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Data File Tool

- ETL with esProc

➤ Introduction



esProc ETL tool, which is called Data File Tool, has two features – data source and view. The former defines source data; the latter handles how the source data is joined and configures which data is output.

It can extract data from various types of data source, perform filtering, sorting, join or other operations on it, and output the result to a text file, Excel file, database file or esProc file.

In short, the ETL process consists of three steps: defining data source, processing data , outputting result.

➤ Introduction



The Data File Tool interface is the home of a number of features – Menu bar, Toolbar, Data source, View, Selected columns & their aliases and Computed column.

The screenshot shows the Data File Tool interface with several components highlighted by callouts:

- Toolbar:** Located at the top left, containing icons for file operations and navigation.
- Menu bar:** Located at the top, containing menu items: File, Edit, Tool, Window, Help.
- Data source:** Located on the left side, showing a tree view with 'Data sources' containing 'emp' and 'PERFORMANCE'.
- View:** Located at the bottom left, showing 'View relations' with 'ExportDefine1' and 'ViewOut1'.
- Selected columns & their aliases:** A table titled 'The choices' with columns: Index, Alias, Select, Key, Reference name, emp, and PERFORMANCE. The 'Select' column has checkboxes, and the 'Alias' column has values like 'EID', 'NAME', 'SALARY', and 'EVALUATION'. The 'PERFORMANCE' column has values like 'EMPLOYEEID', 'SURNAME', 'GENDER', 'STATE', 'BIRTHDAY', 'HIREDATE', 'DEPTID', 'SALARY', 'EVALUATION', and 'BONUS'.
- Computed column:** A table titled 'Compute (Double click above reference name add to expression)' with columns: Index, Alias, and Expression.

Index	Alias	Select	Key	Reference name	emp	PERFORMANCE
1	EID	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EID	EID	EMPLOYEEID
2	NAME	<input checked="" type="checkbox"/>	<input type="checkbox"/>	NAME	NAME	
3		<input type="checkbox"/>	<input type="checkbox"/>	SURNAME	SURNAME	
4		<input type="checkbox"/>	<input type="checkbox"/>	GENDER	GENDER	
5		<input type="checkbox"/>	<input type="checkbox"/>	STATE	STATE	
6		<input type="checkbox"/>	<input type="checkbox"/>	BIRTHDAY	BIRTHDAY	
7		<input type="checkbox"/>	<input type="checkbox"/>	HIREDATE	HIREDATE	
8		<input type="checkbox"/>	<input type="checkbox"/>	DEPTID	DEPTID	
9	SALARY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SALARY	SALARY	
10	EVALUATION	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EVALUATION		EVALUATION
11		<input type="checkbox"/>	<input type="checkbox"/>	BONUS		BONUS

Index	Alias	Expression
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➤ Data source



Data source type supported by the Data File Tool: Text file, Excel file, Database file and SQL query.

To configure a SQL query data source, for example:

Select SQL option on Datasource type window, get a name for the new data source (ds1), select demo database and type in a SQL statement or write one using SQL editor.

The click Refresh button to display fields in the relevant table:

The screenshot illustrates the configuration process for a SQL data source. It consists of three main windows:

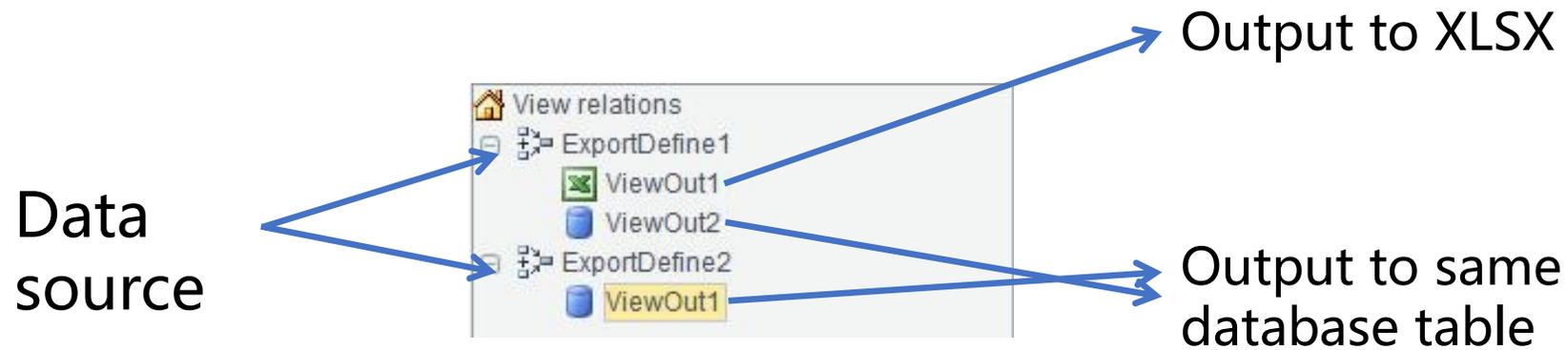
- Datasource type:** A dialog box with radio buttons for 'Text file', 'Excel file', 'Database table', and 'SQL'. The 'SQL' option is selected and highlighted with a red box.
- SQL:** A dialog box where the 'Name' field is set to 'ds1', the 'Data source' dropdown is set to 'demo', and the 'SQL' field is empty. A red box highlights the 'Name' and 'Data source' fields. A yellow arrow points from this window to the 'SQL editor' window.
- SQL editor:** A window with tabs for 'Table', 'Field', 'Where', 'Join', 'Group', 'Having', 'Sort', and 'SQL'. The 'Table' tab is active, showing a list of available tables. The 'PERFORMANCE' table is selected and highlighted in orange. A red box highlights the 'SQL editor' window. A red arrow points from the 'SQL' field in the 'SQL' dialog to the 'SQL editor' window.

The 'SQL editor' window also shows a 'Selected table' field containing 'PERFORMANCE' and a 'Schema' dropdown set to 'All'.

➤ Data source & View



You can create views from one data source, and then generated exported views from one view and output them at one time. To output same-structure exported views to same target is equivalent to an UNION ALL.

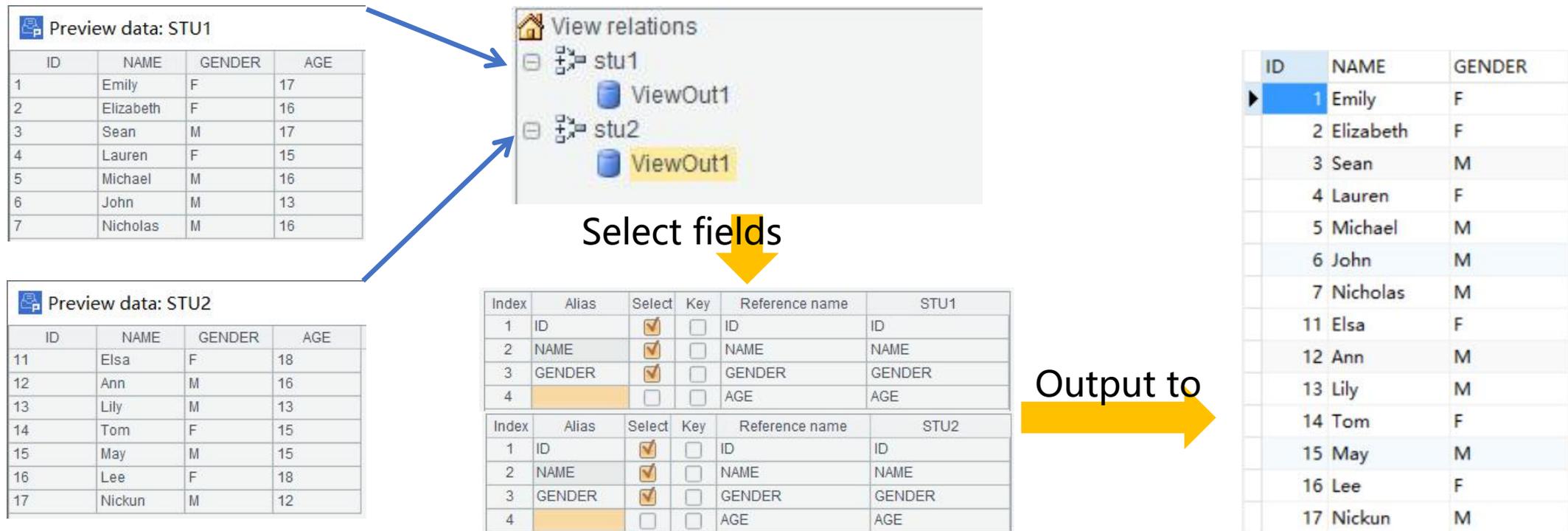




➤ Data source & View

STU1 table and *STU2* are of same structure. To output their *ID*, *NAME* and *GENDER* fields to database table *STUDENT*:

Create a view based on *STU1* to get the desired fields and then another view based on *STU12* to get the fields, and then output the two views to *STUDENT*.



➤ Basic operations: Filtering



After the source data is defined, you can edit a filter expression to perform filtering on it.

To filter text file *emp.txt*, for instance, set a filtering condition on EID:

Text file

Name: emp Options: t [OK]

File name: D:\emp.txt [Cancel]

Charset: Default Seperator: TAB

Filter expression: EID < 50 Data is sorted on keys

Fields

Index	Name	Key
1	EID	<input checked="" type="checkbox"/>
2	NAME	<input type="checkbox"/>
3	SURNAME	<input type="checkbox"/>
4	GENDER	<input type="checkbox"/>
5	STATE	<input type="checkbox"/>
6	BIRTHDAY	<input type="checkbox"/>
7	HIREDATE	<input type="checkbox"/>
8	DEPTID	<input type="checkbox"/>
9	SALARY	<input type="checkbox"/>



Preview data: emp

EID	NAME	SURNAME	GENDER	STATE	BIRTHDAY	HIREDATE	DEPT	SALARY
30	Joseph	Robinson	M	California	1973-11-23	2003-11-23	Sales	9000
31	Sarah	Miller	F	California	1977-04-27	2007-04-27	Marketing	10000
32	Andrew	Williams	M	Texas	1971-08-27	2001-08-27	Finance	11000
33	Matthew	Martinez	M	Pennsylva...	1980-07-19	2000-07-19	R&D	11000
34	Ryan	Johnson	M	Texas	1983-06-15	2003-06-15	Sales	5000
35	Justin	Smith	M	Texas	1978-08-20	2008-08-20	R&D	7000
36	Emily	Smith	F	Illinois	1983-12-27	2003-12-27	Production	12000
37	Hannah	Taylor	F	Pennsylva...	1984-07-20	2004-07-20	Marketing	5000
38	Matthew	Johnson	M	New York	1972-11-20	2002-11-20	R&D	6000
39	Andrew	Williams	M	California	1980-07-19	2000-07-19	Sales	3000
40	Madeline	Johnson	F	California	1971-12-27	2001-12-27	Sales	15000
41	Emily	Davis	F	Illinois	1984-07-07	2004-07-07	Production	9000
42	Michael	Jones	M	Pennsylva...	1978-08-20	2008-08-20	Administra...	12000
43	Joshua	Williams	M	California	1980-11-25	2000-11-25	Sales	12000
44	Emily	Jones	F	California	1977-12-24	2007-12-24	Sales	8000
45	Kayla	Miller	F	Florida	1984-08-25	2004-08-25	Production	3000
46	Alexander	Johnson	M	New York	1978-08-20	2008-08-20	Marketing	10000
47	Elizabeth	Brown	F	Pennsylva...	1971-08-27	2001-08-27	Marketing	16000
48	Emma	Smith	F	Florida	1976-11-25	2006-11-25	Sales	5000
49	Austin	Martinez	M	New York	1983-12-27	2003-12-27	Production	8000



➤ Basic operations: JOINS

Set joining field for both the source table and the target table on View Settings window to join them; left join and inner join are supported. You can choose to delete duplicate key values in the target table.

As the screen clips show, text file *emp.txt* and database table *PERFORMANCE* are inner JOINed through employee ID. Thus a view is created.

The screenshot displays the 'Relation setting' dialog box and the 'View relations' window. The 'Relation setting' dialog box is open, showing the 'emp' table as the source and the 'PERFORMANCE' table as the target. The join type is set to 'Inner join'. The join field is 'EID' from the source table and 'EMPLOYEEID' from the target table. The 'View relations' window shows the 'emp' table and the 'PERFORMANCE' table joined together.

Index	Source table field	Target table field
1	EID	EMPLOYEEID

emp	PERFORMANCE
EID	EMPLOYEEID
NAME	EVALUATION
SURNAME	BONUS
GENDER	
STATE	
BIRTHDAY	
HIREDATE	
DEPT	
SALARY	

➤ Basic operations: JOINS



esProc Data File Tool allows joining one table with two or more subtables. On View Settings window you select the source table and then different target tables for the subtables.

E.g. *emp* table is associated to both *PERFORMANCE* table and *DEPT* table at one time.

emp
EID
NAME
SURNAME
GENDER
STATE
BIRTHDAY
HIREDATE
DEPT
SALARY

PERFORMANCE
EMPLOYEEID
EVALUATION
BONUS

DEPT
DEPTID
DEPTNAME

Relation setting

Source table: emp Target table: PERFORMANCE

Join type: Inner join Left join Remove duplicate key values

Join fields: + -

Index	Source table field	Target table field
1	EID	EMPLOYEEID

Relation setting

Source table: emp Target table: DEPT

Join type: Inner join Left join Remove duplicate key values

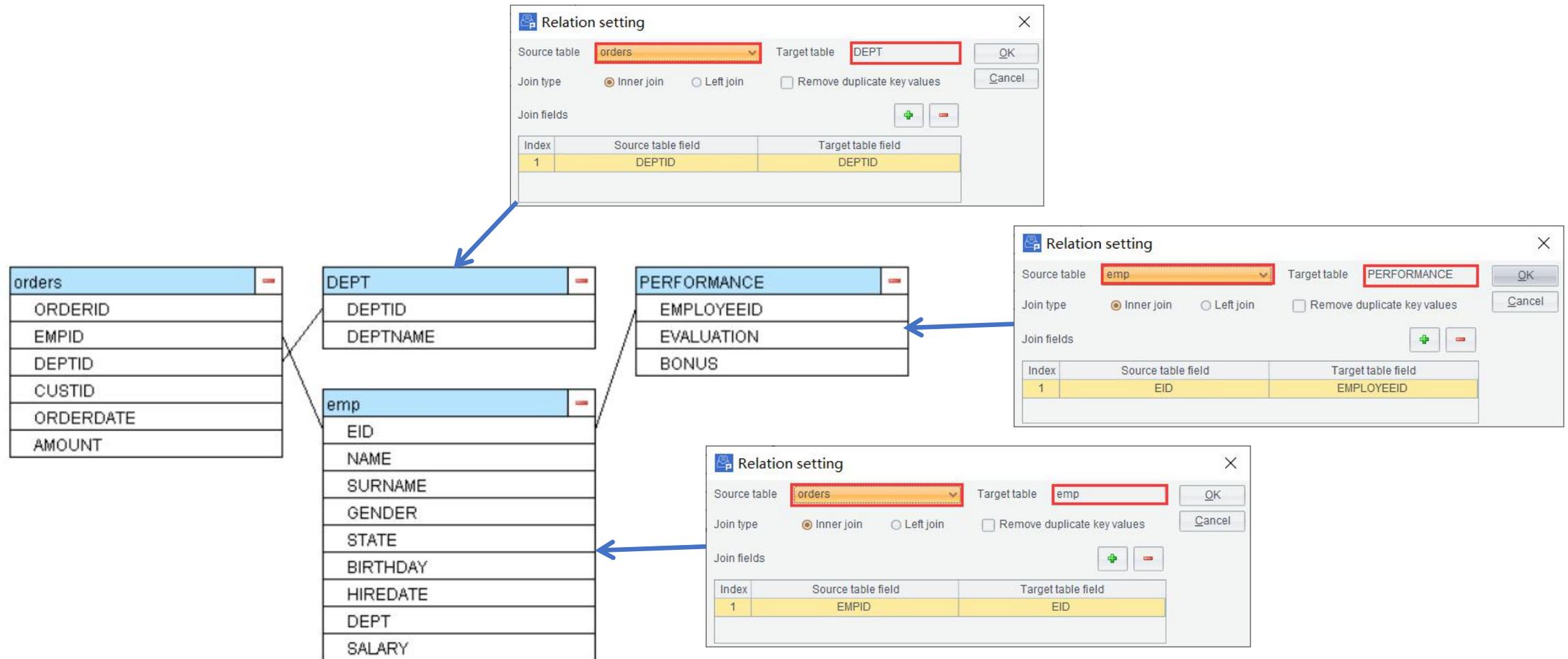
Join fields: + -

Index	Source table field	Target table field
1	DEPT	DEPTID

Basic operations: JOINS



Make sure you select the right tables and fields for a join. To modify a table to be joined, right click the table to edit or delete it.





➤ Basic operations: Computed column

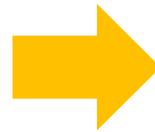
You can append a computed column or a selected column to an exported view; or change the order of fields in it.

E.g. To select EID, GENDER, STATE and SALARY from the result table of joining *emp* and *PERFORMANCE*, and add a computed column ENAME by combining NAME and SURNAME:

Index	Alias	Select	Key	Reference name	emp	PERFORMANCE
1	EID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	EID	EID	EMPLOYEEID
2		<input type="checkbox"/>	<input type="checkbox"/>	NAME	NAME	
3		<input type="checkbox"/>	<input type="checkbox"/>	SURNAME	SURNAME	
4	GENDER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GENDER	GENDER	
5	STATE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	STATE	STATE	
6		<input type="checkbox"/>	<input type="checkbox"/>	BIRTHDAY	BIRTHDAY	
7		<input type="checkbox"/>	<input type="checkbox"/>	HIREDATE	HIREDATE	
8		<input type="checkbox"/>	<input type="checkbox"/>	DEPTID	DEPTID	
9	SALARY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SALARY	SALARY	
10		<input type="checkbox"/>	<input type="checkbox"/>	EVALUATION		EVALUATION
11		<input type="checkbox"/>	<input type="checkbox"/>	BONUS		BONUS

Compute (Double click above reference name add to expression)

Index	Alias	Expression
1	ENAME	NAME+" "+SURNAME



EID	GENDER	STATE	SALARY	ENAME
1	F	California	7000	Rebecca Moore
2	F	New York	11000	Ashley Wilson
3	F	New Mexico	9000	Rachel Johnson
4	F	Texas	7000	Emily Smith
5	F	Texas	16000	Ashley Smith
6	M	California	11000	Matthew Johnson
7	F	Illinois	9000	Alexis Smith
8	F	California	11000	Megan Wilson
9	F	Texas	3000	Victoria Davis
10	M	Pennsylva...	13000	Ryan Johnson
11	M	Texas	12000	Jacob Moore
12	F	New York	7000	Jessica Davis
13	M	Florida	10000	Daniel Davis
14	F	Florida	4000	Alyssa Wilson
15	F	New York	8000	Alexis Smith
16	M	Florida	9000	Christopher Hernandez
17	F	Texas	4000	Hannah Johnson
18	M	Florida		Jonathan Moore
19	F	Pennsylva...	10000	Samantha Williams
20	F	Florida	16000	Alexis Allen
21	M	Pennsylva...	10000	Jacob Moore
22	M	Texas	16000	Jacob Davis



➤ Basic operations: Computed column

To change the order of the fields in an exported view, click the Shift Up button or Shift Down button on the upper right corner in Selected Columns & Their Aliases area or Computed Column area.

The choices

Select all Select none  

Index	Alias	Select	Key	Reference name	emp	PERFORMANCE
1	EID	<input checked="" type="checkbox"/>	<input type="checkbox"/>	EID	EID	EMPLOYEEID
2		<input type="checkbox"/>	<input type="checkbox"/>	NAME	NAME	
3		<input type="checkbox"/>	<input type="checkbox"/>	SURNAME	SURNAME	
4	GENDER	<input checked="" type="checkbox"/>	<input type="checkbox"/>	GENDER	GENDER	
5	STATE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	STATE	STATE	
6		<input type="checkbox"/>	<input type="checkbox"/>	BIRTHDAY	BIRTHDAY	
7		<input type="checkbox"/>	<input type="checkbox"/>	HIREDATE	HIREDATE	
8		<input type="checkbox"/>	<input type="checkbox"/>	DEPT	DEPT	
9	SALARY	<input checked="" type="checkbox"/>	<input type="checkbox"/>	SALARY	SALARY	
10		<input type="checkbox"/>	<input type="checkbox"/>	EVALUATION		EVALUATION
11		<input type="checkbox"/>	<input type="checkbox"/>	BONUS		BONUS

Compute (Double click above reference name add to expression)    

Index	Alias	Expression
1	ENAME	NAME+" "+SURNAME

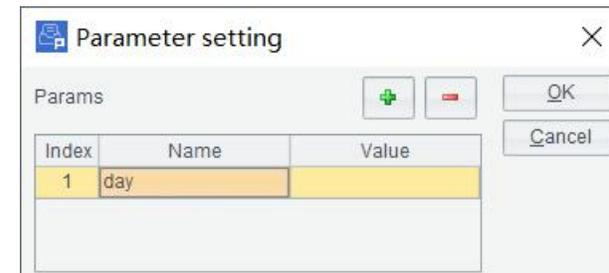
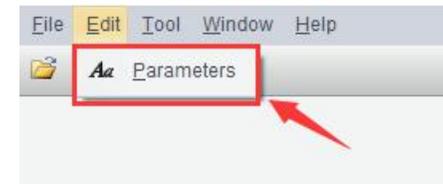
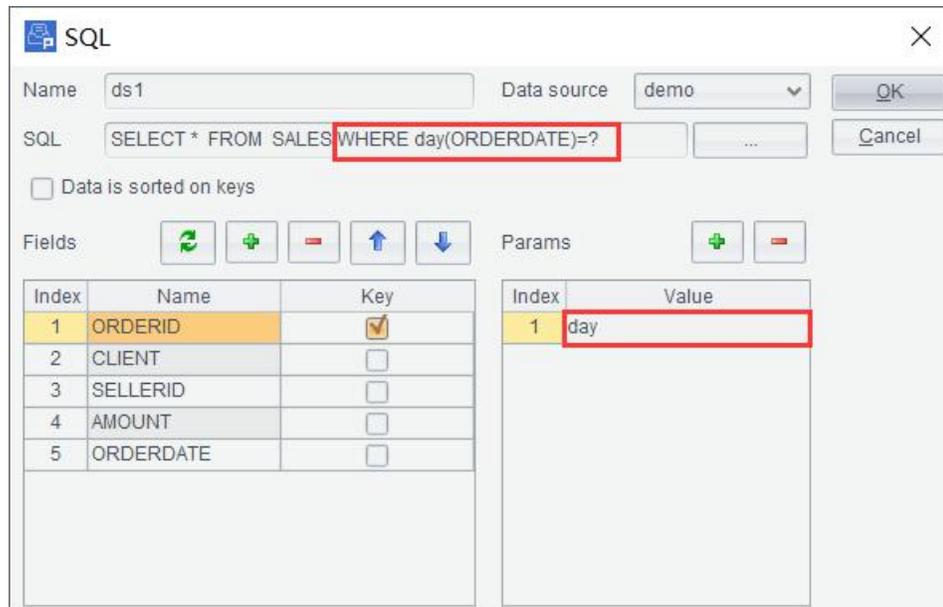
➤ Parameter settings



You can get certain records by setting a parameter.

Enter a parameter in data source' s filtering condition and add the parameter in **Edit ->Parameters**.

In example below, enter filtering condition "WHERE day(ORDERDATE)=?" to query SALES table for records in certain date with a SQL statement; then add the parameter day on Parameter Settings dialog box.



➤ Parameter settings



Type in the configured parameter value at execution to output desired data.

Here the parameter value is set as 21, so records where ORDERDATE is 21 are output.

Title	Value
day	21



Index	🔑 ORDERID	CLIENT	SELLERID	AMOUNT	ORDERDATE
1	13	HL	12	21400.0	2012-11-21 15:28:05
2	16	AYWYN	4	6566.0	2012-11-21 15:28:05
3	20	EGU	8	11700.0	2012-11-21 15:28:05



➤ View export: Export type

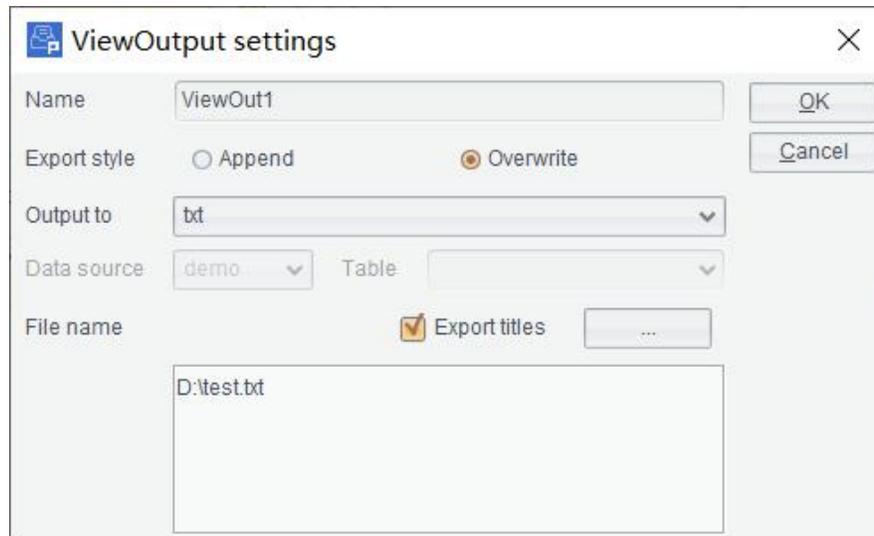
esProc Data File Tool supports exporting data in an exported view to a CTX file, BTX file, TXT file, CSV file, XLSX file or a database table in an Append or Overwrite way.

Append appends data in an existing file and Overwrite replaces data in the file.

You can choose to export column names for a TXT, CSV file or an XLSX file.

To export to a database table, field names in the exported view and the target table must be consistent.

In the clips below, the exported view is output as a txt file named test where column headers are exported.



EID	NAME	SURNAME	GENDER
1	Rebecca	Moore	F
2	Ashley	Wilson	F
3	Rachel	Johnson	F
4	Emily	Smith	F
5	Ashley	Smith	F
6	Matthew	Johnson	M
7	Alexis	Smith	F
8	Megan	Wilson	F

➤ View export: Call & Execution



Save the ETL process as an **.ept** file and call it to execute at command line. The syntax of execute statement is as follows:

Esprocx [eptFile] [argN=value] [ExportDefine=name] [ViewOut=name]...

[eptFile]: Name of an ept file that is represented by an absolute path or a path relative to the search path or the main path;

[argN=value]: Specify a parameter for eptFile in the format of "parameter name=parameter value" ;

Note: Spaces are not allowed before and after a section break or an equal sign; section breaks are separated by spaces!

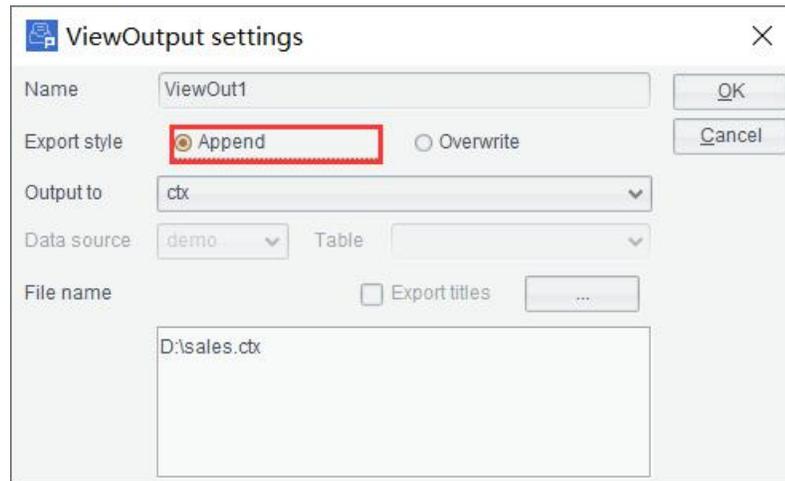
[ExportDefine=name]: Execute a view named name in eptFile; by default all views in the file are executed;

[ViewOut=name]: Execute an exported view named name in eptFile; by default all exported views in the file are output;



➤ View export: Call & Execution

Select Append export type on ViewExport Settings window (Use the instance cited in Parameter settings), save the process locally as an .ept file and execute the command `Esprocx SALES.ept day=21`. Then all eligible records are appended to *sales.ctx*.



Select Append export type

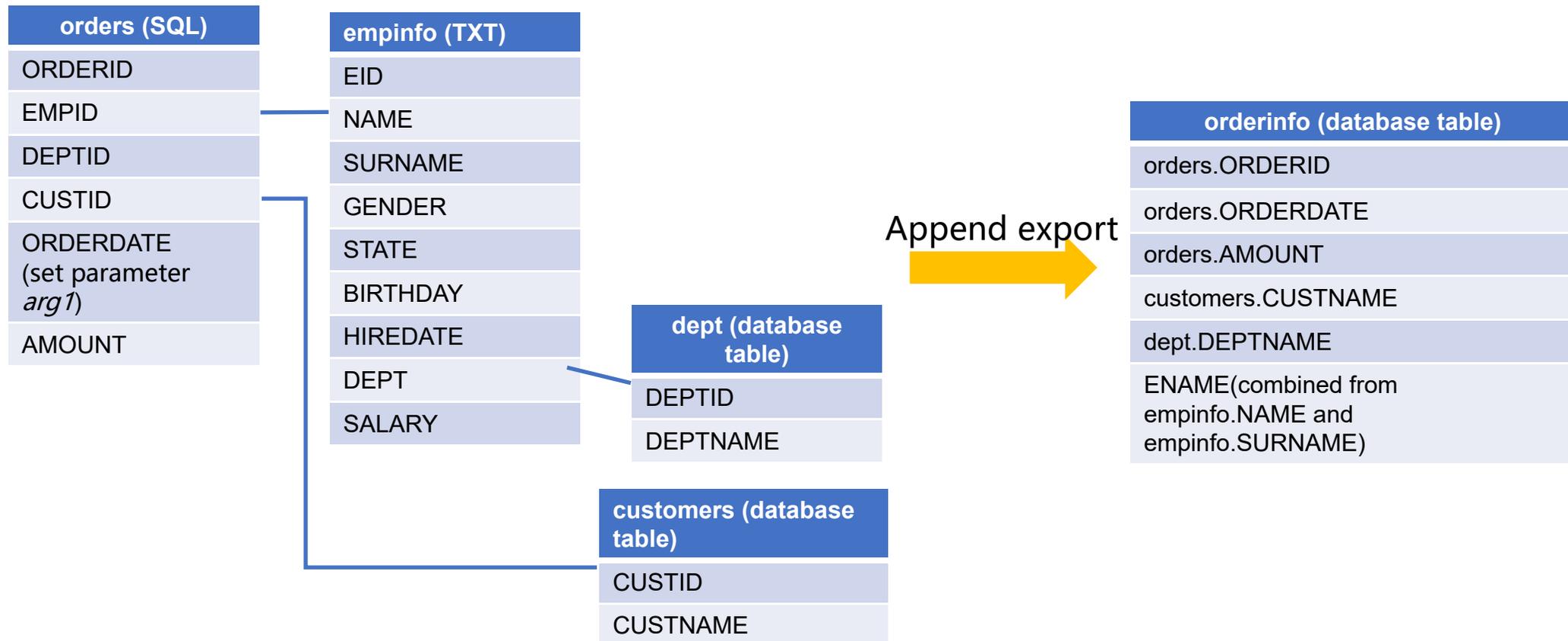
Index	ORDERID	CLIENT	SELLERID	AMOUNT	ORDERDATE
1	13	HL	12	21400.0	2012-11-21 15:28:05
2	16	AYWYN	4	6566.0	2012-11-21 15:28:05
3	20	EGU	8	11700.0	2012-11-21 15:28:05
4	38	DILRT	12	18300.0	2012-12-15 15:28:05
5	39	GLH	14	22200.0	2012-12-15 15:28:05
6	43	HANAR	5	196.0	2012-12-15 15:28:05

SALES.ctx after command is executed



➤ ETL task example: Task description

Below are 4 source tables. ETL task: Join them and export result to database *orderinfo* table. Data in orders table gets updated on a daily base. You can get data in the current day using ORDERDATE as the parameter value. Append the joining result to *orderinfo* table. The ETL process will be called and executed each day.





➤ ETL task example: Add a text file source

First we configure the data sources.

Add a text file data source *empinfo* according to *empinfo.txt*.

EID	NAME	SURNAME	GENDER	STATE	BIRTHDAY	HIREDATE	DEPT	SALARY
1001	Rebecca	Moore	F	California	1974-11-20	2005-03-11	1	7000
1002	Ashley	Wilson	F	New York	1980-07-19	2008-03-16	12	11000
1003	Rachel	Johnson	F	New Mexico	1970-12-17	2010-12-01	7	9000
1004	Emily	Smith	F	Texas	1985-03-07	2006-08-15	4	11000
1005	Ashley	Smith	F	Texas	1975-05-13	2004-07-30	8	8000
1006	Matthew	Johnson	M	California	1984-07-07	2005-07-07	5	11000
1007	Alexis	Smith	F	Illinois	1972-08-16	2002-08-16	8	9000
1008	Megan	Wilson	F	California	1979-04-19	1984-04-19	7	11000
1009	Victoria	Davis	F	Texas	1983-12-07	2009-12-07	3	3000
1010	Ryan	Johnson	M	Pennsylva...	1976-03-12	2006-03-12	9	13000

Text file

Name: empinfo Options: t

File name: D:\empinfo.txt

Charset: Default Seperator: TAB

Filter expression: Data is sorted on keys

Fields:

Index	Name	Key
1	EID	<input type="checkbox"/>
2	NAME	<input type="checkbox"/>
3	SURNAME	<input type="checkbox"/>
4	GENDER	<input type="checkbox"/>
5	STATE	<input type="checkbox"/>
6	BIRTHDAY	<input type="checkbox"/>
7	HIREDATE	<input type="checkbox"/>
8	DEPT	<input type="checkbox"/>
9	SALARY	<input type="checkbox"/>



➤ ETL task example: Add two database table sources

Add a database table source named *dept*,

Then another one named *customers*.

DEPTID	DEPTNAME
1	Sales Department
2	Comprehensive Department
3	Marketing Department
4	Finance Department
5	Office of the General Manager
6	Office of the President
7	Technical support department
8	Sell One
9	Sell Two
10	Research and Development Department
11	Technical Consultancy Center
12	Run Qian Company

CUSTID	CUSTNAME
1	ALFKI
2	ANATR
3	ANTON
4	AROUT
5	BERGS
6	BLAUS
7	BLONP
8	BOLID
9	BONAP
10	BOTTM
11	BSBEV
12	CACTU

Database table

Name: dept

Data source: mysql1

Table: dept

Where:

Quote type: Double quote

Add quotes to table

Data is sorted on keys

Fields:

Index	Name	Key
1	DEPTID	<input type="checkbox"/>
2	DEPTNAME	<input type="checkbox"/>

Params:

Index	Value
-------	-------

Database table

Name: customers

Data source: mysql1

Table: customers

Where:

Quote type: Double quote

Add quotes to table

Data is sorted on keys

Fields:

Index	Name	Key
1	CUSTID	<input type="checkbox"/>
2	CUSTNAME	<input type="checkbox"/>

Params:

Index	Value
-------	-------



➤ ETL task example: Add SQL source & Set a parameter

Then add a SQL type data source named *orders* according to *orders* table.

As data in *orders* table increases daily, it's convenient to filter it to get desired data by ORDERDATE. Write a WHERE filtering condition in the SQL statement to filter data by ORDERDATE and set parameter *arg1*.

ORDERID	EMPID	CUSTID	ORDERDATE	AMOUNT
1	1007	33	2020-01-15	1081
2	1004	12	2020-02-06	414
3	1007	52	2020-01-21	228
4	1001	40	2020-02-19	1299
5	1005	46	2020-01-08	1210
6	1003	17	2020-01-04	555
7	1009	36	2020-02-26	544
8	1004	38	2020-01-30	958
9	1001	80	2020-02-05	1556
10	1005	16	2020-01-29	307
11	1003	19	2020-02-05	1268
12	1006	48	2020-01-30	818
13	1003	89	2020-02-09	189
14	1007	29	2020-02-18	1388
15	1003	61	2020-01-03	277
16	1003	36	2020-02-16	120
17	1008	88	2020-02-13	1171
18	1008	58	2020-01-17	895
19	1006	26	2020-01-10	860

SQL

Name: Data source:

SQL:

Data is sorted on keys

Fields:

Index	Name	Key
1	ORDERID	<input checked="" type="checkbox"/>
2	EMPID	<input type="checkbox"/>
3	ORDERDATE	<input type="checkbox"/>
4	AMOUNT	<input type="checkbox"/>

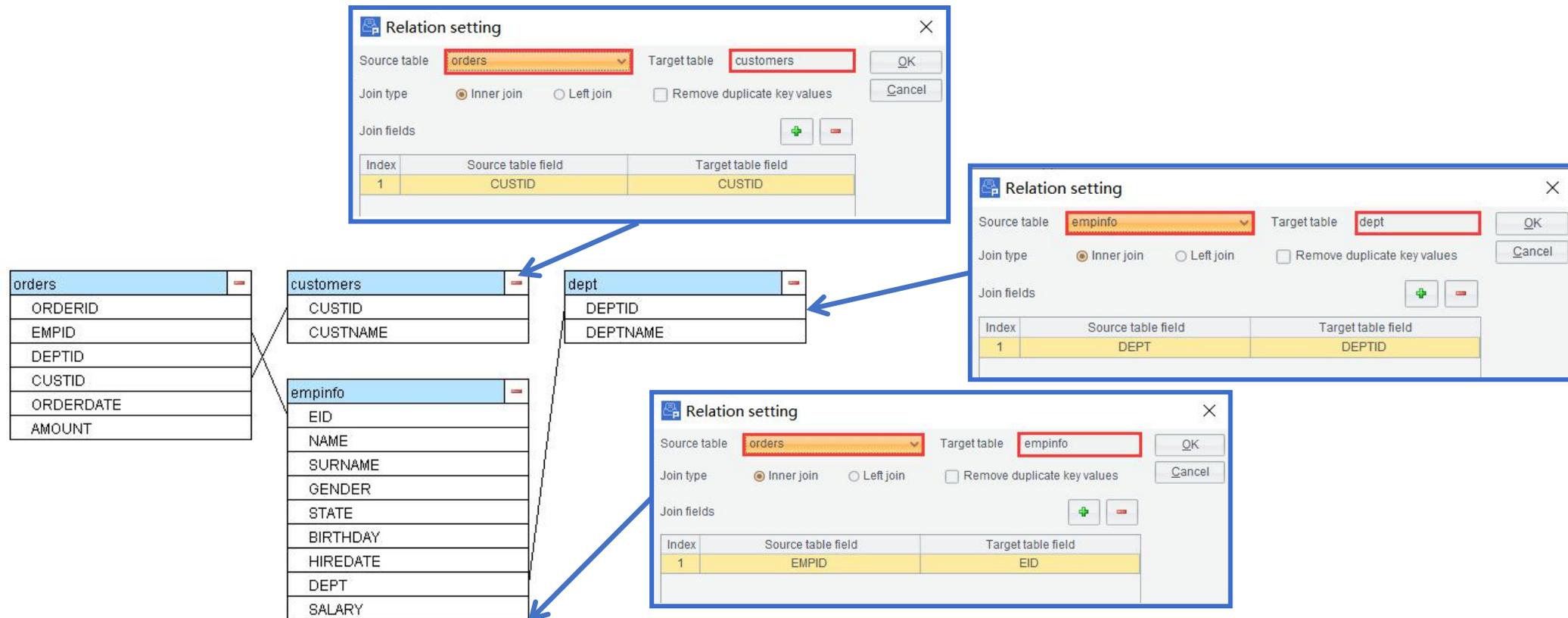
Params:

Index	Value
1	arg1



ETL task example: Create a view

Drag the four tables in. Each subtable is associated with their main table via foreign keys.
customers.CUSTID associates with orders.CUSTID; empinfo.EID associates with orders.EMPID;
dept.DEPTID associates with empinfo.DEPT.





ETL task example: Create exported views & Append a computed column



Select Append export type to export data to a Database table and select data source holding the data table to be exported.

Then select fields for export and add a computed column ENAME containing employees' full names. ENAME is combined by NAME and SURNAME.

ViewOutput settings

Name: ViewOut1

Export style: Append Overwrite

Output to: Database table

Data source: mysql1 Table: orderinfo

File name: Export titles

Export configuration

The choices

Index	Alias	Select	Key	Reference name	orders	customers	empinfo	dept
1		<input type="checkbox"/>	<input type="checkbox"/>	CUSTID	CUSTID	CUSTID		
2		<input type="checkbox"/>	<input type="checkbox"/>	DEPTID	DEPTID			
3		<input type="checkbox"/>	<input type="checkbox"/>	EMPID	EMPID		EID	
4	ORDERID	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	ORDERID	ORDERID			
5	ORDERDATE	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ORDERDATE	ORDERDATE			
6	AMOUNT	<input checked="" type="checkbox"/>	<input type="checkbox"/>	AMOUNT	AMOUNT			
7	CUSTNAME	<input checked="" type="checkbox"/>	<input type="checkbox"/>	CUSTNAME		CUSTNAME		
8	DEPTNAME	<input checked="" type="checkbox"/>	<input type="checkbox"/>	DEPTNAME				DEPTNAME
9		<input type="checkbox"/>	<input type="checkbox"/>	NAME			NAME	
10		<input type="checkbox"/>	<input type="checkbox"/>	SURNAME			SURNAME	
11		<input type="checkbox"/>	<input type="checkbox"/>	GENDER			GENDER	
12		<input type="checkbox"/>	<input type="checkbox"/>	STATE			STATE	
13		<input type="checkbox"/>	<input type="checkbox"/>	BIRTHDAY			BIRTHDAY	
14		<input type="checkbox"/>	<input type="checkbox"/>	HIREDATE			HIREDATE	
15		<input type="checkbox"/>	<input type="checkbox"/>	DEPT			DEPT	DEPTID
16		<input type="checkbox"/>	<input type="checkbox"/>	SALARY			SALARY	

Compute (Double click above reference name add to expression)

Index	Alias	Expression
1	ENAME	NAME*'+SURNAME

Selected fields & Compute column



➤ ETL task example: Export & Call & Execution

Save the ETL process as *orderinfo.ept*.

Call the .ept file to execute from the command line. Change the date parameter for daily query.

By executing command `Esprocx D:\orderinfo.ept arg1=20200219`, records where ORDERDATE is Feb. 19, 2020 are appended to *orderinfo.txt*.

ORDERID	ORDERDA...	AMOUNT	CUSTNAME	DEPTNAME	ENAME
8	2020-01-30	958	KOENE	Finance Department	Emily Smith
12	2020-01-30	818	MAGAA	Office of the General Manager	Matthew Johnson
38	2020-01-30	690	SPLIR	Marketing Department	Victoria Davis
100	2020-01-30	395	TOMSP	Office of the General Manager	Matthew Johnson
255	2020-01-30	495	WHITC	Sell Two	Ryan Johnson
286	2020-01-30	837	LAZYK	Technical support department	Rachel Johnson
301	2020-01-30	750	SANTG	Sell One	Alexis Smith
359	2020-01-30	322	MAGAA	Sell One	Ashley Smith
448	2020-01-30	386	WARTH	Sales Department	Rebecca Moore
469	2020-01-30	136	FOLKO	Sell One	Ashley Smith
4	2020-02-19	1299	LAMAI	Sales Department	Rebecca Moore
40	2020-02-19	229	SANTG	Sell Two	Ryan Johnson
43	2020-02-19	228	TORTU	Technical support department	Rachel Johnson
87	2020-02-19	1313	TRAIH	Sell One	Alexis Smith
163	2020-02-19	364	MAGAA	Technical support department	Megan Wilson
249	2020-02-19	1226	MAGAA	Technical support department	Megan Wilson

THANKS

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