

Key Points Related to Operators and Combined Fields

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PLATEAU

For Plateau Talent Management

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RESEARCH EXISTING REPORT OPERATORS

There are some tasks that would be complicated for a report developer to define. For example, you want the Scheduled Offering Roster to print the segment start/end date and time in the time zone preferred by the admin running the report.

For this reason, Plateau developers have created **operators** that contain subsets of code to use in Report Designer. In the next lab, you will research existing operators – then decide if you want to use the operator or replace the data field without an operator.

Suggestion: Look up online help to learn more about operators. Go to **Help > Plateau Report Designer > Using Report Operators**.



Design Tip: Here is an easy way to find a field from a Plateau standard report that uses an operator. Look for **text** fields with an entry of “TBD” (To Be Decided).

If you generate the report in PRD, you might see a result labeled TBD. That occurs because the values that the operator requires are not provided by PRD – they are only available when a person runs the report from inside the Plateau application.

Let’s research the field that will display the Item Type, Item ID, and Revision Date on one line.

Schedule			
Scheduled Offering ID	1		
Title	Vision & Values - Employees		
Item	COURSE-HC-LOWV&V100-Wed May 14 00:00:00 EDT 2003		
Segment	Start Date/Time	End Date/Time	Instructor
1 Default segment	Wed Aug 20 08:00:00 EDT 2003-	Wed Aug 20 16:00:00 EDT 2003-	Corey-Birch-A America/New_York-N America/New_York-N

Figure 1. Data Field for Item Using an Operator

Refer to Figure 2 and follow these steps to research a field that uses an operator:

1. Select the text field marked TBD.
2. Navigate to the **Advanced** menu of the **Property Editor – Text** tab.
3. View the entry for the **Event handler class** (this provides the path to the Java code that the operator uses).
4. View the entries for operator details:
 - a. OPERATOR_COLUMNS lists fields to be combined
 - b. OPERATOR_NAME provides descriptive identifier
 - c. SHOW_INPUT is set to **true** for Plateau operators

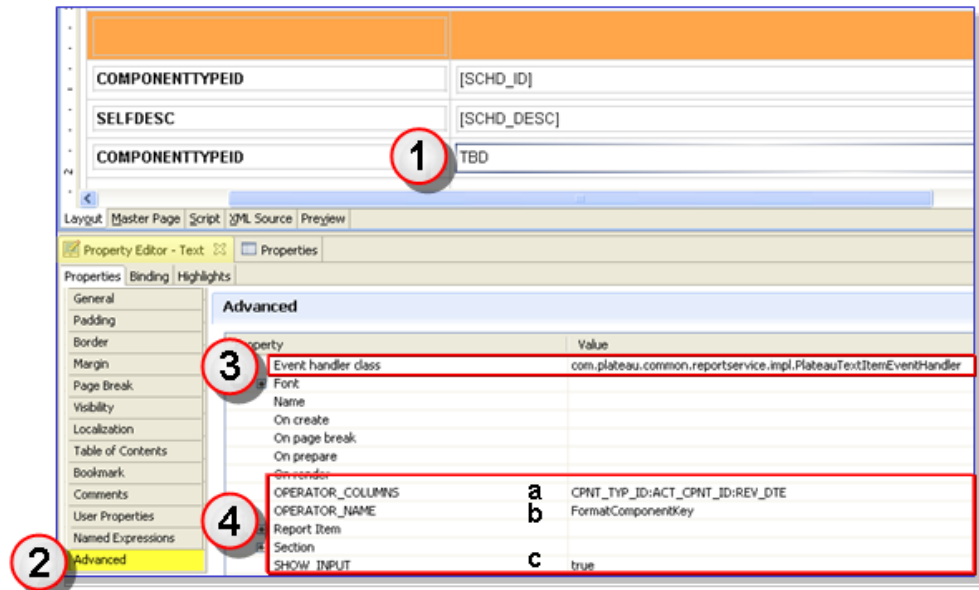


Figure 2. Operator Details for Item Field

If you want to create your own computed column for the *Item* field, you can simply delete the text field and add your own field.



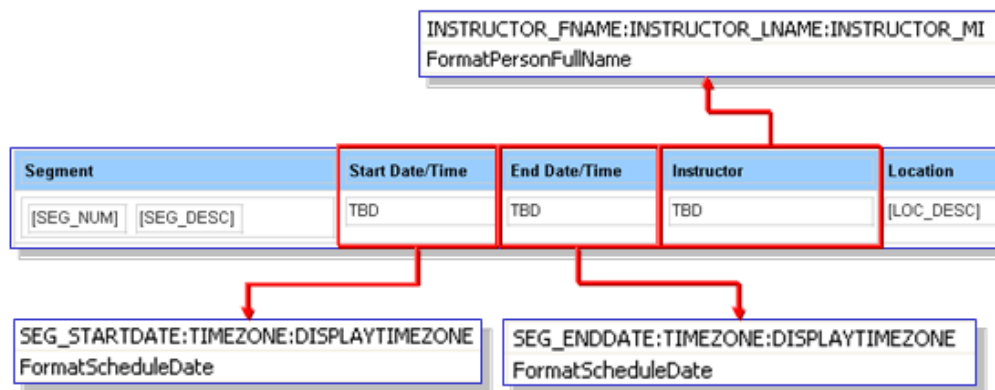
Lab 1. Locate and Research Operators in Segment Table

Scenario: In previous versions of Plateau reports, it was difficult to create a field that combined elements such as “Last Name, First Name”.

Solution: Plateau created an operator to concatenate the fields and display the full name – the FormatPersonFullName operator. Many standard reports for Plateau use this operator.

Step

1. Locate each field in the Segment table in **Layout** view that uses an operator (each field that contains the text “TBD”).
2. View the **Advanced** menu on the **Property Editor – Text** tab to research the fields used and the operator name, as shown in Figure 3.



Display date and time in preferred time zone

Figure 3. Operators Used in the Segment Table

3. Decide if you want to keep the operator to display segment start and end times in the admin’s time zone.
4. Remove the field for Instructor name from the table – in the next topic and lab, you will re-create a data field in a way that does not need an operator.



Lab 2. Add a Field that Uses an Operator to Calculate Days Remaining

Scenario: You have created a new report and displayed **Days Remaining** until an item is due. To do this, you used **trunc (req_dte-sysdate)** in the query for the calculation.

During testing, your customer notices that sometimes the calculation is inaccurate – it is off by a day. You investigate and realize that users are located in multiple global offices. The user's time zone should be taken into account when calculating days remaining.

Solution: Use the Plateau operator **FormatDaysRemainingDisplay**.

Operator details are illustrated in Figure 6. Notice the *Used By* column refers to another report that uses this field/operator. Exporting the *User Learning Plan* report is a good place to start your research if you want to see a working sample.

Operator name	Operator class	Input parameters	Output parameters	Used by (at least)	Notes
FormatDaysRemainingDisplay	com.plateausystems.elms.framework.report.impl.FormatDaysRemainingDisplayOperatorCommandImpl	requiredDate, stdPreferred Timezone	# days	UserLearningPlan	Given Required Date timestamp, Admin Preferences and Student Preferred time zone returns days remaining to complete the course based upon the LMS_ADMIN configuration whether to use learners preferred time zone or admin preferred time zone to calculate.

Figure 4. Steps to Create an Expression with Two Fields

Given **Required Date** timestamp and **Student Preferred** time zone, the operator returns days remaining to complete the course. The calculation is based upon the LMS_ADMIN configuration that specifies use of learner's preferred time zone or admin's preferred time zone when running the report.



Design Tip: For a list of operators, refer to the *Reporting Framework* document from your release docs folder or to the *Job Aid on Operators Used by Plateau*.

COMBINING FIELDS INTO A SINGLE COLUMN

Ways to combine fields into a new field/column binding:

1. In the data set as a SQL query with **concatenate** syntax – see Plateau reports for examples.
2. In the data set as a **computed column** – one advantage is ability to preview the results before running the report.
3. In the field as an **aggregated string with the concatenation** function.
4. In the table as **inline data**:
 - a. Select all elements in the cell (if all fields are of same data type; otherwise, click each field and continue, then repeat)
 - b. Go to the **Properties Editor** tab > **Properties** sub-tab > **Advanced**
 - c. Scroll down and expand **Section**
 - d. Change **Display** from *block* to *inline*.
5. Use the Plateau operator that concatenates the field.



Lab 3. Include Multiple Fields in a Column Binding without an Operator

Scenario: You do not want to display the entire item key (item type + item ID + revision date). You want to display the item title followed by the item ID. The desired result is shown in Figure 5.

Schedule Offering: 3505	
Item Title: Behavior: Putting Your Best Foot Forward (ADM0111)	
Segment	Start
Day 1	Jun 16, 2008 9:00 AM
Day 2	Jun 17, 2008 9:00 AM
Day 3	Jun 18, 2008 9:00 AM

Figure 5. Sample with Combined Item Title and Item ID

Solution: Edit the column binding for Item Title and add the Item ID field to the expression. Steps are illustrated in Figure 6.

Expression Builder
Type an expression in the Expression field. Browse the lists of available objects and double-click to copy into your expression.

1dataSetRow["SCHD_DESC"] + (" + ") 1

Operators: + - * / ! = < > & | ()

ACT_CPNT_ID

Category: Available Column Bindings 2 Available Data Sets Report Parameters Native JavaScript Functions

Sub-Category: Data(DESCRIPTION) 3 Table - Sign In Section with Student Table - Master Table

Double Click to insert: ACT_CPNT_ID 4 REV_DTE MIN_ENRL MAX_ENRL

1dataSetRow["SCHD_DESC"] + (" + row["ACT_CPNT_ID"] +) 5

OK 6

Figure 6. Steps to Create an Expression with Two Fields

Step

1. Right-click the existing field and select **Edit/Value Expression**.
2. Select the Expression Builder icon to open the existing column binding.
3. Add the string shown here to add a second field and to place the field value in parentheses: **+ “(“ + +””**.
4. Place your cursor between the plus symbols so you can insert the field.
5. In the **Category** column, select **Available Column Bindings**.
6. In the **Sub-Category** column, select the element with the field you want.
7. In the final column, locate the field **ACT_CPNT_ID** for the activity/item associated with this scheduled offering.
8. Double-click on the field to insert it in the parentheses.
9. Select **OK** twice to save the changes, then preview results.
10. Apply what you learned to create a field for the Instructor name.



Design Tip: There are different ways to handle values that might be null. Here is one example that shows treatment for null values in a computed column.

```
(dataSetRow["FNAME"]!=null ? (dataSetRow["FNAME"] + " ") : " ") +
(dataSetRow["MI"]!=null ? (dataSetRow["MI"] + " ") : " ") +
(dataSetRow["LNAME"] !=null ? dataSetRow["LNAME"] : "")
```

