

## Using the Script Window, Next Steps

Ingredients: Script Editor Window

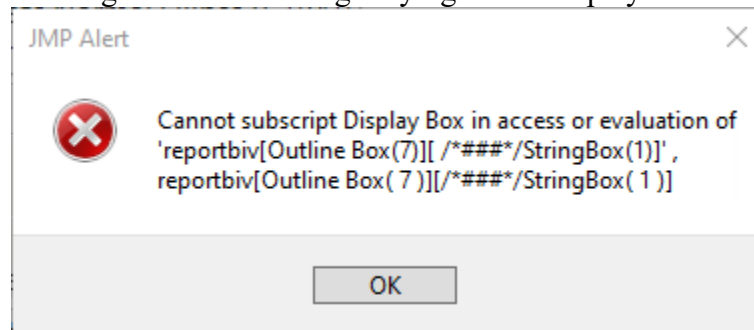
Sample Script – Attached Below

Difficulty – Easy

Video Length – 3:50

This recipe will demonstrate some of the lesser known but handy Script Editor features. Whether you're new to JSL or have been scripting for a while, you may not be familiar with some of these features. We will use a modified version of the Extract Values from Report script found in the sample script directory that comes with JMP.

1. Open the JSL script attached to this recipe.
2. Reformat the script. Position the cursor inside the Script Editor window. Right click and select **Reformat Script**.
3. Run the script. You'll get an error message saying that a Display Box can be subscripted.



These details are written at the bottom of the log.

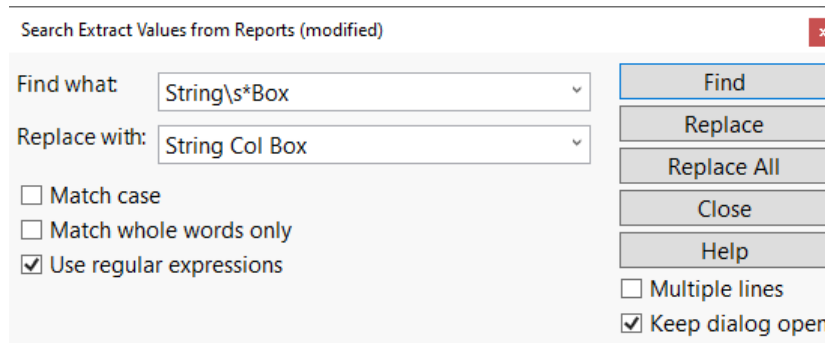
```
Cannot subscript Display Box in access or evaluation of 'reportbiv[Outline Box(7)][
/*###*/StringBox(1)]', reportbiv[Outline Box( 7)][/*###*/StringBox( 1 )]
at line 16 in \\Mac\Documents\Work Area\Projects\JSL Cookbook Redo_In
Progress\Script Editor (next steps)\Extract Values from Reports (modified).jsl
```

This mark `/*###*/` is used to show where the error occurs. In most cases, a line number is also given.

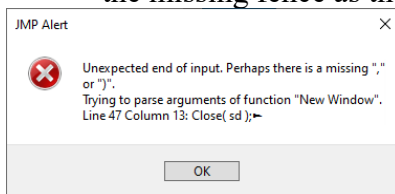
4. On line 18, `StringBox` is not colored blue because it isn't recognized by JSL as a function or object. Position the cursor between `String` and `Box` and simultaneously press the **CTRL** and **Space** keys (**Option+Esc** on the Mac). This displays the Autocomplete window using the string to the left of the cursor. Select `String Col Box` and delete the second `Box`.

Auto Complete needs at least one letter to the left of the cursor. Once the window is open, you can continue typing or scroll through the list.

5. If we try running the script again, we will get the same error on line 18. Select the word `StringBox` and press CTRL-F (Command-F on the Mac) or select Edit > Search > Find. Find and Replace will let us do a global replace of this phrase with the correct one. One of the more powerful features of Find and Replace is the ability to use Regular Expressions. For example, the expression below would replace any occurrence of the consecutive words `String` and `Box` regardless of the amount of white between them. This is helpful if both `StringBox` and `String Box` appear in the script.



6. Brackets, parentheses, and braces all appear in pairs. The general term for these structures is fences. When fences become unbalanced, that is if one of the pair is missing, it may be difficult to locate exactly where the problem occurs.
  - a) Delete the close parenthesis on line 45 and run the script. The error message identifies the missing fence as the problem but indicates the last line of the script as its location.



Unexpected end of input. Perhaps there is a missing ", or ")".  
Trying to parse arguments of function "New Window".  
Line 47 Column 13: Close( sd );

- b) Position the cursor between the close parenthesis and semicolon on line 46. The open parenthesis on line 26 is identified as its match.

```

25 dlg = New Window( "Custom Report",
26   Outline Box( "Selected Values",
27     Lineup Box( N Col( 2 ), Text Box
28       Table Box(
29         String Col Box( "", {"Sample
30           Spacer Box( Size( 30, 30 ) )
31         },
32         Number Col Box( "", dvalues
33       ),
34       Spacer Box( Size( 0, 30 ) ),
35     ),
36     Table Box(
37       CloneTerm,
38       Spacer Box( Size( 10, 0 ) ),
39     ),
40     Number Col Box( "Estimate",
41       Spacer Box( Size( 10, 0 ) ),
42     ),
43     Number Col Box( "Standard Er
44   )
45 );
46 );
47 Close( sd );

```

- c) On line 25 position the cursor between the final “w” in “Window” and the open parenthesis. It is highlighted pink because there is no matching close parenthesis.

```

24 sfactor = term[2];
25 dlg = New Window( "Custom Report",
26     Outline Box( "Selected Values",

```

- d) Double click the open parenthesis on line 26. Everything between it and its closing match is highlighted.

```

25 dlg = New Window( "Custom Report",
26     Outline Box( "Selected Values",
27         Lineup Box( N Col( 2 ), Text Box( "Factor of Interest:",
28             Table Box(
29                 String Col Box( "", {"Sample Size:", "Adjusted RSq
30                     Spacer Box( Size( 30, 30 ) ),
31                 ,
32                 Number Col Box( "", dvalues )
33             ),
34             Spacer Box( Size( 0, 30 ) ),
35         ,
36         Table Box(
37             CloneTerm,
38             Spacer Box( Size( 10, 0 ) ),
39         ,
40             Number Col Box( "Estimate", est ),
41             Spacer Box( Size( 10, 0 ) ),
42         ,
43             Number Col Box( "Standard Error", stde )
44         )
45     );
46 );
47 Close( sd );

```

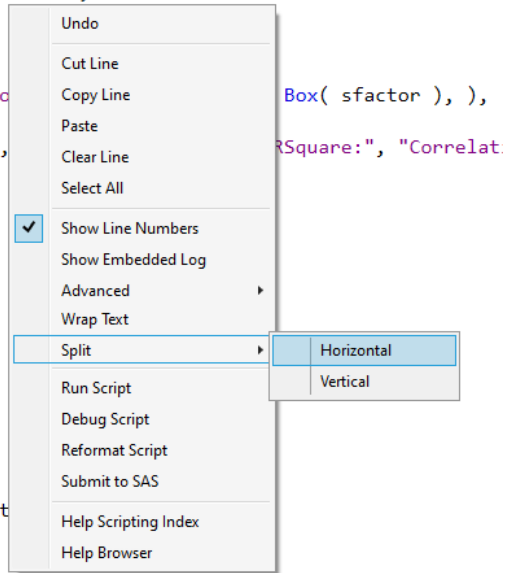
- e) Move the cursor to the end of line 28 and press CTRL and the right square bracket at the same time. Use Command and B on the Mac. Everything between the first opening parenthesis to the left of the cursor and its closing fence is highlighted.

```

27     Lineup Box( N Col( 2 ), Text Box( "Factor of Interest:" ), Text Box( sfactor ), ),
28     Table Box(
29         String Col Box( "", {"Sample Size:", "Adjusted RSquare:", "RSquare:", "Correlation:"} ),
30         Spacer Box( Size( 30, 30 ) ),
31     ,
32     Number Col Box( "", dvalues )
33 ),
34     Spacer Box( Size( 0, 30 ) ),

```

7. Finally, its sometimes handy to split the script window so code in different parts of the script can be compared. To do this, right click and select Split > Horizontal or Split > Vertical.



```

Extract Values from Reports (modified) - JMP Pro
File Edit Tables DOE Analyze Graph Tools Add-Ins View Window Help
14 rsquare = sumfit[1];
15 adjrsq = sumfit[2];
16 avg = sumfit[4];
17 samplesize = sumfit[5];
18 term = reportbiv[Outline Box( 7 )][String Col Box(
19 cloneterm = reportbiv[Outline Box( 7 )][String Col
20 est = reportbiv[Outline Box( 7 )][Number Col Box(
21 stde = reportbiv[Outline Box( 7 )][Number Col Box(
22 dvalues = [];
23 dvalues = samplesize || adjrsq || rsquare || corr
24 sfactor = term[2];
25 dlg = New Window( "Custom Report",
26   Outline Box( "Selected Values",
27     Lineup Box( N Col( 2 ), Text Box( "Factor
28     Table Box(
29       String Col Box( "", {"Sample Size:",
30       Spacer Box( Size( 30, 30 ) ),
31       ,
32       Number Col Box( "", dvalues )
33     ),
34     Spacer Box( Size( 0, 30 ) ),
35     ,
36     Table Box(
37       CloneTerm,
38       Spacer Box( Size( 10, 0 ) ),
39       ,
40       Number Col Box( "Estimate", est ),|
41       Spacer Box( Size( 10, 0 ) ),
42       ,
43       Number Col Box( "Standard Error", stde
44     )
45   );
46 );
47 Close( sd );
1 Names Default To Here( 1 );
2 sd = Open( "$SAMPLE_DATA/Lipid Data.JMP" );
3 biv = Bivariate(
4   Y( :Triglycerides ),
5   X( :LDL ),
6   DensityEllipse( 0.95, {LineColor( {213, 72, 8
7   FitLine( {LineColor( {57, 177, 67} )} ),
8
9 );
10 Report( biv )[Outline Box( 2 )] << Close( 0 );
11 reportbiv = biv << Report;
12 corrvalue = reportbiv[Outline Box( 2 )][Number Co
13 sumfit = reportbiv[Outline Box( 4 )][Number Col B
14 rsquare = sumfit[1];
15 adjrsq = sumfit[2];
16 avg = sumfit[4];
17 samplesize = sumfit[5];
18 term = reportbiv[Outline Box( 7 )][String Col Box
19 cloneterm = reportbiv[Outline Box( 7 )][String Co
20 est = reportbiv[Outline Box( 7 )][Number Col Box(
21 stde = reportbiv[Outline Box( 7 )][Number Col Box
22 dvalues = [];
23 dvalues = samplesize || adjrsq || rsquare || corr
24 sfactor = term[2];
25 dlg = New Window( "Custom Report",
26   Outline Box( "Selected Values",
27     Lineup Box( N Col( 2 ), Text Box( "Factor
28     Table Box(
29       String Col Box( "", {"Sample Size:",
30       Spacer Box( Size( 30, 30 ) ),
31       ,
32       Number Col Box( "", dvalues )
33     ),
34     Spacer Box( Size( 0, 30 ) ),

```

y = Number Col Box( title, numbers ) Returns a display box to show the numbers specified by the numbers argument, which can be a list or matrix.