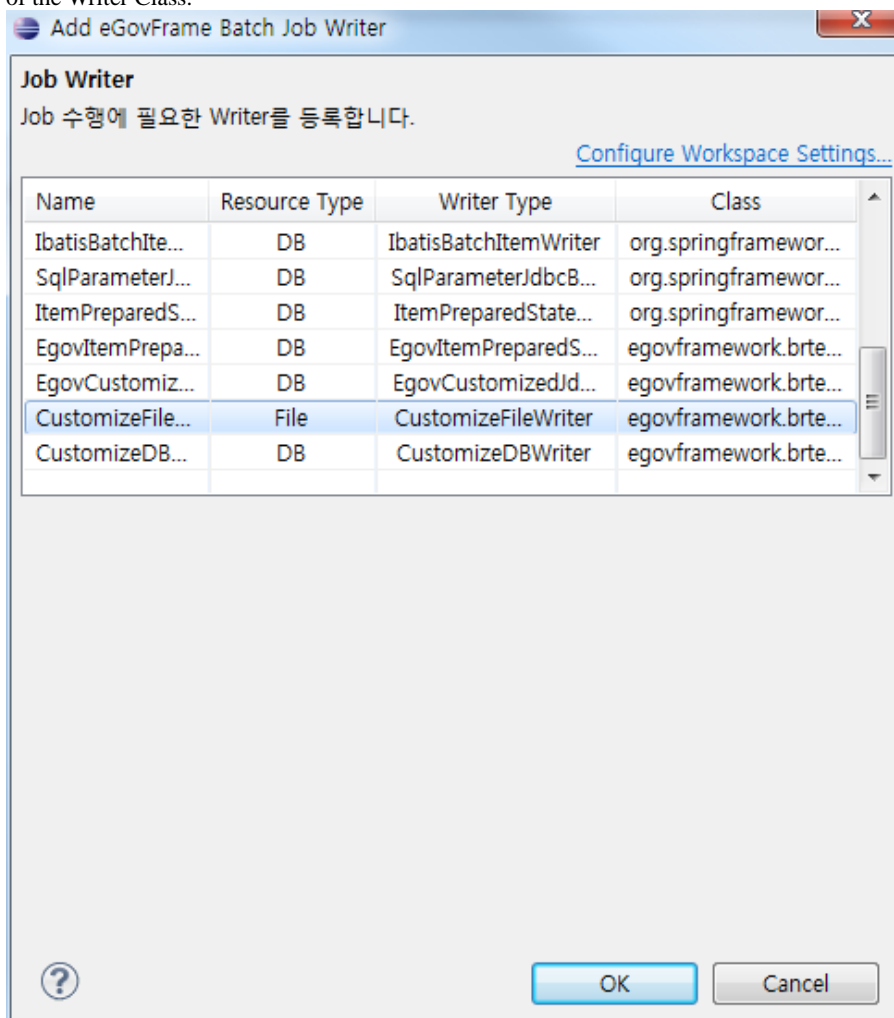
```

<beanclass="egovframework.brte.core.item.file.transform.EgovFixedLengthLineAggregator">
<propertyname="fieldExtractor">
<beanclass="egovframework.brte.core.item.file.transform.EgovFieldExtractor">
<propertyname="names" value="name,credit"/>
</bean>
</property>
<propertyname="fieldRanges" value="9,6"/>
</bean>
</property>
</bean>

```

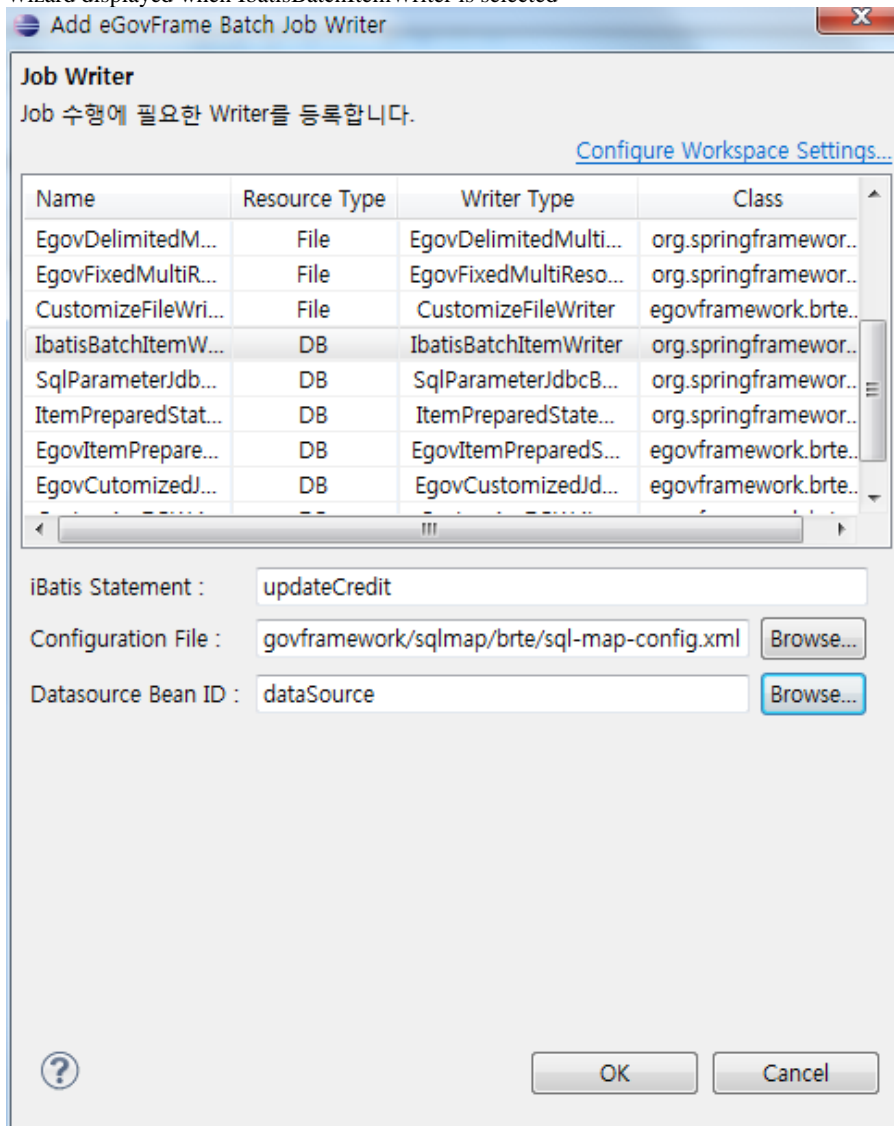
CustomizeFileWriter

- Wizard displayed when CustomizeFileWriter is selected
 To use a File Writer created by user, Register a Writer Class from "Preference." Then, find and select the name of the Writer Class.



IbatisBatchItemWriter

- Wizard displayed when IbatisBatchItemWriter is selected

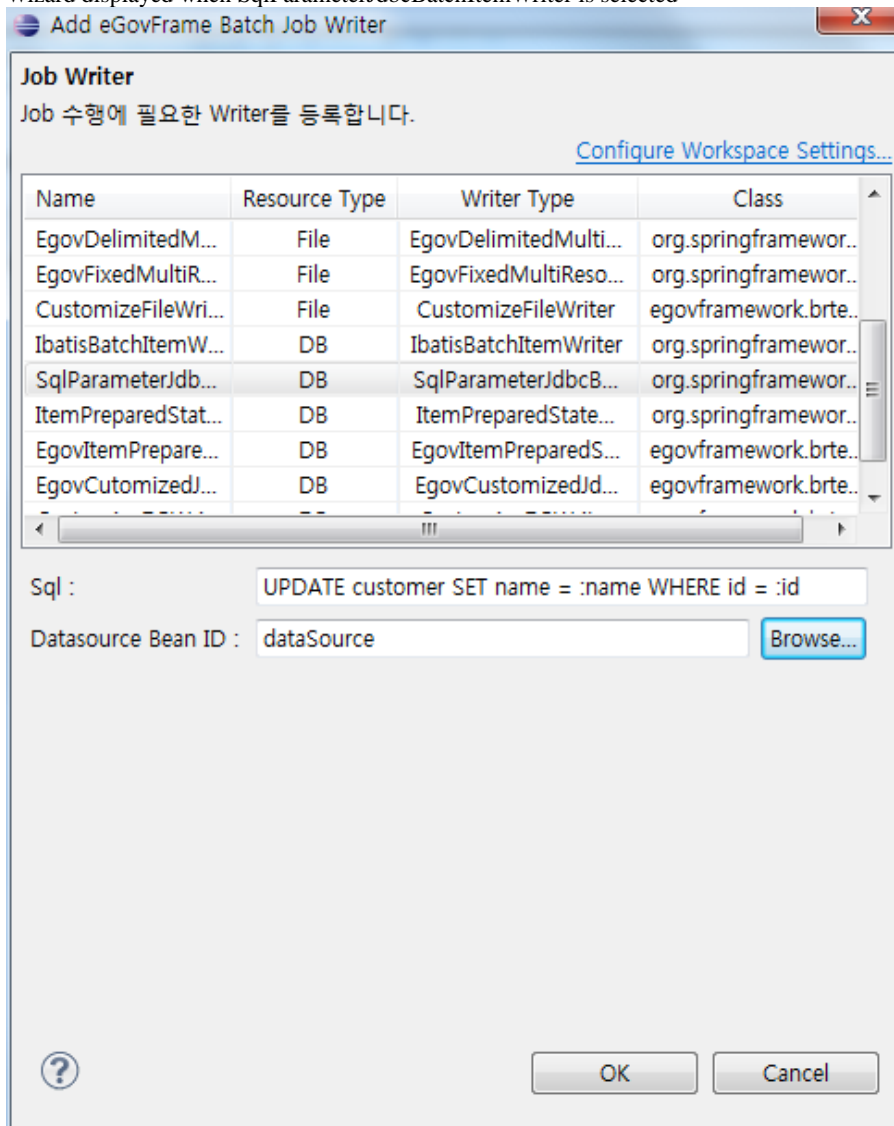


- Configuration of respective XML when IbatisBatchItemWriter is used

```
<beanid="IbatisBatchItemWriter" class="org.springframework.batch.item.database.IbatisBatchItemW
riter">
    <propertyname="statementId" value="updateCredit"/>
<propertyname="sqlMapClient">
<beanclass="org.springframework.orm.ibatis.SqlMapClientFactoryBean">
<propertyname="dataSource" ref="dataSource"/>
<propertyname="configLocation" value="file:./src/main/resources/egovframework/sqlmap/brte/sql-
map-config.xml"/>
</bean>
</property>
</bean>
```

SqlParameterJdbcBatchItemWriter

- Wizard displayed when SqlParameterJdbcBatchItemWriter is selected

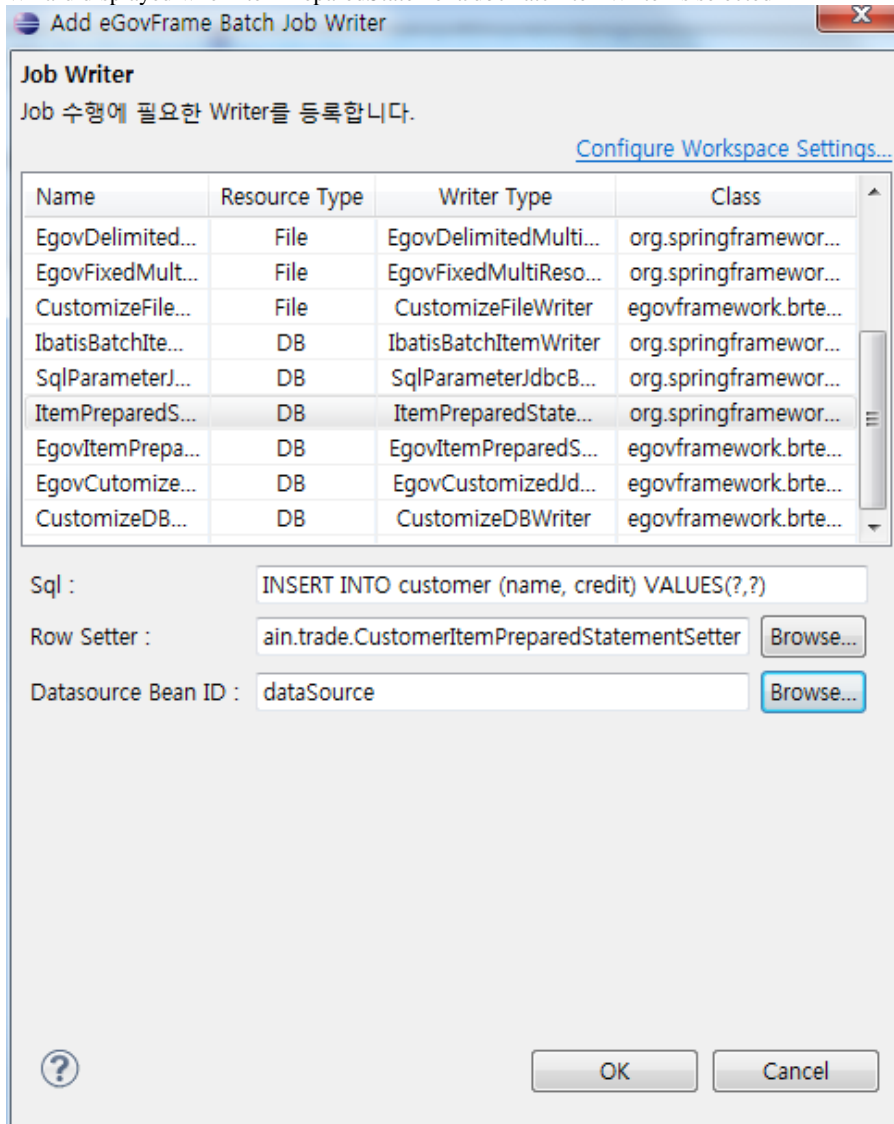


- Configuration of respective XML when SqlParameterJdbcBatchItemWriter is used

```
<beanid="SqlParameterJdbcBatchItemWriter
"class="org.springframework.batch.item.database.JdbcBatchItemWriter">
  <propertyname="assertUpdates" value="true"/>
  <propertyname="itemSqlParameterSourceProvider">
    <beanclass="org.springframework.batch.item.database.BeanPropertyItemSqlParameterSourceProvider"/>
  </property>
  <propertyname="sql" value="UPDATE CUSTOMER set credit = :credit where id = :id"/>
  <propertyname="dataSource" ref="dataSource"/>
</bean>
```

ItemPreparedStatementJdbcBatchItemWriter

- Wizard displayed when ItemPreparedStatementJdbcBatchItemWriter is selected



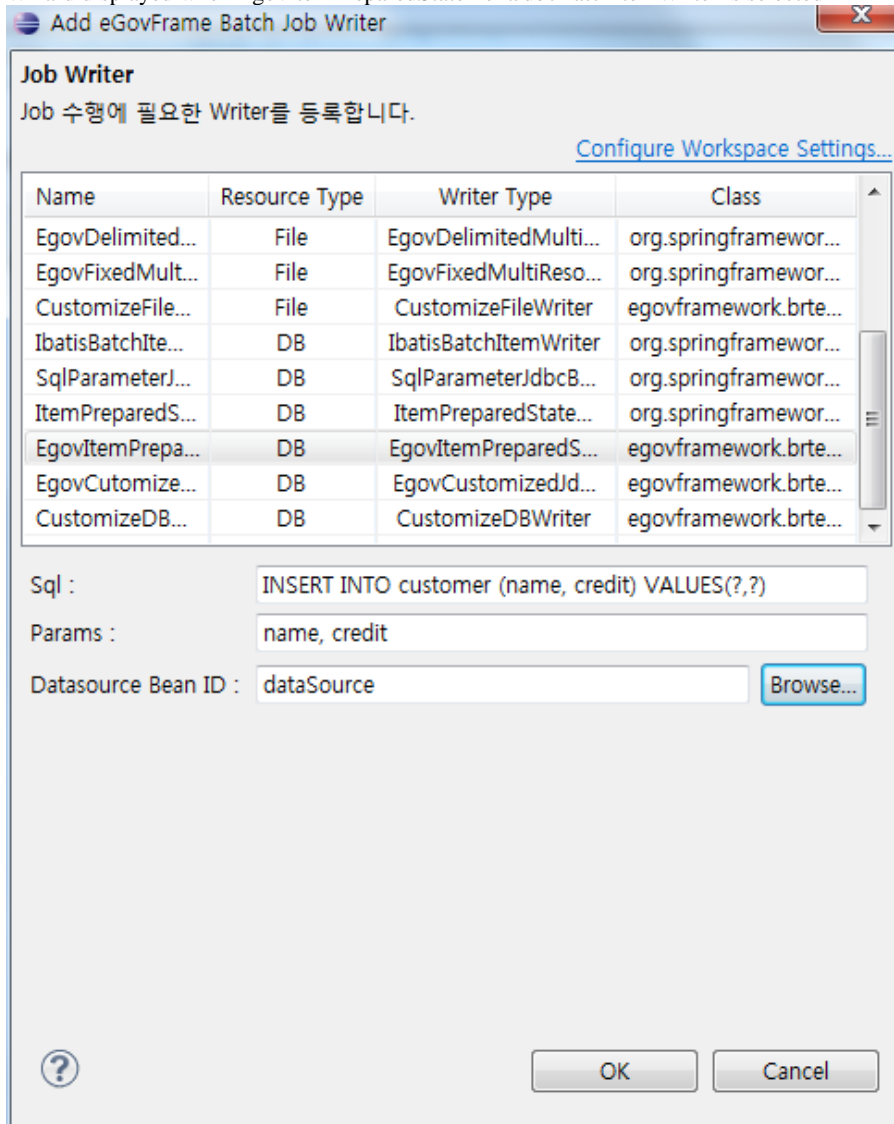
- Configuration of respective XML when ItemPreparedStatementJdbcBatchItemWriter is used

```
<beanid="ItemPreparedStatementJdbcBatchItemWriter"class="org.springframework.batch.item.datab  
ase.JdbcBatchItemWriter">  
<propertyname="itemPreparedStatementSetter">  
<beanclass="User Customized setter found by class search"/>  
</property>  
<propertyname="sql"value="INSERT INTO customer (name, credit) VALUES (?,?)"/>  
<propertyname="dataSource"ref="dataSource"/>  
</bean>
```

✓Classes registered as ItemPreparedStatementSetter must inherit ItemPreparedStatementSetter or EgovItemPreparedStatementSetter Class provided by Spring.

EgovItemPreparedStatementJdbcBatchItemWriter

- Wizard displayed when EgovItemPreparedStatementJdbcBatchItemWriter is selected

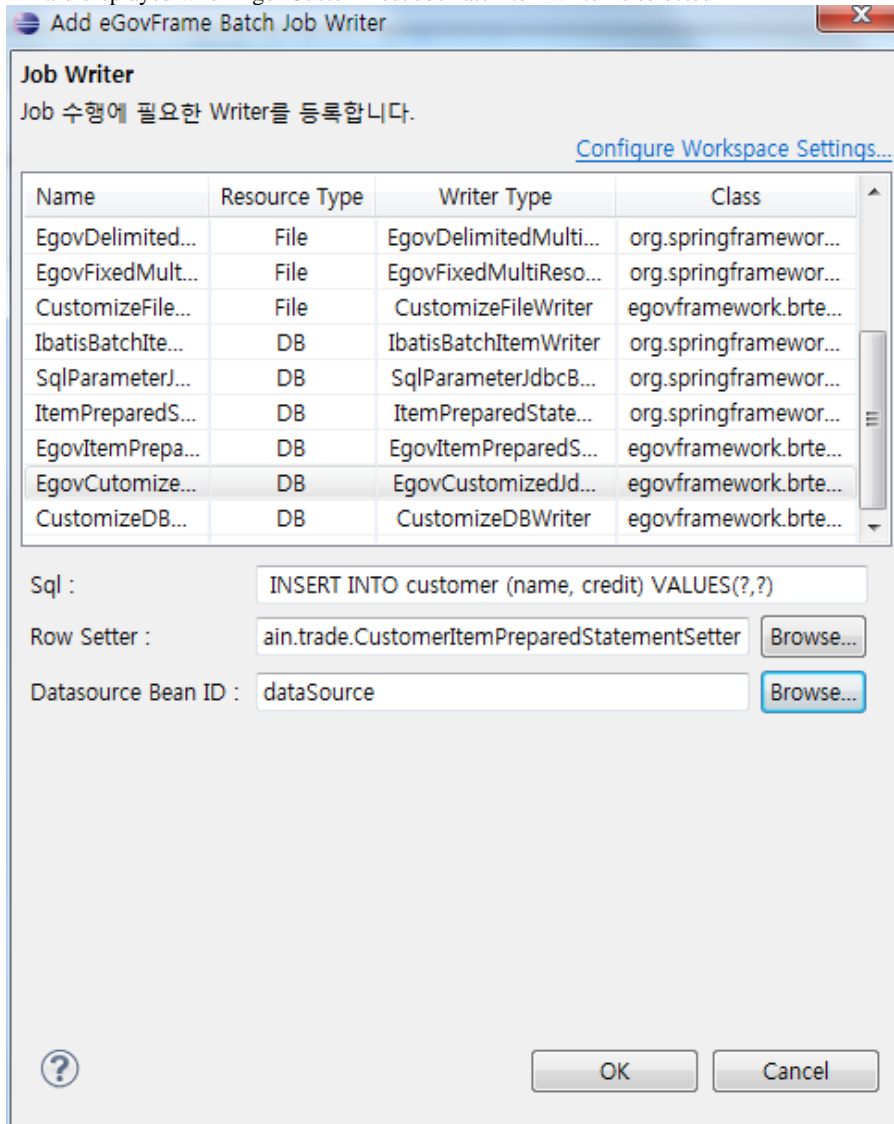


- Configuration of respective XML when EgovItemPreparedStatementJdbcBatchItemWriter is used

```
<beanid="EgovItemPreparedStatementJdbcBatchItemWriter" class="egovframework.brte.core.item.database.EgovJdbcBatchItemWriter">
<propertyname="itemPreparedStatementSetter">
<beanclass="egovframework.brte.core.item.database.support.EgovMethodMapItemPreparedStatementSetter"/>
</property>
<propertyname="sql" value="INSERT INTO customer (name, credit) VALUES(?,?)"/>
<propertyname="params" value="name,credit"/>
<propertyname="dataSource" ref="dataSource"/>
</bean>
```


EgovCustomizedJdbcBatchItemWriter

- Wizard displayed when EgovCustomizedJdbcBatchItemWriter is selected



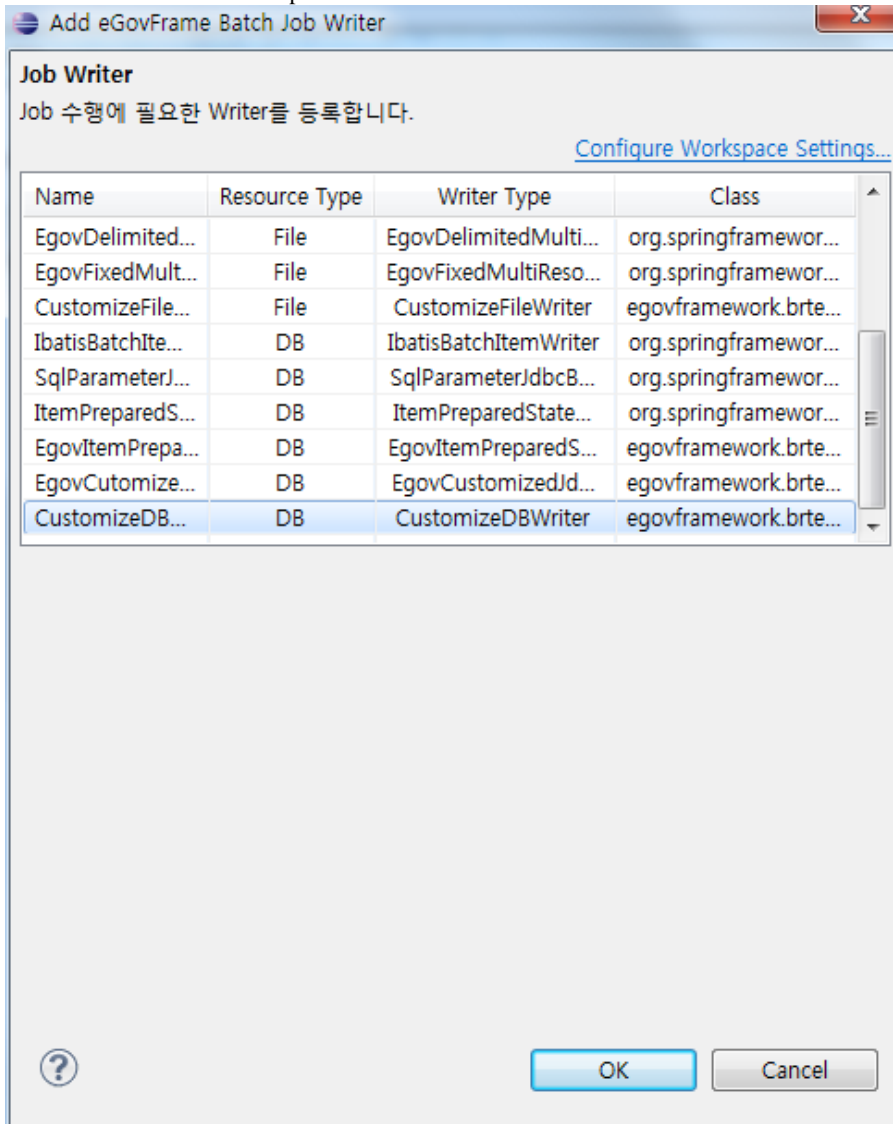
- Configuration of respective XML when EgovCustomizedJdbcBatchItemWriter is used

```
<beanid="EgovCustomizedJdbcBatchItemWriter" class="org.springframework.batch.item.database.EgovJdbcBatchItemWriter">  
<propertyname="itemPreparedStatementSetter">  
<beanclass=" User Customized setter found by class search "/>  
</property>  
<propertyname="sql" value="INSERT INTO customer (name, credit) VALUES (?,?)"/>  
<propertyname="dataSource" ref="dataSource"/>  
</bean>
```

✓Classes registered as ItemPreparedStatementSetter must inherit EgovItemPreparedStatementSetter Class provided by eGov Standard Framework.

CustomizeDBWriter

- Wizard for CustomizeDBWriter
 This is used when the user prefers to use a customized Writer.



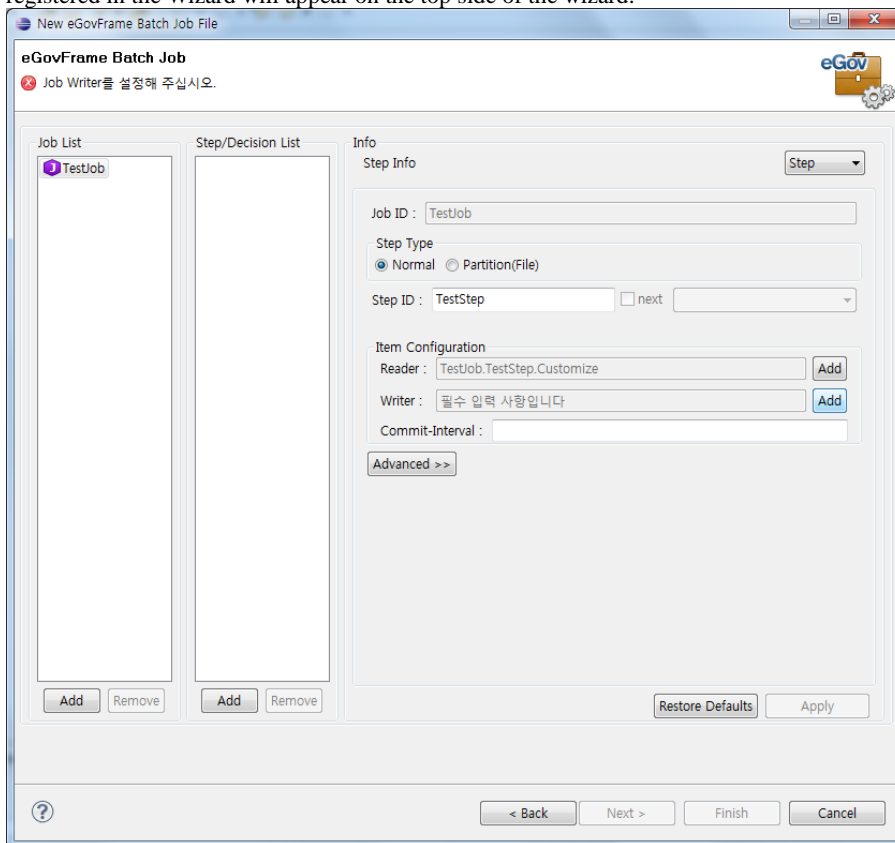
Description of each Wizard items.

Category	Item	Description
File	Resource	Configuration of name and directory of the output file.
File	Field Name	Configuration of VO Field name mapped through classification by Delimiter or Column Length
File	Delimiter	Configuration of Delimiter Value for Delimiter Writing Mode.
File	Field Format	Format in which the file will be written.
File	Field Range	Length of the file to be written.

File	Max Count per Resource	Maximum number of item lines in a file
DB	iBatis Statement	Query ID to be used by the user for iBatis configuration file.
DB	Configuration File	Configuration of file name and directory for SqlMapConfig file.
DB	Datasource Bean ID	Bean ID of the datasource to be used for connection to DB
DB	Sql	Query for item writing in DB.
DB	Params	Parameter name to appear in the "?" of the Query
DB	Row Setter	Setter Class that sets items in PreparedStatement

Application of Job Writer during creation of Batch Job File

1. In order to create a new Batch Job File through [Batch Job Wizard](#), click on the **Add** button located on the right side of "Writer" from "Step Add"
 ✓ Since this step proceeds the registration of Writer, a message that informed the user that a writer must be registered in the Wizard will appear on the top side of the wizard.



2. From the list of Job Writers, select the Writer to be registered and click OK.

The screenshot shows the 'eGovFrame Batch Job' configuration window. The window title is 'New eGovFrame Batch Job File'. The main title is 'eGovFrame Batch Job' with a subtitle '신규 Step을 등록합니다.' (Register new Step). The window is divided into three main sections: 'Job List', 'Step/Decision List', and 'Info'.

- Job List:** Contains one entry 'TestJob' with a purple circular icon. Below the list are 'Add' and 'Remove' buttons.
- Step/Decision List:** An empty list with 'Add' and 'Remove' buttons below it.
- Info:** Contains configuration fields:
 - Step Info:** A dropdown menu set to 'Step'.
 - Job ID:** Text field containing 'TestJob'.
 - Step Type:** Radio buttons for 'Normal' (selected) and 'Partition(File)'.
 - Step ID:** Text field containing 'TestStep', followed by a checkbox for 'next' and a dropdown menu.
 - Item Configuration:**
 - Reader:** Text field containing 'TestJob.TestStep.Customize' with an 'Add' button.
 - Writer:** Text field containing 'TestJob.TestStep.DelimitedFlatFileItemWriter' with an 'Add' button.
 - Commit-Interval:** Text field containing '5'.
 - Advanced >>** Button.

At the bottom of the window, there are buttons for 'Restore Defaults', 'Apply', '?', '< Back', 'Next >', 'Finish', and 'Cancel'.

Remarks

- Basic Job Writer item provided from the eGov Standard Framework Batch Development Environment.

Category	Item	Description	Components of Items
File	DelimitedFlatFileItemWriter	Writers that write files through Delimiter Writing mode by using Aggregator and Extractor provided by Spring.	org.springframework.batch.item.file.FlatFileItemWriter, org.springframework.batch.item.file.transform.DelimitedLineAggregator, org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor
File	FormatterFlatFileItemWriter	Writers that write files in customized data format by using Aggregator and Extractor provided by Spring.	org.springframework.batch.item.file.FlatFileItemWriter, org.springframework.batch.item.file.transform.FormatterLineAggregator, org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor
File	EgovDelimitedFlatFileItemWriter	Writers that write files through Delimiter Writing mode by using Aggregator provided by Spring and Extractor provided by eGov Standard Framework.	org.springframework.batch.item.file.FlatFileItemWriter, org.springframework.batch.item.file.transform.DelimitedLineAggregator, egovframework.brte.core.item.file.transform.EgovFieldExtractor
File	EgovFixedFlatFileItemWriter	Writers that write files in set column length by using Aggregator and Extractor provided by eGov Standard Framework.	org.springframework.batch.item.file.FlatFileItemWriter, egovframework.brte.core.item.file.transform.EgovFixedLengthLineAggregator, egovframework.brte.core.item.file.transform.EgovFieldExtractor
File	DelimitedMultiResourceItemWriter	Writers that write files in in Delimiter Writing mode, where a set number of data is written in a file(more than one files are created), by using Aggregator and Extractor provided by Spring.	org.springframework.batch.item.file.MultiResourceItemReader, org.springframework.batch.item.file.transform.DelimitedLineAggregator, org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor
File	FormatterMultiResourceItemWriter	Writers that write files in in customized data format, where a set number of data is written in a file(more than one files are created), by using Aggregator and Extractor provided by Spring.	org.springframework.batch.item.file.MultiResourceItemReader, org.springframework.batch.item.file.transform.FormatterLineAggregator, org.springframework.batch.item.file.transform.BeanWrapperFieldExtractor
File	EgovDelimitedMultiResourceItemWriter	Writers that write files in Delimiter Writing mode, where a set number of data is written in a file(more than one files are created), by using Aggregator provided by spring and Extractor provided by eGov Standard Framework.	org.springframework.batch.item.file.MultiResourceItemReader, org.springframework.batch.item.file.transform.DelimitedLineAggregator, egovframework.brte.core.item.file.transform.EgovFieldExtractor
File	EgovFixedMultiResourceItemWriter	Writers that write files in set column length, where a set number of data is written in a file(more than one files are created), by using Aggregator and Extractor provided by eGov Framework.	org.springframework.batch.item.file.MultiResourceItemReader, egovframework.brte.core.item.file.transform.EgovFixedLengthLineAggregator, egovframework.brte.core.item.file.transform.EgovFieldExtractor
File	CustomizeFileWriter	File Item Writer registered by the user.	User Customization
DB	IbatisBatchItemWriter	Writer that write files in Ibatis mode by using SqlMapClient provided by Spring.	org.springframework.batch.item.database.IbatisBatchItemWriter, org.springframework.orm.ibatis.SqlMapClientFactoryBean

DB	SqlParameterJdbcBatchItemWriter	Writer that write files in Jdbc mode by using SqlProvider provided by Spring.	org.springframework.batch.item.database.JdbcBatchItemWriter, org.springframework.batch.item.database.BeanPropertyItemSqlParameterSourceProvider
DB	ItemPreparedStatementJdbcBatchItemWriter	Writer that write files in Jdbc mode by using Setter provided by Spring.	org.springframework.batch.item.database.JdbcBatchItemWriter, org.springframework.batch.item.database.ItemPreparedStatementSetter
DB	EgovItemPreparedStatementJdbcBatchItemWriter	Writer that write files in Jdbc mode by using Setter provided by eGov Standard Framework	egovframework.brte.core.item.database.EgovJdbcBatchItemWriter, egovframework.brte.core.item.database.EgovItemPreparedStatementSetter
DB	EgovCustomizedJdbcBatchItemWriter	Writer that write files in Jdbc mode by using a reconfigured Setter by inheriting Setter provided by eGov Standard Framework	egovframework.brte.core.item.database.EgovJdbcBatchItemWriter, Class written by inheriting EgovItemPreparedStatementSetter or ItemPreparedStatementSetter
DB	CustomizeDBWriter	DB Writer registered by the user.	User Customization