

# **Data Grid Tips & Tricks**

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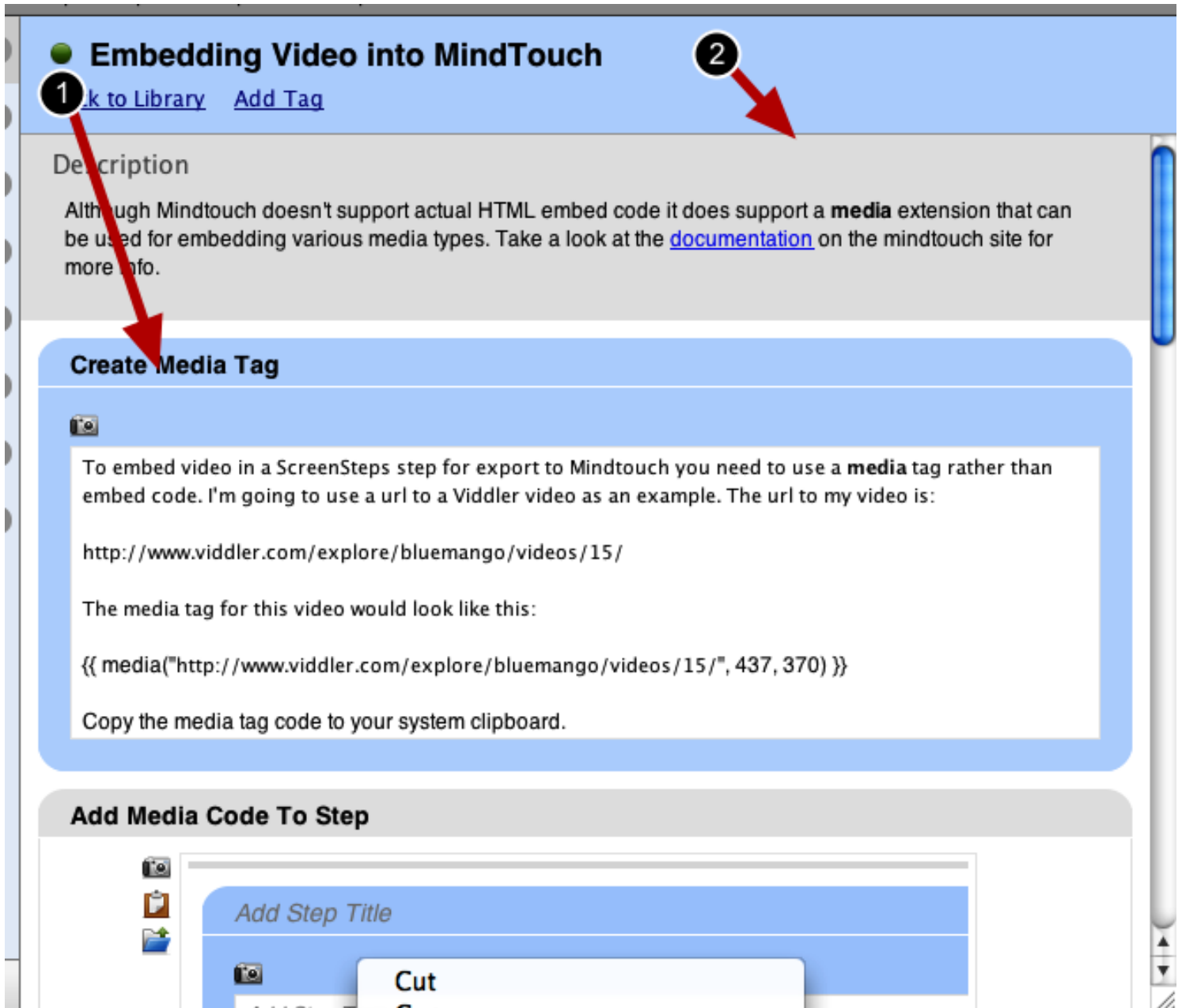
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# General

## How Do I Scroll a Row To The Top of the Data Grid Form?

This lesson will show you how to scroll a particular row to the top of the Data Grid form using the `dgRectOfIndex` (or `dgRectOfLine`) property. This technique is useful when your rows are not a fixed height.

### The Goal



The screenshot shows a web interface with a data grid. The first row is highlighted in blue and contains the text "Embedding Video into MindTouch". A red arrow labeled "1" points to the first cell of this row, and another red arrow labeled "2" points to the top of the row. Below the data grid, there is a "Description" section with text about MindTouch's media extension. Below that is a "Create Media Tag" section with a video icon, a text area containing a URL and a media tag code, and a "Copy the media tag code to your system clipboard." instruction. At the bottom is an "Add Media Code To Step" section with a video icon and a "Cut" button.

Here you can see that I have a selected row in a data grid (1). I want to scroll that row to the top of the data grid (2).

## How To Do It

Here is the code that will scroll the selected line to the top of the data grid.

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### Copy & Paste

=====

put the dgHilitedIndex of group "DataGrid" into theIndex

put the dgRectOfIndex [theIndex] of group "DataGrid" into theControlRect

put the rect of group "DataGrid" into theGridRect

put item 2 of theGridRect - item 2 of theControlRect into theOffset

set the dgVScroll of group "DataGrid" to the dgVScroll of group "DataGrid" - theOffset

## The Result

The screenshot shows the MindTouch interface. At the top, there is a blue header with the title "Embedding Video into MindTouch" and two links: "Back to Library" and "Add Tag". A red arrow points to the "Add Tag" link. Below the header is a section titled "Create Media Tag" with a text area containing instructions on how to embed a video using a media tag. The instructions include a URL example: `http://www.viddler.com/explore/bluemango/videos/15/` and a media tag code example: `{{ media("http://www.viddler.com/explore/bluemango/videos/15/", 437, 370) }}`. Below this is a section titled "Add Media Code To Step" which shows a step editor. A context menu is open over the step editor, with the option "Set Video Embed Code..." highlighted in blue and circled in red. Other options in the menu include "Cut", "Copy", "Paste Image", "Duplicate", "Import Image File", "New Step", "New Step with Clipboard Image", and "Split Lesson At This Step".

After executing the code the row will be a moved to the top of the data grid.

## How Do I Find Out Which Line The Mouse Is Over?

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Each data grid row has a `dgDataControl` property that returns the long id of the control. Each control also has a `dgLine` and `dgIndex` property. You can combine the two in order to get the control the mouse is over.

```
put the dgDataControl of the mousecontrol into theControl
if theControl is not empty then
    put the dgLine of theControl into theLineNo
end if
```

# Databases

## Converting a Database Cursor To a Data Grid Array

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This lesson demonstrates a handler that will convert a database cursor into an array that you can use to set the dgData property of a data grid.

### The Handler

```
command ConvertSQLCursorToArray pCursor, @pOutArrayA
  local i,j
  local theFields
  local theError

  put revDatabaseColumnNames(pCursor) into theFields
  if theFields begins with "revdberr," then
    put item 2 to -1 of theFields into theError
  end if

  if theError is empty then
    put 0 into i
    repeat until revQueryIsAtEnd(pCursor)
      add 1 to i

      repeat for each item theField in theFields
        put revDatabaseColumnNamed(pCursor, theField) into pOutArrayA[i][ theField ]
      end repeat

      revMoveToNextRecord pCursor
    end repeat
  end if

  return theError
end ConvertSQLCursorToArray
```

### Example

You can call the command as follows. In this example theCursor is a database cursor that you have opened using revQueryDatabase.

```
local theDataA
```

```
ConvertSQLCursorToArray theCursor, theDataA
put the result into theError
```



If theError is empty then dimension 1 of theDataA will contain integers from 1 to the number of records in the cursor (revNumberOfRecords). Each 1st dimension, in turn, has a key for each column in the cursor (revDatabaseColumnNames).

Here is what the array might look like if your cursor had 2 columns (id and name) and 3 rows.

```
theDataA [1] ["id"]  
theDataA [1] ["name"]  
theDataA [2] ["id"]  
theDataA [2] ["name"]  
theDataA [3] ["id"]  
theDataA [3] ["name"]
```

You can use this array to set the dgData property of a data grid.

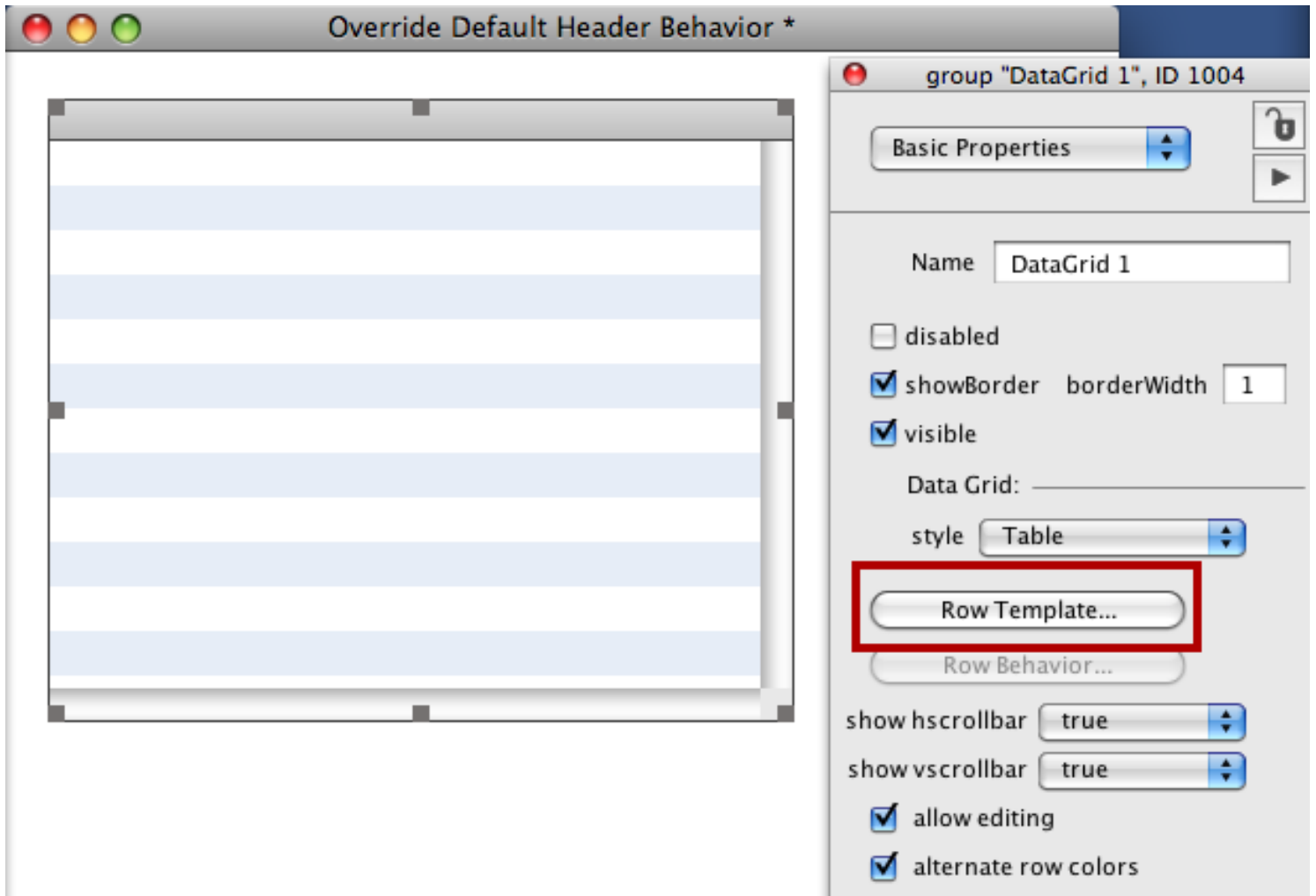
set the dgData of group "DataGrid 1" to theDataA

# Tables

## How Do I Add Tooltips To Column Headers?

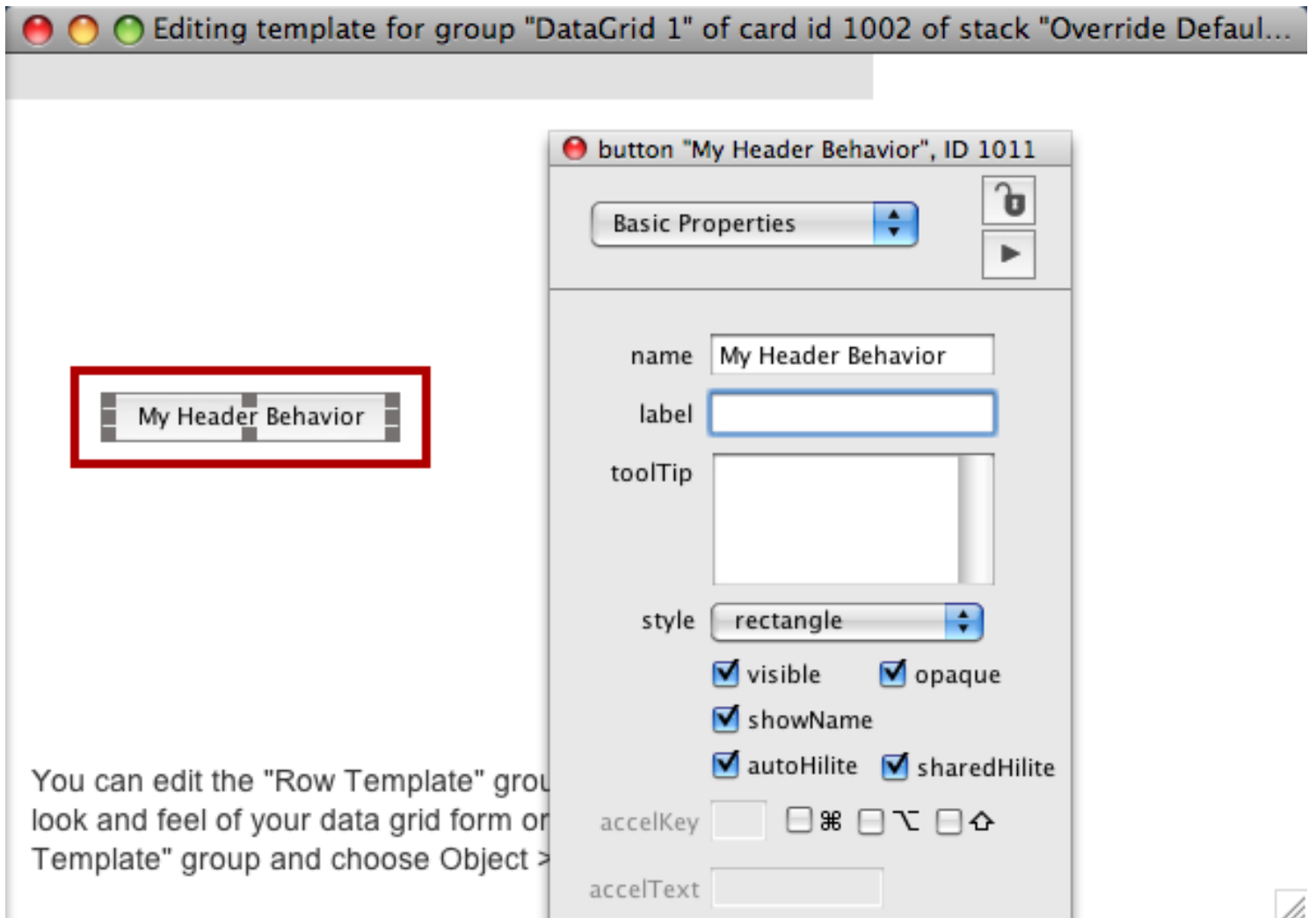
Currently column headers in a data grid table do not have a tooltip property. You can still get tooltips to appear, however, by customizing the default behavior script for column headers. This lesson will show you how.

### Open Template Card For Data Grid Table



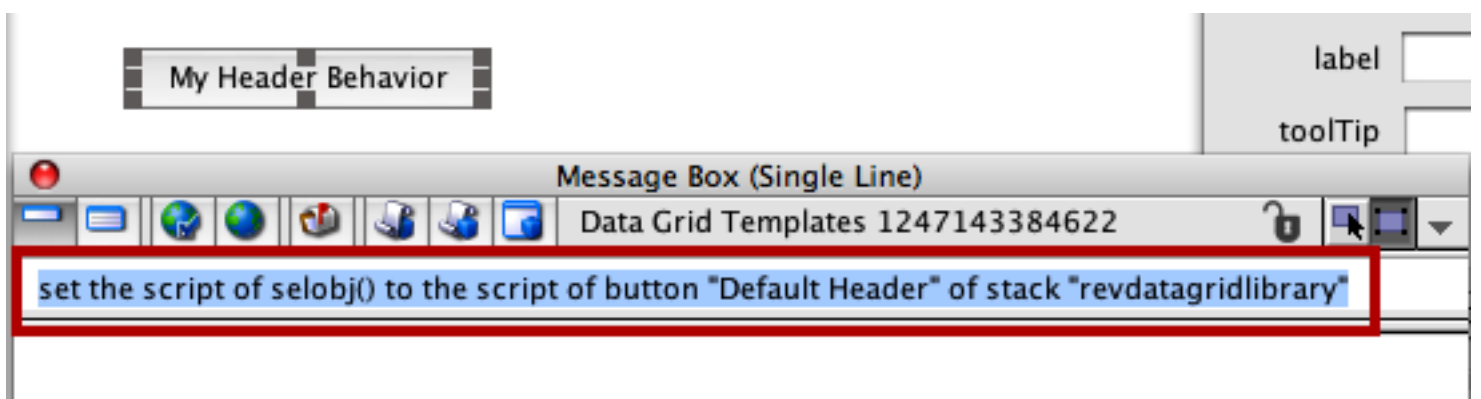
Open the template card for the data grid table by clicking on the **Row Template** button in the property inspector.

## Create Button For Custom Behavior



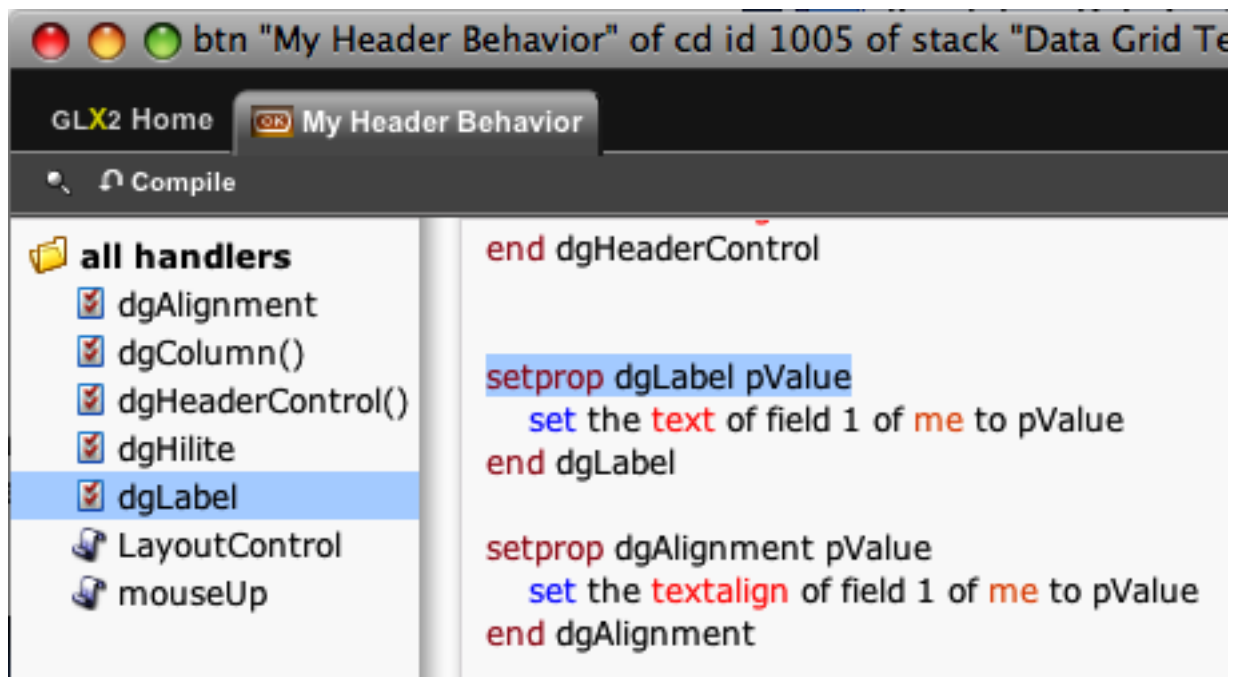
Drag a button onto the template card and name it **My Header Behavior**.

## Assign Script

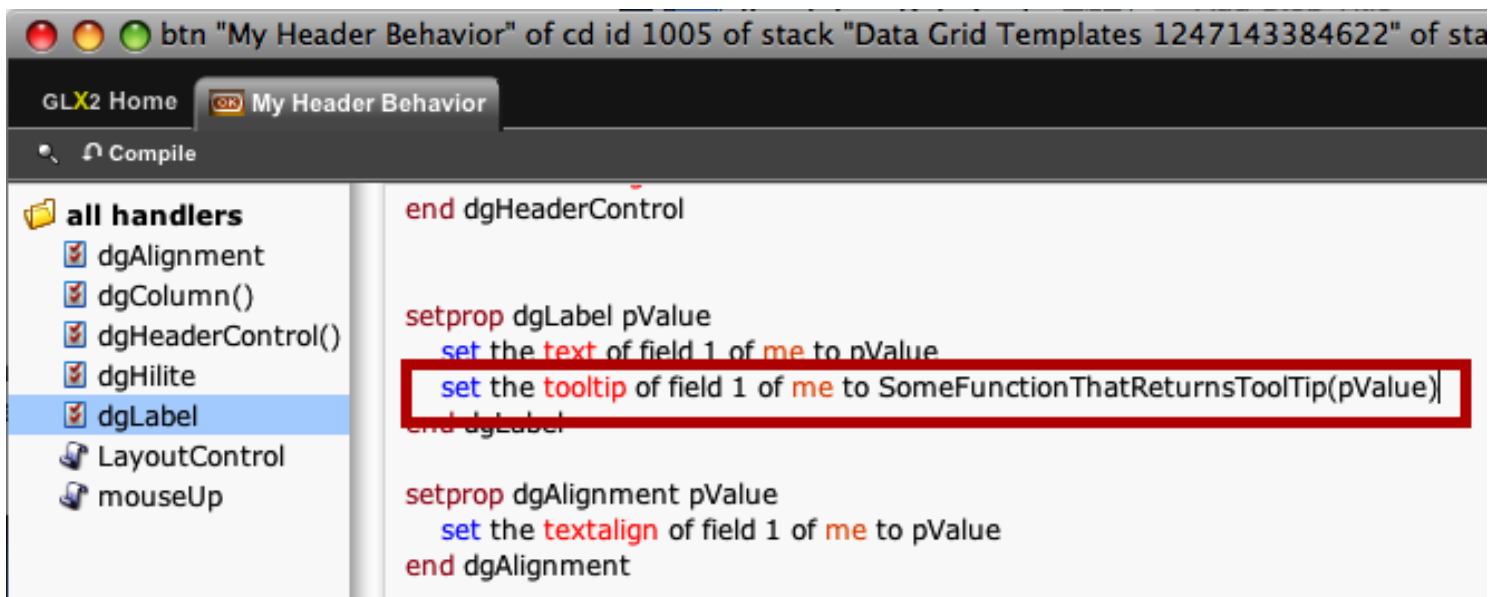


Assign the script of the **My Header Behavior** button to the script of button "Default Header" of stack "revDataGridLibrary". This ensures that your behavior has the same basic behavior that a column header should have.

## Customize Script

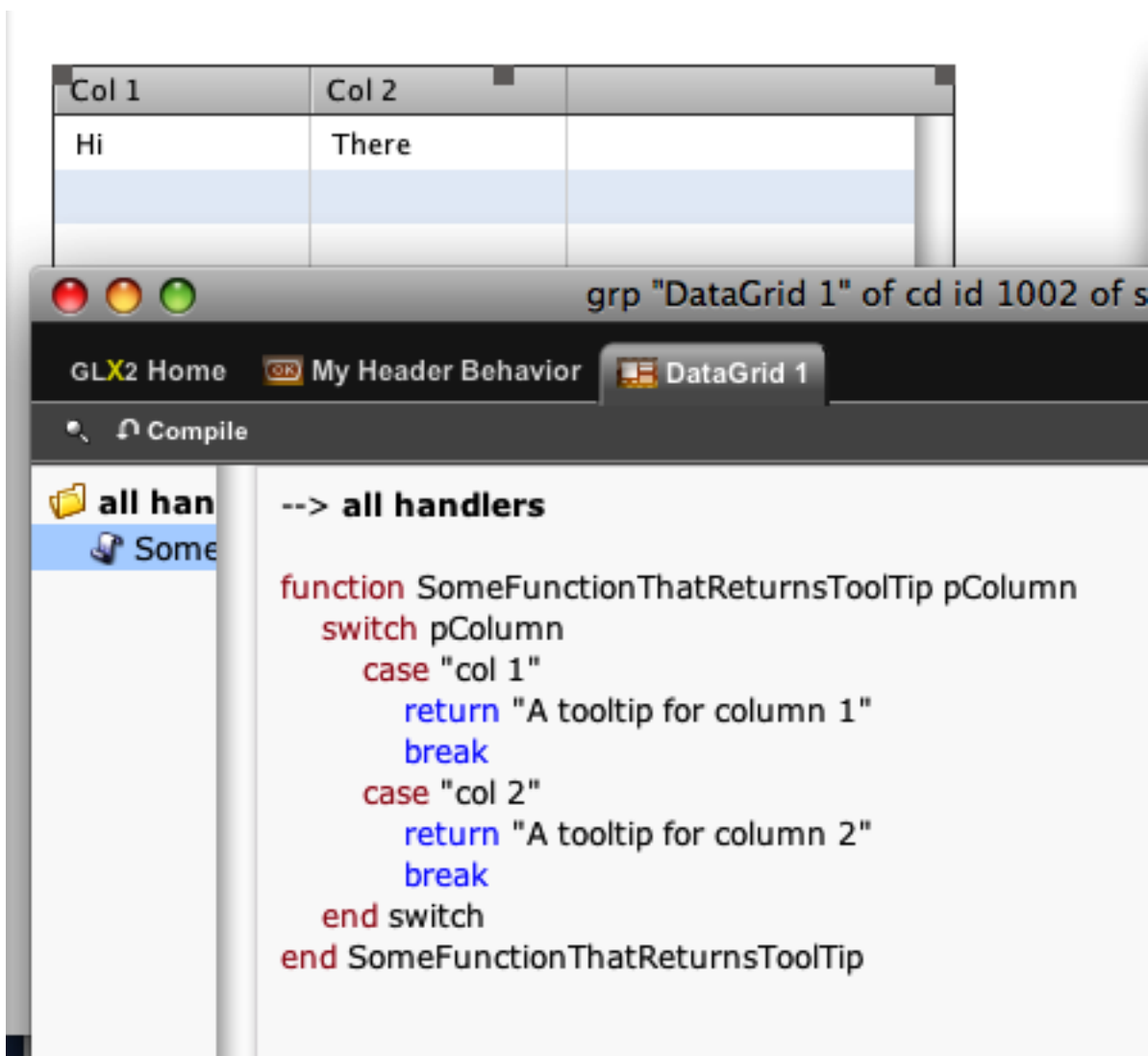


Now edit the script of the **My Header Behavior** button. You want to customize the **dgLabel** setProp.



Add a new line to the setProp that assigns the tooltip of *field 1 of me*. In this example I'm calling a function that takes the name of the column (pValue) as the first parameter. I'm going to define the function in the data grid group script.

## Define Function That Returns Tooltip



Select your data grid and edit its script. Define the `SomeFunctionThatReturnsToolTip` function to return a tooltip based on the column name passed in.

```
function SomeFunctionThatReturnsToolTip pColumn  
  switch pColumn  
    case "col 1"  
      return "A tooltip for column 1"  
      break  
    case "col 2"  
      return "A tooltip for column 2"  
      break  
  end switch  
end SomeFunctionThatReturnsToolTip
```

## Assign "default header behavior" Property

The screenshot shows a software interface with a data grid and a message box. The data grid has two columns, "Col 1" and "Col 2", and several rows. The first row contains "Hi" and "There". Below the grid is a button labeled "My Header Behavior". A message box window is open, displaying a script: "set the dgProps["default header behavior"] of selobj() to the long id of button "My Header Behavior". The message box title is "Message Box (Single Line)" and the window title is "Data Grid Templates 1247143384622".

Col 1	Col 2
Hi	There

Editing template for group "DataGrid 1" of card id 1002 of stack "Override D

My Header Behavior

Message Box (Single Line)  
Data Grid Templates 1247143384622

```
set the dgProps["default header behavior"] of selobj() to the long id of button "My Header Behavior"
```

To finish up you just need to assign the "default header behavior" property to the long id of the **My Header Behavior** button. This tells the data grid to use the script of your button rather than the default script supplied with the data grid.

## Refresh Data Grid

Col 1	Col 2	
Hi	There	

style

show hscrollbar

show vscrollbar

- allow editing
- alternate row colors
- auto hilite
- multiple lines
- allow column resizing
- fixed control height

Row Height

- cache controls
- persistent data

Click the **Refresh Data Grid** button in the property inspector to refresh all of the controls.

## Test

Col 1	Col 2	
Hi	The	

Now when you roll over a column header the tooltip will appear.