

Custom Templates for AJAX Grids

Data Aquarium Framework and Aquarium Express provide excellent support for custom form templates.

New feature in Data Aquarium Framework allows to create *inline form templates* for rows of grid views in edit mode.

See [live demo](#) of this feature now.

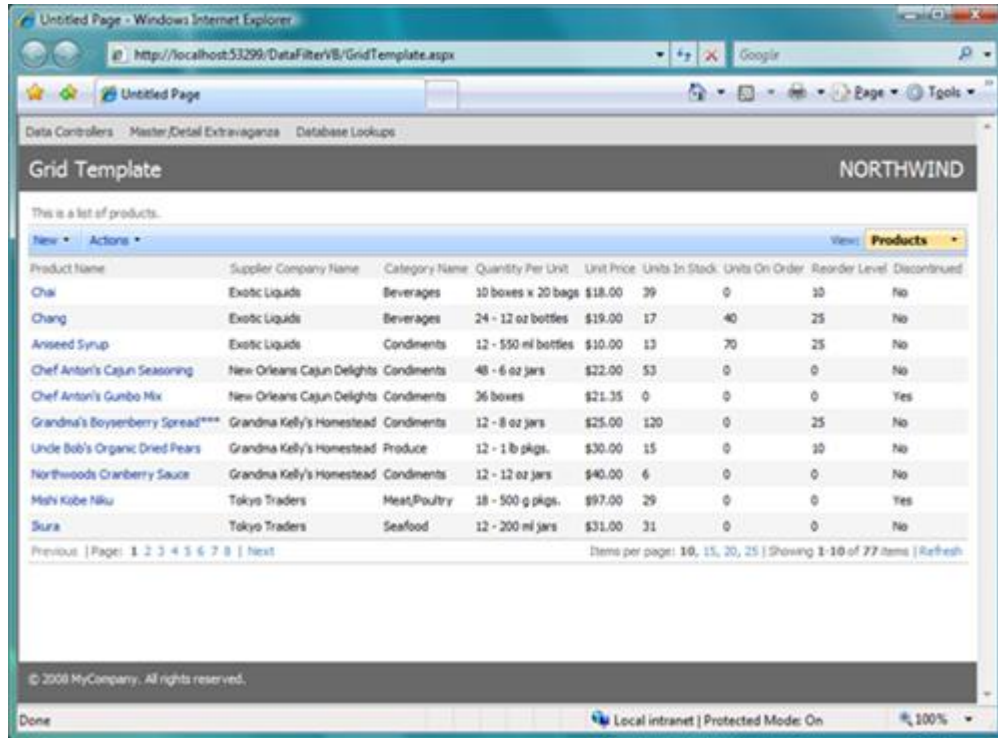
Generate a *Data Aquarium* project from *Northwind* database. Create a new form with name *GridTemplate.aspx* based on *MasterPage.master*. Enter the following markup.

```
<%@ Page Language="VB" MasterPageFile="~/MasterPage.master"
AutoEventWireup="false"
    CodeFile="GridTemplate.aspx.vb" Inherits="GridTemplate" Title="Grid
Template" %>

<asp:Content ID="Content1" ContentPlaceHolderID="head" runat="Server">
</asp:Content>
<asp:Content ID="Content2" ContentPlaceHolderID="Header1Placeholder"
runat="Server">
    Grid Template
</asp:Content>
<asp:Content ID="Content3" ContentPlaceHolderID="Header2Placeholder"
runat="Server">
    Northwind
</asp:Content>
<asp:Content ID="Content4" ContentPlaceHolderID="BodyPlaceholder"
runat="Server">
    <div id="Products" runat="server" />
    <aquarium:DataViewExtender ID="ProductsExtender" runat="server"
Controller="Products"
        TargetControlID="Products" />
</asp:Content>
```

```
</asp:Content>
```

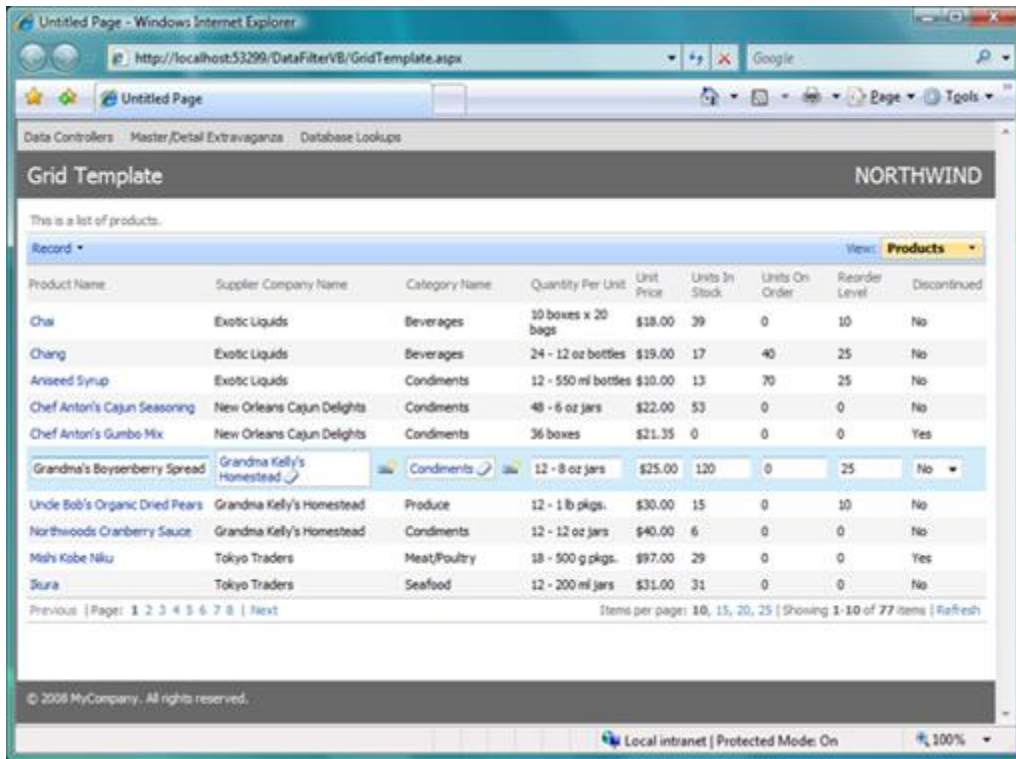
View this page in a web browser. It will look like the one in the next illustration.



Change `~/Controllers/Products.aspx` data controller descriptor by moving action with `Edit` command to be the first action in the scope of grid.

```
<actionGroup scope="Grid">
  <action commandName="Edit" />
  <action commandName="Select" commandArgument="editForm1" />
  <action commandName="Delete" confirmation="Delete?" />
  <action whenLastCommandName="Edit" commandName="Update" headerText="Save"
/>
  <action whenLastCommandName="Edit" commandName="Cancel" />
</actionGroup>
```

Refresh the page and click on any link in the first column. This will force the grid view to display all fields in selected row to present the edit mode user interface.



This works well for most applications. Sometimes you may need to display just a few columns when user browses through records but would rather have more fields available for editing without leaving the grid view.

Enter the following *HTML* fragment right after the *GridViewExtender* in *GridTemplate.aspx* page.

```
<div id="Products_grid1" style="display: none">
  <table style="border: solid 1px silver; margin: 4px">
    <tr>
      <td valign="top">
        <div style="margin-bottom: 4px">
          {ProductName}</div>
        <div style="margin-bottom: 4px">
          {SupplierID}</div>
        <div>
          {CategoryID}</div>
      </td>
```

```
<td valign="top">
  <div style="margin-bottom: 4px">
    {QuantityPerUnit}</div>
  <div style="margin-bottom: 4px">
    {UnitPrice}</div>
  <div>
    {Discontinued}</div>
</td>
<td valign="top">
  <div style="margin-bottom: 4px">
    {UnitsInStock}</div>
  <div style="margin-bottom: 4px">
    {UnitsOnOrder}</div>
  <div>
    {ReorderLevel}</div>
</td>
</tr>
</table>
</div>
```

Refresh the page in a web browser and click on any product link in the first column of the grid view.

The screenshot shows a web browser window titled "Grid Template - Windows Internet Explorer" displaying a grid of products. The grid has columns for Company Name, Category Name, Quantity Per Unit, Unit Price, Units In Stock, Units On Order, Reorder Level, and Discontinued. A row for "Chef Anton's Gumbo Mix" is selected, and an inline form template is displayed over it. The form includes fields for Product Name, Quantity Per Unit, Units In Stock, Supplier Company Name, Unit Price, Units On Order, Category Name, and Discontinued*. A context menu is open over the form, showing "Save" and "Cancel" options. The "Save" option is highlighted, and its tooltip reads "Save changes to the database." The "Cancel" option is also visible, with a tooltip that reads "Cancel all record changes." The grid also shows other products like "Grandma's Boysenberry Spread", "Uncle Bob's Organic Dried Pears", "Northwoods Cranberry Sauce", "Mishi Kobe Niku", and "Ikura".

Company Name	Category Name	Quantity Per Unit	Unit Price	Units In Stock	Units On Order	Reorder Level	Discontinued	
...	Beverages	10 boxes x 20 bags	\$18.00	29	0	10	No	
...	Beverages	24 - 12 oz bottles	\$19.00	17	40	25	No	
Aniseed Syrup	Exotic Liquids	Condiments	12 - 550 ml bottles	\$10.00	13	70	25	No
Chef Anton's Cajun Seasoning	New Orleans Cajun Delights	Condiments	48 - 6 oz jars	\$22.00	53	0	0	No
Grandma's Boysenberry Spread	Grandma Kelly's Homestead	Condiments	12 - 8 oz jars	\$25.00	120	0	25	No
Uncle Bob's Organic Dried Pears	Grandma Kelly's Homestead	Produce	12 - 1 lb pkgs.	\$30.00	15	0	10	No
Northwoods Cranberry Sauce	Grandma Kelly's Homestead	Condiments	12 - 12 oz jars	\$40.00	6	0	0	No
Mishi Kobe Niku	Tokyo Traders	Meat/Poultry	18 - 500 g pkgs.	\$97.00	29	0	0	Yes
Ikura	Tokyo Traders	Seafood	12 - 200 ml jars	\$31.00	31	0	0	No

Your template will be displayed in place of the selected row. The template definition technique is equivalent to the one that you would use with [custom form templates](#). The popup menu on the action bar allows user to save or cancel changes. All controls behave in the same way as they do in a regular form view rendered by framework.

From user's perspective such grid is a lot like an accordion view, which expands the row when you edit the record. You can further enhance the presentation of inline form by introducing custom *Save* and *Cancel* buttons. Add a second table row to the table in the template *Products_grid1*.

```
<tr>
  <td colspan="3" align="right" style="border-top: solid 1px silver;
padding: 4px;">
    <button
onclick="Web.DataView.find('ProductsExtender').executeAction('ActionBar', 0,
null, 0)">
      Save</button>
    <button
onclick="Web.DataView.find('ProductsExtender').executeAction('ActionBar', 1,
null, 0)">
      Close</button>
  </td>
</tr>
```

The novelty here is *onclick* event handler that executes the same actions that are available in the *Record* menu on action bar. This code is written in java script and is executed in a browser when user clicks on a button.

The first argument of *executeAction* method defines the action scope. The second one is the action index. Third argument represents the row in the grid. You don't know, which row is selected, but *Web.DataView* component does. That is why we are passing *null* here. The last argument defines the index of action group in the scope, which is handy if you have more than one action available on action bar in edit mode.

This is how you template looks if you are trying it out.

Record ▾								View: Products ▾
Product Name	Supplier Company Name	Category Name	Quantity Per Unit	Unit Price	Units In Stock	Units On Order	Reorder Level	Discontinued
Chai	Exotic Liquids	Beverages	10 boxes x 20 bags	\$18.00	39	0	10	No
Chang	Exotic Liquids	Beverages	24 - 12 oz bottles	\$19.00	17	40	25	No
Aniseed Syrup	Exotic Liquids	Condiments	12 - 550 ml bottles	\$10.00	13	70	25	No

Product Name*	Quantity Per Unit	Units In Stock
<input type="text" value="Chef Anton's Cajun Seasoning"/>	<input type="text" value="48 - 6 oz jars"/>	<input type="text" value="53"/>
Supplier Company Name	Unit Price	A number is expected.
<input type="text" value="New Orleans Cajun Delights"/>	<input type="text" value="\$22.00"/>	Units On Order
Category Name	Discontinued*	<input type="text" value="0 - hello"/>
<input type="text" value="Condiments"/>	<input type="text" value="No"/>	Reorder Level
		<input type="text" value="0"/>
<input type="button" value="Save"/> <input type="button" value="Close"/>		

Chef Anton's Gumbo Mix	New Orleans Cajun Delights	Condiments	36 boxes	\$21.35	0	0	0	Yes
Grandma's Boysenberry Spread	Grandma Kelly's Homestead	Condiments	12 - 8 oz jars	\$25.00	120	0	25	No
Uncle Bob's Organic Dried Pears	Grandma Kelly's Homestead	Produce	12 - 1 lb pkgs.	\$30.00	15	0	10	No
Northwoods Cranberry Sauce	Grandma Kelly's Homestead	Condiments	12 - 12 oz jars	\$40.00	6	0	0	No
Mishi Kobe Niku	Tokyo Traders	Meat/Poultry	18 - 500 g pkgs.	\$97.00	29	0	0	Yes
Ikura	Tokyo Traders	Seafood	12 - 200 ml jars	\$31.00	31	0	0	No

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Notice that this sample shows an invalid *Units On Order* value entered, which is detected when you click on *Save* button.

If you want to display more fields than there are columns in the view then make sure to define all data fields in grid view and simply add *hidden* attribute set to *true* for each data field, which is not supposed to be displayed as a grid view column but should be available in an inline form.