DesignBais

Responsive Design

Release 8

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Overview

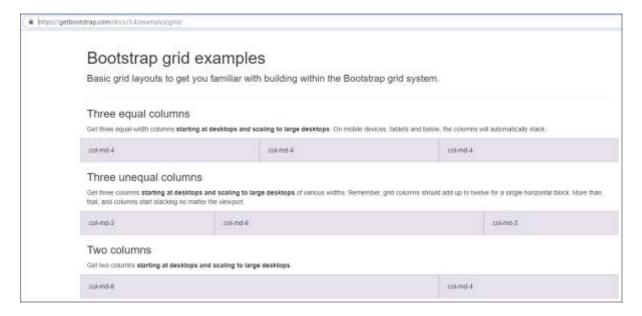
This document describes the features of the DesignBais Responsive Design tool which forms part of the DesignBais toolset for creating browser-based application software.

The Responsive Design tool complements the existing DesignBais toolset. DesignBais Release 8 is completely compatible with DesignBais Release 7. There is no requirement for conversion or migration of DesignBais Release 7 forms and subroutines when upgrading to DesignBais Release 8.

Responsive Design

Responsive design is an approach to web page creation that makes use of flexible layouts, flexible images and cascading style sheet media queries. The goal of responsive design is to build web pages that detect the visitor's screen size and orientation and change the layout accordingly.

The DesignBais Responsive Design (RD) toolset is based on Bootstrap v3. Developers are encouraged investigate the Bootstrap Grid features, available on the web. A thorough understanding of these features will enhance your ability to design and implement responsive design forms.



Notes for Developers using Responsive Design

DesignBais (not Responsive Design) sessions up to now, and ongoing, function in the following manner.

There are initially three hits on the database in order to establish a connection and rendering of a start form. The first hit initializes the new session. The second hit determines the form to be rendered. The third hit sends the data to populate the rendered form.

The ongoing activity involves the sending and receiving of xml packets containing changes to the rendered data, and change events to trigger actions. If the displayed form does not change then each server hit only passes data values that have changed. This minimizes traffic and therefore keeps response times as low as possible.

If a PROCESS.STACK command or a menu selection invokes a new form then the server hit on the database triggers the rendering and populating of the new form.

The DBISESSIONS file is used to hold the session state information.

Responsive Design is different in some ways. Interaction with the server involves the three hits that traditional DesignBais triggers only when a new session is started.

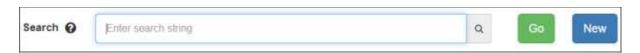
This allows Responsive Design forms to be rendered using a url containing the *dbpage* parameter that defines the page, or form, to be displayed. The display of the form framework, before it is populated with data, on hit two, is suppressed. The form and the data are rendered on hit three.

Responsive Design employs hit blocking, a feature that can be invoked in traditional DesignBais forms. All events after the first event are blocked.

In practice this means that if a change event is triggered by the change in the value of a field and a click event is generated by the user clicking a button then only one of these events will reach the database. Developers need to allow for this behavior in their basic subroutines.

Hit Blocking - implications

To demonstrate this consider the following Responsive Design form:



The *Search* field employs the *Lookup* form element. As shown in the following snip there is a read on this field. The read will be triggered by a change in the value of the *Search* field.

The *New* button has a click event associated with it. This button click event is intercepted by the basic subroutine and, in this example, displays fields to allow the user to enter a new record.



If the user enters a search string and selects a record the form will display as shown here. The change event, and therefore the read, will only happen when the user interacts with the form.

The interaction can be any of:

- Pressing the tab key
- Clicking either of the Go or New buttons
- Clicking anywhere on the form in fact!



The developer cannot implement this form and depend on their subroutine receiving a *button click* event when the *New* button is clicked. This is because the click of the *New* button will trigger the change event on the *Search* field (since it is now populated and was null) and the button click event will be blocked.

Note that if the *Search* field remains null and the *New* button is clicked then there will be a button click event as expected.

Date Formatting

Dates must be formatted as yyyy-mm-dd when sending a date value to the browser.

If using the ajax calls the date can be set as follows:

rdSetVal("dateAdded","2019-06-26")

Where dateAdded is the form element id in the RD form.

Time Formatting

Time is based on 24-hour clock, therefore use value="08:56" for AM and value="20:56" for PM

DateTime-local Formatting

Uses the format: "YYYY-MM-DD\THH:NN:SS" . For example send " 2014-12-08T15:43:00". The time is in 24 hour format. In the format shown here "T" is just a delimiter (upper case). *DateTime* is currently not supported by the database component.

Month Formatting

Uses the format: "YYYY-MM". For example use "2015-01" to designate the month of January.

Populating DBRECORD, DBOTHER.RECORD, DBWORK

Read variables such as DBRECORD are built from the DesignBais common variable SCREENREC which is updated in the following ways:

- by values from the web page
- from DBVALUE if validating a field in the VALIDATE event
- by setting DBPASS.DBVALUE and DBPASS.DBVALUE.TO

The following example using DBPASS.DBVALUE demonstrates the preferred method of setting a default date in a field. This method allows DesignBais itself to format the date.

```
* set the default date in the Date Added field DBPASS.DBVALUE.TO = 'MUS.DATE.ENTERED' DBPASS.DBVALUE = DATE()
```

This second method will also work but relies on the developer to correctly format the date.

```
AJX.FUNC = 'SV'
AJX.ARG = 'dateAdded'
TODAY = DATE()
AJX.ARG<4> = OCONV(TODAY, "DY"):'-':OCONV(TODAY, "DM") "R%2":"-":OCONV(TODAY, "DD") "R%2"
CALL DBI.G.AJXCMD(AJX.FUNC, AJX.ARG)
```

```
006: <ajax><![CDATA[
007: document.getElementById("dateAdded").value="2019-06-26";
008: rdSetVal("search1","");
009: rdSetVal("title","");
010: rdSetVal("artist","");
011: rdSetVal("coverImage","");
012: rdSetVal("genre","");
013: rdSetVal("no0fPlays","");
014: rdSetVal("dateLastPlayed","");
015: rdShow("title", "row",0);
016: rdShow("artist", "row",0);
017: rdShow("dateAdded", "row",0);
018: rdShow("doverImage", "row",0);
019: rdShow("displayImage", "row",0);
020: rdShow("genre", "row",0);
021: rdShow("no0fPlays", "row",0);
022: rdShow("dateLastPlayed", "row",0);
023: rdHide("search1", "row",0);
024: rdHide("play", "element",0);
*--: FX</pre>
```

Tab Sequence requires DBRETURN.TO.FIELD

Unlike a classic DesignBais form the responsive design page contains field elements defined in an HTML string. These field elements do not have row and column values. For this reason the traditional tab index feature of classic DesignBais is not available.

The form data link process provides the ability to link a page field element to a field property definition. The sequence of field elements in the data link maintenance form does not necessarily correspond to the sequence of fields on the form.

Developers must use the common variable DBRETURN.TO.FIELD in their basic subroutine, to control the tabbing sequence within a responsive design page.

Page Flow

As stated above Responsive Design forms are rendered using a URL containing the *dbpage* parameter that defines the page, or form, to be displayed. This means that a user can reference any page by entering a URL such as:

http://192.168.0.0/websitename/dbnet.aspx?dbpage=dbdemo-musiccatalog

It is incumbent on the developer to ensure that users traverse pages in a valid sequence and are prevented from landing on a page that they are not permitted to run. There is a Basic Skeleton code example in DesignBais. Access this via the *Subroutine* button on the Code Editor form. Select from the *Select Code Segment* dropdown list.

For example, where a login page is part of the application, the developer must ensure that users are forced through the login page before they are permitted to enter any other page. The application should also ensure that pages are traversed in the correct sequence.

A suggested approach is include an After Display process on every page, including header and footer forms. The After Display processing must include checks to ensure that the user has validly logged in, and that the current page has been reached in a valid sequence.

The application could set up fields in DBSTORE(n) to track these actions:

```
DBSTORE(n)<11> user logged in (record date and time for example)
DBSTORE(n)<12> previous page
DBSTORE(n)<13> valid next page(s)
```

The After Display code must then check that pages are traversed in a valid sequence. For example the following code ensures that:

- the DBMUSIC CATALOG form must be the first form
- if the user navigates directly to the header or footer form then they are directed to the first form in the sequence

```
CHECK.PAGE.FLOW:
   * first page must be CATALOG
   * cant land on HEAD or FOOT
    can only land on STATS from CATALOG
      BEGIN CASE
         CASE DBSTORE(1)<11> = ''
            PROCESS.STACK = 'DBMUSIC_CATALOG'
            DBSTORE(1)<11> = DATE(): '*':TIME()
            DBSTORE(1)<12> = 'CATALOG'
            DBSTORE(1)<13> = 'STATS'
         CASE SCREEN.NO = 'HEAD' OR SCREEN.NO = 'FOOT'
            PROCESS.STACK = 'DBMUSIC_CATALOG'
         CASE SCREEN.NO = 'CATALOG'
            DBSTORE(1)<12> = 'CATALOG'
         CASE SCREEN.NO = 'STATS'
            IF DBSTORE(1)<12> # 'CATALOG' THEN
               PROCESS.STACK = 'DBMUSIC_CATALOG'
            END ELSE
               DBSTORE(1)<12> = 'STATS'
      END CASE
      RETURN
```

Responsive Design Access

The Responsive Designer tool is accessed from the *Forms Designer* option on the *Responsive Design* menu option in the DesignBais tools menu displayed on the left hand side of the *Developer* Tools form (DBIFORMS_DEVELOP).

You must be in the target database account when you invoke the Responsive Design designer form. Check the bottom left of the Designer:

Account: 192.168.199.9|PULSE.DEV7 Work Space:/indigolf/



Responsive Design Structure

The DesignBais Responsive Design tool creates web pages that will run in any browser that supports the responsive design concept.

The web pages are stored in folders in a directory named *sites* within the website. In the example below the website is v8a. The release of DesignBais Responsive Design is rdv1.



After creating a Responsive Design form and saving it in your work folder it must be published in order to run it.

We strongly recommend that the browser tab holding the Responsive Designer tool is closed after you have finished creating and publishing your RD page(s). Leaving the tab open, say overnight, and returning the next day can lead to problems due to the loss of session information when the originating session times out.

The *Publish* function relies on DesignBais being able to access the web server from your device using the IP address or server name (such as http://mywebserver/dbinetdemo/) because internally DesignBais attempts accessing its own functions using the IP address provided in the URL. The network config must allow that; i.e. a program running on the web server must be able to access that IP address.

Selecting the Appropriate Responsive Design Component

Here is a guide to developers to assist in selecting the appropriate RD form element for a task.

- When you open a new page in RD Forms Designer you will see a single row. You can use CTRL+D to create additional rows.
- CTRL+I inserts a Form Row in a row. You need to create the Form Row as the container in which to place your form elements.
- Form elements are described in detail in following sections. This section is designed to give you a broad introduction.

Input Field

For input fields use CTRL+M to create a *Text Input* form element that will link to a field in your database. If your database field has a valid input list then use a *Select* form element. If it is an address then consider using the *Address* form element.

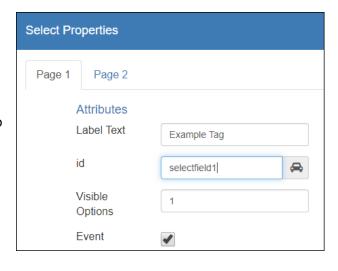
Select Field

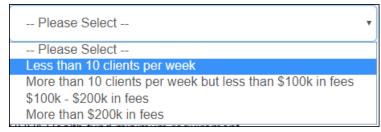
If your field has a valid input list then use CTRL+S to create a *Select* form element.

In general it is best to set the *Visible Options* to a value of 1. This is the default.

Click the *Event* check box if you require a change event.

That is all you need. Once you link the form element to a database field the valid input options will display.





Address Field

Use CTRL+A to create an Address form element for address fields.

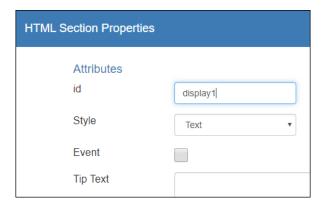
Button

Use CTRL+B to create a Button form element. This can also be used for tiles.

Output Field (Text, Image)

Use CTRL+K to create an *HTML* form element. Use these for placing text or images on a form.

Enter the id and tick if an *Event* is required. Then click Save.

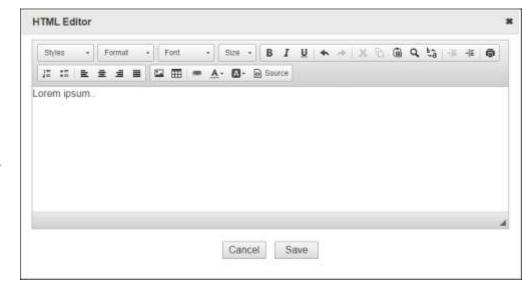


The resulting form element will look like this.



Focus on the element and click CTRL+Q to open the HTML Editor.

Use the Editor to create text.



To insert an image click on the image button highlighted in yellow.

This opens the Image Properties window.

Insert the path to the required image. This will take the form of:

../res/foldername/images/imagename

The image will appear.

Refer to this manual for additional notes about inserting an image.



Radio Buttons

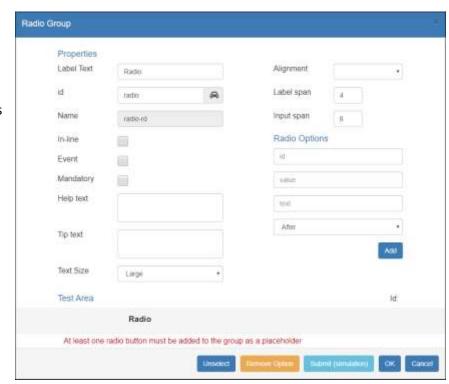
Use CTRL+R to create a Radio Button group. This will create a group containing two buttons. DesignBais assigns auto-generated ids to the group and the buttons, and sets the *Label Text* to "Radio".

You will have to change the *Label Text* since this is what will appear on your form. Enter CTRL+P to display the properties and change the *Label Text* to a meaningful description.

Alternatively, instead of using CTRL+R, you can focus on the form row, right click and select *Insert element* and then select *Radio [Ctrl+R]*. Using this method you will then have to create one button by entering values in the *Radio Options* fields and clicking *Add*. (Before you can save this form you must, as shown by the red error message in this image to the right, add one radio button.)

You will also have to assign an id to the group. Use the *auto* image to generate an id based on the *Label Text*. Avoid assigning an id that contains the text "radio" or "radioGroup" since DesignBais uses these strings to identify form elements.

In either case the default radio group button(s) generated by the Designer can



remain. You do not have to match them to the actual buttons that you want to appear on your form.

When you link the form element to an actual database field, using the Form Data Link function, then DesignBais automatically sets up the radio buttons to match the valid input list settings on the linked field property.

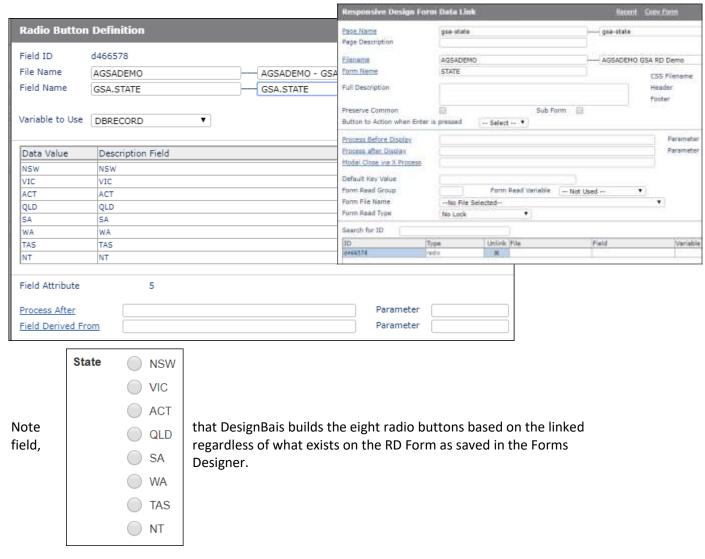
The *Label Text* is the only value that you need to set in Designer.

This example will clarify the above description. Press CTRL+R in a form row to create a default radio group, as shown here.

Press CTRL+P to open the Radio Group Properties. Amend the *Label Text* from the default value of "Radio" to "State". Click OK to save this change, then press Alt-L to save and publish the page. The name of the page is "state".



In the Form Data Link we link this page to a file with a field called GSA.STATE. This field has a valid input list containing the eight state and territory names.



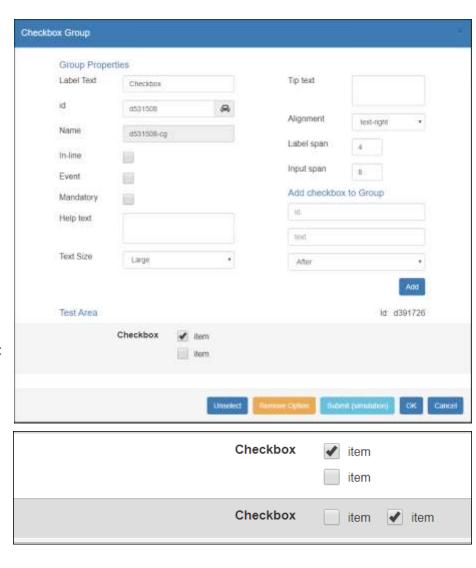
Check Box

Use CTRL+H to create a check box. This will create a Checkbox Group with Group Properties as shown in the image to the right.

The Label Text defaults to the string *Checkbox*. This text will appear on your RD form unless you clear it in this form. It is a name for the checkbox group rather than a tag for actual checkbox so it is not essential to retain the Label Text.

When you link your checkbox to a database field the tag from the field property record on the database will, by default, display as the checkbox Field Text. This text can be modified as required and becomes the tag that is displayed on the RD form.

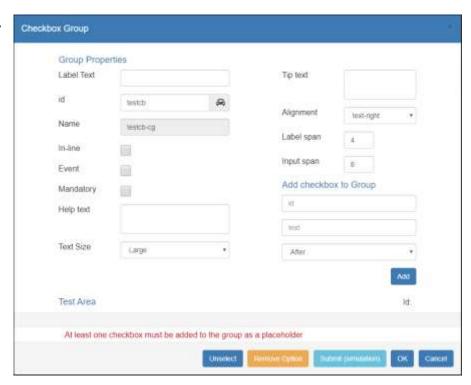
Two checkboxes are created as the default Checkbox Group. This builds the HTML construct that is used by the Form Data Link function when you link a checkbox form element to a database field and allows you to visualize how the checkboxes will appear on the form. Use the *In-line* option to display the form elements side by side as shown here.

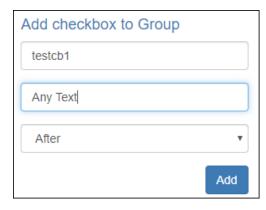


The Checkbox Group must have an id. The RD Designer will provide a default but it is good practice to assign a meaningful id at this stage in order to facilitate the linking of database fields in the Form Data Link process. You can use the *auto* image to generate an id based on the *Label Text*. Avoid assigning an id that contains the text "checkbox" since DesignBais uses this string to identify form elements.

Note that the *Name* is generated by appending "-cg" to the id. This is not maintainable.

Alternatively, instead of using CTRL+R, you can focus on the form row, right click and select *Insert element* and then select *Checkbox [Ctrl+H]*.





Using this method you will then have to create one button by entering values in the *Add Checkbox to Group* fields and clicking *Add*. (Before you can save this form you must add a checkbox, as shown by the red error message in the above image.) So enter a meaningful id and text for the check box tag. Then click *Add*.



The text will be discarded in the Form Data Link process and replaced with a meaningful tag from the linked field. Click on the check box in the Test Area in order to display the id.

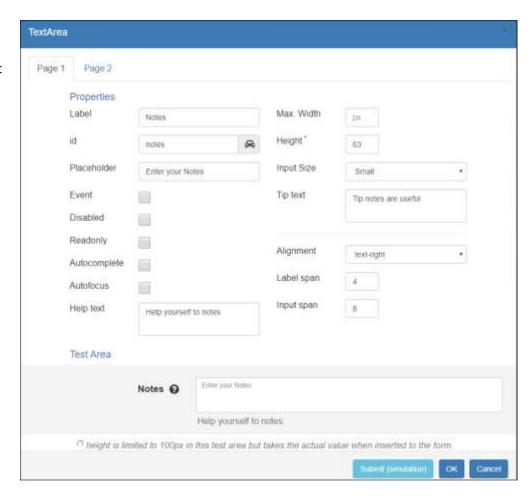
In Form Data Link you can link the checkbox to a field in the database.

Note that the concept of a group name for check boxes, as implemented in standard DesignBais, does not exist in Responsive Design. Radio buttons provide this functionality.

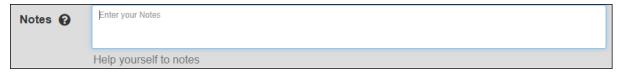
Text Area

Select this form element when you need to allow text entry on a form.

The form element can be linked to a multivalued database field to store multiple lines of text.



At run time the text area displays like this:



Lookup

Use the Lookup form element when you want an input field driven by a lookup file.

In this example we require an input field for entering the Class.

There is a DBCLASS file containing records with the code as the key and containing the description.

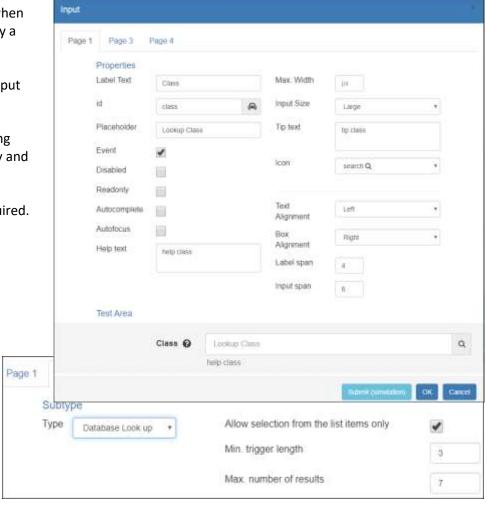
Set the *Label Text* and *id* as required. Click the *Event* checkbox.

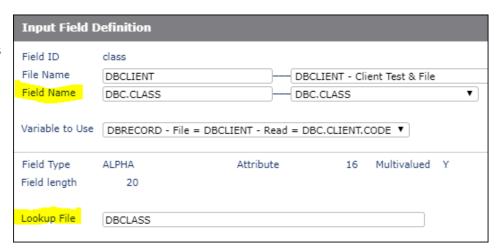
On *Page 3* select *Database Look up* from the *Type* dropdown.

Usually you would want to check the *Allow selection* from the list items only.

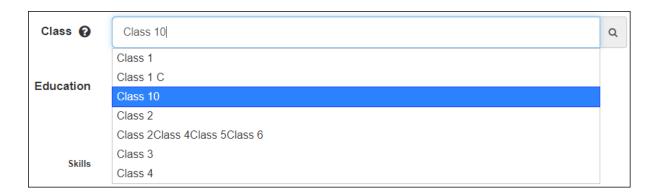
Use the Form Data Link option to link the form element to the field in your database file that is to be populated with the Class Code.

In the Lookup File field enter the name of the file that will provide the lookup ids. This file must be a defined DesignBais file with a Dropdown Select Statement.

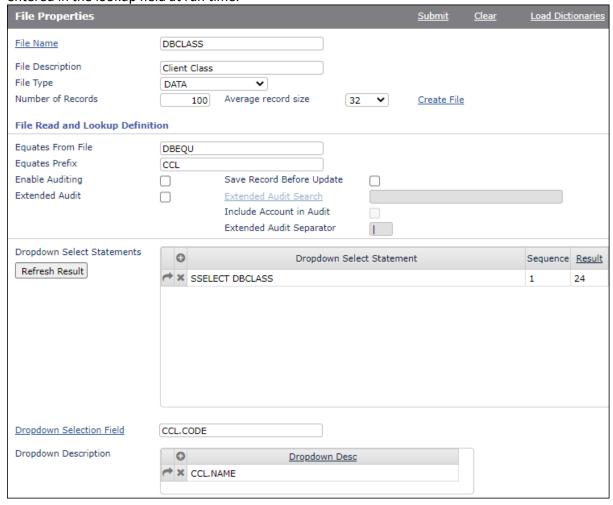




At run time the lookup displays like this:



The linked file must have a Dropdown Select Statement. The Dropdown Selection Field and Dropdown Description fields will determine the text that is displayed based on the characters entered in the lookup field at run time.



If the Lookup form element is linked to the id of the record being selected for display then you will need to have a button, such as "Add" or "New", which allows the user to create a new record. Typically this button will hide the Lookup field and display an input field.

Note that the lookup dropdown list is built when the form is loaded. The list is written to DBISESSIONS with a key like:

"48c92ab81d4c48e68d9db6cc8e2862d5*BNK.BSB*1*COMBO" where the initial string is the session id and the second part of the key is the field name to which the lookup element is linked.

If new records are created in the form then they will not appear in the lookup dropdown list until the form is re-loaded. To get around this issue use the DesignBais DBDROPLISTADD function. For example in the BEFORE WRITE event, assuming the new record id is in DBKEY and the dropdown list description is in DBRECORD, the following code can be added to your basic subroutine:

```
*
BEGIN CASE

CASE SCREEN.NO = "your form name" AND PROCESS.PARAMETER = "RECORD"

* add this record to the lookup list linked to file ABANK

DBDROPLISTADD = "BNK.BSB"

DBDROPLISTADD<2> = DBKEY

DBDROPLISTADD<3> = DBKEY: ': ':DBRECORD<BNK.NAME>
```

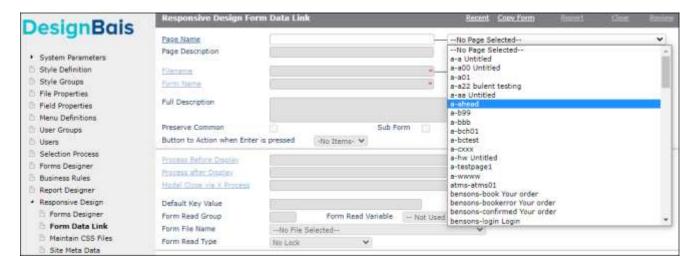
Substitute the name of your lookup field for "BNK.BSB" and the field name in the dropdown list description for "BNK.NAME".

If in the form update parameters the *Null After Write* parameter is set to *No* then this code can be placed in the AFTER WRITE event.

Linking the Responsive Design form to the database

Use the *Publish* [Alt L] option in the Responsive Design File menu to make a Responsive Design (RD) form available to the database component of DesignBais.

Use the *Form Data Link* option on the DesignBais tools menu displayed from the Developer Tools form (DBIFORMS_DEVELOP) to access the published RD form. Use either the *Page Name* link or the dropdown to select a published RD form.

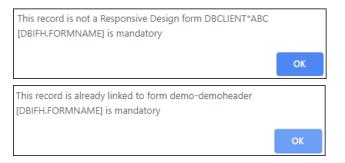


Then enter the database filename and form name to which the RD form is to be linked.

You must define a Filename and Form Name even if you do not intend to link any RD form elements to a field in the database. These two fields define the record id of a record stored in DBIFORMS. This record has the same layout as a traditional DesignBais form record and stores the form linking details, field names, field properties and the names of subroutines to be run from various slots such *Process After*. If no linking details are required then this DBIFORMS record must still exist but will be largely empty.

RD form records on DBIFORMS are flagged with the letter "H" in the DBIF.W3C.PDA field (attribute 178) of the form record.

You must link a new RD form to a new DBIFORMS record, that is, the record on DBIFORMS must not already exist. If you select an existing form name then either of these error messages will display. The first indicates that a traditional DesignBais form exists with this id. The second indicates that a different RD form has already been linked to this DBIFORMS record.



The Publish step creates a record in the DBIFORMHTML database file. The record id is formed by concatenating the work folder name, a dash (hyphen) and the form name. For example the record id for a form named *contactDetails* in a work folder called *myFolder* will be:

myFolder- contactDetails

The DBIFORMHTML record contains all the HTML code required to run the form as well as the name of the DBIFORMS record.

The Form Data Link option stores the linked database field details on the DBIFORMS record.

As stated above, you must use the Form Data Link option to create a record in the DBIFORMS file before a Responsive Design form can be run.

If this step is not done and you attempt to run the form the *Page* not available error will display.

Note however that header and footer pages no not need to be linked. All body pages must be linked. Header and footer pages that are linked to a body page will run as part of the body form.



Header and footer pages may be linked when required, such as if you want to link a form element on the header or footer to a database field, or if you want to define a process to be triggered by a click event.

GUID

The Responsive Page Designer creates a GUID to make the page unique across sites. Pages are stored in a site folder. Pages with the same name can exist in different sites.

For this reason the database stores the GUID in the DBIFORMHTML and checks it whenever a page is published.

A site page can only overwrite another published page of the same name (site-page) if it has a matching GUID.

The DBIFORMHTML file "site-page" record for the published page holds the GUID and the name of the linked form (file*form) in DBIFORMS. The form in DBIFORMS has a back-link to the DBIFORMHTML record.

If there is a GUID clash then the message to the right is displayed:

Use the "Save As" option to produce a new GUID.

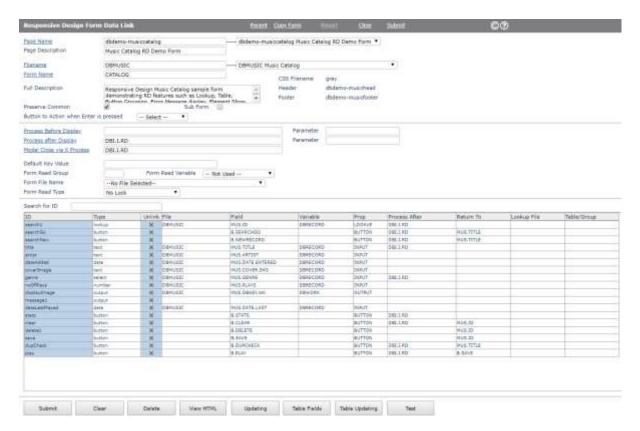
If the original page is already linked you can clear the GUID attribute in the DBIFORMHTML record and publish will work.

The original links (form element to database field) will remain so long as XML ids do not change.



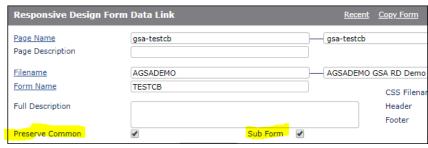
Responsive Design Form Data Link

The Responsive Design Form Data Link process allows you to link elements on the RD form to fields within the database. The linking process also creates a record in DBIFORMS on which the form elements and link data are held, in the same attributes as normal DesignBais forms. RD type forms are flagged with a value of "H" in the DBIF.W3C.PDA field (attribute 178) of the DBIFORMS record.



Note the *Preserve Common* and *Sub Form* fields on the Form Data Link form.

If the RD Page is part of a series of pages then you must check both of these fields on all RD pages in the series.



To put it another way, if you have *Next* and *Back* buttons on a form then it is almost certain that you will need to check the *Preserve Common* and *Sub Form* fields.

Fields

Page Name The key of the record in the DBIFORMHTML file that is generated by the

Publish command in the RD tool. It is formed from concatenating

Foldername:"-":Formname.

Page Description Description for this page. Free text.

Filename The name of the database file to which the DBIFORMS form record will be

linked.

Form Name The name of the form on the DBIFORMS file. The id of the record on

DBIFORMS will be Filename*FormName.

Full Description The full description for the form record on DBIFORMS.

Preserve Common Check this box if the RD form is to inherit common variables from the calling

form. This means that any form that is the target of a *Back* button, say, must have this field checked. Typically both the calling form and the called form

will require *Preserve Common* to be checked.

Sub Form Always used in conjunction with the Preserve Common field. Check this box

if the RD form is to inherit common variables from the calling form.

Process Before Display Process to execute before display of the RD form. The common variable

PROCESS.EVENT will be set to "AFTER DISPLAY". The common variable

PROCESS.EVENTSOURCE will be set to name of the RD form.

Parameter The value entered here will be passed to the subroutine in the common

variable PROCESS.PARAMETER.

Process After Display Process to execute after display of the RD form. The common variable

PROCESS.EVENT will be set to "AFTER DISPLAY". The common variable

PROCESS.EVENTSOURCE will be set to name of the RD form.

Parameter The value entered here will be passed to the subroutine in the common

variable PROCESS.PARAMETER.

Modal Close via X Process

This slot contains the name of the basic subroutine to call whenever the

main form gains focus after a modal form is closed. Whenever

a modal form closes then PROCESS.EVENTSOURCE will be set to contain the

name of the closed modal form. SCREENROOT will contain the

name of the currently active base form, the name of the form that called the

modal form. PROCESS.EVENT will contain the event "MODAL

RETURN". See further details below.

Default Key Value Refer to the DesignBais Reference Manual. This group of fields performs the

same function as in the normal Forms Designer.

The default key value is used to define a single record key for the form. The

default key can be either a string value, or, if a

variable key is required enter just V:. The V: will trigger the DERIVED KEY

event which will be processed by the subroutine named in

the Process After Display slot. The DERIVED KEY event must assign the

required key to DBVALUE.

Form Read Group The form read group is used when a default key is used. The value entered

here defines a unique handle for the read that takes place

when this form is entered. No read groups within a form or a form-set can

be re-used. By convention, but not required, Read Group 1 is

assigned to the DBRECORD Form Read Variable, Read Group 2 through 99 to

the DBOTHER.RECORD(2) through (99) variables

(DBOTHER.RECORD(1) is often not used in this scenario so that the Read

Group can remain in sync with the Form Read Variable).

Form Read Variable This field controls which of the 100 variables is used to contain the record

that is read. You have the choice of DBRECORD or DBOTHER.RECORD(1) to DBOTHER.RECORD(99).

Form File Name This field is used to determine which file the record is read from when a

Default Key Value is used.

Form Read Type All reads require the Read Type to be assigned from the dropdown list.

RD Form Element List The on-form report displays the list of form element id and type from the RD

form.

Initially, for a new form, the other columns of the report a blank. By clicking the element id in column 1 the developer can define the link between the

form element id and a field on the database.

Search for ID Use this search field to locate a form element id. Enter a character string

then press tab. Form element ids that contain this string will be displayed

starting at row 1.

To re-display in the original sequence clear the search string and press tab.

Buttons

Submit Save the currently displayed DBIFORMHTML record and the linked

DBIFORMS record.

Clear the form.

Delete Delete the currently displayed record from DBIFORMHTML.

View HTML Displays the RD form HTML code.

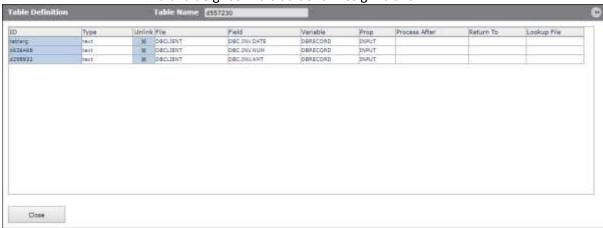
Updating Opens the RD90 form to permit the developer to define the action to take

when the update button is clicked.



Table Fields

Toggles the display of table row fields in the on form report of form element ids. Click on any table id to open form RD180G to define actions associated with the table elements. Note that table fields behave in a similar way to multivalue grids in a traditional DesignBais form.



Click any field ID in column 1 to open form RD160 which allows entry of the Input Field Definition.

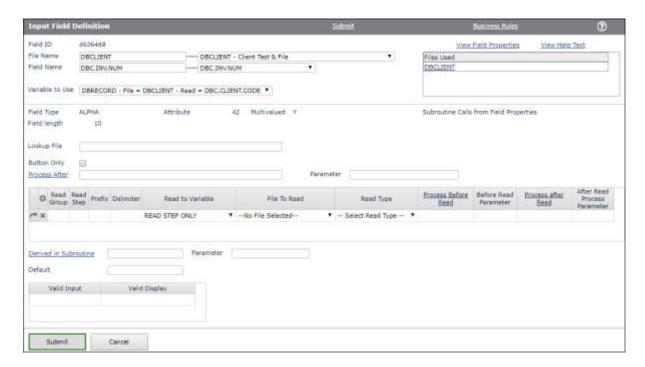


Table Updating

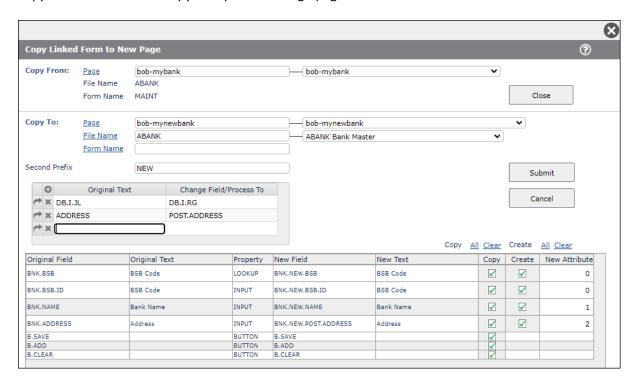
Click to open form RD70 which allows the entry of the Table Update Properties.



Test Click to test the linked form.

Header Bar Buttons

Copy Form Copy a responsive design page and linked form.



Clicking the *Copy Form* button opens form RD15. The copy from page will default to the page that is being maintained in form RD10.

The copy from form must already be linked to a database form.

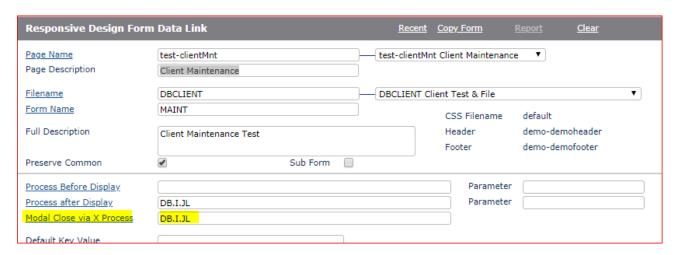
If you are copying to a page and linking it to a different file then the list of linked fields will reflect the equates prefix of the new file.

You can add a second prefix in order to create a set of names that are grouped. See the example above where the second prefix of "NEW" is inserted to change BNK.BSB to BNK.NEW.BSB.

You can also use the grid fields to change "Original Text" to a new value. This will be applied to all text in the new form including subroutine names and field names. Note in the example above that the field name BNK.ADDRESS is to be changed to BNK.NEW.POST.ADDRESS.

Modal Close via X Process

Modal Close via X Process is the equivalent of the *Modal Form Return Process* in traditional DesignBais. It is invoked in RD when a modal form is closed via X.

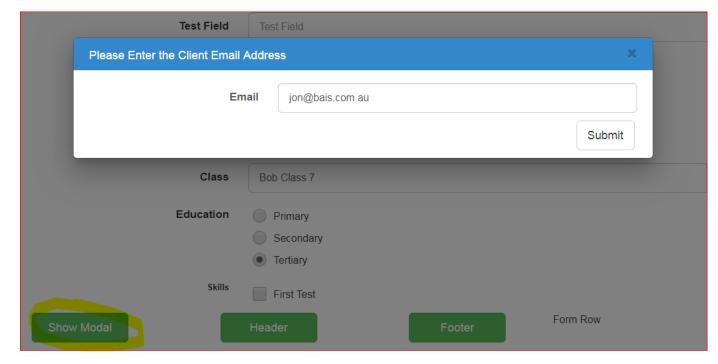


In RDMODE it is only invoked when:

EVENTTYPE[1,10] = 'rdConfirm-' and FIELD(EVENTSOURCE,'-',1) = "dbModal"

This is when a modal form is closed via X and there is a database server hit in the rdShowModal. The *EVENTSOURCE* passed to the developer is the ID used in rdShowModal.

For consistency with non-RD the common variable DBMODAL.CLOSE.VIA.X is set to 1 before calling this routine. In addition PROCESS.CLOSE.MODAL and DBRESTORE.BEFORE.MODAL are set to 0 after the subroutine is invoked and therefore cannot be set by the developer.



The Submit can simply call rdHideModal.



The Form Clear Button

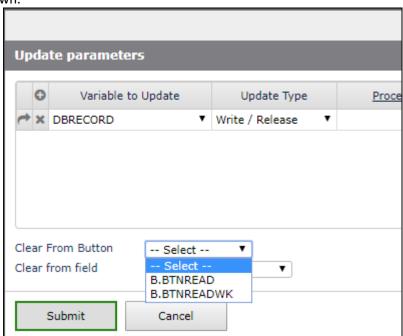
Create a button in the RD forms designer to use as the *Clear From Button* in the DesignBais form setup.

Publish the RD form.

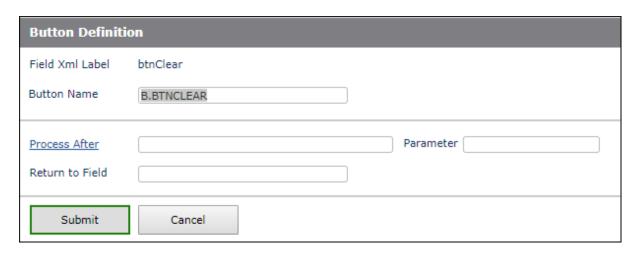
In Form Data Link display the form. The new button will appear as an unlinked form element. In the example below the form element Id is btnClear.

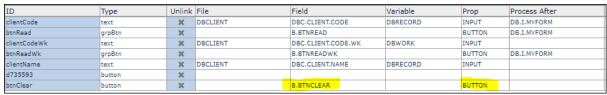
ID	Туре	Unlink	File	Field	Variable	Prop	Process After
clientCode	text	ж	DBCLIENT	DBC.CLIENT.CODE	DBRECORD	INPUT	DB.I.MYFORM
btnRead	grpBtn	ж		B.BTNREAD		BUTTON	DB.I.MYFORM
clientCodeWk	text	×	DBCLIENT	DBC.CLIENT.CODE.WK	DBWORK	INPUT	
btnReadWk	grpBtn	ж		B.BTNREADWK		BUTTON	DB.I.MYFORM
clientName	text	ж	DBCLIENT	DBC.CLIENT.NAME	DBRECORD	INPUT	
d735593	button	×					
btnClear	button	×					

If you now click the *Updating* button you will find that the clear button is not present in the dropdown.



It is necessary to click on the *btnClear* cell in column 1 of the *Form Data Link* form and then submit the *Button Definition* form even if no other changes are made. This will create the B.BTNCLEAR button in the DBIFORMS form linking record.





Click the *Updating* button and the *Clear From Button* dropdown list will display the button *B.BTNCLEAR* which can then be assigned as the *Clear From Button*.

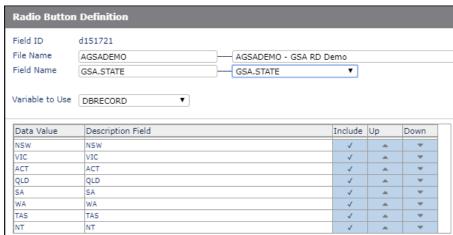
Radio Button and Checkbox Form Data Link

When we link database fields to the Radio Button and Checkbox form elements DesignBais rebuilds the form HTML to match the database fields.

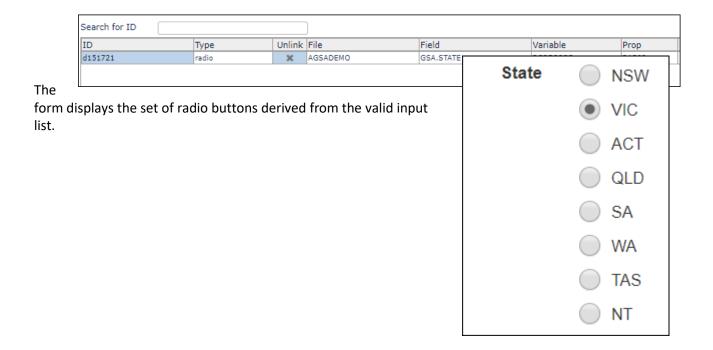
When you link the Radio Button form element to a field in the database that has a valid input list then DesignBais creates a radio button element for each valid input.

You have the choice to include or exclude values.





The linked field is then displayed in the Form Data Link form.



Running the Responsive Design form from the database

In order to run a responsive design form either set the start form for your DesignBais user as a responsive design form, or call a URL with a query component containing the RD form name:

"/?dbpage=test-clientMnt;newWindow"

This is best accomplished by setting up a new DesignBais user id with, say, an *rd* suffix. Then set up a login qcode querystring for this user to direct DesignBais to the start account and the responsive design start form.

The target account is determined by the querystring parameter "ac" in the DesignBais db.config file. The ?ac=string is a qcode entryPoint in the db.config file which is explained in the Web Component Manual.

Example:

Normal DesignBais user id: dbfred Set up an RD user id: dbfredrd

For user dbfredrd ensure that the Start Account and Start Form in User Maintenance are set up:

Entry Accounts/Forms		0	Account or Account Path	Start Form
Display Start Account List	-	× D	B.NET	RD.START.FORM

In db.config

<entryPoint qcode=" dbfredrd ">

loginHost>192.168.199.9

<BASUBROUTINE>BAWEBEXECNET</BASUBROUTINE>

<loginHostType>UNIVERSE</loginHostType>

<loginAccount>DB.NET</loginAccount>

<loginUser>loginuser</loginUser>

loginPassword>password

<loginPublicUser>dbfredrd</loginPublicUser>

<requestTimeoutSeconds>30</requestTimeoutSeconds>

<debugUser>dotnetdev</debugUser>

<enableXSSshield>false/enableXSSshield>

<allowDomainNamesInLoginNames>false</allowDomainNamesInLoginNames>

<convertLoginNamesToLowercase>true</convertLoginNamesToLowercase>

<enableDetailedErrorMessages>true</enableDetailedErrorMessages>

</entryPoint>

Use your DesignBais url and attach the querystring parameter. So, for example, if your website is called *dbnet* then the url would look like this:

 $http://localhost\ /dbnet/?ac=\ dbfredrd\ or\ with\ ip\ address:\ http://\ 192.101.101.101/dbnet/?ac=\ dbfredrd).$

Note also that Auto login is not applied to URLs containing *dbpage*. This is relevent to Responsive Design where *dbpage* is used to open a specific form such as in this example:

http://192.168.199.194/dbnet/?ac=ws&dbpage=dbweb-home

Note that, when published pages in DBIFORMHTML are transferred from a development system to a run-time system, you also need the *template-rdv2* record. This record tells DesignBais how to reconstruct your pages.

The *template-rdv2* record is created every time you publish a page. It will therefore be in your development environment but not necessarily in the run-time system.

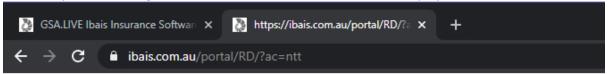
The record in DBIFORMS created by the Form Data Link process are like any other non-Responsive Design DesignBais form except they are linked to the DBIFORMHTML record that is created from the Responsive Design page. The DesignBais engine simply reads the HTML required from DBIFORMHTML rather than constructing it from the raw form record which is the process that occurs in traditional DesignBais.

Forms, fields, programs, and styles all need to be available in the DBI files to which the account is linked.

In order for the Responsive Design Designer to run in an account the matching site records from the web site, the rdv2, site and res folders, must be available. Any new data account requires the DBIFORMHTML template-rdv2 record. It will be created when the first page is published in the data account.

Error due to Missing template-rdv2

If the template is missing an error similar to that shown below will display.



Deploying Responsive Design applications

Ensure that the resources for your site are set up in the target environment. These are stored in the *res* folder in the development site. The site folder within the *res* folder from the development site

must be copied to the target site. In the following example:

The website name is: bawebdevv7The work folder is: UnitedMonument

Copy bawebdevv7\res\UnitedMonument to the target environment

Name bulent ll css dbdemo default famous famousbikes fonts 🃗 gsa 📗 images IRT Ka katrina meta stallinsure UnitedMonument placeholder.txt

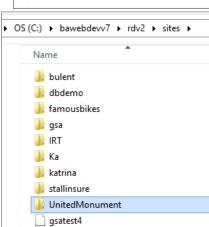
OS (C:) ▶ bawebdevv7 ▶ res ▶

If you want to have use the Responsive Design forms designer in the target environment then you will need to also copy the *rdv2*\UnitedMonument folder.

Note that this folder is not required at runtime so forms can be deployed to run in a target environment without *rdv2* folder.

For runtime you need:

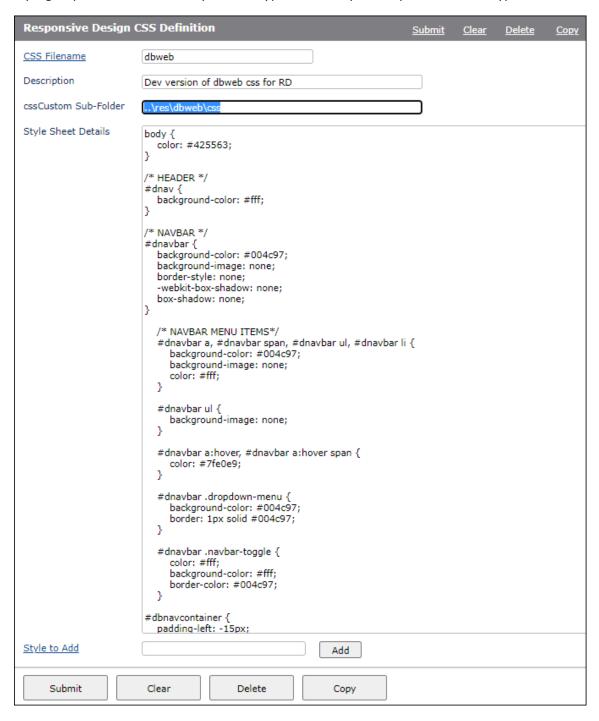
- Your application code in your basic library routines
- The DBIFORMS records (and all DBIPROP fields) that have been linked to the RD pages for the linked forms
- DBIFORMHTML records that contain the runtime HTML for your RD pages.



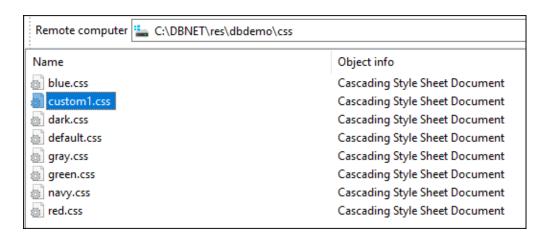
Maintain CSS Files

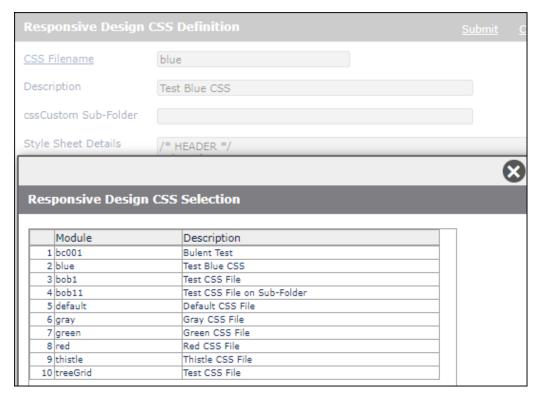
Use this option to create custom CSS files for use in DesignBais forms, both Responsive Design and traditional forms.

Responsive Design CSS definitions are held on the DBISTYLEGROUP file. They are distinguished from style group definition records by the CSS Type code R. Style Groups have a NULL type code.



Records created using this option are stored in the *css* folder within the *res/workfolder* folder on the website. In the example below the name of the workfolder is *dbdemo*. The name of the website is DBNET.

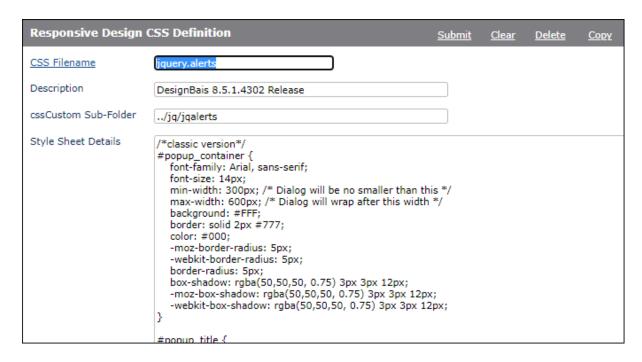




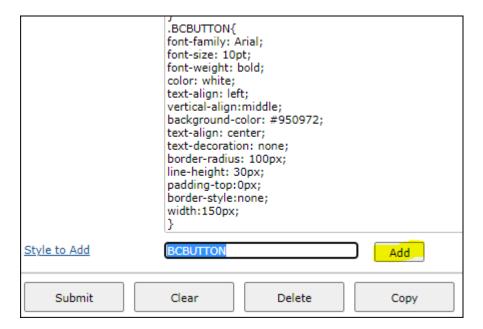
Use the *cssCustom Sub-Folder* to reference a sub-folder within the cssCustom folder in order to group and track your css files.

Removing the *cssCustom Sub-Folder* name from your definition will move the css record from the sub-folder to the main *cssCustom* folder.

Adding a *cssCustom Sub-Folder* name to your definition will move the css record from the main *cssCustom* folder to the designated sub-folder. The sub-folder will be created if it does not exist.



Use the *Style to Add* button to select a style from the DesignBais DBISTYLE file. Then click *Add* to add a copy the style properties to the css file being maintained.



Note that in order to maintain a css file that exists in your website but not in the database DBISTYLEGROUP file it is necessary to copy it manually using, say, notepad.

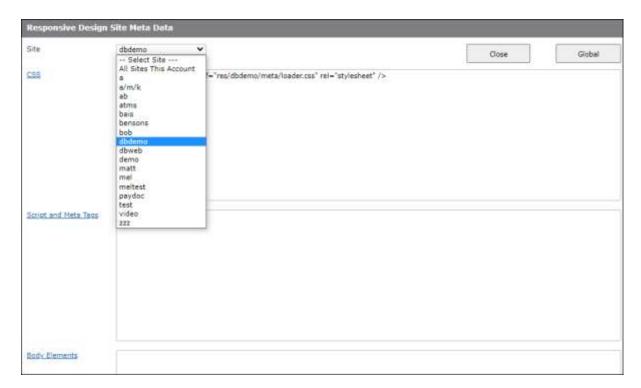
Create a new record in the Responsive Design CSS Definition maintenance form and call up this record. Then go to the website and open the website css file in notepad, copy it and paste it into the *Style Sheet Details* field on the database maintenance form. Adjust as necessary and save it.

Providing the *cssCustom Sub-Folder* field is populated with a path to the website *res* folder then any changes made on the database side will be update to the css folder, such as, for example:

C:\DBNET\res\dbweb\css

Site Meta Data

This form allows maintenance of CSS, javascript and meta data for RD sites in the account or globally. The res folder may also hold meta data for the individual page.



The records containing the site meta data are held on DBIPARMS. The record id is composed of the prefix "RDMETA*" followed by the name of the site. The *All Sites This Account* option is held in a record with id "RDMETA*ALL".

The CSS links are held in attribute 1.

The Script and Meta Tags are held in attribute 2.

The Body Elements are held in attribute 3.

Fields

Site Select the site from the dropdown list. Alternatively you may create site

meta data for all sites in the current account.

CSS The list of CSS Links to add for the selected site, or for all sites in the

account.

Script and Meta Tags The list of site script and meta data tags. Meta data will be applied to all

pages in the selected site.

Body Elements The list of links to add to the <body> of pages for the site.

Buttons

Submit Save the currently displayed DBIPARMS record.

Clear the form.

Delete Delete the currently displayed record from DBIPARMS.

Global Opens the Responsive Design Global Meta Data form. The meta data is held

on the DBIGLOBAL file in a record with id "RDMETA".

Site meta data files are added in the following order:

- 1. Global CSS
- 2. All Site CSS
- 3. Site CSS4. Page Theme from Designer
- 5. Global Meta
- 6. All Site Meta
- 7. Site Meta
- 8. Page Meta Data res/site/meta/page.meta

The last occurrence of a style will be used unless the "!Important" setting is used.

If you have to move meta data down the list of locations shown above in order to invoke a particular style for example then you will need to republish the page(s) to pick up the change.

For example if a css file in the Site Meta is moved to the Page Meta Data in the res/site folder then effected pages will need to be republished.

Creating a Responsive Design Application

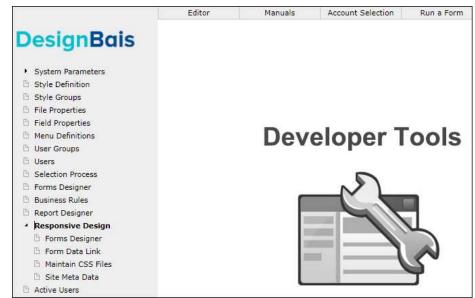
Log in to DesignBais and from the Developer Tools home page select the Account Selection option from the top menu. Select the account that you wish to develop in and click the Go button.

From the Developer Tools side menu select the Responsive Design option. This expands into 2 options.

Forms Designer opens the Responsive Design Forms Designer.

Form Data Link opens a form that allows you to link field elements on a Responsive Design Form or Web Page to database fields and processes.

We recommend Google Chrome for the RD Form Designer.



IMPORTANT: Please make sure that none of your logins or passwords are saved by browsers (e.g. Chrome) on the urls on which you do your development (e.g. http://localhost/dbnet). Otherwise any login or password field that you add to your page may be saved with your login or password on it and you don't want that.

Use the Responsive Design menu option and select the Forms Designer option.

This opens the Responsive Design (RD) tool where RD forms are created. Refer to the sections following in this manual.

After completing the form save and publish it. The *Publish* option runs a web service to link to the database and create a corresponding item in the DBIFORMHTML file. The key of the item is:

Foldername:"-":Formname

For example if your work folder is called *bob* and your form is called *example1* then the key of the published record in DBIFORMHTML will be *bob-example1*. This is the equivalent to the Work Space name that is displayed in the status bar in the RD tool with / replaced by -.

Account:192.168.199.9|DB.NET Work Space:/bob/example1

Use the *Form Data Link* option on the *Responsive Design* menu to open the Responsive Design Form Data Link form (DBIFORMS_RD10). Refer to the following section which describes how to use this form.

Responsive Design - db.config File

The db.config file resides in the admin sub-folder within the website folder. DesignBais uses the db.config file to determine how to connect to the database.

The default connection path is defined in what we call the null qcode entry point. This is the entry point shown below: <entryPoint qcode="">. It is the recommended way to connect RD users. The loginPublicUser "normaluser" could be set up to have a login form in which each user enters their user id and password and are then directed to their start account and start form. The start form should be an RD form.

The db.config file may contain multiple entry points. By using a "?ac=name" query string in the url used to access DesignBais you can direct DesignBais to commence in a particular account. See the example below: <entryPoint gcode="website">.

A url like:

192.111.123.122/dbnet/?ac=website

will find this entry point and connect to the database account named DBINETWEBSITE using the login credentials of user dbnetuser with password pwxxxxxxx.

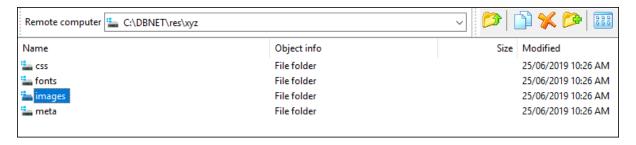
The DesignBais user for the session, however, is taken from the loginPublicUser. So the WEBLOGON for the session will be, in this example, *salesuser*.

The rule to be followed by RD form designers is to ensure they are in the same database account as the database files they plan to use.

When publishing an RD form make sure that this is done in the account in which the application is to run. The publish step will create, or update, a record in the DBIFORMHTML file. In environments where there is more than one set of DesignBais accounts the developer should make sure that they are referencing the correct DBIFORMHTML file. The status bar displayed at the base of the forms designer tool shows the account name and the work folder name.

Creating a Work Folder

Creating a new work folder triggers the creation, in the website res (for Resources) folder, a folder with the name of the newly created work folder. Within this folder there are four sub-folders.



- css holds the css files for the work folder.
 - Create a css file here. The best way is to copy one of the existing preset css files in that folder, paste into the same folder under a different name and edit it as needed. When designing an RD page the css file can be selected as the theme for that page.
- fonts holds any required special fonts.

Save a custom font file here (e.g. grafiti.ttf) and refer to it from the css file as follows:

```
@font-face{
    font-family: grafiti;
    src: url('fonts/grafiti.ttf');
    }
h3 {
    font-family: grafiti;
}
```

- images
- this is where you must place images that are used by your RD forms. All images used in the RD pages for a given site should be saved in this folder. In RD HTML Editor refer to images using a relative path like this:

 "../res/xyz/images/tree1.png".
- meta holds http responses headers and javascript metadata.

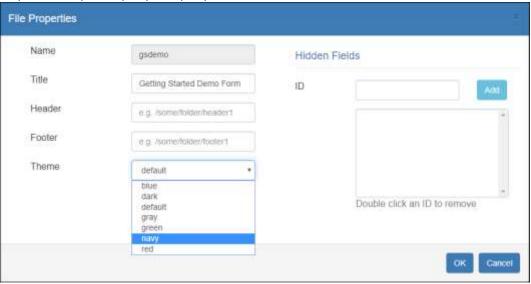
All meta tags (i.e. references to external JS files, or to external CSS locations or any other HTML meta tag) for a given page (e.g. "mypage") should go into a file named mypage.meta saved in this folder.

Responsive Design Custom CSS

For a website called DBNET DesignBais creates a resource folder containing a sub-folder called css.

- DBNET URL: http://localhost/dbnet
- DBNET Physical folder: c:\inetpub\wwwroot\dbnet
- Create new RD Work folder: "sales"
- DesignBais creates themes folder: c:\inetpub\wwwroot\dbnet\res\sales\css
- This folder holds a number of preset theme files *.css

Copy any preset css file (e.g. navy.css) and paste with a new name in the same folder (e.g. sales.css): c:\inetpub\wwwroot\dbnet\res\sales\css\sales.css



Select "sales.css" as your theme using the menu File > Properties > Theme in RD Forms Designer. You can then edit/modify sales.css (in Notepad) as necessary to make up your own theme.

Responsive Design Meta Tags

Responsive Design Meta tags are used to add:

- custom javascript
- custom css
- other custom html meta tags to individual DesignBais RD pages.

This is an example of how Meta tags are used:

We want users to see the prompt "hello world!" when they navigate to http://localhost/dbnet/?dbpage=sales-fred

- DBNET URL: http://localhost/dbnet
- DBNET Physical folder: c:\inetpub\wwwroot\dbnet
- RD Work folder: sales
- RD page: fred
- URL of fred: http://localhost/dbnet/?dbpage=sales-fred

- Resource folder of "sales": c:\inetpub\wwwroot\dbnet\res\sales
- Meta folder of "sales": c:\inetpub\wwwroot\dbnet\res\sales\meta

•

Create new meta file for page "fred": c:\inetpub\wwwroot\dbnet\res\sales\meta\fred.meta You can do this using Notepad.

The content of fred.meta can be a single line pointing to the location of a JS file as follows: <script src="res/sales/meta/somescript.js"></script>
Note the src attribute starts with res/.

Create script file using Notepad: c:\inetpub\wwwroot\dbnet\res\sales\meta\somescript.js Script file content: \$(document).ready(function(){alert('hello world!')});

Users will see the prompt "hello world!" when they navigate to http://localhost/dbnet/?dbpage=sales-fred

This is an example only as there is no need to use custom javascript to display a simple "hello world!" prompt in DesignBais.

This example shows how third party javascript libraries can be included and used in DesignBais if necessary.

Responsive Design Custom Fonts

Developers can use an existing font (ttf) files or download a new font file (ttf) from https://fonts.google.com/.

This is an example of using the custom font file named "grafiti.ttf" on a DesignBais RD page:

- DBNET URL: http://localhost/dbnet
- DBNET Physical folder: c:\inetpub\wwwroot\dbnet
- RD Work folder: sales
- RD page: fred
- URL of fred: http://localhost/dbnet/?dbpage=sales-fred
- Resource folder of "sales": c:\inetpub\wwwroot\dbnet\res\sales
- CSS file of "sales": c:\inetpub\wwwroot\dbnet\res\sales\css\sales.css
- Fonts folder of "sales": c:\inetpub\wwwroot\dbnet\res\sales\fonts

Save the grafiti.ttf file in the fonts folder: c:\inetpub\wwwroot\dbet\res\sales\fonts\grafiti.css

Edit the custom css file: c:\inetpub\wwwroot\dbnet\res\sales\css\sales.css to add the following at the top of the document:

```
@font-face{
   font-family: grafiti;
   src: url('../fonts/grafiti.ttf');
}
h3 {
   font-family: grafiti;
```

}

The above method sets the designer's own elements to that font as well (in general this should not be a problem but it may be confusing for the developer). To avoid this the following method can be used:

```
#dmain *{
  font-family: scylla;
}
#dnav *{
  font-family: scylla;
}
#dfooter *{
  font-family: scylla;
}
```

Open RD page fred. Use menu File > Properties > Theme to select "sales.css".

Press CTRL+K to create an HTML segment. Click the text "Lorem Ipsum" and press CTRL+Q to edit.

In the HTML editor, click the text "Lorem Ipsum" and set it to "Heading 3" using the drop down. The text font will turn to grafiti.

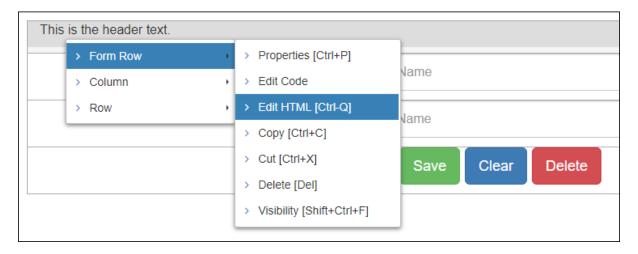
Responsive Design - Inserting an Image

An image can be inserted into a HTML form element.

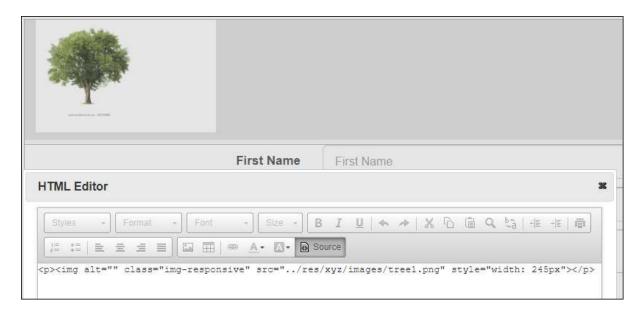
In Forms Designer insert a form row and press Ctrl+K to insert an HTML form element.

Right-click the row and highlight Form Row then select Edit HTML [Ctrl+Q].

This will open the HTML Editor.



Click the Source button.



Enter the html string shown above. Note that:

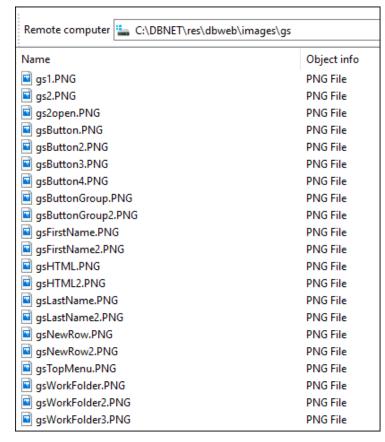
- The name of your image must be prefixed with "../".
- In this example the name of the image is tree1.png.
- So the path to the image is "../res/xyz/images/tree1.png ".

- The width should be set as required.
- *alt* can be set as required. This defines what will be displayed if the specified image cannot be found.

Images can be placed directly in the *images* subfolder within the *res* folder.

It is good practice to create sub-folders within the *images* folder so that images for a particular project or application can be grouped together. This makes the task of moving an application to a different environment easier, since all required images can be moved by copying the sub-folder.

In the example shown to the right the images are placed in a sub-folder named *gs*.



Responsive Design String Encoding

In order to include a string such as "../res" on, say, an output HTML element use the following:

../res/WORK_FOLDER/images/IMAGE_NAME

This gives:

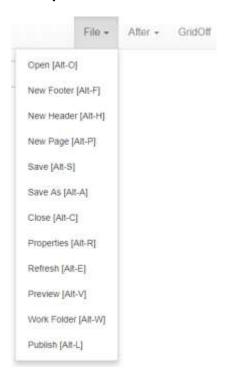
../res/WORK_FOLDER/images/IMAGE_NAME

Responsive Design Top Menu

The top menu comprises:

- File
- After
- GridOff

File Options



After Options



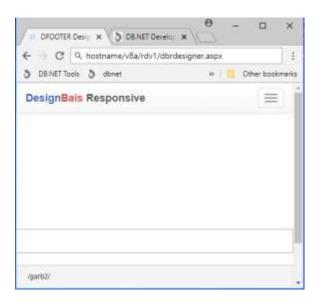
GridOff Option

This allows you to quickly preview the web page you are working on without the grid lines. As you design a page, you'll want to see how the page looks without the grid lines. Press *Esc* to exit this mode.

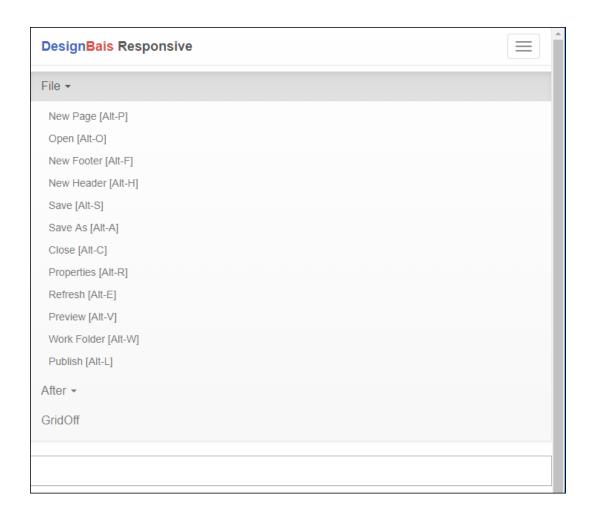
The File Option *Preview* [Alt V] can also be used but it's slower as it opens a new window. *Preview* is needed, however, if you've made changes to the header or footer and you wish to display the latest version of the entire set.

Top Menu Appearance with Narrow Browser Width

The top menu will contract to the *Hamburger* icon shown below when the browser width is reduced since DesignBais Responsive Designer is built as a responsive design web page.



Clicking the menu icon displays the menu options down the left hand side of the page.



Responsive Design Components, Parts and Functions

The basic construct in a Responsive Design form is a row. So when the Designer is entered the initial display is one row.



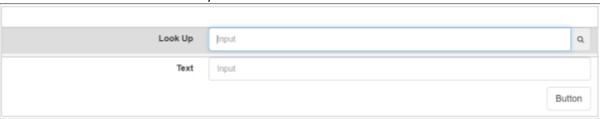
The Designer is driven by positioning the mouse and right-clicking. The available options displayed by the right-click will vary based on position.

Initially it is possible to add new rows, or to insert columns but before any form elements can be created it is essential to create one or more *Form Rows*. A form row is the container in which a form element lives.

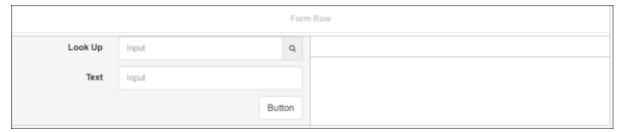
Multiple Form Rows can be created within one Column.



Form elements can be added to any of these form rows.



All the above form elements are in a single column. Therefore if two columns are required for the form row containing the button the developer might think to insert a column in the button form row. So right-click and the button form row, select *Row* then select *Insert Column*.



This results in ALL form elements in the *row*, not just the *form row*, being moved into the left column of two columns in the row.

In order to achieve the desired result it is necessary to add a new *row*, not a *form row*, and copy the button into the new row.



After adding the new *row* then insert a *form row* into the new row. Then copy the button element.



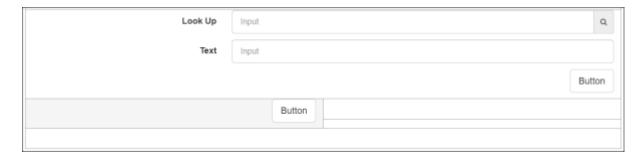
Then paste the button element into the new form row.



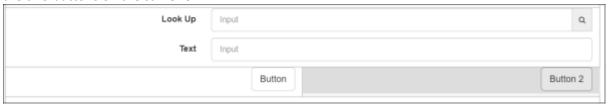


Now insert a column into the form row in the new row.





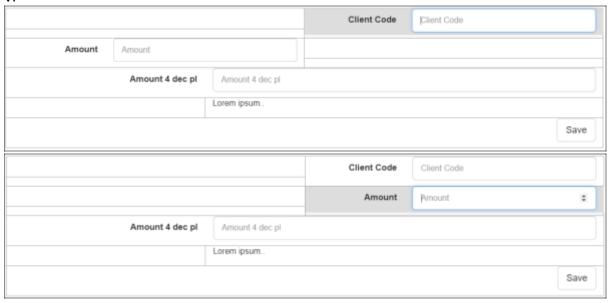
You can now insert a new button element into the right-hand column of the new row so that there are two buttons on the same row.



Keep in mind that you can cut and paste in order to move form elements.



If you want, for example, to move the *Client Code* and *Amount* fields to the right hand side then simple focus on the form element, press Ctrl X, focus on the empty column to its right and press Ctrl V



COMPONENTS

- File
- Lookup
- Address
- Checkbox
- Radio
- Textarea
- Select
- HTML
- Button
- Textbox (can be one of the following types):
 - Text
 - o Number
 - o Date
 - o Time
 - o Datetime-local
 - o Month
 - o Email
 - o Phone
 - o Password
 - o Search
 - o Url

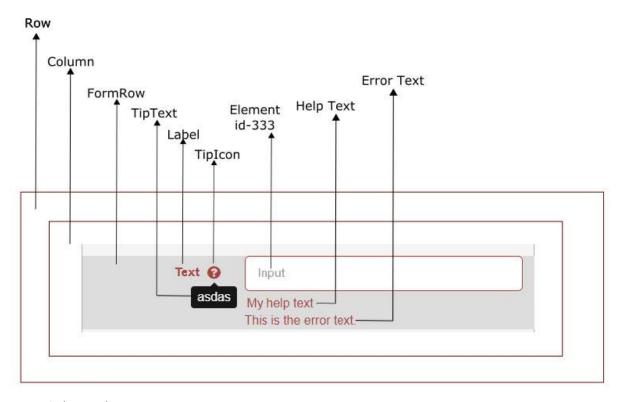
COMPONENT PARTS (targets)

Each RD component may have one or more of these "parts" as applicable.

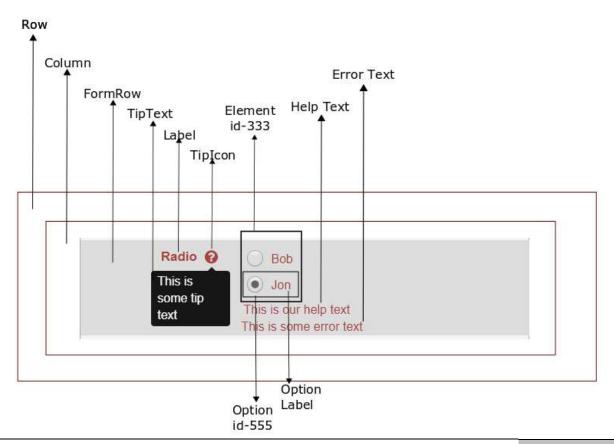
- row
- col
- formRow
- element
- label
- option
- optionlabel
- error
- tipicon
- tiptext
- help
- segment

Diagrams for Textbox and Radio are shown below. Other RD elements follow a similar pattern:

TEXTBOX targets



RADIO targets



FUNCTIONS

Refer to the following section *Modifying a Responsive Design Form at Runtime* which describes the method of programmatically setting RD form elements.

Modifying a Responsive Design Form at Runtime

AJAX allows web pages to be updated asynchronously by exchanging small amounts of data with the server behind the scenes. This means that it is possible to update parts of a web page, without reloading the whole page. Classic web pages, (which do not use AJAX) must reload the entire page if the content should change.

Use the DesignBais subroutine DBI.G.AJXCMD to modify form elements at runtime. This subroutine can be called from the event processing routine. It has two arguments.

DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)

Note: this subroutine and the common variable DBAJXCMD are documented in the DesignBais Reference Manual.

AJX.FUNC – either the full Ajax command or the abbreviation is valid:

Command	Abbreviation	Description
rdHide	HD	Hide an element on an RD form
rdShow	SH	Show an element on an RD form
rdSetText	ST	Set text in an element on an RD form
rdSetVal	SV	Set the value in an element on an RD form
rdSetStyle	SS	Set the style of an element on an RD form
rdSetAttribute	SA	Set an attribute
rdRemoveAttribute	RM	Remove an attribute
rdLookupJSON	LJ	JSON lookup
rdShowConfirm	SC	display a "confirm" dialog
rdShowModal	SM	displays an RD row as a modal form
rdHideModal	НМ	hides an RD row displayed as a modal form
rdAlertBox	AB	display message using the browser's native alert box
rdShowMessage	SMSG	display a standard message panel on the page
rdHideMessage	HMSG	hide a standard message panel on the page
rdHideMessageAll	HMSGA	hide all message panels on the page
rdScrollToID	STID	scroll page to bring the row of the element into view
rdShowAllRows	SAR	display all rows of header, footer or body if hidden
rdHideAllRows	HAR	hide all rows of header, footer or body if displayed
rdShowSection	SSN	show header, footer or body
rdHideSection	HSN	hide header, footer or body
rdSetElementValue	SEV	directly set the value of any element
rdNavigate	NAV	navigate to the specified page
rdDeleteTableRow	DTR	delete row from table (implement as shown below)
jqsv	JQSV	jquery set value
jqst	JQST	jquery set text
jqshtml	JQSHTML	jquery set html
jqsh	JQSH	jquery show()
jqhd	JQHD	jquery hide()
jqsa	JQSA	jquery set attribute
jqra	JQRA	jquery remove attribute
jqss	JQSS	jquery set css
addCode	AC	add code
addScript	AS	add script

addCSS	CSS	add CSS to the DesignBais style sheet
setSlider	SL	create a slider control
dbslidePanel	SP	create a slide panel
dbCarousel	CAR	create an image carousel
addEvent	AE	add event
customAttribute	CA	set custom attribute (HTML attribute) at run time
removeCustomAttribut	teRCA	remove custom attribute at run time
dbDayPicker	DP	day (date) picker (RD forms only)
dbDayPickerSetHTML	DPSH	day (date) picker (RD forms only)
showSpinner	SSPN	show spinner text (can be used in non-RD forms)
hideSpinner	HSPN	hide spinner text (can be used in non-RD forms)
authenticated	AUTH	set a user as authenticated (allow access to uploads) (can be
		used in non-RD forms)
setSelectionRange	SSR	set the start and end selection for input field (can be used in
		non-RD forms)

AJX.ARG

For the following functions only attributes 1 through 5 are required:

rdHide HD rdShow SH rdSetText ST rdSetVal SV rdSetStyle SS rdSetAttribute SA rdRemoveAttribute RMrdLookupJSON LJ

Attribute	Content	Format
1	RD form element id	multi-valued
2	Type of RD Form element (see list below)	multi-sub valued
3	CSS property	multi-sub valued
4	CSS property setting or value	multi-sub valued
5	mSec delay time	multi-sub valued

Type of RD Form element

row
col
formRow
element
label
option
optionlabel
error
tipicon
tiptext
help

segment (use for HTML output element)

For other functions the attributes from 5 upwards contain function-specific values:

Attribute	Content	Format
1	RD form element id	multi-valued
2	Type of RD Form element (see list above)	multi-sub valued
3	CSS property	multi-sub valued
4	CSS property setting or value	multi-sub valued
5	mSec delay time	multi-valued
6	button events	multi-valued
7	close events	multi-valued
8	response handling subroutine	multi-valued

Example of Usage rdSetStyle:

```
AJX.ARG = "
IF DBVALUE = 'N' THEN
 CLR1 = 'thistle'; CLR2 = 'yellow'; WID3 = 'thick'
 CLR1 = '#8e578e'; CLR2 = '#ff4d4d'; WID3 = 'thin'
END
AJXCMD = 'SS'
                                         ;* rdSetStyle
AJX.ARG<1,-1> = 'd948937'
AJX.ARG<2,-1> = 'element'
AJX.ARG<3,-1> = 'background-color':SVM:'border-width'
AJX.ARG<4,-1> = CLR1:SVM:WID3
AJX.ARG<1,-1> = 'd978206'
AJX.ARG<2.-1> = 'element'
AJX.ARG<3,-1> = 'color':SVM:'background-color':SVM:'border-width'
AJX.ARG<4,-1> = 'red':SVM:CLR2:SVM:WID3
CALL DBI.G.AJXCMD(AJXCMD,AJX.ARG)
```

Developers should note the effect of using this method to modify a form at runtime. Referring to the following example:

```
Edit Code
i 1 ⋅ ⟨div class="dbrow row">
           <div class="dbcol col-md-12 dbcolhilite">
      2 -
     3 ₹
                <div class="dbform form-horizontal dbrowhilite">
                    <div class="dbformgroup form-group dbrowcolhilite">
     4 -
                        <div dbtype="segment" class="html-text" id="d556200">
      5 +
                            Lorem ipsum..
     6
     7
                        </div>
     8
                    </div>
     9
                </div>
     10
            </div>
     11 </div>
     12
```

Developers should not change the first 4 lines (dbrow, dbcol, dbform, dbformgroup) unless there is a specific reason to do so. In order to just set the colour for the 5th line (segment) use:

```
AJX.ARG = ELEMENT.ID
AJX.ARG<2, 1> = 'element'
```

which will set the color of the div with ID = ELEMENT.ID

This code changes the HTML of the row, and should be avoided:

AJX.ARG = ELEMENT.ID AJX.ARG<2, 1> = "row" AJX.ARG<3, 1> = "color" AJX.ARG<4, 1> = CSS.COLOR CALL DBI.G.AJXCMD('SS', AJX.ARG)

This code only changes the color for the html segment with the specified id, and is the recommended method:

AJX.ARG = ELEMENT.ID AJX.ARG<2, 1> = "element" AJX.ARG<3, 1> = "color" AJX.ARG<4, 1> = CSS.COLOR CALL DBI.G.AJXCMD('SS', AJX.ARG)

Example of Usage customAttribute:

Set the multi-select property of a select element:

```
AJX.ARG = 'BKT.PROP.Q47A'
AJX.ARG<3> = "multiple"
AJX.ARG<4> = "multiple"
CALL DBI.G.AJXCMD("CA",AJX.ARG)
```

Example of Usage of the common variable DBAJAXCMD:

```
MYCLASS="dotempty"
ID="step1"

THIS.CMD = 'document.getElementById("':ID:'").className="':MYCLASS:""
DBAJAXCMD<-1> = THIS.CMD:'; '
```

Note that the final few characters of the string are the DesignBais end command flag: ";" + 3 spaces.

Example of Usage showSpinner:

Use the 'SSPN' (or 'showSpinner') command to display text above the server busy spinner

```
AJX.ARG = "" (element ID is not required)

AJX.ARG<2> = text to display

AJX.ARG<3> = "true" or "false" (used to optionally blur and block the background)

CALL DBI.G.AJXCMD("SSPN",AJX.ARG)
```

Example of Usage authenticated:

Authenticate a user to access the website *uploads* folder.

```
AJX.FUNC = "AUTH" or "authenticated"
AJX.DATAIN = "Y" or "y" or "TRUE or "true" or 1
CALL DBI.G.AJXCMD(AJX.FUNC,AJX.DATAIN)
```

Will set SESSION.REC<75> = "Y". Set AJX.DATAIN to any other value will clear it.

msec

In the following function descriptions the argument *msec* is the animation speed.

• msec = slide up/down animation speed

Any function that has an "msec" parameter can do sliding up or sliding down animation.

e.g. You can use *rdHide* and *rdShow* to hide or show a row. If you set the *msec* value to say 300, the row will disappear or appear by sliding up or down in 300 milliseconds. That is obviously a slow animation speed but demonstrates the usage of *msec*.

msecDelay

This is a delay period in milliseconds. The default is 0 (no delay).

The delay may be needed in rare cases such as delaying the disabling of an element until after other cascaded functions have been completed.

```
e.g. (cascaded function calls): rdShow("myInstructionsID", "row", 3000); rdRemoveAttribute("mySubmitButtonID", "element", "disabled", 4000)
```

A row is displayed in 3 seconds. 1 second after that an element is enabled in another row. This could be a scenario where an element is not enabled before displaying the content of a row which may contain a set of instructions.

Key to Function Descriptions

id This is the id assigned to the form element in the RD form.

target The form element target such as row, column or tiptext. Refer to the section

Responsive Design Components, Parts and Functions for the list of targets.

underscore Arguments with an underscore are optional.

The following functions can be executed as javascript or using the DesignBais DBI.G.AJXCMD subroutine.

rdHide(id, target, msec)

Hide a form element.

Msec recommended values: 0-1000 msec, default is 0

Example:

```
AJX.ARG = 'utility' ;* form element id

AJX.ARG<2>='element' ;* target

AJX.ARG<1,-1> = 'testHTML';* another form element

AJX.ARG<2,-1>='element' ;* another target

CALL DBI.G.AJXCMD('HD',AJX.ARG)
```

Or using subvalues to define multiple targets for the one form element:

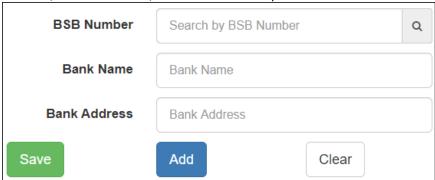
```
AJX.ARG = 'bsbNumber' ;* form element id
AJX.ARG<2,1>='element' ;* target
AJX.ARG<2,1,-1>='label' ;* target
CALL DBI.G.AJXCMD('HD',AJX.ARG)
```

Developers should note that an attempt to "show" a row that is partly hidden will fail.

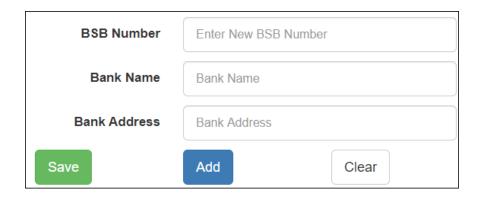
Consider this example where in the AFTER DISPLAY event the form element *bsbNumber* is hidden by hiding the row containing the field.

BSB Number	Search by BSB Number Q
BSB Number	Enter New BSB Number
Bank Name	Bank Name
Bank Address	Bank Address
Save	Add Clear

In the snip below the *bsbNumber* field on the second row is not visible. The field labeled *BSB Number*, on the first row, is visible. It is lookup field used to search for an existing record.



Clicking the Add button hides the BSB Number lookup field and shows the bsbNumber field.



```
AFTER.DISPLAY:
      BEGIN CASE
         CASE SCREEN.NO = "MAINT" AND FILENAME = "ABANK"
    AJX.ELEM = 'bsbNumber'
            AJX.TARG = 'row'
            AJX.FUNC = 'HD'; GOSUB SHOW.HIDE
BUTTON:
      BEGIN CASE
         CASE SCREEN.NO = "MAINT" AND FILENAME = "ABANK"
            BEGIN CASE
               CASE EVENTSOURCE = "B.ADD"
                  * hide the lookup and reveal the input field
                  AJX.ELEM = 'lookupBsb'
                  AJX.TARG = 'row'
                  AJX.FUNC = 'HD'; GOSUB SHOW.HIDE
                  AJX.ELEM = 'bsbNumber'
                  AJX.TARG = 'row'
                  AJX.FUNC = 'SH'; GOSUB SHOW.HIDE
SHOW.HIDE:
      AJX.ARG = AJX.ELEM
                              ;* form element id
                             ;* target
      AJX.ARG<2,1>=AJX.TARG
                              ;* msec delay
      AJX.ARG<5,1> = 900
      CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
      RETURN
```

If, instead of hiding the **row** in the AFTER DISPLAY, only the visible components of the field are hidden (the *element* and the *label*), using this code below for example:

```
AJX.ARG = 'bsbNumber' ;* form element id
AJX.TARG = 'element' ;* target
AJX.TARG<1,1,-1>= 'label' ;* target
AJX.FUNC = 'HD'; GOSUB SHOW.HIDE
```

then using the code below to show the field again will not work:

```
AJX.ELEM = 'bsbNumber'
AJX.TARG = 'row'
AJX.FUNC = 'SH'; GOSUB SHOW.HIDE
```

This is because the row is not fully hidden, hence attempting to show the row will not have any effect.

rdShow(id, target, msec)

Display a form element.

Msec recommended values: 0-1000 msec, default is 0

rdSetText(id, target, some_text)

Provides a means to set or change the text of a form element.

```
AJX.ARG = 'address'
AJX.ARG<2>='tiptext'
AJX.ARG<4> = 'New set text for tip'
CALL DBI.G.AJXCMD('ST',AJX.ARG)
```

rdSetVal(id, value)

Provides a means to set or change the value of a form element.

Example:

Set the text of a button: rdSetVal("b-button1", "Click Here") Where 'b-button1' is the form element id of the button.

rdSetStyle(id, target, style_attribute, value)

Provides a means to set or change the value of a style property of a form element.

Example (setting both Style and Attribute):

```
RD.FUNC = 'SS':VM:'SA'
RD.INP = 'name':VM:'name'
RD.INP<2> = 'element':VM:'tiptext'
RD.INP<3> = 'backgroundColor':VM:'title'
RD.INP<4> = 'lightblue':VM:"Bob\'s tip"
CALL DBI.G.AJXCMD(RD.FUNC,RD.INP)
```

rdSetAttribute(id, target, element_attribute, value, msecDelay)

Set the value of a target attribute in a form element. msecDelay recommended values: 0-1000 msec, optional argument, default is 0

Example:

```
RD.FUNC = 'SA'

RD.INP = 'clientCode'

RD.INP<2> = 'tiptext'

RD.INP<3> = 'data-original-title'

RD.INP<4> = "Bobs tip"

CALL DBI.G.AJXCMD(RD.FUNC,RD.INP)
```

Setting the *element_attribute* to a value of "nofilter" provides a means of controlling the filtering of the results from an onload event in a lookup element or dropdown list. Setting "nofilter" to "true" results in all elements being returned rather than just those that match the filter.

```
rdSetAttribute(elementID, "element", "nofilter", "true");
```

Example:

Setting text overlay associated with a form element. Use this feature to, for example, display overlay text for the DesignBais server-busy spinner when a button is clicked. The text is displayed only when the event source (e.g. a button) has the attribute "loadingtext".

```
rdSetAttribute(element_id, "element", "loadingtext", "Loading your delivery calendar"); (Note: only the parts shown in red are variables)
```

Example:

Disabling a button. The id of the button is 'payment'.

```
AJX.CMD = 'SA'
AJX.PARMS = 'payment'
AJX.PARMS<2> = 'element'
AJX.PARMS<3> = 'disabled'
AJX.PARMS<4> = 'disabled'
CALL DBI.G.AJXCMD(AJX.CMD,AJX.PARMS)
```

Setting the mandatory property using rdSetAttribute

```
IS.REQD = (DBWORK<GCL.ACCRED.WK> = 'Y' AND DBRECORD<GCL.ACCRED.DOC> = "") → this is the condition AJX.ARG = ''

AJX.ARG<1, 1> = 'docAccrAttachFileDUpload' → this is the element id AJX.ARG<2, 1> = 'element'

AJX.ARG<3, 1> = 'filemandatory'

IF IS.REQD THEN WORD = 'true' ELSE WORD = 'false'

AJX.ARG<4, 1> = WORD

CALL DBI.G.AJXCMD('SA', AJX.ARG)
```

rdRemoveAttribute(id, target, element_attribute, msecDelay)

Remove the value of a target attribute in a form element. msecDelay recommended values: 0-1000 msec, optional argument, default is 0

Example:

Enabling a button. The id of the button is 'payment'.

```
AJX.CMD = 'RM'
AJX.PARMS = 'payment'
AJX.PARMS<2> = 'element'
AJX.PARMS<3> = 'disabled'
CALL DBI.G.AJXCMD(AJX.CMD,AJX.PARMS)
```

rdLookupJSON(id, keys/values, descriptions/labels)

Create a JSON array of name-value pairs.

List of dropdown keys/values in argument 3 and descriptions/labels in argument 4. Values can contain up to a maximum 100 double-pipe separated ids.

```
AJX.CMD = 'LJ'
AJX.ARG = ''
AJX.ARG<3> = 'key1.1||key1.2' :VM:'key2.1||key2.2'
AJX.ARG<4> = 'label1.1||label1.2':VM:'label2.1||label2.2'
CALL DBI.G.AJXCMD(AJX.CMD,AJX.ARG)
```

rdShowConfirm(confirmEventId, message, header, buttons, buttonStyles, buttonEvents, closeEvent, subroutineName)

Displays a "CONFIRM DIALOG" with the following parameters:

confirmEventId

Create a hidden input field with an ID in your RD form designer (File > Properties > Hidden Fields). Link that hidden field in DesignBais. Feed the ID of that hidden field as *confirmEventId* to this function. This way, you'll be

able to receive the button click events from this dialog box. The event source will be the ID of your hidden field. The event type will be "rdConfirm-n" where n is the button order from left to right. e.g. for YES||NO, the event types will be rdConfirm-1 and rdConfirm-2 respectively. rdConfirm-0 means the dialog has been closed using the (X) button on the top right corner.

message message text for the dialog

header header for the dialog

buttons Button captions delimited using two pipes (||). e.g. "YES||NO". Default: a

single "OK" button.

buttonStyles (optional) One of the following constants: "default", "primary", "danger", "info",

"warning", "success", "link" for each button separated using pipes "||". e.g. "primary||danger". If missing or set to "" then the button style defaults to

"default" style.

buttonEvents 1=serverHitAndClose or 0=JustClose. || delimited for each button; e.g.

"0||1". Default: 1

closeEvent 1=serverHitAndClose or 0=JustClose. A single value for the dialog box (X)

button. Default: 1

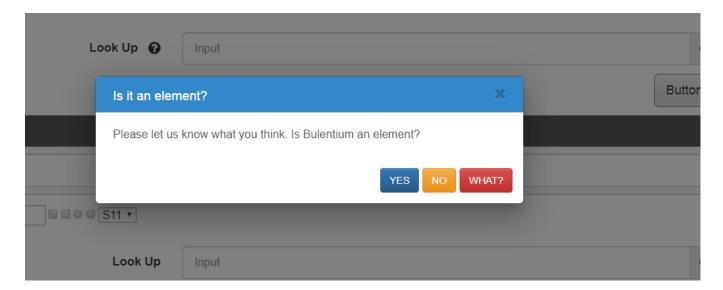
subroutine name the name of the subroutine that is to process the response

Example:

rdShowConfirm("dHidden001","Please let us know what you think. Is Bulentium an element?", "Is it an element?", "YES||NO||WHAT?", "primary||warning||danger", "1||1||0", 1);

buttons, buttonStyles, buttonEvents VM and SVM characters are converted to "||"

The developer must use the Form Data Link process to link the hidden form element to a database field and this field must have a Process After specified. The subroutine named in the Process After will be called to handle the DIALOG event generated when a button is clicked. In the DIALOG event the EVENTSOURCE will be set to the element id of the hidden field, PROCESS.PARAMETER will contain the sequence number of the button that is clicked ordered from left to right.



Example of basic code for *rdShowConfirm*:

```
AJX.FUNC = 'SC'
AJX.ARG = ''
AJX.ARG<1> = EVENTSOURCE
AJX.ARG<2> = 'Are you sure that the name is to be changed?'
AJX.ARG<3> = 'Client Name Change Request'
AJX.ARG<4> = 'Yes||No'
AJX.ARG<5> = 'primary':VM:'danger'
AJX.ARG<6> = '0||1'
AJX.ARG<7> = '0'
AJX.ARG<8> = 'SUBR.NAME'
CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

This is another example that demonstrates a method of handling the display of a confirmation message in different ways depending on whether the user is in traditional DesignBais or in Responsive Design:

```
CASE DELETE.TYPE = "D"
   IF RDMODE THEN
     AJX.ARG = ''
      AJX.ARG<1> = 'dbDialog'
      AJX.ARG<2> = "Are you sure you would like to delete row [":DBMVCOUNT:"]?"
      AJX.ARG<3> = 'Table Row Delete Request'
      AJX.ARG<4> = 'Yes||No'
      AJX.ARG<5> = 'danger':VM:'primary'
      AJX.ARG<6> = |1||1|
      AJX.ARG<7> = '1
      AJX.ARG<8> = 'SUBR.NAME'
      CALL DBI.G.AJXCMD('SC',AJX.ARG)
   END ELSE
      DBDIALOG.TEXT = "Are you sure you would like to delete row [":DBMVCOUNT:"]?"
      CALL DBI.G.GLOSSARY(DBDIALOG.TEXT)
     DBDIALOG.BUTTONS = 4
      DBDIALOG.PROGRAM = "DBDELETEMVPROCESS"
     DBDIALOG.PARAMETER = "DBDELETEMVPROCESSRESPONSE"
   END
   GOSUB ...
END
```

The following example shows how to process the response in the DIALOG event:

```
RDSHOWCONFIRM:
    AJX.ARG = 'confirmSave'
    AJX.ARG<2> = 'Do you wish to save the current record':SVM:'Record Id:<b>':DBKEY:'</b>?'
    AJX.ARG<3> = 'Confirm Save of Current Record'
    AJX.ARG<4> = 'Yes||No'
    AJX.ARG<5> = 'primary':VM:'danger'
```

```
AJX.ARG<6> = |1||1|
      AJX.ARG<7> = '1'
      AJX.ARG<8> = 'SUBR.NAME'
      CALL DBI.G.AJXCMD('SC',AJX.ARG)
DIALOG:
      BEGIN CASE
         CASE SCREEN.NO = 'CATALOG'
            * In the DIALOG event the EVENTSOURCE contains the name of the
            * hidden field used in the rdShowConfirm call eg: confirmSave
            * PROCESS.PARAMETER contains the option that was clicked eg: 1
            BEGIN CASE
               CASE EVENTSOURCE = 'confirmSave'
                  BEGIN CASE
                     CASE THIS.PARAMETER = 1;* Yes was clicked
                        NULL;* no action - remain as you were!
                     CASE THIS.PARAMETER = 2;* No was clicked
                        DBKEY = ''
                        EVENTSOURCE = 'B.CLEAR'
                        GOSUB BUTTON
                  END CASE
            END CASE
      END CASE
      RETURN
```

rdShowModal(id, header, closeEvent)

Displays an RD row as a modal form.

id ID of an arbitrary element within the row designated as modal

header header text for the modal row when it displays

closeEvent 1=serverHitAndClose or 0=JustClose.

A single value for the dialog box (x) button.

Default 1

In RD Designer, right click a row and select visibility > Display Mode > Modal.

This flags the row to be displayed as a modal form in run time. In RD Designer, the modal row is indicated with a light blue color when another row is clicked.



rdShowModal("modalFields", "This is My Title!!", 1)

```
CASE EVENTSOURCE = "B.BTNSHOWMODAL"
  AJX.FUNC = "SM"
  AJX.ARG = "modalFields"
  AJX.ARG<2> = "This is My Title!!"
  AJX.ARG<3> = 1
  CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

The modal form in run time:



rdHideModal(id)

```
AJX.FUNC = "HM"
AJX.ARG = "modalRow"
CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

rdAlertBox(inText)

Display a message using the browser's native alert box.

The native alert box has drawbacks:

- blocks the thread; it cannot be closed programmatically.
- some popup blockers disable alert boxes
- Looks different on different platforms/browsers and can be ugly.

Note that characters within the message text are converted as follows:

```
subvalue mark char(252) → break row apostrophe ' → break row char(13) → break row

AJX.FUNC = "AB"

AJX.ARG = 'Test New rdAlertBox.':SVM:SVM:'In modalEmail close via X' CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)

192.168.199.194 says

Test New rdAlertBox.<br/>
break row

AJX.FUNC = "AB"

AJX.ARG = 'Test New rdAlertBox.':SVM:SVM:'In modalEmail close via X'

CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

rdShowMessage(messageEventId, message, header, messageList, showClose, closeEvent, position, sBefore, style, msec)

Displays a standard message panel on the page at the required row position. Page scrolls to the message panel when displayed. Note that to link to a null id set messageEventId to \$BLANK\$.

messageEventId ID of a field created in RD Form Designer (an HTML output element will do)

message text. header text.

messagelist ||delimited strings. Optional. Displayed as bullet points if provided. showClose 0=DontShow 1=Show; sets the visibility of the panel's (x) button.

Default: 1

closeEvent 1=serverHitAndClose or 0=JustClose. A single value for the (x) button.

Default: 0

position the string "page" or the ID of any element on the form.

Default: page

sBefore "before" or "after". The message panel is displayed before or after the

element specified in the position parameter. If the element is "page" then the message is displayed at the top or at the bottom of the page depending

on this value.

Default: before

Style "primary", "warning", "info", "danger", or "success"; style of the panel.

Default: danger

msec the animation parameter. Recommended values: 0-1000

Default: 0

Example:

rdShowMessage("XYZ", "Please correct the following entries:", "A few errors have been detected!", "First Name||Last Name||Age||Gender||Team||Sports", 0, 1, "page", "before", "info", 300);

A few errors have been detected!

Please correct the following entries:

- · First Name
- Last Name
- Age
- Gender
- Team
- Sports

Example usage:

rdShowMessage(messageEventId,"Please correct the following entries:", "A few errors have been detected!", "First Name||Last Name||Age||Gender||Team||Sports",1,0, "page", "before", "info", 300);

There can be multiples of these on a page and these can be shown/hidden as needed using the messageEventId. It doesn't have to be connected to a hidden field, any ID will do as long as it doesn't cause a problem in the DATACOMP.

Example usage in a subroutine:

AJX.ARG = "

AJX.ARG<1> = 'formMessages' ;* form element id AJX.ARG<2> = 'Are you sure that the name is to be changed?' ;* message text AJX.ARG<3> = 'Client Name Change Request' ;* header text

```
AJX.ARG<4> = 'Bullet Point 1 | Bullet Point 2' ;* optional message list
AJX.ARG<5> = 0 ;* show close
AJX.ARG<6> = 0 ;* close event
AJX.ARG<7> = 'page' ;* position near name field
AJX.ARG<8> = 'after' ;* before or after field
AJX.ARG<9> = 'success' ;* style
AJX.ARG<10> = 0 ;* milliseconds delay
CALL DBI.G.AJXCMD('SMSG',AJX.ARG)
```

The Form Data Link treats RD Designer "hidden" fields as a button.

The developer will get a *BUTTON* event in their linked program code if there is a close event associated with the displayed message.

message text may contain HTML e.g. text (for bold),
 for new lines. VM and SVM characters are converted to
>.

header can contain and <u>.



rdHideMessage(messageEventId, msecDelay)

Hide a standard message panel displayed using rdShowMessage.

messageEventId ID of a hidden field created in RD Form Designer msecDelay Recommended values 0-1000 msec, default 0

Example usage in a subroutine. Consider the following code from the validation event. Note that the error message is displayed by the call to SHOW.MESSAGE using the *SMSG* function. The message must be cleared by using the *HMSG* function otherwise the message will remain even after the field validation rules have been passed.

```
IF DBVALUE # '' AND CMP.FLD # '' THEN
IF NOT (DBVALUE = CMP.FLD) THEN
AJX.FUNC = 'SMSG'
THE.ID = 'email'
THE.MSG = 'Email address mismatch'
THE.MSG.HEADER = 'Email Address'
THE.MSG.FIELD = 'email'
THE.MSG.LIST = ''
THE.MSG.SPOT = 'after'
GOSUB SHOW.MESSAGE
END ELSE
AJX.FUNC = "HMSG"
AJX.ARG = 'email'
CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
END
```

```
END
```

```
*
SHOW.MESSAGE:

*

AJX.ARG = ''
AJX.ARG<1> = THE.ID
AJX.ARG<2> = THE.MSG
AJX.ARG<3> = THE.MSG.HEADER
AJX.ARG<4> = THE.MSG.LIST
AJX.ARG<5> = 0
AJX.ARG<6> = 0
AJX.ARG<7> = THE.MSG.FIELD
AJX.ARG<8> = THE.MSG.SPOT
AJX.ARG<9> = 'success'
AJX.ARG<10> = 0
CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
RETURN
```

rdHideMessageAll(msecDelay)

Hides all message panels on the page.

msecDelay Recommended values 0-1000 msec, default 0

rdScrollToID(id, msec)

Scrolls the page to bring the row of the element into view. Only a single Id can be specified.

Id Form element id

msec Recommended values 0-1000 msec, default 300

rdShowAllRows(sectionTarget, msec)

Displays all rows of a major section (header, footer or body) if hidden.

sectionTarget "header", "footer" or "body"

msec Recommended 0-1000 msec (default 0)

rdHideAllRows(sectionTarget, msec)

Hides all rows a major section (Header, footer or body) if visible.

sectionTarget "header", "footer" or "body"

msec Recommended 0-1000 msec (default 0)

rdShowSection(sectionTarget, msec)

Displays a major section if hidden.

sectionTarget "header", "footer" or "body"
msec Recommended 0 msec

rdHideSection(sectionTarget, msec)

Hides a major section if visible.

sectionTarget "header", "footer" or "body"
msec Recommended 0 msec

rdSetElementValue(id, value)

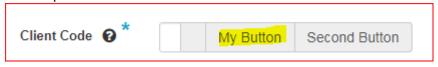
Directly set the value of any element, usually custom / injected elements.

The element can be of type input-text, output-text, select, checkbox, radio or textarea.

Id ID of the element

Value This can be can integer, string, boolean or numeric.

The following example shows how to change the name of a button, in this case it is a Group Button on an input field.



```
AJX.ARG = 'clientBut1'
AJX.ARG<2> = 'My Button'
CALL DBI.G.AJXCMD('SEV',AJX.ARG)
```

rdNavigate(id)

This function navigates to the specified page. Example usage:

rdNavigate('dbweb-helloworld')

This will open a new page called *helloworld* on folder *dbweb*.

This function can also be called using the subroutine:

```
AJX.FUNC = 'NAV'
AJX.ARG = 'dbweb-helloworld'
CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

The *rdNavigate* method avoids a server hit since it navigates directly to the required page.

To implement this in a RD form use the HTML element with a click event:

rdNavigate; Usage in RD Form Designer

- Create a HTML "Lorem ipsum" form element (CTRL+K)
- Click CTRL+Q to edit.
- Go into Source view and replace: Lorem ipsum
- with

Button Text

Tick the event check box

In this example the hyperlink will display as **Button Text**

rdDeleteTableRow(id)

This function deletes a row from a table.

Example usage:

```
rdDeleteTableRow("tr-gridTest-3");
```

This will delete the row with ID of *tr-gridTest-3*. Implemented as follows:

```
DBAJAXCMD<-1>='rdDeleteTableRow("tr-grid-test-3"); '
```

Jqsv(id, value)

This function uses jQuery to set the value of an element. It can also be called using the subroutine.

To set the value of an element:

```
AJX.FUNC = 'JQSV'
AJX.ARG = id
AJX.ARG<2> = 'element'
AJX.ARG<4> = 'value'
CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

To clear a value send a null in AJX.ARG<4>.

This function is translated as follows in the subroutine DBI.G.AJXCMD:

```
THIS.CMD = '$("#':ID:'").val("':VALU:'")'
```

Jqst(id, value)

Sets or returns the text content of selected elements.

Translated as:

```
THIS.CMD = '$("#':ID:'").text("':VALU:'")'
```

Jqshtml(id, value)

Sets or returns the content of selected elements (including HTML markup).

Translated as:

```
THIS.CMD = '$("#':ID:'").html(':"'":VALU:"')"
```

Jqssh(id, value)

Show HTML elements with the show() method.

Translated as:

```
THIS.CMD = '$("#':ID:'").show()'
```

Jqhd(id, value)

Hide HTML elements with the hide() method.

Translated as:

```
THIS.CMD = '$("#':ID:'").hide()'
```

Jqsa(id, value)

Translated as:

```
THIS.CMD = '$("#':ID:'").attr("':TARG:'","':VALU:'")'
```

Jqra(id, value)

Translated as:

```
THIS.CMD = '$("#':ID:'").removeAttr("':TARG:'","':VALU:'")'
```

Jqss(id, value)

Translated, where *value* is assigned to the variable *ATT* and can be subvalued, as:

```
THIS.CMD = '$("#':ID:'").css({'
FOR YY=1 TO ATTMAX

ATTSV = ATT<1,1,YY>
IF ATTSV = '' THEN ATTSV = ATT<1,1,1>
VALUSV = VALU<1,1,YY>
IF VALUSV = '' THEN VALUSV = VALU<1,1,1>
THIS.CMD := '"':ATTSV:'":"':VALUSV:'"'
IF YY#ATTMAX THEN THIS.CMD := ","
NEXT YY
THIS.CMD := '})'
```

addCode

```
AJX.FUNC = 'addCode'

AJX.DATAIN = 'ewayScript2' ;* Unique script ID to prevent reloading

AJX.DATAIN<2> = "var ewayKey='":EWAY.REC<DBIPM.EWAY.EKEY>:"'"

;* javascript variable holding the encryption key

AJX.DATAIN<3> = ''

CALL DBI.G.AJXCMD(AJX.FUNC,AJX.DATAIN)
```

addScript

```
AJX.FUNC = 'addScript'

AJX.DATAIN = 'ewayScript1' ;* Unique script ID to prevent reloading

AJX.DATAIN<2> = EWAY.REC<DBIPM.EWAY.SCRIPT> ;* javascript file path

AJX.DATAIN<3> = '' ;* optional function to run once script is loaded

CALL DBI.G.AJXCMD(AJX.FUNC,AJX.DATAIN)
```

addCSS

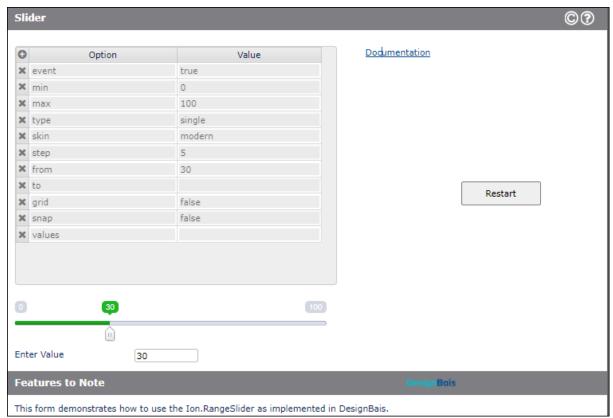
```
JMAX=DCOUNT(RESULTS<1>,VM)
FOR J=1 TO JMAX
  LOCATE 'href' IN RESULTS<2,J>,1 SETTING VPOS ELSE CONTINUE
  AJX.DATAIN = DBIACCOUNT:"_link_":J
  AJX.DATAIN<2> = RESULTS<3,J,VPOS>
  CALL DBI.G.AJXCMD('addCSS',AJX.DATAIN)
NEXT J
```

Another example:

```
AJX.DATAIN = ''
AJX.DATAIN<1> = 'dbspScript1'
AJX.DATAIN<2> = 'js/dbslidePanel-min.js'
CALL DBI.G.AJXCMD('AS',AJX.DATAIN)
```

setSlider

Refer to the documentation here: https://www.designbais.com/documents/ionrangeslider/options.html Refer to the DesignBais Demo Form DBDEMO_SLIDER which has a link to the above documentation.



Can be either a single or double slider.

```
IF DBL THEN
   AJX.DATAIN = THIS.FIELD.XML
   AJX.DATAIN<10,-1> = VAL1
   AJX.DATAIN<11,-1> = VAL2
   CALL DBI.G.AJXCMD("SL",AJX.DATAIN)
END ELSE
   AJX.DATAIN = THIS.FIELD.XML
   AJX.DATAIN
AJX.DATAIN
CALL DBI.G.AJXCMD("SL",AJX.DATAIN)
END
```

slidePanel

Refer to the documentation here: http://192.168.199.194/dbnet/js/docs/dbslidePanelAPI.html Refer to the DesignBais Demo Form DBDEMO_SLIDEPANEL which has a link to the above documentation.

```
*Set up the attributes for a slide panel element on a DesignBais form.

AJX.DATAIN = 'DB.WORK4.WK';* name of the field that contains the content for the slide panel
JMAX = DCOUNT(DBWORK<DB.TEMP.PANEL.WK>,VM)

FOR J = 1 TO JMAX

IF DBWORK<DB.TEMP.PANEL.WK,J> # '' AND DBWORK<DB.TEMP.PANEL.VALUE.WK,J> # '' THEN

AJX.DATAIN<3,1,-1> = DBWORK<DB.TEMP.PANEL.WK,J>

AJX.DATAIN<4,1,-1> = DBWORK<DB.TEMP.PANEL.VALUE.WK,J>

END

NEXT J

CALL DBI.G.AJXCMD('SP',AJX.DATAIN)
```

dbCarousel

Refer to the DesignBais Demo Form DBDEMO_CAROUSEL in the DBINET.DEMO Account.

Refer to the section in this manual titled Implementing a Carousel.

addEvent

Add an event.

```
AJX.FUNC = "addEvent"

AJX.ARG = "DBIPM.U.ID.WK"

AJX.ARG<2> = "onmousedown"

AJX.ARG<3> = 'this.size=this.length;'

*

AJX.ARG<1,-1> = "DBIPM.U.ID.WK"

AJX.ARG<2,-1> = "onblur"

AJX.ARG<3,-1> = 'this.size=0;'

CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

customAttribute

Add custom attribute to a form element at run time.

removeCustomAttribute

Remove a custom attribute from a form element at run time.

dbDayPicker

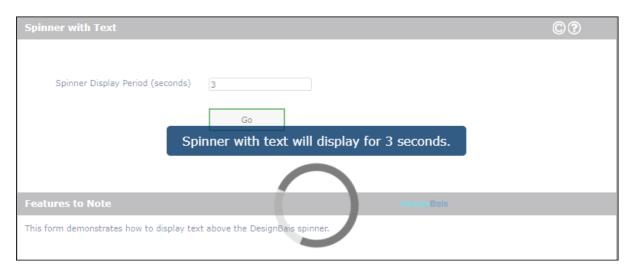
day (date) picker (RD forms only)

dbDayPickerSetHTML

day (date) picker (RD forms only)

showSpinner

Show spinner text (can be used in non-RD forms)
Refer to the DesignBais Demo Form DBDEMO_SPINNER.



hideSpinner

Hide spinner text (can be used in non-RD forms)

authenticated

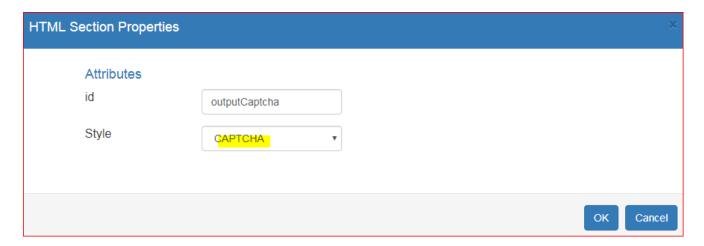
Set a user as authenticated (allow access to uploads) Refer to the DesignBais Reference Manual.

CAPTCHA

This is a style attribute of an HTML form element. Use CTRL+K to insert the HTML Section. Select the *CAPTCHA* option in the *Style* dropdown.

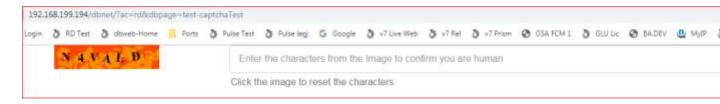
This will add a captcha image to the form and send the *captchaKey* to the data component with every event. The developer must add an *INPUT* field to the form. By comparing the value of the *INPUT* field to the *captchaKey* the developer can determine if the user has entered a matching string.

1) Add HTML field (Ctrl-K) and select CAPTCHA in the Style dropdown.



- 2) The INPUT field must have Event checked. The captchaKey value of the displayed captcha image is returned to the database via the xml string from the browser. DesignBais retains this value. In the Validation event of the input field the value of the captcha image entered by the user is sent to the database in DBVALUE as for any normal input field. In your basic subroutine set DBCAPTCHA = DBVALUE to allow the DesignBais engine to check the validity of the entered captcha field.
- 3) DesignBais then triggers another call to the field validation event in which the common variable PROCESS.PARAMETER = "GETCAPTCHA" and DBCAPTCHA.STATUS<1,4> has been set (1=failed, 0=matched).

This is demonstrated in the sample RD form test-captchaTest which is linked to DBCLIENT*RDCAPTCHA.



The validation event

```
119 VALIDATION:
120
121 -
           BEGIN CASE
122
              CASE SCREEN.NO = "RDCAPTCHA" AND EVENTSOURCE = "DBC.WORK1.WK"
                 IF PROCESS.PARAMETER = 'GETCAPTCHA' THEN
123
124
                     IF DBCAPTCHA.STATUS\langle 1,4 \rangle = 1 THEN
125
                        DBVALUE = "1"
126
                        DBDS<-1>='Your entry does not match'
127
                     END ELSE
128
                        DBDS<-1>='All good'
129
                     END
130
                     RETURN
131
132
                  DBCAPTCHA = DBVALUE
```

Calling RD from DesignBais and Returning to DesignBais

Calling a Responsive Design form from a DesignBais form.

```
BUTTON:
```

BEGIN CASE

```
CASE EVENTSOURCE = "B.RDTEST" AND SCREEN.NO = "JL10"

DBCALLURL = "http://192.168.199.194/dbnet/?dbpage=test-clientMnt;newWindow"

CASE EVENTSOURCE = "B.TEST"

DBDS<-1> = 'HERE'
```

END CASE

Data is carried forward to the new page using the old session data via *IdWindowOld* passed in by the web component.

The old session records are then deleted so that DBISESSIONS does not grow unnecessarily large.

SESSION.REC attribute <72> holds DBRDMODE which determines that this is a Responsive Design session.

- DBCALLURL = http://192.168.288.288/dbnet/?dbpage=test-clientMnt;newWindow opens a new tab
- DBCALLURL = "dbpage*DBCLIENT MAINT" replaces the current tab.

For the technically-minded the process is as follows:

- Hit 1 establishes the connection.
- Hit 2 the data component sends the basic form and sets RDMODE if the form is RD.
- Hit 3 the web component sends IDWindowOld if it can identify an earlier session. The data component then either does an Auto Logon or for an earlier session carries the session variables forward from the previous RD page for the new RD.

Once you are in RD then use PROCESS.STACK in the normal way to go to another RD form:

PROCESS.STACK="DBCLIENT_MAINT"

In order to move back to DesignBais from a Responsive Design form it is necessary to use a full URL in order to invoke a fresh session start up.

We should always go to the dbpage. The developer should decide if a user can be on that page at the beginning of a session. But in most cases the developer will need to redirect to the start page.

Developers should check their session data and decide if they allow access to that page.

Session Timeout



At this point the user has been logged out in order to kill the session data.

The Logout Option:



The Error Page option:



When there is a time out, we should clear the session data and then load that page with session=null. At that point the developer decides what to do.

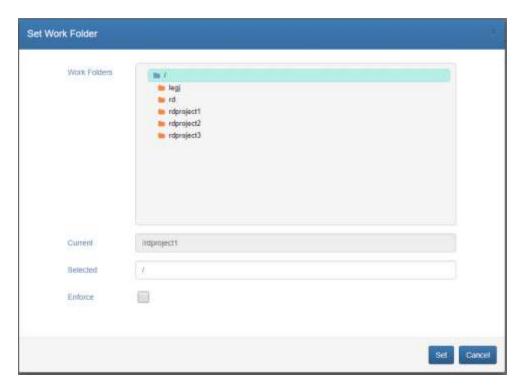
Responsive Design Top Menu Options

The top menu options are File, After and GridOff.

File Options: Work Folder [Alt W]

Let's look at the *Work Folder* option first as we need to exercise this option before we can produce a web page.

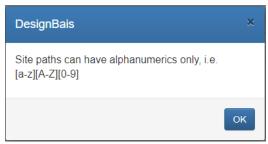
Use the *Set Work Folder* option to create a folder or to select an existing folder as your current work folder.



Type the name of the folder you wish to create in the *Selected* field. Click *Set*. This will create a new folder and also set it as your current work folder.

To change your current work folder simply click the orange folder icon adjacent to the required folder, then click *Set*.

Folder names for Site Paths must not contain space or special characters.



In order to move a page to a different work folder, open the page, then click Alt-W and select the new work folder, then click Alt-A and enter the required page name in the File Name field.

The following message is displayed if your current work folder has been deleted, or if you attempt to open a page in a work folder that no longer exists.



File Options: Open [Alt O]

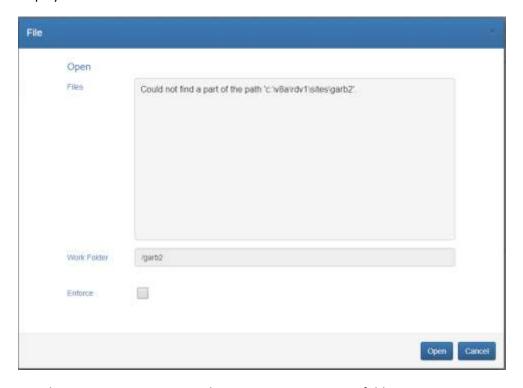
Opens an existing page for review or change.

Select the required page from the selection window.

If a page is already open and has been modified then you will be prompted:

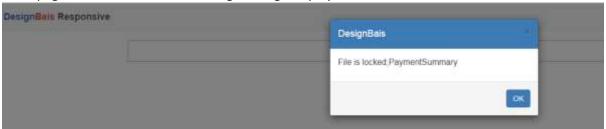


If a folder name is modified while a page from that folder is open then the following message displays:

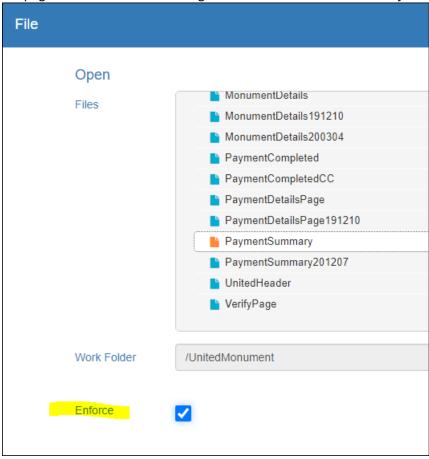


Use the Save As option to save the current page to a new folder.

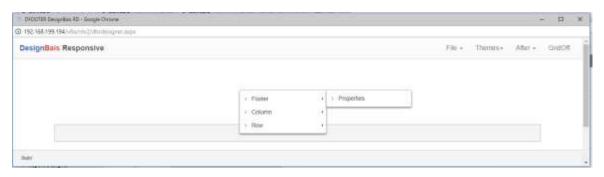
If the page is locked then the following message displays:



If a page remains locked following a browser crash then use the *Enforce* checkbox to open the page:



File Options: New Footer [Alt F]





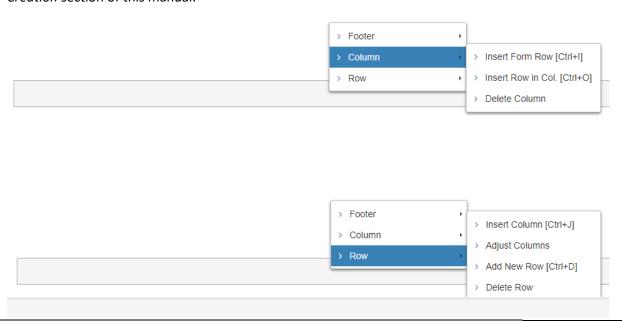
Footer Type Options are:

Scrolling Fixed Sticky

Footer Type Options are:

Full Centered

The Footer Column and Row options shown below are documented in the *Responsive Design Form Creation* section of this manual.



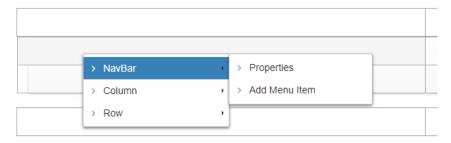
File Options: New Header [Alt H]

Create a new form header.

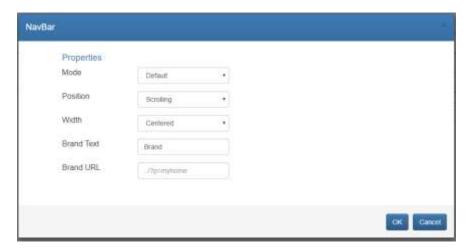


The header is sandwiched between two grid rows. The default header rows are distinguished by the presence of the *NavBar* option when the row is right-clicked. The second header row is present to allow for a header design that requires no space, or buffer, between header elements, such as menu items, and some other form element such as a text input field. If it is not required it can be deleted.

Right click the selected column to display the header page options.



NavBar > Properties



Mode Select the Inverse option for a photo-negative effect otherwise leave as the

Default option.

Position There are two options Scrolling and Fixed. The Scrolling option allows the

header to scroll off the top of the browser display. The Fixed option causes the remainder of the page to scroll behind the header, leaving the header

always in view.

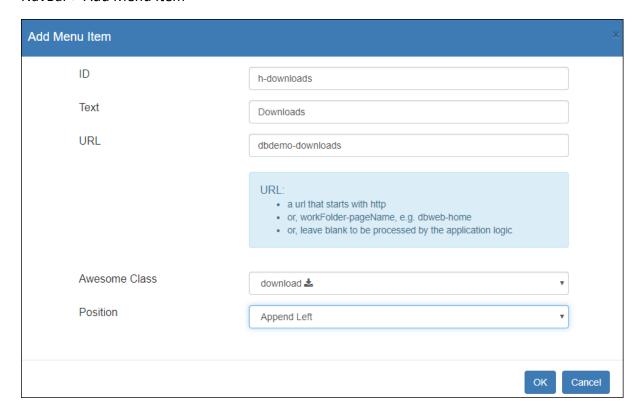
Width Full expands the header to fill the width of the form while Centered centers

the header on the form.

Brand Text Text to appear in the header row as a link.

Brand URL The URL to run when the Brand Text link is clicked.

NavBar > Add Menu Item



ID The id to be assigned to the menu item. This is required to allow it to be

referenced.

Text The text to appear in the header bar to identify the function of the menu

item.

URL As shown this can be either a url starting with http, or a workFolder-

pageName such as dbdemo-downloads. Leave blank if the click event will be handled by the application logic. Note that external URLs are opened in in the same window. If the external URL needs to be opened in a new window then leave the URL blank and use window.open(url) in the application logic in the data compared to the provider.

in the data component basic subroutine.

Example:

add ";newTab" to the end of the URL.

IF DBW3CQSTRING # '' THEN QS = "&":DBW3CQSTRING ELSE QS = ""
DBCALLURL = WEBSERVER:"?dbpage=":DBWORK<DEM.RD.PAGE.WK>:QS:";
newTab;dbAccount=":DBIACCOUNT

This results in the following:

window.open('http://192.168.199.194/dbnet/dbnet.aspx?dbpage=dbdemoslider&ac=legj'); Note: the dbAccount option is only needed if the URL + ac code does not start in the correct account.

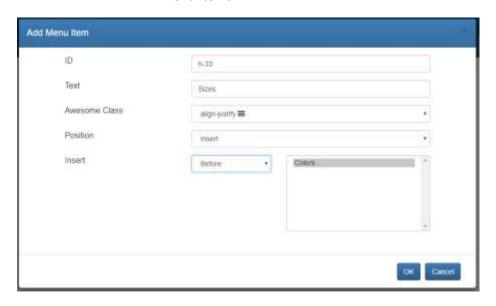
The old option ";newWindow" opens a new browser instance.

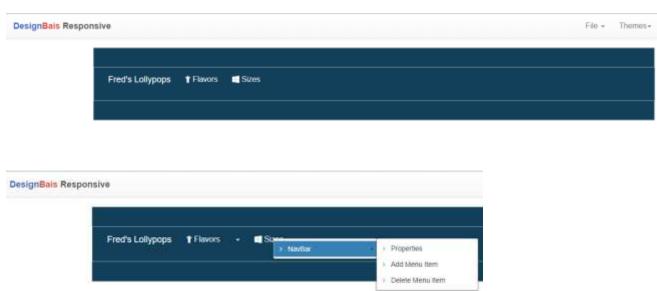
Awesome Class

Select an icon from the dropdown list.

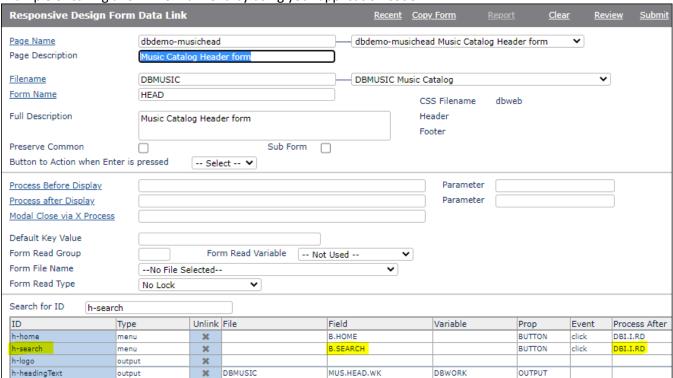
Position

The options are Append Left, Append Right or Insert. The left and right options refer to the position of the menu text within the column housing the menu item. Use the Insert option to place a menu item between existing menu items.





Example of calling a form from a menu by using your application code:



```
254 BUTTON:
255
256
           BEGIN CASE
              CASE EVENTSOURCE = 'B.HOME'
257
258
                 DBRECORD =
259
                 DBKEY =
                 EVENTSOURCE = 'B.CLEAR'
261
                 GOSUB BUTTON
              CASE EVENTSOURCE = 'B.SEARCH'
262
263
                 DBCALLURL = "http://www.google.com/search?q=":DBRECORD<MUS.TITLE>:"&q=":DBRECORD<MUS.ARTIST>:";newTab"
```

Your basic code can set DBCALLURL or use PROCESS.STACK = "Filename_Formname".

NavBar > Delete Menu Item

Deletes the focused menu item. There is no request for confirmation.

The header form navigation bar may display above the header form image even though in forms designer it appears to be below the image.

Designer view



Run time view



To overcome this issue proceed as follows:





Press CTRL-X to cut the image from the top row of the header and paste it (CTRL+V) into the row beneath (the top row of the two green rows in the snip above).

You can also right click row 2 and insert more rows if you need to. The NavBar can have more than two rows in it. You may, depending on your theme, have a background color problem, e.g. you may want white background colour where you place the logo image, because by default, this row takes the background colour of the NavBar. In that case right click on the row and select: > Row > Edit Code.

```
Edit Code
f 1: (div class="row dbrow">
          <div class="col-md-6 dbcol dbcolhilite" style="">
   3.
              <div class="dbform form-horizontal dbrowhilite">
   4.
                  <div class="dbformgroup form-group dbrowcolhilite">
                      <div dbtype="segment" class="html-text" id="h-logo" existingid="h-logo">
   5 .
   6+
                              <img alt="" src="../images/dblogomaster.jpg" class="img-responsive">
                          K/p>
   9
                      </div>
                  </div>
  10
              </div>
  11
  12
          </div>
          <div class="col-md-6 dbcol" style=""></div>
  13
      </div>
  14
```

In the code, for example, set style="background-colour:white" on the first <div> of the code.

Edit Code

With a fixed NavBar the top row of the header is not needed. In fact you can right click and go Row -> Delete. We don't encourage editing the code but we don't have a better way in this case.

You need at least one row in addition to the nav bar. On a header page you have these by default:

row navbar (can have multiple rows) row

You cannot delete both rows that exist outside the navbar. You must have at least one row on the page but a row won't display anything if left blank.

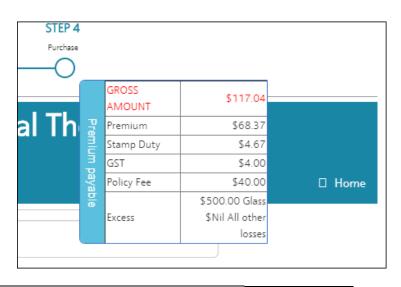
The detailed explanation for those interested:

The rows highlighted with yellow color is the NavBar.

Now, with that definition:

When the navbar is Fixed, it (those three rows) ignores everything and places itself right on top of the page. The first row sadly disappears behind it. Not in the designer though. This is one of the rare exceptions of the Designer (i.e. designer and test look different). It had to be like that because we don't want a row (ie. [1]) to disappear behind another row in design mode.





In this example the slide panel stays in front of the header when scrolling down the page. This can be solved by changing the z-index:

```
AJXIN = "dnavbar"

AJXIN<2> = "element"

AJXIN<3> = "z-index"

AJXIN<4> = "200"

CALL DBI.G.AJXCMD("SS",AJXIN)
```

File Options: New Page [Alt P]

Opens a new page.

If there is a page already open and there are changes the following prompt appears:



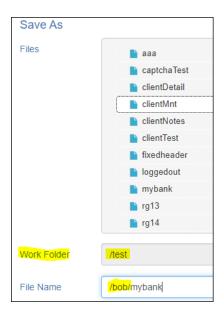
File Options: Save [Alt S]

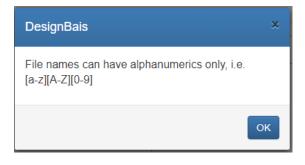
Saves the current form. A message Saved! appears briefly to confirm that the form has been saved.

If a folder name is modified while a page from that folder is open then a message similar to the following displays:



If a folder name is prefixed to the page name in the *File Name* field then the following error message will display:





Use the Save As option to save the page to a different folder. See Save As below.

File Options: Save As [Alt A]

Allows a page to be saved under a new name.

Use this option to save an existing page to a different folder. With the page open in the designer select the *Work Folder* option from the *File* menu (or press *Alt-W*).

Select the new folder from the list of existing folders, or enter a new folder name in the *Selected* field. Click *Set* to set this as the current folder name.

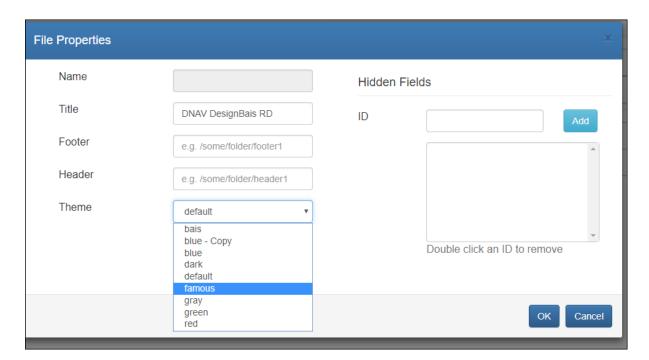
In File -> Properties set theme, header and footer and publish. It is recommended that the header and footer pages are exported first. Review all hyperlinks (including image links), delete and recreate links if necessary.

Then click either *Save* or *Save As* to save the page to the selected folder under either the current or a new page name.

File Options: Close [Alt C]

Close a page without saving changes. Note that there is no warning that changes will be lost.

File Options: Properties [Alt R]



Name The name of the page.

Title The title of the page.

Footer The path to the footer, if any, to be included with this web page.*

Header The path to the header, if any, to be included with this web page.*

^{*} Always start with "/work folder/". It points to the "your_website/rdv2/sites" folder which is the root folder for all workspaces. If the header form "headform" is in work folder "bob" then enter "/bob/headform"

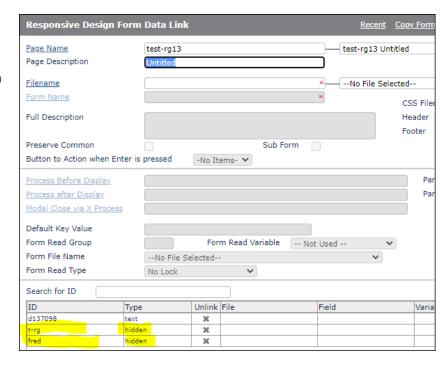
Theme

Set the theme for the web

page.

Hidden Fields

Enter the ID for any hidden fields. The ID cannot commence with *f*- or *h*-. Hidden fields will be displayed in the Form Data Link option and can be linked to fields in the database.



File Options: Refresh [Alt E]

Refresh will refresh the page by reading the form from the work folder. If the current form has not been saved then any changes made since the form was read will be lost. The following message will display if changes are detected:



The following warning will display regardless of whether or not changes are saved. It will also display if there are no changes.

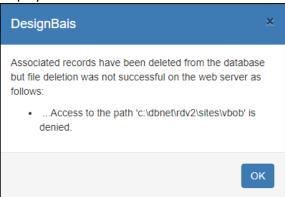


File Options: Delete Files [Alt D]

Use this option to delete pages from a work folder. The list of pages in the current folder is displayed. Select those that are to be deleted. Click the *Delete* button.

Warning! There is no confirmation step after clicking the *Delete* button. Be sure that the pages selected and highlighted in orange color are the pages that you want to delete.

If the *Delete* button is clicked without selecting a page name the following message will be displayed:



File Options: Publish [Alt L]

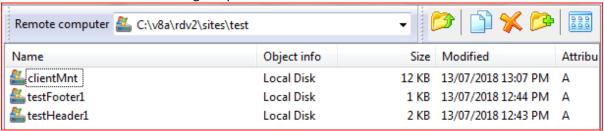
A form must be saved before it can be published.



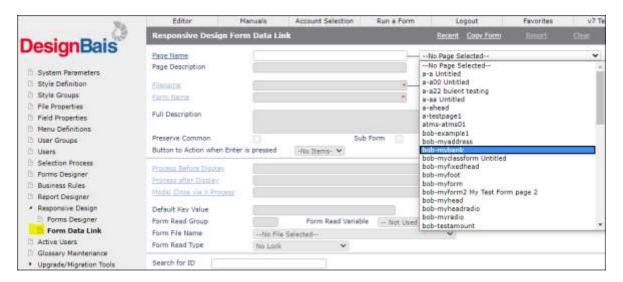
Publish calls a web service to pass the XML record to the DesignBais Database Component where the developer can link the elements on the form to table fields and events on the database.

The Responsive Design *Page Name* holds the id of the published form within the database component. It is stored in the file DBIFORMHTML. The *Page Name* is formed from the path to the form within the *sites* folder.

With reference to the snip below the form called *clientMnt* when published will be assigned a *Page Name* of *test-clientMnt* reflecting the path within the *sites* folder.



After a form is published use the Database Component tool to link database fields and basic routines to the various elements on the form. Refer to *Form Data Link* option on the DesignBais tools menu displayed from the DBIFORMS_DEVELOP form.



When a page is published the associated header, footer (if they are present) and the template files are all created, or updated, into the DBIFORMHTML file along with the published page record.

Summary of Alt Short Cut keys in alphabetical order for reference:

Alt	Α	save A s

Alt C Close

Alt D **D**elete files

Alt E refr**E**sh

Alt F new **F**ooter

Alt H new **H**eader

Alt L pub**L**ish

Alt O **O**pen

Alt P new Page

Alt R pRoperties

Alt S Save

Alt W Work folder

After Options

Control the positioning of new form elements.

After Options: Append

New form elements are appended to the existing form elements. A new column is placed to the right of existing columns. A new row is added below existing rows.

After Options: Prepend

New form elements are prepended to the existing form elements. A new column is placed to the left of existing columns. A new row is inserted above existing rows.

After Options: Before

New form elements are placed before existing form elements. A new column is placed to the left of existing columns. A new row is inserted above existing rows.

After Options: After

New form elements are placed after existing form elements. A new column is placed to the right of existing columns. A new row is added below existing rows.

Responsive Design Form Creation

Opening a new page displays one default column stretching across the width of the canvas. This canvas is ready for the developer to create the columns and rows that will house the required form elements.

Fast Options

Most of the available menu options can also be triggered by a control key sequence.

You can use Ctrl+Z to undo the most recent action.

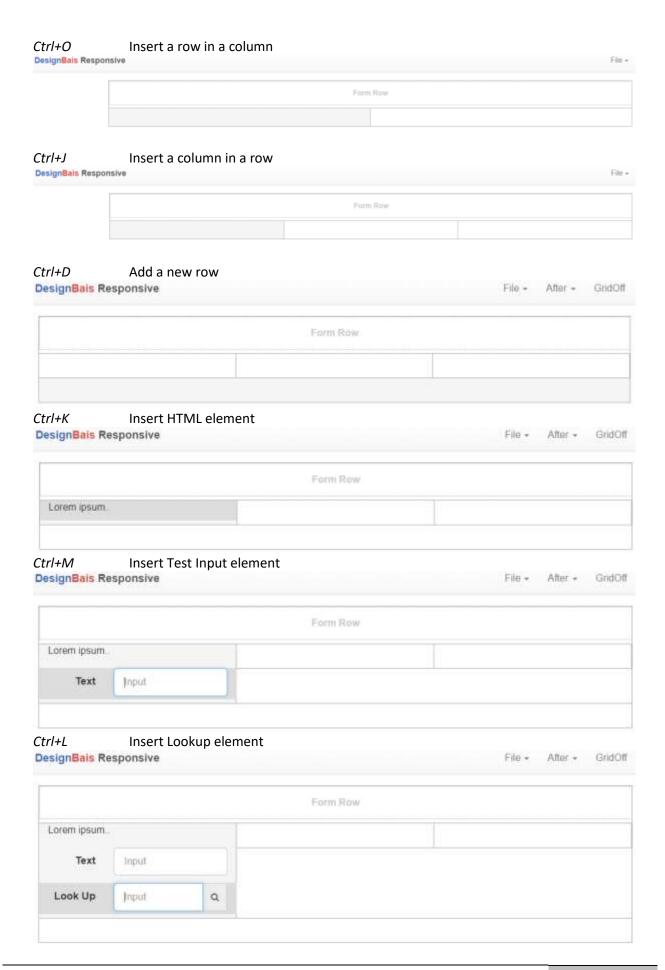
Form elements can be inserted using the *Ctrl+key* option as detailed below. Starting from a blank page the following keyboard sequences can be used to rapidly create a responsive design form:

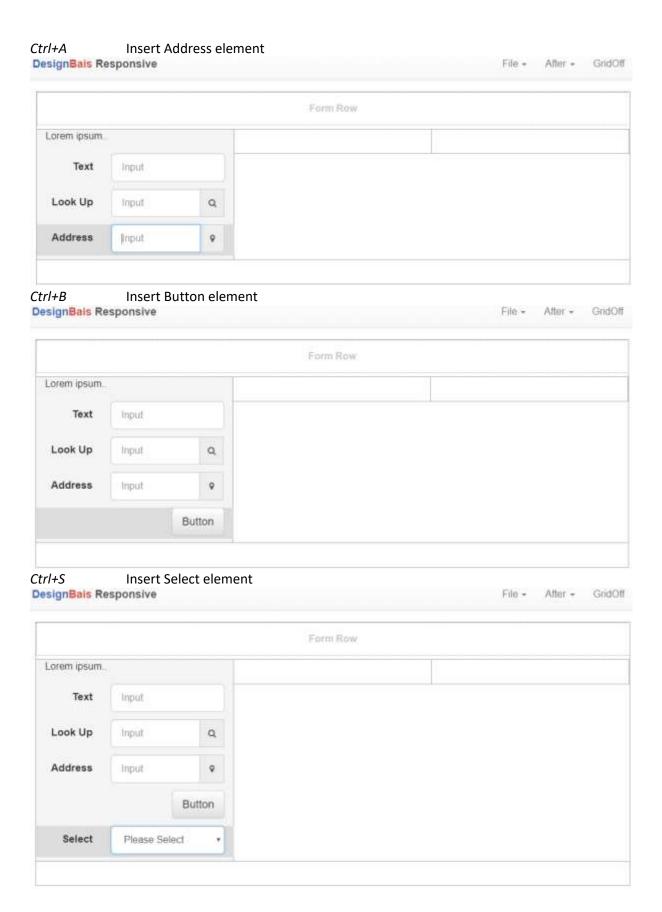
Ctrl+I	Insert a form row in a column	
Ctrl+O	Insert a row in a column	
Ctrl+J	Insert a column in a row	
Ctrl+D	Add a new row	
Ctrl+P	Display the properties of a form element	
Ctrl+C	Copy a form element	
Ctrl+X	Copy and cut a form element	
Ctrl+V	Paste a form element	
Ctrl+K	Insert HTML element	
Ctrl+M	Insert Test Input element	
Ctrl+L	Insert Lookup element	
Ctrl+A	Insert Address element	
Ctrl+B	Insert Button element	
Ctrl+S	Insert Select element	
Ctrl+R	Insert Radio Button element	
Ctrl+H	Insert Checkbox element	
Ctrl+E	Insert Text Area element	
Ctrl+F	Insert File Upload element	
Ctrl+Q	Edit HTML code	

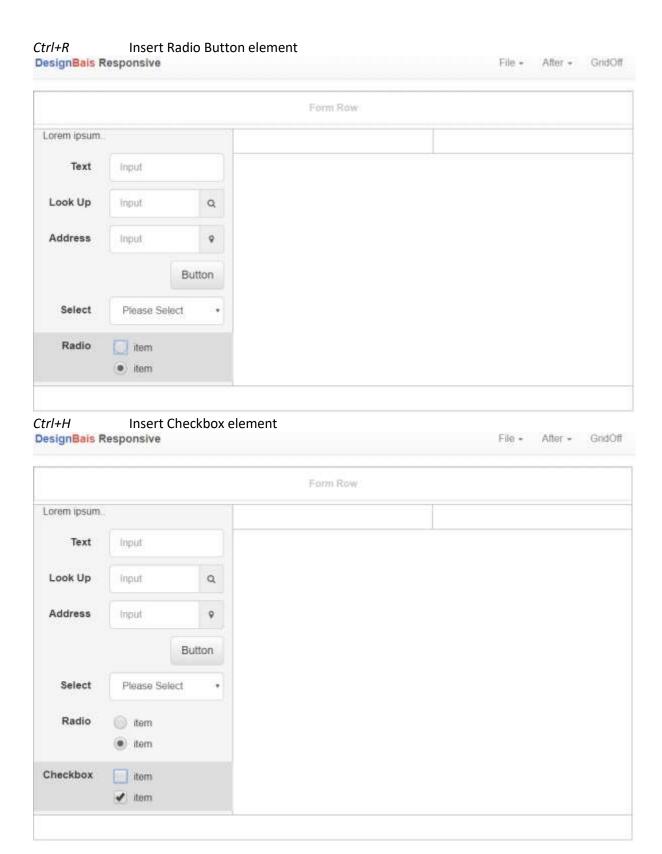
Here is an example of the use of these keyboard shortcuts.

Starting with a new page:

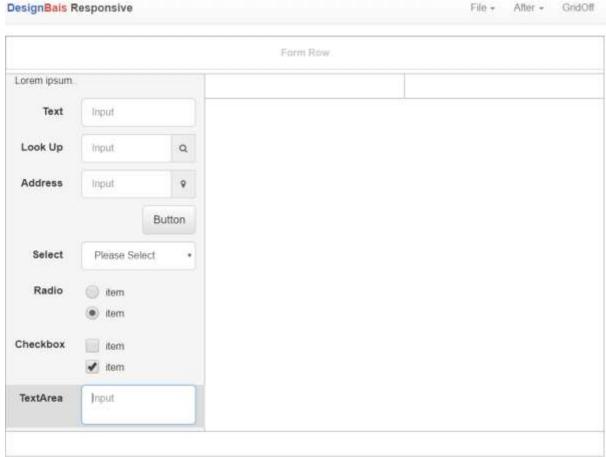




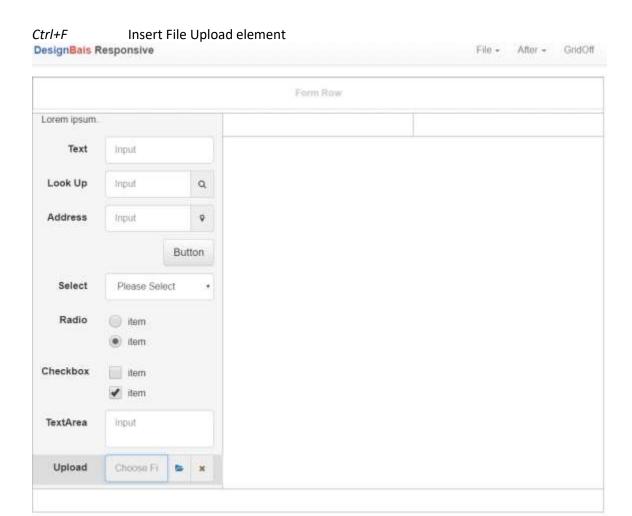




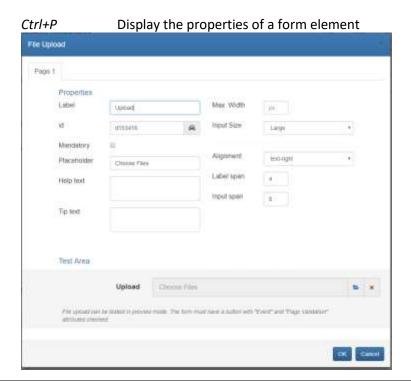
Ctrl+E Insert Text Area element



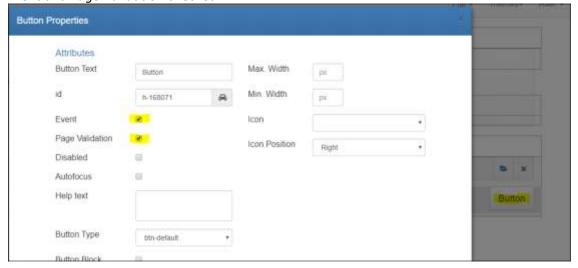
In Responsive Design dates are transmitted to the database as YYYY-MM-DD and then converted to the normal format DD-MM-YYYY.



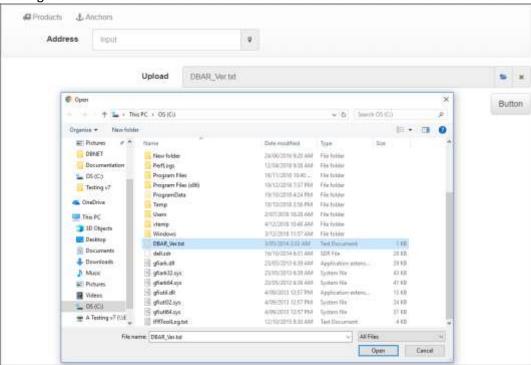
The properties of any of the above form elements can be viewed. For example the properties of the *File Upload* element:



Note that the File Upload can be tested in *Preview* mode provided that the form has a button with *Event* and *Page Validation* checked.



The following example shows a form with a File Upload element and a Button with *Event* and *Page Validation* checked. Using *Preview* (Alt V) opens a new tab with the form active. Select a file by clicking the folder icon.



Then click the button. In this case the error message displays to inform that .txt files are not permitted to be uploaded.



Following are the above options in alphabetical order for reference:

Ctrl+A	Insert Address element
Ctrl+B	Insert Button element
Ctrl+C	Copy a form element
Ctrl+D	Add a new row

Ctrl+E Insert Text Area element Ctrl+F Insert File Upload element Ctrl+G Displays the Find String Bar Ctrl+H Insert Checkbox element Ctrl+I Insert a form row in a column Ctrl+J Insert a column in a row Ctrl+K Insert HTML element Ctrl+L Insert Lookup element Ctrl+M Insert Text Input element Ctrl+N Opens a new browser instance

Ctrl+O Insert a row in a column

Ctrl+P Display the properties of a form element

Ctrl+Q Edit HTML code

Ctrl+R Insert Radio Button element

Ctrl+S Insert Select element
Ctrl+T Opens a new browser tab
Ctrl+U Opens DesignBais HTML Editor

Ctrl+V Paste a form element Ctrl+W Prompts to leave site

Ctrl+X Copy and cut a form element

Ctrl+Y

Ctrl+Z Undo the most recent action

Delete Delete the element that has focus

Esc To return to Designer after GridOff

New Page with no defined rows

Right click the default row to display *Column* and *Row* menu options. This menu appears when there is no existing row or column.



Menu Option > Column

Highlight Column to display the options.



Insert Form Row [Ctrl+I]

Clicking Insert Form Row or Ctrl+I will create a form row. This is a row occupying the width of the column. A form row must exist within a column hence Insert Form Row will always require a column to be created first (the default page is created with 1 default column) and a form row will only extend for the width of the column in which it is created.

Insert Row in Col. [Ctrl+O]

This will create a form row within a column. It implies the creation of a new column and a row within that column.

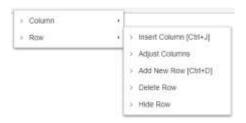
Note that if there is 1 existing column then this will create a 2nd column of equal width and place a row in the leftmost column. If there are 2 existing columns then this will create a new column within the column that is clicked and add a form row to it.

Delete Column

Deletes the column and any contained elements from the form.

Menu Option > Row

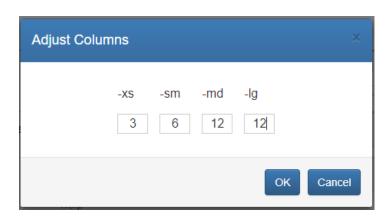
Highlight Row to display the options.



Insert Column [Ctrl+J] Insert a column in the currently focused row.

Adjust Columns

Opens a form to allow adjustments to column size.



The columns in the above image correspond to:

- Extremely Small (-xs)
- Small (-sm)
- Medium (-md)
- Large (-lg)

These correspond to @media query breakpoints. The screen size of the device running the form determines which of the above columns is used to control the display of the form elements.

Use these settings to control the point at which you want form elements to change from displaying one below another to displaying side by side.

In order to keep the buttons (or any other element) always side by side (in the same row) use the setting shown here:

Note that when -xs is used the developer should test to make sure that elements don't exceed the small device screen dimensions.

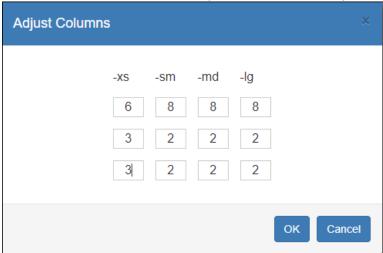
If the button element is too wide (due to, say, a long caption) then -md may be the better setting.



Note that each row in the *Adjust Columns* display corresponds to a column. So if the row contains three columns, as shown below, there will be three rows displayed. By adjusting the values below from 4, 4, 4 to say 8,2,2 then the buttons can be spaced out along the row as required.



Note that different values can be specified for devices depending on screen size.



The result of the 8,2,2 values is shown below where the left hand button is centered on a wider column.



Refer to the section *Button Groups* if buttons need to be placed close to one another on the same row.

Add New Row [Ctrl+D] Adds a new row. The position of the row will be determined by the setting of top menu After option [Append, Prepend, Before, After]. Adding a row

Deletes the currently focused row.

Hide Row Will hide the currently focused row. Once a row is hidden the option

changes to Show all Rows.

Delete Row

Form Row [New Page with defined rows]

When a row is already defined then right clicking the column displays an additional menu option *Form Row*. Hover on *Form Row* displays the options *Insert Element* and *Delete [Del]*.

Insert Element

Use the *Insert Element* option to place fields on the form.



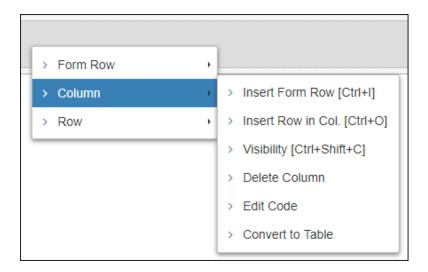
See below for a description of how to create each element.

Delete: [Del]

Selecting the *Delete* option deletes the focused form element. There is no prompt to request confirmation.

Column

Hover on *Column* displays the following options.



Insert Form Row [Ctrl+I]

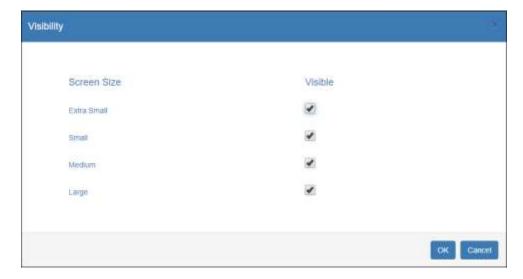
Inserts a form row.

Insert Row in Col [Ctrl+O]

Inserts a form row in the focussed column.

Visibility [Ctrl+Shift+C]

Allows the developer to determine whether a form element is to be visible on various screen sizes.



Delete Column

Deletes a column.

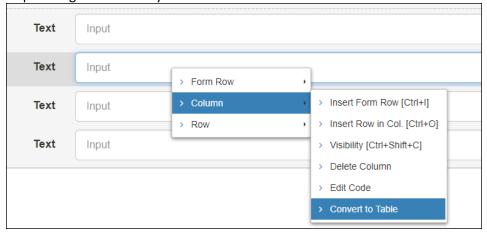
Edit Code

Display and maintain the HTML code for the form.

Convert to Table

To create a table commence with any form element such as a Text Input. This can be created using Ctrl-M from within a form row. Then press Ctrl-I to create a form row within the same column. Press Ctrl-M to create a Text Input form element, or create any other required form element type.

When you have the number of form elements corresponding to the number of table columns required right-click on any form element and select *Convert to Table*.



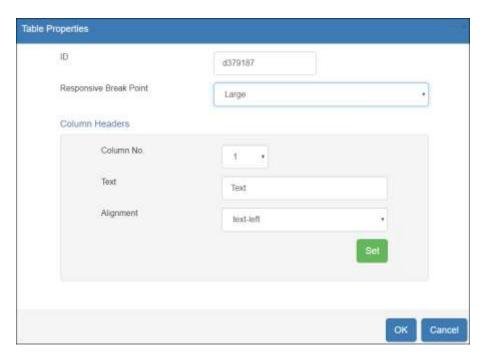
This will create the table.



Right-click any form element:



And select Properties or press Ctrl-P.



Replace the default *ID* with a meaningful id of your choosing. This makes the form data linking process more straightforward.

Responsive Break Point

The available options are:

- Not responsive
- Extra Large
- Medium
- Small
- Extra Small

Column No.

Select the required column for which the properties are to be set.

Alignment

The available options are:

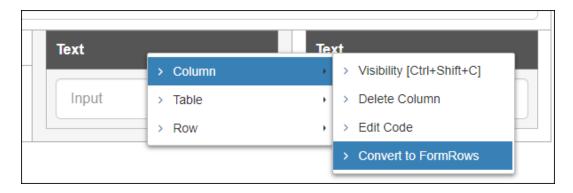
- text-right
- text-center
- text-left

Text Enter the text required for the column heading.

Set Click the Set button to save the details for each column.

If you wish to revert to form rows then right click on a Table to display the available options.

Refer to the *Table Row Control* section below which describes how to insert buttons for row insert and delete.



The Visibility, Delete Column and Edit Code are described elsewhere. An example of the use of a Table Row can be found here #Example of Table Row with Checkbox

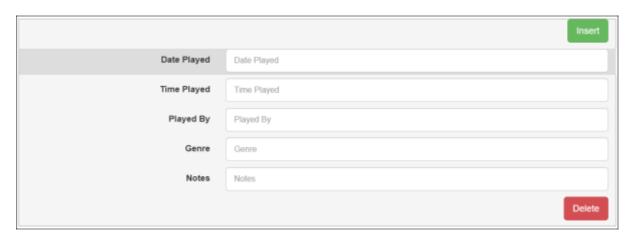
Convert to FormRows

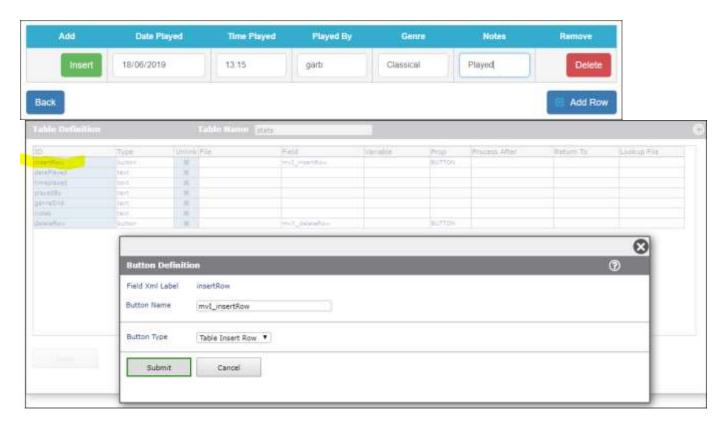
This option will return the table form elements to form row elements.

Table Row Control

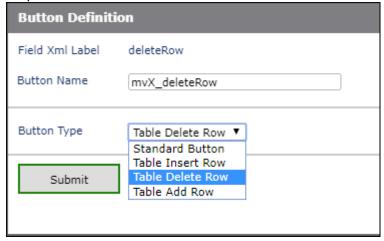
As part of setting up a Table it is usually necessary to set up a method to insert, delete and add rows to the grid.

This is achieved by adding button elements to the table from within the RD designer. In the example below three buttons have been added. These correspond to the grid control buttons in the top left corner of a non-RD DesignBais form multi-value grid.





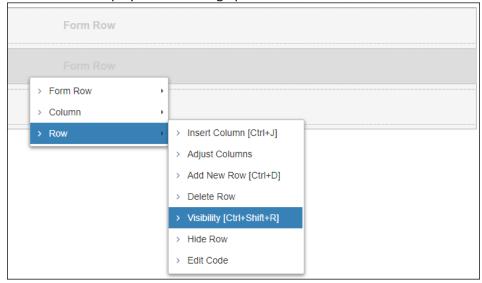
In the Form Data Link option, when defining these buttons, select the required button type from the dropdown list.



Do not alter the assigned Button Name. The button name is set so as to link in with the standard DesignBais multi-value grid row control function.

Row

Hover on Row displays the following options.

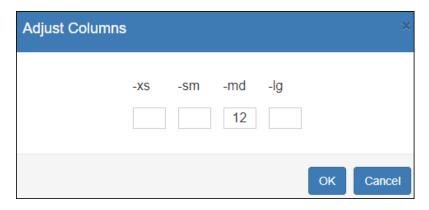


Insert Column [Ctrl+J]

Inserts a new column.

Adjust Columns

See Menu Option > Row for details.



Add New Row [Ctrl+D]

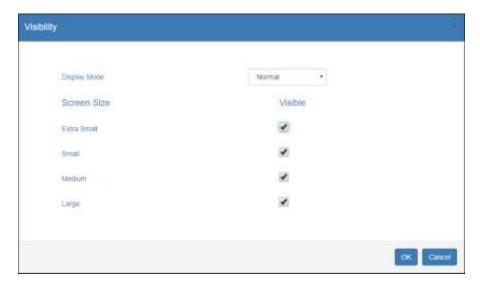
Adds a new row. Use the top menu option Append, Prepend to control where the row is placed.

Delete Row

Deletes the form row.

Visibility [Ctrl+Shift+R]

Allows the developer to determine whether a form element is to be visible on various screen sizes.



In addition, for row visibility, you can set the *Display Mode* as either *Normal, Initially Hidden* or *Modal*.



Initially Hidden

The form element is hidden until an event or condition, triggered by the form processing subroutine, causes the element to be displayed.

Modal.

Hide Row

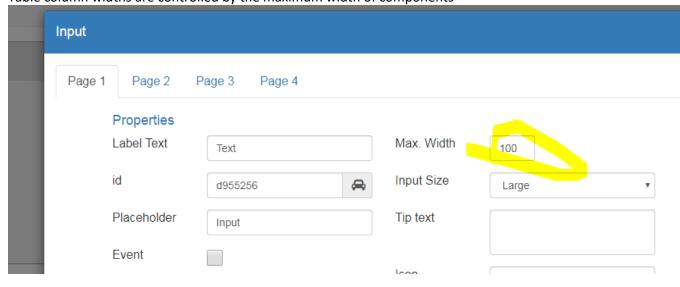
The row will be hidden. In order to see the row again right-click and select Row then Show All Rows.

Edit Code

```
Edit Code
     cdiv class="dummy-label">Form Rowc/div>
            «/div)
            10 -
 11
 12
                   13-
 15 -
 16°
                             <label>
                                 cinput class="dbradiostyle-lg" type="radio" name="d419459-rg" value="" id="d241836">item
 18
                             </label>
                          </div>
 20 -
                          <div class="radio dbrad-lg">
 21+
                             <label>
                                 cinput class="dbradiostyle=lg" type="radio" name="d419459-rg" value="" id="d768256" checks
 23
                              </label>
 24
                          c/div>
 25
                       </div>
                      cdiv id="d419459Help" class="help-block"></div>
cdiv id="d419459Ere" class="text-danger"></div>
 26
27
 28
                   </div>
 29
                (/div)
 30
                                                                                                      OK Cancel
Note. If you edit the code you wan't be able to access the Properties of this element and you'll need to make all future changes by editing the code.
Preferably, any code editing should be made after all changes have been made, as the last step before publishing
```

Setting Table Column Width

Table column widths are controlled by the maximum width of components

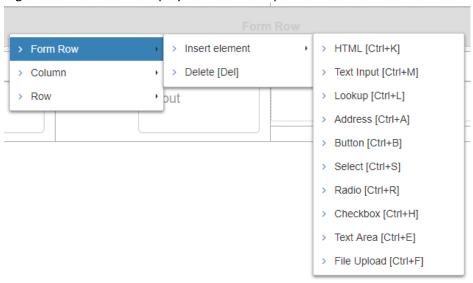


For output fields (i.e. HTML), you need to edit code and add the max-width style attribute of the HTML segment as follows:

Edit Code

Insert Element

Right click a column to display the available options.



There are ten form elements. Each element is described below. An element can be inserted by clicking the required menu option or by pressing concurrently the *Ctrl* key and the letter designated for each form element. Using the *Ctrl* key method does not require the menu to be displayed.

Assigning Element Ids

When assigning the element id for a form element the following should be noted.

Avoid using any of the following strings anywhere in the name of the element (the id). The DesignBais engine looks for these strings to determine particular processing paths:

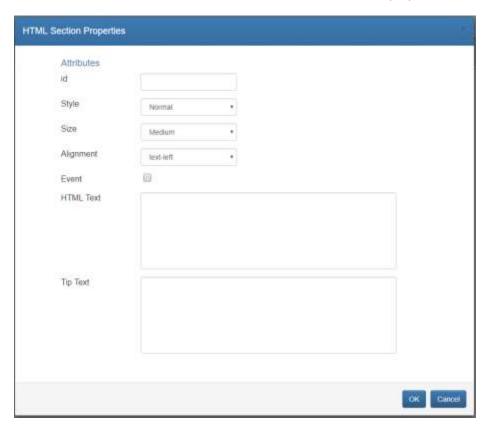
- button
- label
- img

Care should be taken when using the lower case letters which are used by DesignBais as separators within XML label ids. It is best to avoid these lower case letters in your element ids:

- v
- X
- Z

Insert HTML: [Ctrl+K]

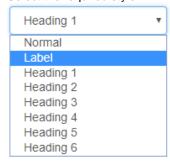
Use this element to create an output field on a form. Note that a click on an output field in RD will trigger a button event in the database component. If a database field is linked to an HTML form element then the content of the linked field will control the display of this element on the RD form.



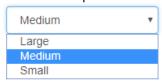
Attributes

id The id for this form element. Must be unique within this form.

Style Select the required style.



Size Select the required size.



Alignment Select the required alignment.



Event Set to on if an event is to be associated with this field.

HTML Text Enter text as required.

Tip Text If text is entered here it causes a question mark character to be displayed after the

Label. Clicking this question mark character at run time displays the Tip text in a help

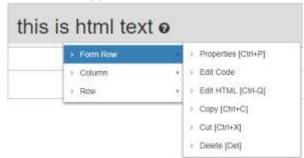
bubble overlay.

Example



Maintaining Existing HTML Text Element

Right clicking an existing HTML Text element displays a menu to review Properties, Edit Code, Edit HTML text, Copy, Cut or Delete.



Edit Code

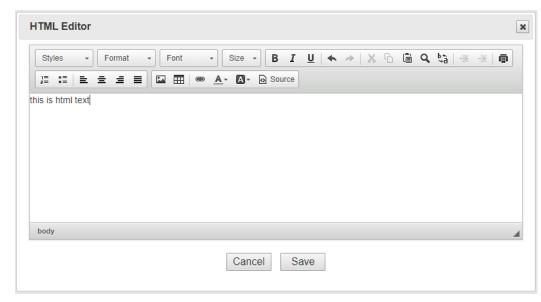
This option id designed for specialists who know how to create and amend HTML code. Note that if you edit the code you will not be able to access the Properties of this element. All futire changes will also have to be implemented by editing the code.



Edit HTML

This method allows nonspecialists to amend the HTML code with the assistance of an intelligent editor.

Use this method to set things like the justification of the element.



Copy [Ctrl+C]

Use this option to copy a form element which can then be pasted elsewhere on the page. Note that the element id is re-assigned when an element is cut and pasted.

Cut [Ctrl+X]

Use this option to cut and copy a form element which can then be pasted elsewhere on the page.

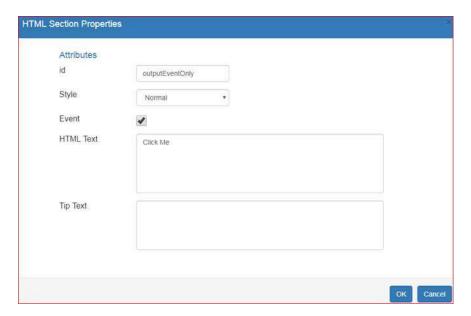
Delete [Del]

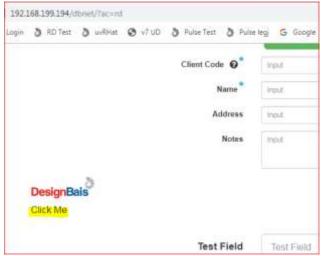
Use this option to delete a form element from the page.

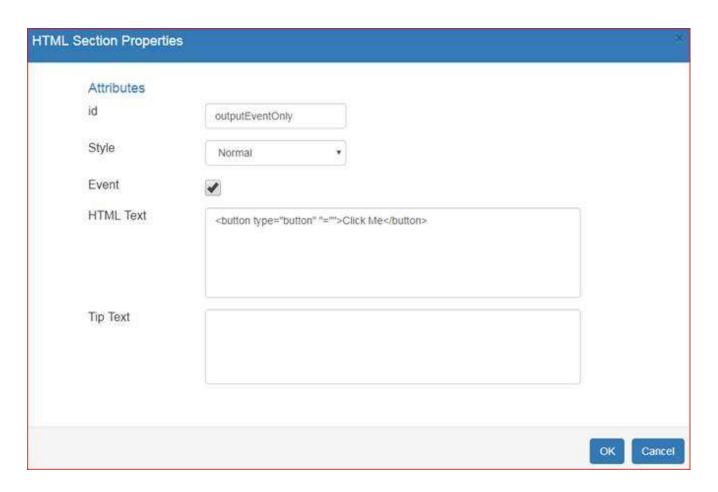
Output Only Form Element

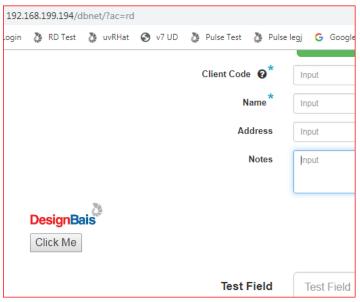
It is possible to link an event to an output only field.

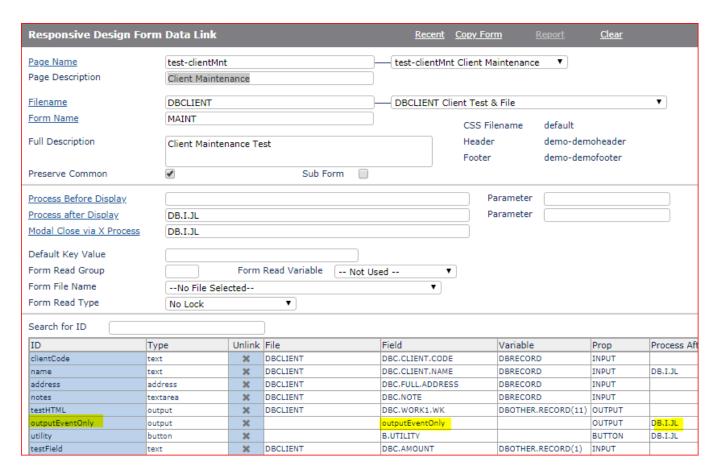
In Form Data Link the "field name" is set to the XML label so that it can be differentiated from an output field linked to a database field.



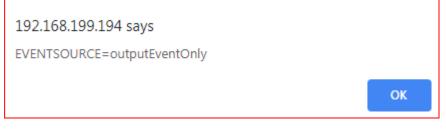








The BUTTON event in the code does a DBDS:

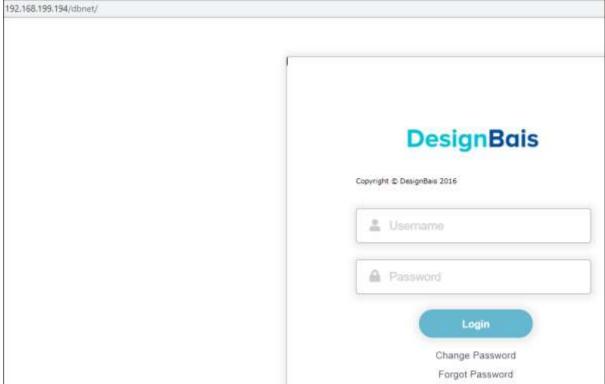




When building tables in RD the developer can use OFR style IDs in order for DesignBais to recognise these IDs. DesignBais will populate the DBREPORT.CELL common variable with the row and column position of the form element that is clicked. The developer can then use on form report type element ids such as id="tdxoutputEventOnlyxrowzcol" and not id="fred" or id="tdxfredxrowzcol".

An id such as "tdxoutputEventOnlyx2z1" will signify that the first column of the second row of the table has been clicked.

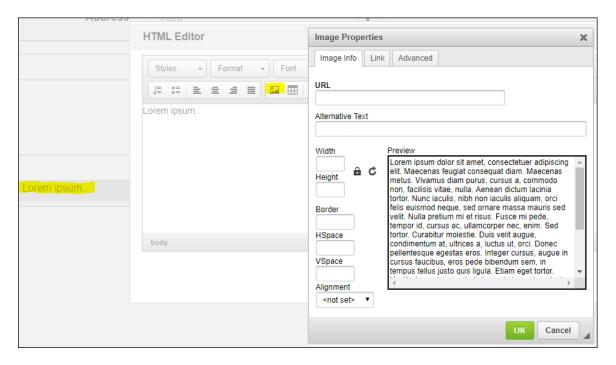




Chrome replaces the current tab.

Inserting an Image

Use the HTML element to insert an image. Click the *Image* icon.



URL In inserting an image, always start the image URL with "../images".

The "../images" points to the c:\your_website\images folder.

For demonstration, consider the folder: c:\DBNET\images\rddemo has some images stored in it. For example hol1.jpg.

The URL becomes: ../images/rddemo/hol1.jpg

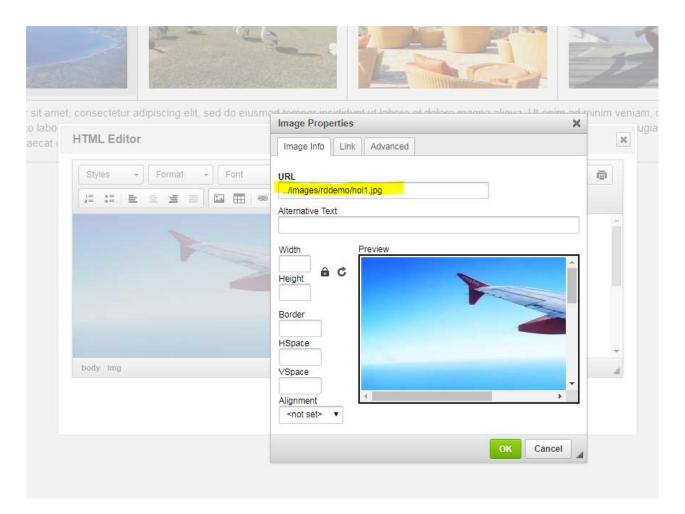


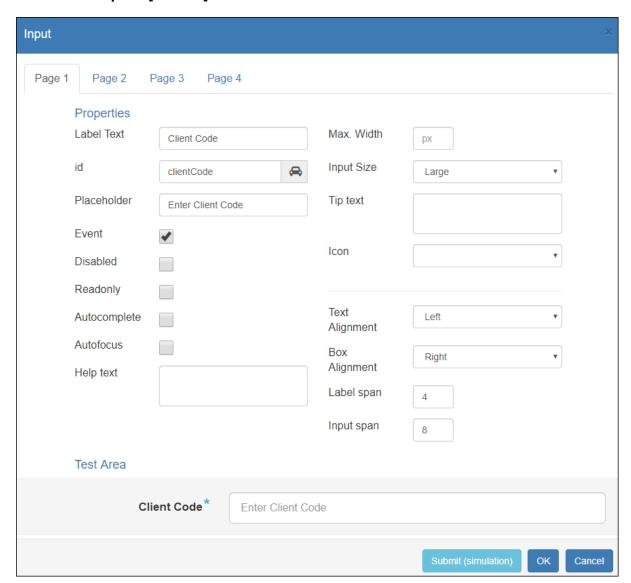
Image Dimensions

Width Height

Delete the width and height from the properties of the image dialog shown above. On detecting that the Responsive Design tool makes the image "responsive".

If the developer does not want the image to be "responsive" then leave the original dimensions intact.

Insert Text Input: [Ctrl+M]



Properties

Label Enter the label for this input field. For example Last Name.

Id The id for this form element. Must be unique within this form. Click the Auto icon to

create the id from the Label Text.

Placeholder The text that appears in the field prior to entry of data by the user. Use this to

indicate the nature of the required input.

Event Set to on if an event is to be associated with this field.

Disabled Set on to disable this field.

Readonly Set on to make this field Read Only.

Autocomplete Set on to enable Autocomplete behaviour for this field.

Autofocus Set on to place focus to this field on entry to the form.

Help text Enter text, that will appear under this field, to assist a user to complete the entry of

this field.

Max. Width The maximum width of thie field in pixels.

Input Size The font size, either Large, Medium, or Small.

Tip text If text is entered here it causes a question mark character to be displayed after the

Label. Clicking this question mark character at run time displays the Tip text in a help

bubble overlay.

Icon Select an Awesome Class from the list or leave empty. Awesome font icons are

available on the web.

Text Alignment The justification for this field, either text-right or text-left within the column. Box Alignment

Label span Input span The proportion of this column, from a total of 12 units, that is to be assigned to the label with the balance being assigned to the actual input field. If the *Label span* is

assigned a value of X then the *Input span* is set to 12 - X.

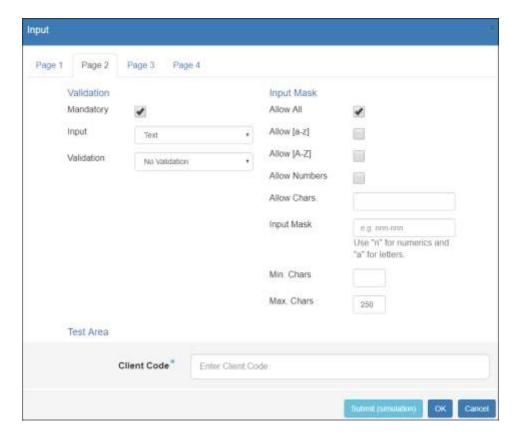
The above defines the default scenario. It is possible to assign values to the Label and Input spans that sum to a number greater then 12. In this case the Label will be

placed above the input field.

Similarly the values assigned can sum to a number less than 12 which leads to the label and input occupying a smaller proportion of the available column width.

Test Area

After changing the above properties click the *Submit (simulation)* button. This Text Area input field allows the developer to test input in this form input field.



Validation

Mandatory

Check the box to make this field mandatory. You will probably want to set the *Page Validation* flag on your *Submit/Next Page* button as well.

Input

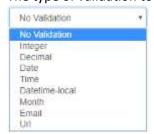
The type of data.



In Responsive Design dates are transmitted to the database as YYYY-MM-DD and then converted to the normal format DD-MM-YYYY.

Validation

The type of validation to be applied to the data entered in this field.



Input Mask

Allow All This field allows all characters to be input.

Allow [a-z] Only lower case alphabetic characters can be input. Use this option for field

properties that have an Input conversion setting of Lowercase.

Allow [A-Z] Only upper case alphabetic characters can be input. Use this option for field

properties that have an Input conversion setting of Uppercase.

Allow Numbers Only number characters can be input.

Allow Chars. Specify those characters that are permitted to be entered.

Input Mask If required enter the mask to be used to format the data entered into this field.

For example aa-nnn will require the entry to be formatted as 2 alpha characters, a

hyphen, then 3 numeric characters.

Min. Chars Specify the minumum number of characters that must be entered.

Max. Chars Specify the maximum number of characters that can be entered.

Test Area

After changing the above properties click the Submit (simulation) button. This Text Area input field allows the developer to test input in this form input field.

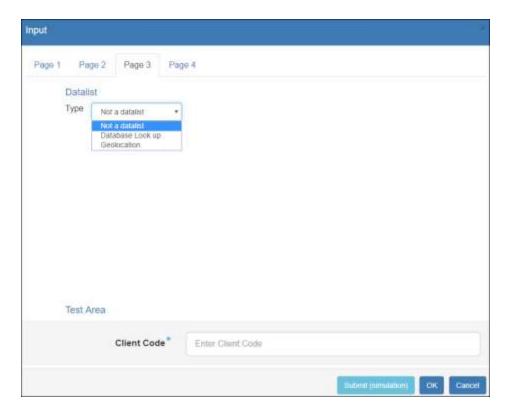
Buttons

Submit (simulation)

Apply changes to the Test Area only. Changes are not updated to the form.

OK Exit the properties form and update all changes.

Cancel Exit the properties form without updating any changes.



Datalist

Not a datalist The default option where the input field is not a datalist.

Database Look up Select this option where the input is selected from a dropdown list.

The following options apply.



Allow selection from the list items only

Limit field input to items from the displayed list. If not set then the user can enter data that is not in the list. Validation of this input may be required using bespoke code. Tick the *Event* option on Page 1 and attach a process such as a basic subroutine if required. This is done via the Database Component option *Form Data Link*.

Min. trigger length

The number of characters that are entered before predictive / autocomplete text is displayed.

Max. number of results

This value limits the number of result lines of predictive / autocomplete text that are displayed.

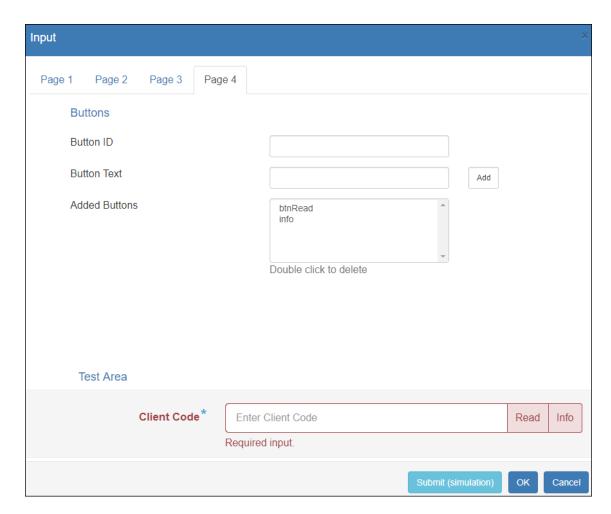
Geolocation

Signals that this input field uses Geolocation. If the website is configured to allow the site to determine the location of the user then this location will be utilised by this field.



Test Area

After changing the above properties click the Submit (simulation) button. This Text Area input field allows the developer to test input in this form input field.



Buttons

Button ID Assign the required element ID. This will be the Id that displays in the Form

Data Link form.

Button Text The text to appear on the button.

Add (button) Click to add the button to the input element. The button Id will appear in the

Added Buttons display area.

Double click to Delete Highlight the button element Id in the display area and double click to delete

the button.

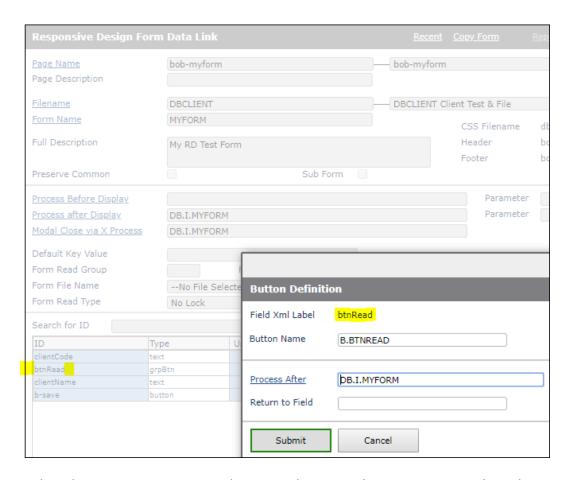
OK Click OK to save the entered or changed details.

Cancel Click Cancel to exit without changing the details.

Why use Buttons

Developers may be used to the input field validation or read event being triggered by the user tabbing out of the field. On small devices like phones there is no *Tab* key and therefore validation or read events must be triggered by a *click* event. These buttons provide the click event. When using buttons like this it is not necessary to click the *Event* checkbox on *Page 1* of the input element properties. If this checkbox is checked then there will be a validation event as well as a button click event.

Use the Form Data Link function to link the button element to a subroutine process.



In the subroutine you can process the required action in the *BUTTON* event where the *PROCESS.EVENTSOURCE* will be set to the name of the button, *Button Name* in the above image, not the *Field Xml Label*.

```
BUTTON:
BEGIN CASE

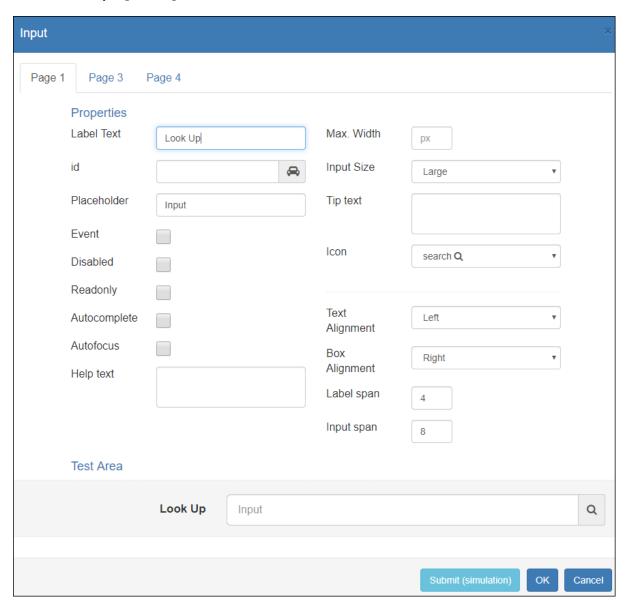
CASE EVENTSOURCE = 'B.BTNREAD'

* Need the Email Validation Logic
EVENTSOURCE = "DBC.CLIENT.CODE.WK"

DBVALUE = DBWORK< DBC.CLIENT.CODE.WK >
END CASE
RETURN
```

Note that if the button is to trigger a read then the DesignBais form field that the read is linked to MUST use DBWORK as the read *variable to use*. This is so that the key value, entered into the field on the form by the user, will be in a DBWORK field when the button is clicked. This allows the code shown above to work by setting DBVALUE = DBWORK<DBC.CLIENT.CODE.WK>.

Insert Lookup: [Ctrl+L]



Properties

Label Enter the label for this input field. For example Last Name.

Id The id for this form element. Must be unique within this form.

Placeholder The text that appears in the field prior to entry of data by the user. Use this to

indicate the nature of the required input.

Event Click to set on if an event is to be associated with this field.

Disabled Set on to disable this field.

Readonly Set on to make this field Read Only.

Autocomplete Set on to enable Autocomplete behaviour for this field.

Autofocus Set on to place focus to this field on entry to the form.

Help text Enter text, that will appear under this field, to assist a user to complete the entry of

this field.

Max. Width The maximum width of thie field in pixels.

Input Size The font size, either Large, Medium, or Small.

Text text causes a question mark character to be displayed after the Label. Clicking

this question mark character at run time displays the Tip text in a help bubble

overlay.

Icon Select an Awesome Class from the list or leave empty.

Text Alignment The justification for this field, either *text-right* or *text-left* within the column. *Box Alignment*

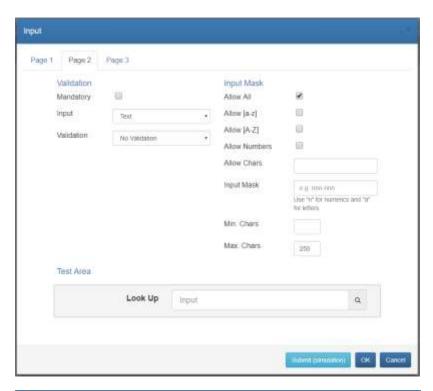
Label span Input span The proportion of this column, from a total of 12 units, that is to be assigned to the label with the balance being assigned to the actual input field. If the *Label span* is assigned a value of X then the *Input span* is set to 12 - X.

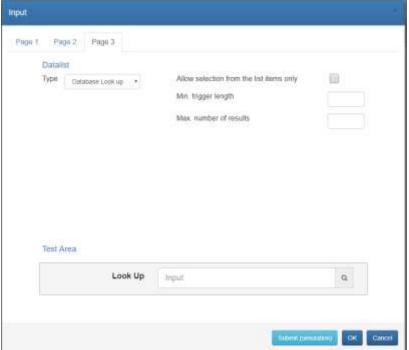
The above defines the default scenario. It is possible to assign values to the Label and Input spans that sum to a number greater then 12. In this case the Label will be placed above the input field.

Similarly the values assigned can sum to a number less than 12 which leads to the label and input occupying a smaller proportion of the available column width.

Test Area

After changing the above properties click the Submit (simulation) button. This TextArea input field allows the developer to test input in this form input field.





Type Select the required option:

Not a datalist: No call to the database is required.

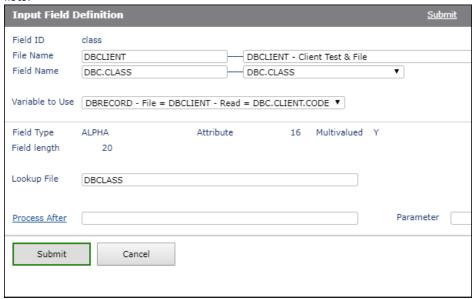
Database Look up: A change event will be raised when the field's value changes.

Geolocation: Use where this is an address or location field in order to

invoke Google location services.

Implementing Lookup using a subroutine

RD lookup fields are code value pairs much the same as a file lookup or value list used for dropdown lists.



In the Form Data Link process enter the name of a database file in the *Lookup File* field for the *Lookup* form field element.

DesignBais builds the normal dropdown combo box record on DBISESSIONS and uses this to locate the current code value in the list, and can then return the associated description. The DBISESSIONS record id is SESSION.ID*FIELDNAME*COMBO. In the above case the id is SESSION.ID*DBC.CLASS*COMBO.

If there is no Lookup File defined then the developer must provide code in the *LOOKUP* event processing paragraph in the basic subroutine. The string entered by the user will be in DBVALUE. The developer can decide what to return to the form based on this string.

```
PROCESS.EVENT = "LOOKUP"
PROCESS.EVENTSOURCE = Field name
PROCESS.PARAMETER = FIELD.AFTER.PARAMETER
```

After text is typed in the lookup field in the RD Form it is passed to the subroutine in DBVALUE so that the developer can build a list of codes and labels in DBDROPLISTADD.

```
DBDROPLISTADD <2> = Multivalued codes
DBDROPLISTADD <3> = Multivalued associated descriptive labels
```

The correct rdLookupList command is constructed from the returned values. There is no need for the developer to include this in their code.

Once an option is selected the normal change event is fired and the VALIDATE event will be passed to the subroutine.

Example Code:

Set up the new event in the event processing case statements

```
CASE THIS.EVENT = "LOOKUP"
GOSUB LOOKUP
```

Example code for the LOOKUP event processing:

```
LOOKUP:

BEGIN CASE

CASE SCREEN.NO = "MAINT" AND EVENTSOURCE="DBC.CLASS"

SRCH.VALUE = DBVALUE

* based on the SRCH.VALUE a list of options for the user to select from

* is passed in DBVALUE

* DBDROPLISTADD<1> (normally the multivalued field list) is not required DBDROPLISTADD = ''

DBDROPLISTADD <2> = 'A':VM:'B'

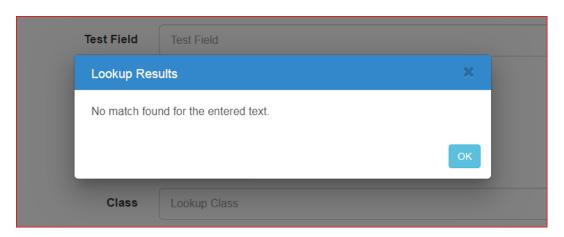
DBDROPLISTADD <3> = 'Class A':VM:'Class B'

END CASE

RETURN
```

Important note: you cannot use DBDS to display variables when implementing a lookup element. DBDS stops the display of the lookup dropdown selection list.

If the user enters a string that is not found in the lookup table then the following message box is displayed:



In the case where the developer needs to inhibit the auto filtering of the results of the lookup then set DBVALUE = "DBNOFILTER". See the example below:

```
LOOKUP:

BEGIN CASE

CASE SCREEN.NO = "MAINT" AND EVENTSOURCE="DBC.CLASS"

SRCH.VALUE = DBVALUE

* based on the SRCH.VALUE a list of options for the user to select form

* is passed in DBVALUE

* DBDROPLISTADD<1> (normally the multivalued field list) is not required

DBDROPLISTADD = ''

DBDROPLISTADD <2> = 'A':VM:'B'

DBDROPLISTADD <3> = 'Class A':VM:'Class B'

DBVALUE = "DBNOFILTER"

END CASE

RETURN
```

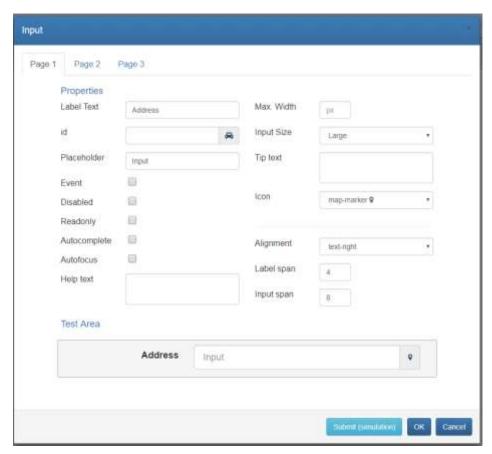
The LOOKUP LABEL event is used to set the description for the code selected from a lookup if the process is being handled within a basic subroutine.

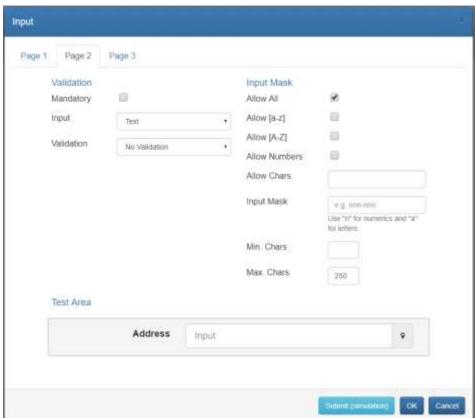
For example in this LOOKUP LABEL event the code that the user selected is in DBVALUE. Read this record from the database and set DBVALUE as required. In this case the DBVALUE is changed from just the selected code value to a description made up of the music title and the artist:

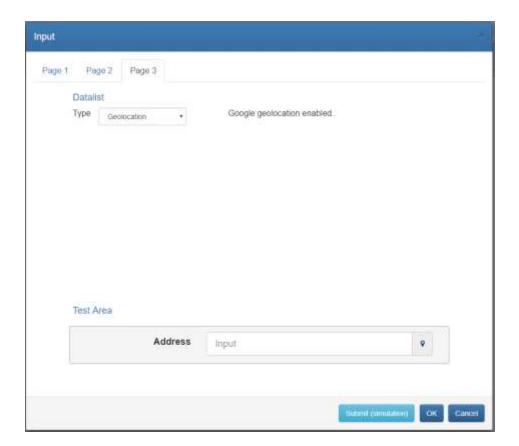
```
LOOKUP.LABEL:
BEGIN CASE

CASE SCREEN.NO = 'CATALOG1' AND EVENTSOURCE = 'MUS.ID'
OPEN 'DBMUSIC' TO F.DBMUSIC ELSE RETURN
READ REC FROM F.DBMUSIC,DBVALUE ELSE
REC = "
REC<MUS.TITLE> = DBVALUE:' not found'
END
DBVALUE = REC<MUS.TITLE>[1,50]:' by ':REC<MUS.ARTIST>
DBRETURN.TO.FIELD = 'MUS.ARTIST'
END CASE
RETURN
```

Insert Address: [Ctrl+A]







In order to implement the Google Address lookup when the Datalist type is set to:

Geolocation - invoke Google location services for address

the website db.config file must include the Google Places API Key.

Obtain the key from Google and plug it into db.config in the <setup> node:

Google location bias

Location bias is automatic if using https (the user must accept the dialog).. If there is no https, or you want to be on the safe side then send: rdSetAttribute("element_id", "element", "countryFilter", "aus");

Note that "element id" in the parameter list must contain the id of the address element in the form. The strings "element", "countryFilter" are fixed strings. "aus" refers to Australia. For multiple countries use a pipe delimited list. Example "aus | nzl" for Australia and New Zealand.

Address handling on the database file when using Google Address lookup

The address returned by the Google address lookup will be formatted like this:

street_number|^|265|#|route|^|Darling Street|#|locality|^|Balmain|#|admin istrative_area_level_2|^|Inner West Council|#|administrative_area_level_1 |^|New South Wales|#|country|^|Australia|#|postal_code|^|2041|#|formatted _address|^|265 Darling St, Balmain NSW 2041, Australia

It is essential that your database address field store the address data in this format. To display the formatted address use basic text extraction commands something like this, assuming that the variable *RAW.ADDRESS* contains the entire Google address:

```
FLD.SEP = "formatted_address"
IDX = INDEX(RAW.ADDRESS,FLD.SEP,1)
IF IDX THEN
   FMT.ADDR = OCONV(RAW.ADDRESS [IDX,LEN(RAW.ADDRESS)-IDX+1],'G2|1')
END ELSE
   FMT.ADDR = RAW.ADDRESS
END
DBRECORD
DBRECORD
FMT.ADDR = FMT.ADDR
```

The FMT.ADDR is thus assigned the value:

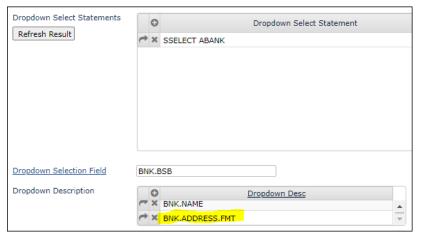
265 Darling St, Balmain NSW 2041, Australia

Note that if address is to be used as a Dropdown Description field then using the raw Google address field will give an unacceptable result as shown on the right.

It is necessary to assign a field property name to an attribute containing just the formatted address, as shown in *FMT.ADDR* above.

This field property can then be assigned to the dropdown description.





Obtaining Geo-coordinates

Following is a method to record the current geolocation information (Latitude & Longitude) of a user to the database. When you upgrade the web site be careful not to over write the files:

- /admin/htmlMetaTaga.txt
- custom.js

It is good practice to take a backup of the existing web site before unzipping the download file, then in the new download file delete all files that you want to keep, then copy the new download over the top of the existing file.

Create a hidden input field on your first logon page and add a custom attribute in DesignBais (e.g. coor='1'). Put this field in its own section and make the section hidden in forms designer.

Download the following two script files to your DBNET root (e.g. c:\dbnet\)

- gears_init.js
- geo.js

Edit your /admin/htmlMetaTags.txt file and append these two lines:

- <script src="gears_init.js"></script>
- <script src="geo.js"></script>

Add this to the end of your custom.js file as follows (custom.js is already in your c:\dbnet folder):

```
$(document).ready(function(){
    if(geo_position_js.init()){
        geo_position_js.getCurrentPosition(success_callback,error_callback,{enableHighAccuracy:tr
ue});
    }else{
        //do nothing
    }
    function success_callback(p) {
        var coordinates = p.coords.latitude + "|" + p.coords.longitude;
        $("input[coor='1']").val(coordinates);
    }
});
```

When the user hits the Logon button, you'll receive the coordinates in the value of your hidden field.

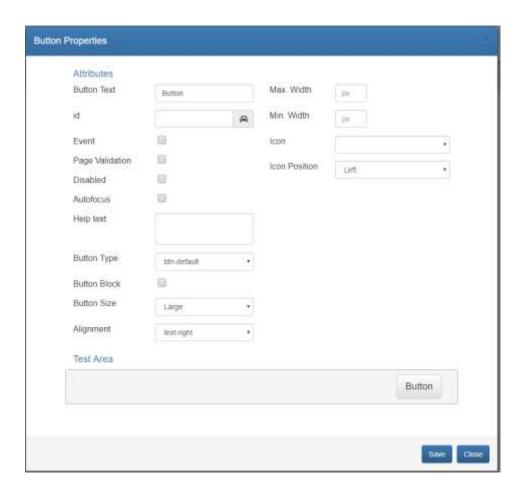
DesignBais allows Javascript to be included via a number of methods:

- 1. The custom.js file in the website. (Be careful when upgrading not to over write the file).
- 2. Global General parameters. Script may be with a src reference or full script. Loaded for all systems.
- 3. System Parameters "General" button. Loaded for forms are loaded in the account.
- 4. Forms Designer "Additional script to include for Ajax".
- 5. On a field or button there is a "Field After Script", vs(event); will be added to call the database "Process after" e.g. in the example below "fred" is displayed after clicking the button.



- 6. DBI.G.AJXCMD has an "addScript" function
- 7. The COMMON variable DBAJAXCMD can be utilised to add a function call
- 8. HTML and scripts can be embedded in a DesignBais field on a form.
- 9. Google geo-location is available in the Responsive Design tool to search for addresses.
- 10. Load a DesignBais field with a Custom HTML Attribute and use javacript/jquery to find the field and set its value. The next event will then pass back the value in the field.

Insert Button: [Ctrl+B]



Button Groups

The Button Groups feature is used to place a number of buttons close to each other and prevent wrapping.

To demonstrate this feature consider the snip below where there is one row with three columns and each column contains a button element. In order to place the buttons close together the developer may try to change the column width from the 4,4,4 as shown here.

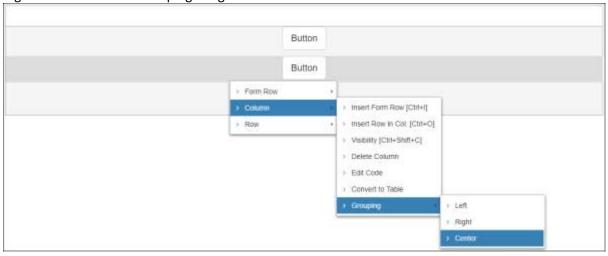


The developer may think that setting column widths of 1,1,10 will place two of the buttons close together. In practice a width of 2 is usually the minimum to avoid the button element overflowing the column boundary. The result of setting 1,1,10 is shown here. Note that the buttons in the columns with width of 1 overflow into the adjacent column.



A better method is to use the *Grouping* option.

Select an empty column and press CTRL+B three times to create three buttons. Right click > Column > Grouping > Right



Three buttons will be centered in their column with a smaller margin between them.



Note that too many buttons will exceed the screen width so developers should review/test their Button Groups in small screens (e.g. iPhone 4). A maximum of 3 buttons is recommended.

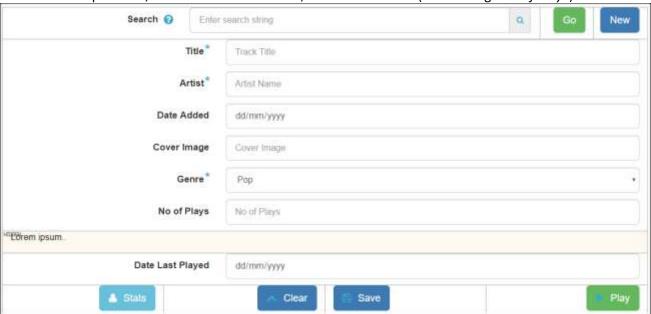
Only buttons can be grouped.

Inserting Buttons in the Same Row

Each form row can only contain one form element. If Grouping is not used then in order to have two buttons side by side you must create two columns in the form row.

You cannot create a column just for the button if there are multiple form rows within a single row. The effect is shown below.

There are multiple fields, each in its own form row, in the second row (Title through No of Plays).



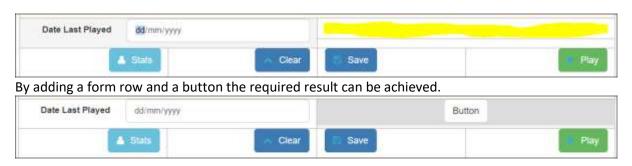
If a column is inserted using the *Insert Column* option then the effect is as shown below.

Empty space is created below the new column.



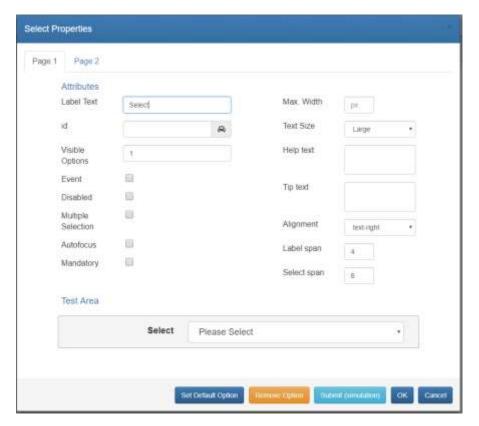


So in order to achieve the intended result the new column needs to be inserted into a row that has only one form element in it. In this example the *Date Last Played* field occupies its own row so Ctrl-J will insert a column into the row.



Insert Select: [Ctrl+S]

Use this element to create a list of valid entries to be selected from a dropdown list.



Attributes

Label Text Enter the label for this select field. For example Last Name.

Id The id for this form element. Must be unique within this form. Use the *auto* icon to

generate the id.

Visible Options The number of options to be displayed in and below the select field.

Event Set to on if an event is to be associated with this field. Event type is Change.

Disabled Set on to disable this field.

Multiple Selection

Set on to allow multiple selections from the list.

Autofocus Set on to place focus to this field on entry to the form.

Mandatory Check the box to make this field mandatory.

Max. Width The maximum width of thie field in pixels.

Text Size The font size, either Large, Medium, or Small.

Help text Enter text, that will appear under this field, to assist a user to complete the entry of

this field.

Tip text Text causes a question mark character to be displayed after the Label. Clicking this

question mark character at run time displays the *Tip text* in a help bubble overlay.

Alignment The justification for this field, either text-right or text-left within the column.

Label span The proportion of this column, from a total of 12 units, that is to be assigned to the Input span label with the balance being assigned to the actual input field. If the Label span is

assigned a value of X then the *Input span* is set to 12 - X.

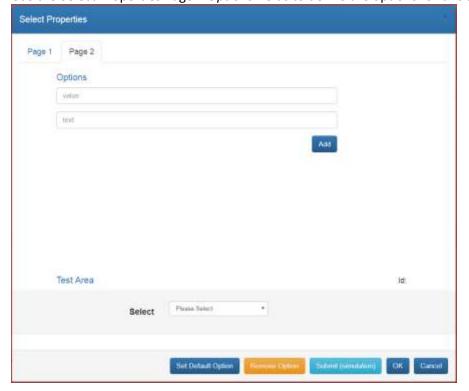
The above defines the default scenario. It is possible to assign values to the Label and Input spans that sum to a number greater then 12. In this case the Label will be placed above the input field.

Similarly the values assigned can sum to a number less than 12 which leads to Label and Input occupying a smaller proportion of the available column width.

Test Area

After changing the above properties click the *Submit (simulation)* button. This Text Area input field allows the developer to test input in this form input field.

Use the Select Properties Page 2 Options fields to define the options for this Select element.



Options

value in value enter the code to be used for the option.

text in text enter the description to be associated with the option.

Test Area

After changing the above properties click the Submit (simulation) button. This Text Area input field allows the developer to test input in this form input field.

For the *Select* element the *Test Area* is also used to display the option to be actioned by the buttons at the base of the form.

Set Default Option Highlight the option that is to be set as the default then click the Set

Default Option button.

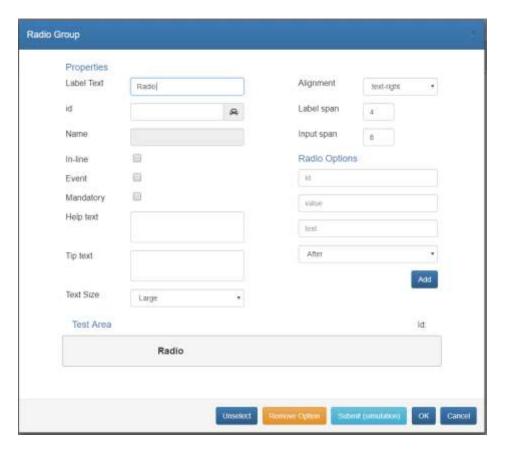
Remove Option Highlight the option that is to be removed then click the *Remove*

Option button.

To maintain existing selection options use the *Test Area*. Select an option from the dropdown and either set it as the default, or remove it.



Insert Radio: [Ctrl+R]



You must assign an *id*. Use the *Auto* icon to use the DesignBais default which is the *Label Text*. If required the text is followed by a number to ensure it is unique.

Click *In-line* to create the checkbox elements on the same line horizontally. Otherwise the elements are placed vertically.

Use the Radio Options fields to add each radio button to the form.

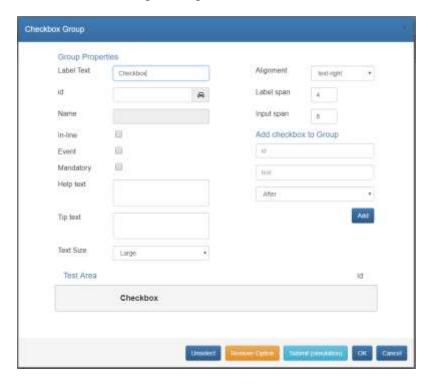
Using the same id displays the message Option value is already used.

Use the *Remove Option* button to remove a radio button from the group. In the *Test Area* tick the option(s) to be removed then click the *Remove Option* button.

Use the *Unselect* button to unselect elements in the Test Area.

Clicking an element in the Test Area displays the *id* of the element.

Insert Checkbox: [Ctrl+H]

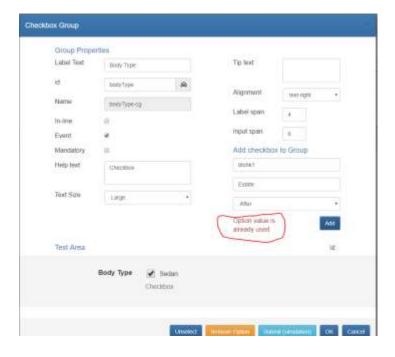


You must assign an *id*. Use the *Auto* icon to use the DesignBais default which is the *Label Text*. If required the text is followed by a number to ensure it is unique.

Click *In-line* to create the checkbox elements on the same line horizontally. Otherwise the elements are placed vertically.

Use the Add checkbox to Group fields to add each checkbox to the group.

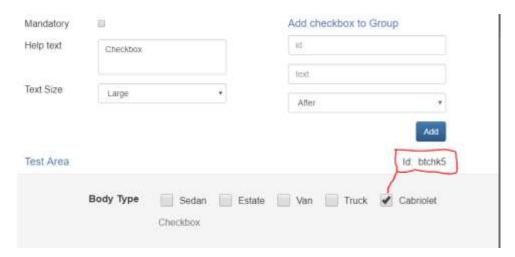
Using the same *id* displays the message:



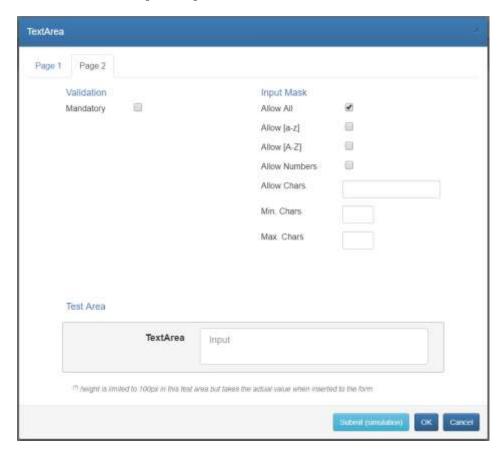
Use the *Remove Option* button to remove a checkbox from the group. In the *Test* Area tick the option(s) to be removed then click the *Remove Option* button.

Use the *Unselect* button to unselect elements in the Test Area.

Clicking an element in the Test Area displays the *id* of the element.



Insert Text Area: [Ctrl+E]



Properties

Label Enter the label for this input field. For example Last Name.

Id The id for this form element. Must be unique within this form.

Placeholder The text that appears in the field prior to entry of data by the user. Use this to

indicate the nature of the required input.

Event Set to on if an event is to be associated with this field. Event type is either Click or

Change.

Disabled Set on to disable this field.

Readonly Set on to make this field Read Only.

Autocomplete Set on to enable Autocomplete behaviour for this field.

Autofocus Set on to place focus to this field on entry to the form.

Help text Enter text, that will appear under this field, to assist a user to complete the entry of

this field.

Max. Width The maximum width of thie field in pixels.

Height * The height of this field in pixels. The * indicates that entry of a height greater then 100 will only take effect when viewing the field within the form itself, rather than in this Test Area.

Input Size The font size, either Large, Medium, or Small.

Tip text Text causes a question mark character to be displayed after the Label. Clicking this question mark character at run time displays the Tip text in a help bubble overlay.

Alignment The justification for this field, either text-right or text-left within the column.

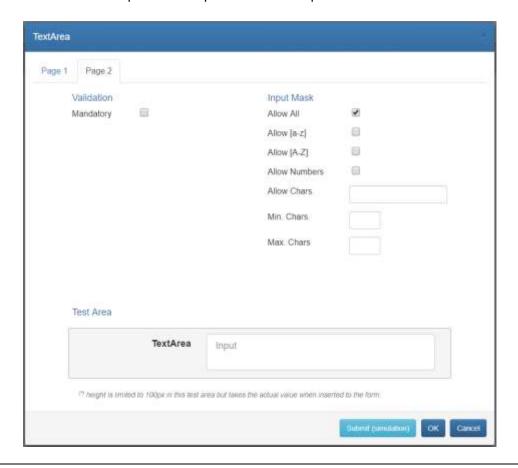
Label span The proportion of this column, from a total of 12 units, that is to be assigned to the Input span label with the balance being assigned to the actual input field. If the Label span is assigned a value of X then the Input span is set to 12 - X.

The above defines the default scenario. It is possible to assign values to the Label and Input spans that sum to a number greater then 12. In this case the Label will be placed above the input field.

Similarly the values assigned can sum to a number less than 12 which leads to Label and Input occupying a smaller proportion of the available column width.

Test Area

After changing the above properties click the *Submit (simulation)* button. This TextArea input field allows the developer to test input in this form input field.



Validation

Mandatory Check the box to make this field mandatory.

Input Mask

Allow All This field allows all characters to be input.

Allow [a-z] Only lower case alphabetic characters can be input.

Allow [A-Z] Only upper case alphabetic characters can be input.

Allow Numbers Only number characters can be input.

Allow Chars. Specify those characters that are permitted to be entered.

Min. Chars Specify the minumum number of characters that must be entered.

Max. Chars Specify the maximum number of characters that can be entered.

Use the above options Allow [A-Z] or Allow [a-z] for field properties that have an Input conversion setting of Uppercase or Lowercase.

Test Area

After changing the above properties click the *Submit (simulation)* button. This TextArea input field allows the developer to test input in this form input field.

Buttons

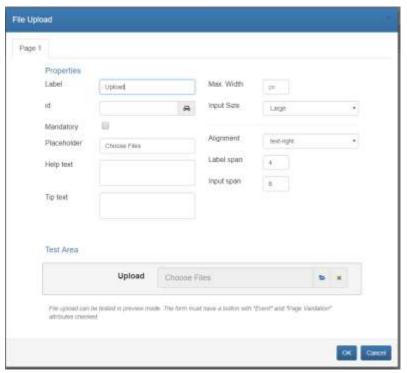
Submit (simulation)

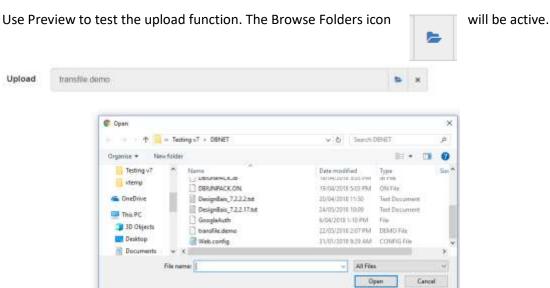
Apply changes to the Test Area only. Changes are not updated to the form.

OK Exit the properties form and update all changes.

Cancel Exit the properties form without updating any changes.

Insert File Upload: [Ctrl+F]





There are parameters in the setup node of *yourwebsite*/admin/db.config which control which file extensions are permitted, the maximum size of an upload file and the number of uploaded files. These can be set as required.

- $< RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.png.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.jpeg.tif.tif.tiff.pdf}} < / RD allowed Upload Extensions > \textbf{.} \textbf{\textit{gif.jpg.tif.tif.tif.tiff.pdf}}$
- <RDallowedUploadSizeMB>100</RDallowedUploadSizeMB>
- <RDallowedUploadFileCount>10/RDallowedUploadFileCount>

****IMPORTANT EXPLANATION ABOUT RD UPLOAD PARAMETERS*****

The web site's admin/db.config can have the following configuration parameters:

- <RDallowedUploadExtensions>
- <RDallowedUploadSizeMB>
- <RDallowedUploadFileCount>

NOTE THAT THESE PARAMETERS APPLY ONLY IN DESIGN TIME.

This means, in RD designer, when you add a new FILE-UPLOAD element to the form, that element's attributes are set based on those parameters found in db.config. Once the page is published, the parameters found in db.config do not have any effect. Changing those parameters in db.config won't make any difference in run time. You must use rdSetAttribute() to set these parameters as needed at run time!

Note the following about the upload control:

- There is no EVENT that can be assigned to an UPLOAD control.
- The upload control itself DOES NOT send a validation.
- The upload control's state is not maintained from page to page.

It is therefore recommended that the developer have a button to control the upload function. For example the form could have a "Continue" button.

If a page has one or more *Upload* controls then it must also have a button with the *Event* and *Page Validation* attributes checked. In the *Form Data Link* option link the button to the subroutine that is to control the upload function.

This is the process:

- The user clicks the *Continue* button
- The back end subroutine checks the validity of each element. If there is a validation error then the error(s) are displayed and focus remains on the upload form.
- If all fields on the page validate then the subroutine performs the upload.
- Once all uploads are complete, all field values, together with the uploaded file names are sent to the back end.

File upload example:

Assume the id of "the file upload component in the RD Form" is "bcup" and the id of the "actual file upload HTML element is "bcupFileDUpload". (The DesignBais Web Component adds the suffix "FileDUpload").

The xml string looks like this:

<input id="bcupFileDUpload" designer="true" type="file" class="form-control hidden" data-show-preview="false" allowedext=".gif.jpg.jpeg.png.tif.tiff.pdf" allowedsize="100" allowedcount="10" multiple="" filemandatory="false" targetFolder="uploads/boris">

The first three attributes are self-explanatory. They are the defaults set in the db.config. The developer can use rdsetAttribute on the upload element to change the default values for allowedext, allowedsize, allowedcount and also to set the targetFolder.

Note:

• If no changes are made using rdsetAttribute the system will use the db.config defaults

- The target folder is a relative path and is "uploads" by default so if the targetFolder attribute is missing then the "uploads" folder is used
- Missing folders are NOT created so in this example the *uploads/boris* folder must be created manually on the web server

The following **Upload Checklist** summarises the requirements for the Responsive Design Upload element:

- Make sure the page has at least one button with "Event" and "Page Validation" attributes checked (submit behaviour)
- In response to the page onload event (AFTER DISPLAY), use rdSetAttribute() to set the attributes listed below:
 - allowedext
 - allowedsize
 - allowedcount
 - accept
 - o multiple
 - targetfolder
- DesignBais will use default values for the above attributes if they are not set using rdSetAttribute(). These default values come from web site's db.config file as specified when the page was published. If defaults have not been set then, for example, a file extension type may not be uploaded because it is missing from the DesignBais default settings.
- When the button with "submit behaviour" is clicked, DesignBais:
 - Validates all fields on the page
 - Uploads files if validation succeeds
 - Sends an event to the application to notify that the page has been validated and all files have been uploaded.
 - o If the attributes are set in the database and any uploaded file is outside the parameters then all uploaded files will be deleted.
 - Please note that a malicious user might be able to upload files outside the parameters if the attributes are derived from the db.config defaults and NOT set in the database

Examples for an upload element with ID = "myupload"

allowedext:

rdSetAttribute("myupload","element","allowedext",".gif.jpg",0);

allowedsize(MB):

rdSetAttribute ("myupload", "element", "allowedsize", "10", 0);

allowedcount:

rdSetAttribute("myupload","element","allowedcount","5",0)

accept:

rdSetAttribute("myupload","element","accept",".gif, .txt",0);

multiple:

rdSetAttribute("myupload","element","multiple","multiple",0); à set this if the allowedcount is more than 1

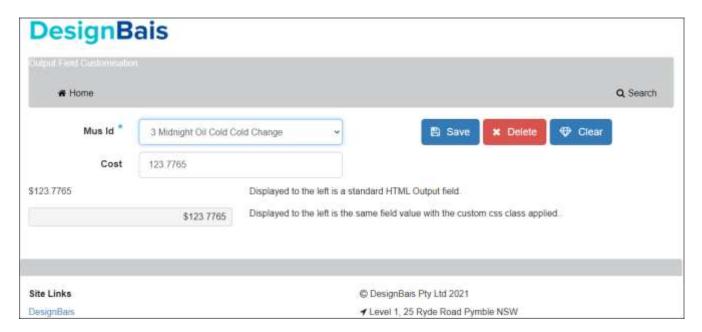
rdRemoveAttribute("myupload", "element", "multiple", 0); à remove the multiple attribute if the allowedcount is 1

targetfolder:

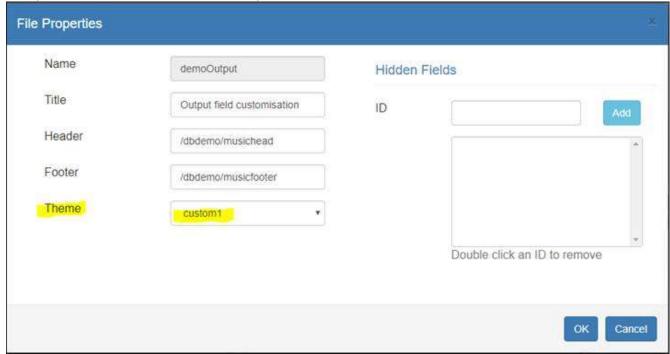
rdSetAttribute("myupload","element","targetFolder","uploads/myfolder",0);

Output Field Display Customisation in Responsive Design

Here is a method to display an output field value within a shaded input-type field element.



Set up an RD form and amend the File Properties to use the customized theme (css) file:



Add the HTML form element to the form. In this example the element Id is "costCustom". Edit the html code as follows:

Edit Code

Basic subroutine code to display the value entered in this field.

Note that the output conversion mask is read from the field property on DBIPROP so that changes are automatically reflected.

```
CASE THIS.PARAMETER = 'CUSTOMCSS' AND SCREEN.NO = 'CUSTOMCSS';* after read
            DISP.COST = DBRECORD<MUS.COST>
            SAVE.EVENTSOURCE = EVENTSOURCE
            EVENTSOURCE = 'MUS.COST'
            GOSUB GET.FIELD.PROP
            EVENTSOURCE = SAVE.EVENTSOURCE
            IF OUTPUT.CONV # '' THEN
              DISP.COST = OCONV(DISP.COST,OUTPUT.CONV)
            END
            GOSUB DISPLAY.CUSTOMCOST
        CASE SCREEN.NO = 'CUSTOMCSS';* validation of the field to be displayed
            BEGIN CASE
               CASE EVENTSOURCE = 'MUS.COST'
                  DISP.COST = DBVALUE
                  DBRECORD<MUS.COST> = DBVALUE
                  GOSUB GET.FIELD.PROP
                  IF OUTPUT.CONV # '' THEN
                    DISP.COST = OCONV(DISP.COST,OUTPUT.CONV)
                  FND
                  GOSUB DISPLAY.CUSTOMCOST
            END CASE
GET.FIELD.PROP:
      OUTPUT.CONV = ''
      READ FORMREC FROM F.DBIFORMS, CHANGE (SCREENROOT, '_', '*') ELSE RETURN
      LOCATE EVENTSOURCE IN FORMREC<DBIF.FIELD.NAME.LIST> SETTING PPOS ELSE RETURN
      PROPID = FORMREC<DBIF.FIELD.FILENAME,PPOS>:'*':EVENTSOURCE
      READ PROPREC FROM F.DBIPROP, PROPID THEN
        OUTPUT.CONV = PROPREC<DBIP.OUTPUT.CONVERSION>
      END
      RETURN
DISPLAY.CUSTOMCOST:
      AJX.ARG = 'costCustom'
      AJX.ARG<4> = "":DISP.COST:""
      AJX.FUNC = 'SV'
      CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
      RETURN
```

Copy a standard RD css file and amend it by adding the dboutput class (see below):

```
/* HEADER */
#dnav {
}
/* NAVBAR */
#dnavbar {
    background-color:#cccdce;
    background-image: none;
    border-style:none;
    -webkit-box-shadow:none;
    box-shadow:none;
}
/* NAVBAR MENU ITEMS*/
#dnavbar a, #dnavbar span, #dnavbar ul, #dnavbar li{
    background-color:#cccdce;
    background-image: none;
    color:#000;
}
    #dnavbar ul {
        background-image:none;
#dnavbar a:hover , #dnavbar a:hover span{
    color:#000;
    background-color:#dddddd;
}
    #dnavbar .dropdown-menu {
        background-color:#cccdce;
        border: 1px solid #cccdce;
    }
    #dnavbar .navbar-toggle {
        color:#fff;
        background-color:#fff;
    }
/* FOOTER */
#dfooter {
    background-color:#fff;
    background-image: none;
    padding-top:20px;
    border-style:none;
    border-top-style:solid;
    border-top-color:#cccdce;
    border-top-width:30px;
    margin-top:40px;
    padding-top:20px;
    -webkit-box-shadow:none;
    box-shadow:none;
}
/* TAGS */
h1, h2, h3, h4, h5, h6 {
    color:#555;
}
p {
    font-size:16px; /* better for iOS - prevents zoom*/
```

```
color:#222;
}
    /*color:#555;*/
}
.dbtable table th {
    background-color: #cccdce;
    color: #222;
    border: 1px solid #cccdce;
}
.dboutput{
    border:1px solid #ccc;
    border-radius:5px;
    padding:5px;
    padding-left:10px;
    padding-right:10px;
    text-align: right;
    background-color:#f5f5f5;
}
```

A Method for Creating an Event using HTML

There is already have the ability to link an output field on the RD Form (HTML field) to a data field in the DBIFORMS record produced by the Form Data Link.

If the output field has no event then the contents may be set from program code e.g. AFTER DISPLAY or AFTER READ or VALIDATE. If the field is not a work or read variable then the contents will stay after a normal form clear. The contents may be simple text "Fred was here" or "Hello World" if you prefer, or indeed HTML:

```
DBOTHER.RECORD(11)<1> = '<input id="testHTML" type="button" onclick="dbFire(event);" value="Click Me" />' puts a button with an event despite no event in RD.

DBOTHER.RECORD(11)<1> = '<img src="images/db/dbLogo.jpg" height="40" id="testHTML" onclick="dbFire(event);" />' puts an image with an event despite no event in RD.
```

If there is an event it will be sent to the database subroutine as a BUTTON event.

If there is an event, unfortunately at the moment because the field is inside a <div> we get DBVALUE=" in the BUTTON code logic. This returns the field value (EVENTSOURCE) as an empty string and therefore clears the field. The developer can, to get around this, in the BUTTON logic have DBVALUE = DBOTHER.RECORD(11)<1> (in the sample above).

The onclick="dbFire(event);" will be provided by the RD Page if the event option is ticked but the id will be fixed and the data cleared.

A better work around for the event clearing the data field – is to have a hidden button.

In the AFTER DISPLAY set your own html id:

```
DBOTHER.RECORD(11)<1> = '<img src="images/db/dbLogo.jpg" height="40" id="tdxutilityx1z2" onclick="dbFire(event);" />'
```

Then hide the button:

```
AJX.ARG = 'utility'
AJX.ARG<2>='element'
CALL DBI.G.AJXCMD('HD',AJX.ARG)
```

The tdx syntax allows the developer to identify which element on the form fires the click.

The hidden button on the form can be used to control many click functions.

The button logic:

```
BUTTON:

*

BEGIN CASE

CASE SCREEN.NO = "MAINT" AND EVENTSOURCE="B.UTILITY"

DBDS<-1>= 'DBREPORT.CELL=':DBREPORT.CELL
```



RD Designer:



Run time:



Implementing a Slider

A slider can be included in both RD and non-RD DesignBais forms. Refer to the DesignBais Reference Manual <u>Slider Control</u> for a description of the method of implementing a slider in classic DesignBais.

DesignBais Responsive Design Slider form

There is a Responsive Design Slider demo page dbdemo-slider which links to the form DBDEMO*RDSLIDER in the DBINET.DEMO account. This form allows you to modify the options required for the slider and redisplay the slider which is shown here:



The form and the basic code behind it are available by clicking in column 2 of the *Responsive Design* row of the Demo Forms list which can be displayed by selecting the Demo Forms menu option on the top menu of the Development Tools form. This displays the form DBDEMO_RDDEMO. On the *Page* dropdown list select the *dbdemo-slider* option. You can then click either *Run Form* to run the form, or *Data Link* to view the Responsive Design Form Data Link settings.

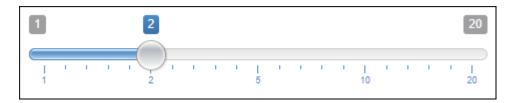
The basic code used to drive the display of the carousel is contained in the DBLIB subroutine DBI.I.DEMO which is included in the DesignBais release in account DBINET.DEMO.

To create a slider in Responsive Design you simply create a Text Input element on your RD form.

In the Form Data Link function link this form element to the required database field.

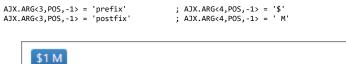
Listed below is sample code to implement the slider displayed following the sample code. Note that FLD.NAME in the example below can be either the DBIPROP Field Name or the RD form element ID in the form data link.

```
AFTER DTSPLAY
    AJX.ARG =
                    = 'BKT.PROP.0130L5
    SLIDER.MIN = 5
    SLIDER.MAX = 20
    SLIDER.STEP = 0
SLIDER.FROM = DBRECORD<BKT.PROP.Q130L5>+0
    SLIDER.VALUES = '[5,10,15,20]'
GOSUB DISPLAY.SLIDER
    FLD.NAME = 'BKT.PROP.023A'
    SLIDER.MIN = 1
SLIDER.MAX = 20
    SLIDER.STEP = 0
SLIDER.FROM = DBRECORD<BKT.PROP.Q23A>+0
    SLIDER.VALUES = '[1,2,5,10,20]'
GOSUB DISPLAY.SLIDER
    CALL DBI.G.AJXCMD('SL',AJX.ARG)
DISPLAY.SLIDER:
    LOCATE FLD.NAME IN AJX.ARG<1>,1 SETTING POS ELSE AJX.ARG<1,POS> = FLD.NAME
    FND
    AJX.ARG<3,POS,-1> = 'event'
                                                         ; AJX.ARG<4,POS,-1> =
                                                           AJX.ARG<4,POS,-1> = SLIDER.MIN
AJX.ARG<4,POS,-1> = SLIDER.MAX
    AJX.ARG<3,POS,-1> = 'min'
AJX.ARG<3,POS,-1> = 'max'
                                 'max'
    AJX.ARG<3,POS,-1> = AJX.ARG<3,POS,-1> =
                                                           AJX.ARG<4,POS,-1> = SLIDER.STEP
AJX.ARG<4,POS,-1> = SLIDER.FROM
                                 'from'
    AJX.ARG<3,POS,-1> = AJX.ARG<3,POS,-1> =
                                                           AJX.ARG<4,POS,-1> = AJX.ARG<4,POS,-1> =
                                                           AJX.ARG<4,POS,-1> = 'true'
AJX.ARG<4,POS,-1> = 'true'
    AJX.ARG<3,POS,-1> =
                                 'grid'
    AJX.ARG<3,POS,-1> =
                                 'snap
    AJX.ARG<3,POS,-1> = 'values'
                                                         ; AJX.ARG<4,POS,-1> = SLIDER.VALUES
```



Note that the slider must only be displayed when the form is loaded. This is usually in the AFTER DISPLAY event. DesignBais will control the update of the slider in, for example, the field validation event. The slider will react automatically (from the developer's point of view) to any change in the field's *Variable to Use*, such as DBRECORD or DBOTHER.RECORD.

You can use javascript to vary the display of the slider. See <u>DBI.G.AJXCMD</u> for the full list of ajax functions. For example the slider labels can be amended using the *prefix* and *postfix* options.





Implementing a Slider Panel

A Slider Panel can be included in both RD and non-RD DesignBais forms. Refer to the DesignBais Reference Manual <u>Slider Panel Control</u> for a description of the method of implementing a slider panel in classic DesignBais.

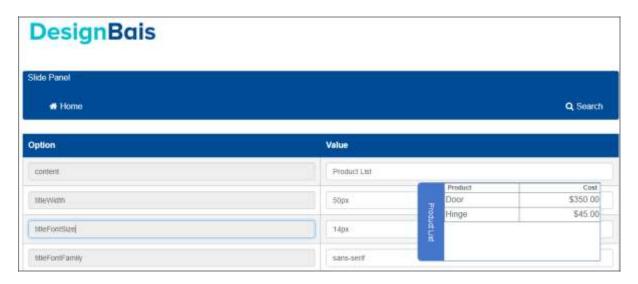
DesignBais Responsive Design Slider Panel form

There is a Responsive Design Slider Panel demo page dbdemo-slidepanel which links to the form DBDEMO*RDSLIDEPANEL in the DBINET.DEMO account. This form allows you to modify the options required for the slide panel.

To create a slider panel in Responsive Design you use a HTML output field. The slidePanel function moves the element into the panel and it disappears from the initial location. This means that the output field should be hidden up front but displayed when the function is called. Use the normal rdHide & rdShow.

In the demo form the HTML form element has an id of slidePanel.

The call to DBI.G.AJXCMD will set the custom attribute value Custom Attributes = 'dbslidepanel="1" automatically if it is not present.



The basic code can be found in the dropdown list of Basic Code Segments in the *Code Editor* form DBIUSERS_D80. Select the *Code to support a Slide Panel in an RD form* in the *Select Code Segment* grid.

```
AJX.DATAIN = ""
                             AJX.DATAIN<1> = 'dbspScript1'
AJX.DATAIN<2> = 'js/dbslidePanel-min.js'
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
                              CALL DBI.G.AJXCMD('AS',AJX.DATAIN)
                             AJX.DATAIN =
                            AJX.DATAIN = ''

AJX.DATAIN(1> = 'dbspCSS1'

AJX.DATAIN(2> = 'js/css/dbslidePanel.css'

CALL DBI.G.AJXCMD('addCSS',AJX.DATAIN)

* Slide Panel options can be in any order

DBWORK<OB.TEMP.PANEL.WK\ = 'content' ; DBWORK<OB.TEMP.PANEL.VALUE.WK\>

DBWORK<OB.TEMP.PANEL.WK,2> = 'titleWidth' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,2>

DBWORK<OB.TEMP.PANEL.WK,3> = 'titleFontSize' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,3\>

DBWORK<OB.TEMP.PANEL.WK,5> = 'width' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,4\>

DBWORK<OB.TEMP.PANEL.WK,5\> = 'width' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,5\>

DBWORK<OB.TEMP.PANEL.WK,6\> = 'height' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,5\>

DBWORK<OB.TEMP.PANEL.WK,6\> = 'rightOffset' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,5\>

DBWORK<OB.TEMP.PANEL.WK,8\> = 'rightOffset' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,5\>

DBWORK<OB.TEMP.PANEL.WK,8\> = 'topOffset' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,7\>

DBWORK<OB.TEMP.PANEL.WK,8\> = 'topOffset' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,7\>

DBWORK<OB.TEMP.PANEL.WK,8\> = 'topOffset' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,7\>

DBWORK<OB.TEMP.PANEL.VALUE.WK,8\> = 'topOffset' ; DBWORK<OB.TEMP.PANEL.VALUE.WK,8\>
                                                                                                                                                                                                                                                                               'Quote Details'
                                                                                                                                                                                                                                                                              '30px
                                                                                                                                                                                                                                                                              '14px'
                                                                                                                                                                                                                                                                                '200px'
                                                                                                          = 'topOffset'
                             DBWORK<DB.TEMP.PANEL.WK,8>
                                                                                                                                                                     ; DBWORK<DB.TEMP.PANEL.VALUE.WK,8>
                                                                                                                                                                                                                                                                                '100px'
                                                                                                                                                                         DBWORK<DB.TEMP.PANEL.VALUE.WK,9>
                                                                                                                                                                                                                                                                              '#5bc0de';*#4477cc'
'#4477cc';*#5E25D8'
                             DBWORK<DB.TEMP.PANEL.WK,9> =
                                                                                                                 'backgroundColor'
                             DBWORK<DB.TEMP.PANEL.WK,10> = 'borderColor'
                                                                                                                                                                    ; DBWORK<DB.TEMP.PANEL.VALUE.WK,10> =
                                                                                                                                                                         DBWORK<DB.TEMP.PANEL.VALUE.WK,11> =
                              DBWORK<DB.TEMP.PANEL.WK,11> =
                                                                                                                 'color
                              DBWORK<DB.TEMP.PANEL.WK,12> =
                                                                                                                                                                     DBWORK<DB.TEMP.PANEL.VALUE.WK,12> =
```

The slider panel options are shown in the example basic code above. The *topOffset* option is used as follows:

sticky=true topOffset determines the stick position of the panel

sticky=false or absent topOffset determines the offset position of the panel with respect to its container

You can use the parameters "open", "close" and "toggle" to control a slide panel. Here is an example of the basic code. The slider panel is displayed using the work field DEM.WORK4.WK. Refer to the Demo Form DBDEMO_RDSLIDEPANEL and the basic code in DBI.I.DEMO.

```
CASE EVENTSOURCE = "B.OPEN"
AJX.ARG = 'DEM.WORK4.WK'
AJX.ARG<2> = 'open'
CALL DBI.G.AJXCMD('SP',AJX.ARG)

CASE EVENTSOURCE = "B.CLOSE"
AJX.ARG = 'DEM.WORK4.WK'
AJX.ARG<2> = 'close'
CALL DBI.G.AJXCMD('SP',AJX.ARG)

CASE EVENTSOURCE = "B.TOGGLE"
AJX.ARG = 'DEM.WORK4.WK'
AJX.ARG<2> = 'toggle'
CALL DBI.G.AJXCMD('SP',AJX.ARG)
```

Implementing a Carousel

A Carousel can be included in both RD and non-RD DesignBais forms.

Refer to the DesignBais Reference Manual for a description of the steps required when Implementing a Carousel in a Classic (non-RD) DesignBais form.

DesignBais Responsive Design Carousel Demo form

There is a Responsive Design Carousel demo page dbdemo-carousel which links to the form DBDEMO*RDCAROUSEL, which is shown below, in the DBINET.DEMO account.

The form and the basic code behind it are available by clicking in column 2 of the *Responsive Design* row of the Demo Forms list which can be displayed by selecting the Demo Forms menu option on the top menu of the Development Tools form. This displays the form DBDEMO_RDDEMO. On the *Page* dropdown list select the *dbdemo-carousel* option. You can then click either *Run Form* to run the form, or *Data Link* to view the Responsive Design Form Data Link settings.

The basic code used to drive the display of the carousel is contained in the DBLIB subroutine DBI.I.DEMO which is included in the DesignBais release in account DBINET.DEMO.



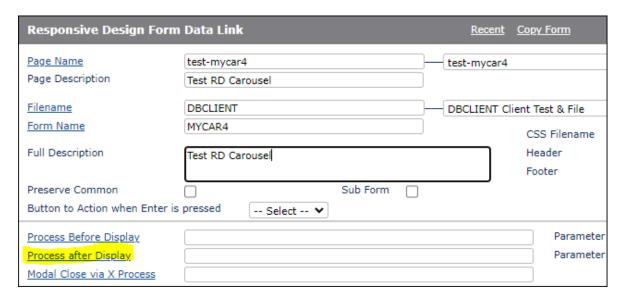
While you do not strictly need to use basic code to create the carousel, the practical way for DesignBais developers is to set up the carousel is via a basic subroutine. In order to make the setup as easy as possible there is a template form accessible from the *Subroutine* button on the Code Editor form DBIUSERS_D80. This is referenced below.

First you will need to create or modify your RD form. To add a carousel element to your RD form:

- Create an HTML segment (CTRL+K)
- Open the properties for this element (CTRL+P) and set an ID for example myCar4
- Save and publish the page for this example the page is called *mycar4* in work folder *test*

Then, assuming that you have used folder test and page mycar4:

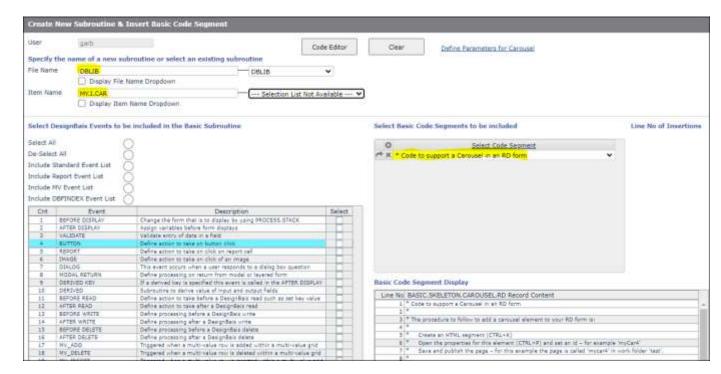
- Open the Responsive Design Form Data Link form DBIFORMS_RD10 and select "test-mycar4" from the Page Name dropdown.
- Enter the file to which you want to link the form. E.g. DBCLIENT
- Enter a new Form Name. This is the name of the DesignBais "Classic" mode form that resides in DBIFORMS. E.g. MYCAR4
- The Process after Display field will be empty so we need to create a new subroutine to hold the code that controls the carousel setup and display.
- Click the <u>Process after Display</u> hyperlink.



The Create New Subroutine & Insert Basic Code Segment form DBIUSERS_D85 will display.

Enter the required fields shown in yellow:

- File Name of the basic subroutine library E.g. DBLIB
- Item Name of the subroutine E.g. MY.I.CAR
- From the Select Code Segment dropdown select *Code to support a Carousel in an RD form* (to view the skeleton code click on the header text Select Code Segment)

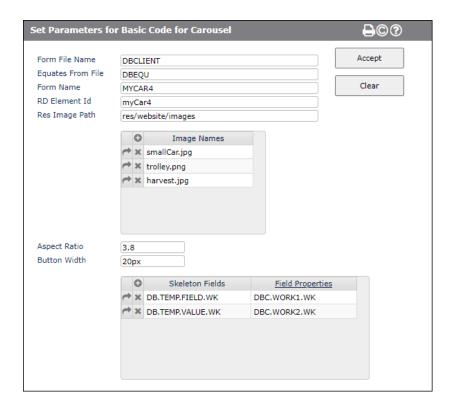


Click the *Define Parameters for Carousel* hyperlink at the top of the form. This opens the *Set Parameters for Basic Code for Carousel* form *DBIUSERS_D86* mentioned above.

Enter the parameters to display and control the carousel that are to be incorporated into the form subroutine:

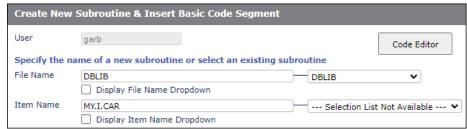
- Form File name DBCLIENT
- Equates From File this will default to the value from DBIFILES for the file
- Form Name (for the DBIFORMS form record) MYCAR4
- RD Element Id (this must match the element id used in the RD page) myCar4
- Res Image Path (the website path to the location of the images) *images/carousel* for example. You need to determine where images will reside. It is good practice to place images for RD forms in the *res/websitename/images* folder.
- Image Names (as many image names as are required for the carousel)
- Aspect Ratio (will depend on the size of the images used)
- Button Width (the size of the scroll buttons on the carousel)
- Field Properties (field names from the Form File which will be used to pass the carousel attributes)

The images to be displayed in the carousel must be present in the folder that you specify in the *Res Image Path* field.



Click the Accept button.

Click the Code Editor Button to create the subroutine.



The code will present in the DesignBais Code Editor. The text in red highlights the code that is created from the details entered on the Create New Subroutine form:

```
SUBROUTINE MY.I.CAR

* Description:

*

* This program may not be reproduced, disclosed, used or sold in any

* form or by any means without written authorisation from :-

*

* Written : garb 04/02/2021

* Amended :

*

$INCLUDE DBI DBI.COMMON

$INCLUDE DBEQU E.DBCLIENT

*

*

* FILENAME = FIELD(SCREENROOT, "_", 1)
    SCREEN.NO = FIELD(SCREENROOT, "_", 2)
    SCREEN.NO = CHANGE(SCREEN.NO, ".DESIGNER", "")

*

* THIS.EVENT = PROCESS.EVENT
    THIS.PARAMETER = PROCESS.PARAMETER
    EVENTSOURCE = CHANGE(PROCESS.EVENTSOURCE, ".DESIGNER", "")

*

* Event Table

*

* BEGIN CASE
    CASE THIS.EVENT = "AFTER DISPLAY"
    GOSUB AFTER.DISPLAY
    END CASE
    RETURN

*

* Code to support a Carousel in an RD form

* "MYCARA" is the designated Designatis form name (from DBIFORMS Filename*Formname)

* "myCara" is the designated RD form element id in which the carousel is located

* DBC.WORK1.WK & DBC.WORK2.WK are the designated work fields for replacement in this skeleton
```

Compile the code using the Compile option from the Code Editor File menu.

In the *Responsive Design Form Data Link* form *DBIFORMS_RD10* the name of your new subroutine will display in the *Process after Display* field.

Save the record by clicking Submit.

Recall the page from the Page name dropdown and click the Test button.

The carousel will display.



The full list of options that can be used to tailor the carousel is shown below.

Option	Allowed Values	Description
imgPath	String	Relative path to the folder containing the carousel images. Default: "images"
images	String array	Comma delimited image names. Default: ["1-min.png", "2-min.png", "3-min.png"]
showButtons	Boolean	Show left/right navigation buttons Default: true
showDots	Boolean	Show navigation dots Default: true
skin	String	Various preset skins. Possible values are: blue, red, green, orange, gray, dark and white. Default: "blue"
buttonType	String	"arrowhead" or "awesome". Default: "arrowhead". Note: "awesome" can be used if FontAwesome is loaded on the page.
buttonWidth	String	Width of navigation buttons in px. Default: "40px"
buttonColor	A color value (e.g. blue)	Fore color of navigation buttons. Default: #eff
buttonBackgroundColor	A color value (e.g. blue)	Background color of navigation buttons. Default: #2af
buttonBorderColor	A color value (e.g. blue)	Border color of navigation buttons. Default: transparent
buttonActiveOpacity	A decimal number (0 to 1)	Button opacity when not active Default:0.7
buttonOpacity	A decimal number (0 to 1)	Button opacity when active (mouse over) Default: 1.0
buttonOffset	String	Offset of navigation buttons from the left and right edges. Negative values will make the buttons appear outside by making the images narrower. Note that images are not distorted but the aspect ratio is lost.
dotWidth	String	Width of dots. Default: "10px"
dotsTopOffset	String	Offset of navigation dots from the bottom edge. Default: "-20px"

Option	Allowed Values	Description
		Negative values will make the dots appear outside by making the images shorter. Note that images are not distorted but the aspect ratio is lost.
dotColor	A color value (e.g. blue)	Color of naviagtion dots. Default: "#2af"
dotActiveOpacity	A decimal number (0 to 1)	Dot active opacity (i.e. the corresponding image is being displayed) Default:1.0
dotOpacity	A decimal number (0 to 1)	Dot opacity when not active Default: 0.5
animationSpeed	Number	Transition time from one image to the next in millisconds. Default: 700
loopPeriod	Number	Wait time between image transitions. Default:2000 Set this number to 0 to stop animations.
callback	String	Callback function name. The function is called on tap, click, swipe etc. events. Default: "" (i.e. no callback).
height	String	Carousel height in px Do not specify if responsive
width	String	Carousel width in px Do not specify if responsive
leftOffset	String	Offset of the carousel from the left of its relatively positioned container or document body. Default: "0px"
topOffset	String	Offset of the carousel from the top of its relatively positioned container or document body Default: "0px"
aspectRatio	Number	The width/height ratio of the carousel when the width is specified in pixels OR when the carousel is placed in a responsive grid column without specifying a width.

Implementing a Day Picker

Refer to the Demo Form dbdemo-daypicker in the DBINET.DEMO account.

RD DesignBais form

The procedure to follow to add a day picker element to your RD form is:

- Create a new page
- CTRL+K to create an HTML segment
- CTRL+Q to edit that segment. Replace Lorem... with <div id="delivery"></div> and save

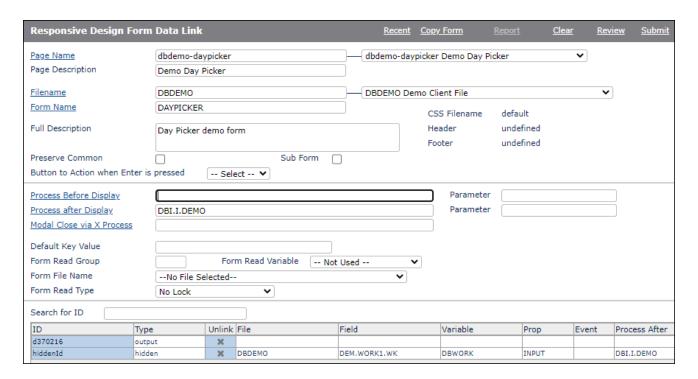
The form element will appear like this:



The code behind this HTML element looks like this:

```
Edit Code
i 1 <div class="dbcol col-md-12 dbcolhilite">
          <div class="dbform form-horizontal">
   2 -
              <div class="dbformgroup form-group">
   3 ₹
                  <div dbtype="segment" class="html-text" id="d370216">
   4 -
                      <div id="delivery"></div>
   5
   6
                  </div>
              </div>
   7
   8
          </div>
   9
     </div>
  10
```

- From the File menu select Properties and add a hidden field to the form. In this example the id used is *hiddenId*.
- Publish the page.
- In Form Data Link option link your page to a form. The demo form setup is shown below. The work field DEM.WORK1.WK is used to pass the date selected from the web page to the database.



In your basic subroutine you will need code similar to the following in the AFTER DISPLAY event processing:

```
CASE SCREEN.NO = "DAYPICKER"
        * "delivery" is the ID of the <div> container in the RD page to be used for the day picker
            HEAD.TEXT = "Please select the day on which you wish to visit"
            AJX.FUNC = "DP"
                                                        ;* dbDayPicker
            AJX.ARG = "delivery"
            AJX.ARG<3,1,-1> = 'startDate'
                                                     ; AJX.ARG<4,1,-1> = DATE()
            AJX.ARG<3,1,-1> = 'endDate'
                                                     ; AJX.ARG<4,1,-1> = DATE()+90
            AJX.ARG<3,1,-1> = 'selectedDate'
                                                     ; AJX.ARG<4,1,-1> = '""
            AJX.ARG<3,1,-1> = 'pickerTitle'
                                                     ; AJX.ARG<4,1,-1> = HEAD.TEXT
            AJX.ARG<3,1,-1> = 'displayDate'
                                                     ; AJX.ARG<4,1,-1> = '27-Oct-2020'
            AJX.ARG<3,1,-1> = 'disabledArray'
                                                     ; AJX.ARG<4,1,-1> = '["14-Nov-2020","12-Nov-
2020"]'
            AJX.ARG<3,1,-1> = 'customAttributeArray'; AJX.ARG<4,1,-1> = '[3001, 9010, 2111, 3101, 1]
1100, 2010, 3001, 9111, 2111, 1111, 1100, 2110, 2010, 2110]
          hiddenId is the ID of the hidden field in the RD page to pass data back to the database
            AJX.ARG<3,1,-1> = 'onselect'
                                                     ; AJX.ARG<4,1,-1> = 'function ($el, d) {}'
                                                     ; AJX.ARG<4,1,-1> = 'function (b) { }'
            AJX.ARG<3,1,-1> = 'onanimate'
            AJX.ARG<3,1,-1> = 'hiddenID'
                                                     ; AJX.ARG<4,1,-1> = 'hiddenId'
            CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

In the VALIDATION event you will need code to process the selected date:

```
CASE EVENTSOURCE="DEM.WORK1.WK" AND SCREEN.NO = "DAYPICKER"

AJX.FUNC = "DPSH" ;* dbDayPickerSetHTML

AJX.ARG = "delivery" ;* the ID of the <div> container in the RD page to be used for the day picker

AJX.ARG<3,1,-1> = '<div style="color:green;">You have selected date: ':DBVALUE:'</div>'

CALL DBI.G.AJXCMD(AJX.FUNC,AJX.ARG)
```

The day picker displays allowing the user to select a day:



Hit Blocker in RD Forms

Hit blocker settings are shown in the figure below.

```
<option value>-- Inherit Setting --</option>
<option value="0">0 Element not disabled. Subsequent events are sent.</option>
<option value="1">1 Element not disabled. Subsequent events are blocked.</option>
<option value="2">2 Element disabled but enabled on return. Subsequent events sent.</option>
<option value="3">3 Element disabled but enabled on return. Subsequent events blocked.</option>
<option value="4">4 Element disabled & kept disabled. Subsequent events sent.</option>
<option value="5">5 Element disabled & kept disabled. Subsequent events blocked.</option>
```

In the AFTER DISPLAY event of a form the desired hit blocker setting can be set for all form elements using the following, where 'n' is a value 0 through 7:

```
JST = ';':STR(' ',3);* this is the DesignBais javascript terminator (; followed by 3 spaces) 
HBVAL = 'n' 
DBAJAXCMD<-1> = "dbhbMode=":HBVAL:JST
```

The hit blocking action takes effect as each input field or button element is executed.

For example if HBVAL is set to 4 then after entering a value in an input field the input field will be hidden. After clicking a button the button will be hidden.

Alternatively hit blocker can be set for selected form elements using the rdSetAttribute function.

```
RD.FUNC = 'SA'

RD.INP = 'save'

RD.INP<2> = 'element'

RD.INP<3> = 'dbhb'

RD.INP<4> = HBOPT

CALL DBI.G.AJXCMD(RD.FUNC,RD.INP)

SA is the abbreviation for 'rdSetAttribute'

the id of the form element

the element type

the CSS property

the hit blocker value to use
```

```
Attribute
                             Content
                                                                              Format
                             RD form element id
                                                                              multi-valued
1
2
                             Type of RD Form element (see list below)
                                                                              multi-sub valued
3
                             CSS property
                                                                              multi-sub valued
4
                             CSS property setting or value
                                                                              multi-sub valued
                             mSec delay time
                                                                              multi-sub valued
Type of RD Form element
         row
         col
         formRow
         element
         label
         option
         optionlabel
         error
         tipicon
         tiptext
         segment (use for HTML output element)
```

Example of HTML Solution for Progress Icons

Create a HTML row form item on each page for example:

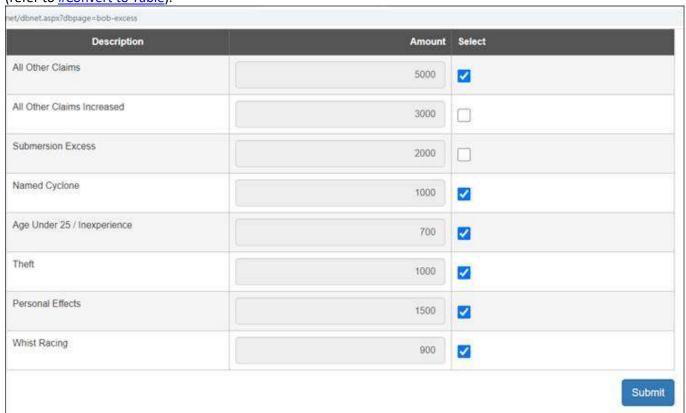


For each column set up the following HTML code. Note that if column 1 is the current form then the HTML code is as below, so *breadon* highlights the current page:

```
<div class="dbformgroup form-group dbrowcolhilite">
       <div dbtype="segment" class="html-text" id="step1" existingid="step1">
              1
              Driver Details
       </div>
</div>
In the above case column 2 is <u>not</u> the current form so the HTML code is:
<div class="dbformgroup form-group dbrowcolhilite">
       <div dbtype="segment" class="html-text" id="d377293" existingid="d377293">
              2
              Rider Details
       </div>
</div>
Columns 3 and 4 are the same as column 2 when column 1 is the current page.
In the css file (e.g. famous.css) the bread class is defined as:
.bread{
 width: 40px;
 text-align: center;
 border: 1px solid #0000;
 margin-right: auto;
 margin-left: auto;
 border-radius: 50%;
 background-color: #444;
 color: #fff;
 padding: 0px;
 font-size: 20px;
 height: 40px;
 line-height: 40px;
 font-family: monospace;
}
```

Example of Table Row with Checkbox

This demonstrates a method for placing a checkbox into a table row. The final result is shown below. The requirement was to display a fixed set of risks with an associated cost and allow the user to select one or more of these items. The solution uses the Table Row feature of Responsive Design (refer to #Convert to Table).



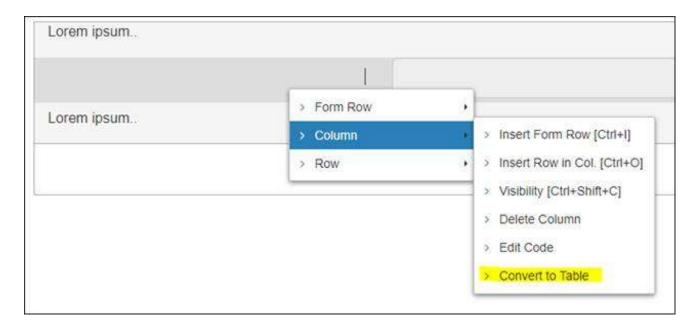
Method:

1. Set up three RD form elements in a *single* form row – they can be all HTML outputs, but in this example the second element is a disabled input.



The Submit button allows for testing the updating of the selections on a database file.

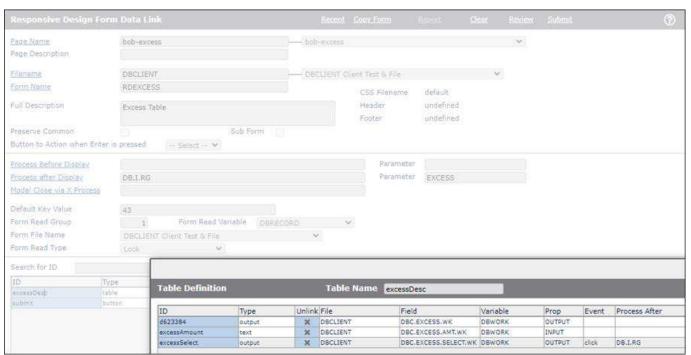
2. Then use the Convert to Table option to create a table.



The table look like this in Designer mode:

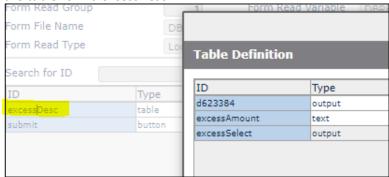


- 3. Save and publish the page.
- 4. Open the Form Data Link option on the Responsive Design menu.



This example uses a default key value to read a designated record. This is just for testing purposes. In your form you may be inserting the table row into an existing form with its own read and write logic.

5. Click on the table row id excessDesc.



6. Link the three form elements to DBWORK fields. In your basic code populate the work fields as required.

The basic code to handle the excessSelect column which contains the checkbox is as follows:

The AFTER DISPLAY is the same as the AFTER READ (forms with a Default Key Value don't have an after read event) and sets up the check box on each row.

```
AFTER.DISPLAY:
     BEGIN CASE
        CASE SCREEN.NO = "RDEXCESS"
          DBWORK<DBC.EXCESS.WK> = DBRECORD<DBC.EXCESS>
          DBWORK<DBC.EXCESS.AMT.WK> = DBRECORD<DBC.EXCESS.AMT>
          DBWORK<DBC.EXCESS.SELECT.WK> =
          CHKBX.ON = '<input type="checkbox" class="dbchkstyle-lg"
checked>
          CHKBX.OFF = '<input type="checkbox" class="dbchkstyle-lg"
>'
          SMAX = DCOUNT(DBRECORD<DBC.EXCESS>,VM)
          FOR II=1 TO SMAX
             IF DBRECORD<DBC.EXCESS.SELECT.II> = 'Y' THEN
               DBWORK<DBC.EXCESS.SELECT.WK,II> = CHKBX.ON
               DBWORK<DBC.EXCESS.SELECT.WK,II> = CHKBX.OFF
             FND
          NEXT II
```

The click on the check box triggers a button event – look for the "checked" setting.

Update the record based on the "checked" setting. The PROCESS.STACK in the example below is for testing only, to allow the save record to be re-displayed.

```
*

BEGIN CASE

CASE SCREEN.NO = 'RDEXCESS'

DBRECORD<DBC.EXCESS.SELECT> = DBWORK<DBC.EXCESS.SELECT.WK>

SMAX = DCOUNT(DBWORK<DBC.EXCESS.SELECT.WK>,VM)

FOR II=1 TO SMAX

WVAL = DBWORK<DBC.EXCESS.SELECT.WK,II>

IF INDEX(WVAL,' checked>',1) THEN

DBRECORD<DBC.EXCESS.SELECT,II> = 'Y'

END ELSE

DBRECORD<DBC.EXCESS.SELECT,II> = 'N'

END

NEXT II

PROCESS.STACK = "DBCLIENT_RDEXCESS"
```

Changing the color of buttons in Responsive Design

The RD primary color looks like this: #36B2AD

Create 5 more colors by darkening the primary color. In this case, the new colors will be from #36B2AD down to #00524D as shown below;

A good way to make darker color is as follows:

```
#XXYYZZ: one shade darker is (X-1)X(Y-1)Y(Z-1)Z e.g. #36B2AD becomes #26A29D
```

Copy and paste the following block into your css file and change the colors with your new set of colors. Of course, this works only if you used the "Primary Button" type in designing your page.

```
.btn-primary{
color: #fff;
background-color: #36B2AD;
border-color: #16928D;
.btn-primary.active, .btn-primary:active, .open>.dropdown-toggle.btn-primary {
  background-color: #16928D;
 border-color: #06827D
.btn-primary.focus, .btn-primary:focus {
  color: #fff;
  background-color: #06827D;
 border-color: #00726D;
.btn-primary:hover {
  color: #fff;
 background-color: #00726D;
 border-color: #00625D;
.btn-primary.active.focus, .btn-primary.active:focus, .btn-primary.active:focus, .btn-primary.active.focus, .btn-primary.active.focus,
.btn-primary:active:hover, .open>.dropdown-toggle.btn-primary.focus, .open>.dropdown-toggle.btn-primary:focus, .open>.dropdown-
toggle.btn-primary:hover {
 color: #fff;
 background-color: #00625D;
 border-color: #00524D;
```

Make sure to refresh the browser so that the new css is active. Navigate to the url and press F12 to bring up Chrome developer tools. Press CTRL+F5 to refresh the page (stylesheets are hard to refresh). Press F12 to close the developer tools.