

## 1 Introduction to Reporting Training

### 1.1 Purpose of this course

The main aims of this course are:

- To explain Jaspersoft and the functionality available to access market data.
- To give you confidence with the functionality through practice.

### 1.2 Learning Objectives

By the end of this course, you will be able to:

- Log into the Reporting system
- Explore the repository
- Create Views and Reports from Domain data
- Personalise and schedule reports
- Use Input Controls
- Format Table Reports
- Create calculated fields and measures
- Create charts and crosstab reports
- Create and modify dashboards
- Run standard reports on an ad hoc basis

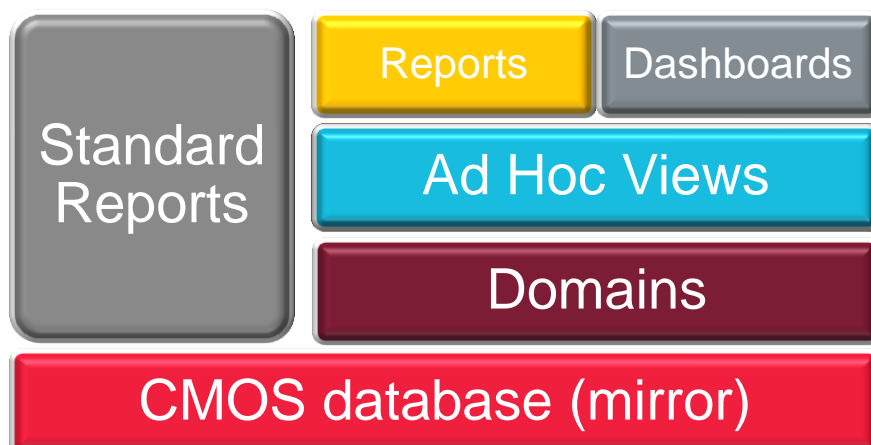
### 1.3 Introduction to Jaspersoft

#### 1.3.1 What is Jaspersoft?

Jaspersoft is a Business Intelligence/Reporting Software system. It is integrated with CMOS for the Water Market. – see <http://www.jaspersoft.com/> for further information.

- Jaspersoft gives you access to market data and standard reports as per CSD 0302.
- Jaspersoft enables you to design ad hoc queries and user defined reporting based on market data domains.
- Jaspersoft enables you to download data and reports

#### 1.3.2 Jaspersoft architecture for the water market



## 1.3.3 Available Data Domains

The following data domains are available:

- Agreement Domain
- Audit Domain
- Business Transaction Dossier (BTD) Domain
- Central Connection Register Domain
- Interim Supplier Allocation Domain
- Market Meter Data (MMD) Domain
- Market Performance Framework (MPF) Domain
- Participant Management Domain
- Reporting Domain
- Reporting Archive Domain
- Settlements Domain
- Tariff Domain
- Volume Transfer and Data Update Domain

## 1.3.4 User Administration

Principles:

- You log in to the reporting system through CMOS – your user credentials and permissions are passed through to Jaspersoft
- You create users and user roles in CMOS
- Security and permissions passed through to Jaspersoft on a data domain basis.

Notes

## 2 Jaspersoft fundamentals

In this session, we learn:

- How to explore the library
- How to explore the repository page and navigate folders
- How to searching the repository and using the filters panel

### 2.1 Exercise

1. Log in to CMOS and navigate to Jaspersoft
2. View the library and view a report
3. Search for a report
4. Open the Repository
5. Explore folders
6. Create a new folder under **Training Folder** and call it your name.
7. Create sub folders within your new folder: **Ad Hoc Views, Reports, Dashboards**

## 3 Creating Ad Hoc Views and Reports

In this session, we learn:

- How to create an Ad Hoc View
- How to save as a View and a Report
- How to interact with the saved view and report

### 3.1 Exercise

1. Create an Ad Hoc View from the **Market Meter Data** Domain
2. Include the following columns from the **METER READ** entity: **Retailer ID**, **SPID**, **Meter Manufacturer**, Meter Serial Number, **Meter Read Date**, Meter Read, **Meter Read Method**, Meter Read Type.
3. Create Pre Filters: **Retailer ID** and **Meter Read Date**
4. Change the display name of **Meter Manufacturer Serial Number** to **Serial Number**
5. Choose Table layout and add columns: **Meter Read Date**, Meter Read and **Meter Read Type**
6. Add the following groups: **Retailer ID**, **SPID**, **Meter Manufacturer**, Serial Number
7. Display Details and Totals view
8. Save Ad Hoc View (save in your Ad Hoc Views folder as **01. Meter Reads by Retailer view**)
9. Save Ad Hoc View and Create Report (Save report in your Reports folder report as **01. Meter Reads by Retailer rpt**)
10. Search for your report and open it (to ensure it has saved properly).

## 4 Manipulating Table Views. Creating Calculated Fields and Measures

In this session, we learn how to:

- Format table views
- Sort table views
- Filter table views
- Create calculated fields
- Create calculated measures

### 4.1 Exercise 1 – format, sort and filter

#### 1. Format

- a. Open **01. Meter Reads by Retailer** view
- b. Change labels so **Meter Read** becomes **Meter Readings**
- c. Remove **Meter Read Type** column
- d. Widen columns so Meter is on one row
- e. Change data format of **Meter Reads** to remove decimal places
- f. Add title to Ad Hoc View
- g. Save Ad Hoc View as: **02. Meter Readings by Retailer formatted view**

#### 2. Sort

- a. Sort the Ad Hoc View on **Meter Reading Date**
- b. Save Ad Hoc View as: **03. Meter Readings by Retailer sorted view**

#### 3. Filter

- a. Remove all filters
- b. Add a filter to select **Meter Reading Dates** between 1st Oct 2105 and 1st April 2016
- c. Save Ad Hoc View as: **04. Meter Readings by Retailer filtered view**
- d. Save as Report. Name report: **04. Meter Reads by Retailer filtered rpt**
- e. Search for new report, open and change **Input Controls**

## 4.2 Exercise 2 – creating calculated fields and measures

Notes

1. **Create Calculated Measure**
  - a. Open Ad Hoc view **04. Meter Readings by Retailer**.
  - b. Create Calculated Measure (**Days Since Read**) to calculate days since each Meter Read, rounded to the nearest day – ensure there are no decimal places.
  - c. Drag **Days Since Read** field to appear after **Meter Read Date**
  - d. Save Ad Hoc View as: **05. Meter Reads calculated fields measure view**
2. **Create a Summary Calculation**
  - a. Create a Summary Calculation for **Days since read** (use Min as summary)
  - b. Show **Details and Totals** on the table
  - c. Save Ad Hoc View
3. **Create Calculated Field**
  - a. Create a calculated field: **Retailer – SPID – Meter serial number**
  - b. Save Ad Hoc View
4. **Create Boolean Calculated Field using the IF function**
  - a. Create Calculated Field: **Quarter**, for the meter read date
  - b. Create Calculated Field: **Year**, for the meter read year
  - c. Create Calculated field concatenating **Quarter** and **Year**
  - d. Add **Quarter, Year** to the table.
  - e. Save Ad Hoc View
  - f. Save as Report: **05. Meter Reads calculated fields measure rpt** in your reports folder

## 5 Working with charts and crosstabs

In this session, we learn how to:

- Work with charts
- Work with crosstabs

### 5.1 Exercise 1 – convert table view to chart view

1. Open **01. Meter Reads by Retailer**
2. Convert Table View to a Bar Chart
  - a. Columns: **Retailer ID** and **SPID**
  - b. Rows **Meter Manufacturer**, **Meter Read Date**, **Meter Read** (Summary Calculation: Count all)
  - c. Filter for only meter reads taken after 1<sup>st</sup> April 2016
  - d. Change grouping of **Meter Read Date** to Month
3. Save as **06. Meter Reads by month bar chart** in your Ad Hoc views folder

### 5.2 Exercise 2 – create a column chart view

1. **Create > Ad Hoc** view...use **Business Transaction Dossier** domain
2. Select **BTD Dossier** and **BTD Steps** in Data Chooser Wizard
3. Create a bar chart that shows a count of all received T109.M transactions
  - a. Create a Calculated Measure: **Transaction Type Count** that counts all transaction types
  - b. Use **Transaction Type Count** and **Dossier Created Timestamp** as rows
  - c. Use **Transaction Type**, **Related Transaction Type** and **Step Current Status** as columns
  - d. Create a filter on **Transaction Type** so that only T109.M transactions are viewed.
  - e. Create a filter on **Related Transaction Type** so that only T103.R and T105.R are viewed
  - f. Create a filter and group on **Dossier Created Timestamp**
4. Save as...**07. Business Transactions bar chart** in your Ad Hoc Views folder

### 5.3 Exercise 3 – create crosstab

1. **Create a crosstab view in the Ad Hoc Editor**
  - a) **Create > Ad Hoc View**. Make sure Crosstab is selected.
  - b) Use **Connections Register** domain and **Supply Point** entity.
  - c) Select fields: **Retailer ID**, Service Category, **SPID**, SPID status, **SPID Effective From Date** fields. Don't use pre-filters
  - d) Column fields: **Retailer ID**, Service Category, **SPID Count** (Calculated measure needed).
  - e) Row field: **SPID Effective From Date** (group by Month)
  - f) Filters: **Retailer** (not null), **SPID Effective from Date** (not null)
2. **Sort and filter data in the crosstab**
  - a) Sort on **SPID Effective From Date** field.

- b) Filter on one Retailer by clicking 'Keep only' in the context menu
- c) Change filter to display two Retailers
- 3. Add a custom field to the crosstab**
  - a) Create a Custom Measure on **Count of SPIDs**. Use **Percentof** (RowGroup)
  - b) Add as a column
  - c) Change to ColumnGroup and note the difference.
  - d) Save in Training folder as **08. SPIDs Crosstab View**.

Notes



## 6 Running Reports

In this session, we learn how to:

- Personalising reports through interactivity
- Using input controls
- Exporting reports
- Scheduling reports

### 6.1 Exercise

1. Open **05. Meter Reads calculated fields measures rpt**
2. Format **Meter Read Date** column: make Heading 12 pt, change format of date to dd-MMM-yyyy
3. Change other headings to 12pt.
4. Move **Quarter, Year** column to before Meter Read Date
5. Highlight dates of meter reads taken after 1st Mar 2016
6. Filter the **Meter Read Date** column to only show reads on or after 1st Mar 2016.
7. Use input controls to show only valid Retailers (i.e. not NULL)
8. Save input controls as "Only valid Retailers"
9. Save report as **09. Meter Reads Filtered rpt** in your reports folder
10. Schedule the report to run every week until the end of the year and output in CSV.

## 7 Working with dashboards

In this session, we learn how to:

- Create a dashboard
- Add dashlets
- Work with filters

### 7.1 Exercise

1. Create a Dashboard
2. Add the following dashlets:
  - a. **SPID count by SPID status (pie charts)**
    - i. Domain: **Connection Register**.
    - ii. Fields needed: **Retailer ID, SPID count** (calculated measure), **SPID status**.
    - iii. Create filter on [one of] **Retailer ID**
  - b. **Transactions dashlet (crosstab)**
    - i. Domain: **Business Transaction Dossier**.
    - ii. Fields needed: **Transaction Type, Sender ID, BTID ID Count** (calculated measure).
    - iii. Create filter on [one of] **Retailer ID**
  - c. **Meter Reads by Type (bar chart)**
    - i. Domain: **Meter Reads**.
    - ii. Fields needed: **Retailer, Meter Read Type Description, Meter Read Count**.
    - iii. Create filter on [one of] **Retailer ID**
3. Insert a text box and name the dashboard
4. Insert a Filter box to filter on [one of] **Retailer ID**
5. Use Parameter Mapping to make all dashlets respond to Retailer ID filter
6. Save Dashboard as **01. Training Dashboard** in your Dashboards folder

## 8 Standard Reports

List of available standard reports:

### Market Dataset Reports:

- Water SPIDs
- Sewerage SPIDs
- Water Service Components
- Sewerage Service Components
- Meters
- DPIDs
- Meter-DPID Associations
- Meter-SPID Associations
- Meter Networks
- Meter Reads
- Volumetric Adjustments
- Trade Effluent Volumetric Adjustments
- Calculated Discharges
- Calculated Discharge Volumes

### Settlement Reports:

- Aggregated Settlement Report
- Disaggregated Settlement Reports (Parts 1,2,3 and 4)
- Settlement System Exception Report

### Other standard report:

- New and Partial SPIDs
- Long Unread Meters
- Unpaired SPIDs
- Transfer Cancellations
- Erroneous Transfers
- Interim Supplier Allocation Notice
- Interim Supplier Allocation Results
- Volume Transfer
- Volume Data Update
- Meter Reads Analysis
- Tariffs
- Market Performance Standard
- SPID data related
- Meter Reads related
- Monthly Market Performance Standards
- Market Performance Standard Charges