Database Navigation Contracts

Note that a number of these contracts are used by the Data form wizard and should not be modified.

Database navigation contracts enable and/or react to the browsing of database records, typically via a recordset object. The majority of these contracts occur between a recordset and a submit button and are typically used to update the content of form elements and/or text boxes on the page when the recordset navigates to the new record.

In most cases, proper display behavior in form and/or text elements as a result of recordset navigation only requires that they be 'bound' to the recordset. In other words, the contract between the submit button and the recordset does all the work; contracts applied to the display element are not usually needed, although AutoTable navigation is an exception in some cases (see below). To bind an element to a recordset, you must set the element's content attribute to the target recordset and specify the column (i.e., field) that will be displayed.

Database navigation contracts can be divided into four classifications: General recordset navigation, AutoTable navigation, and Looper navigation and Miscellaneous. In all cases these contracts can be applied to generic browsers, with the following exception:

- Navigate [target] when [source] is clicked and submit form (Nav 3 and above)

For more detailed information on individual contracts, see the individual contract descriptions, which are found on the 'Description' tab of the Contract Properties Dialog. The Contract Properties dialog can be accessed from the Drumbeat Tools menu.

Using Image Buttons with Server-Side Contracts
The contracts used by the DFW are entirely server-side and inherently designed for submit buttons. This would otherwise limit the use of more aesthetically appealing navigation buttons that use images, for instance. Fear not, for all is not lost! You can still use clickable images with these contracts, but you must additionally apply the **"Submit form when clicked"** contract from the **Forms submit** category.

There are several subtle requirements for this to work. The METHOD of the Form object has to be POST and there has to be a form on the page. If all the buttons on a page are replaced with images, there may be no form at all. In such cases you will have to put a Hidden form element on the page just so there is a form. To be safe, it is a good idea to apply the "Submit when clicked" contract last. Note also that the use of image buttons in this manner requires a JavaScript enabled browser and undermines the generic browser support of the server-side contracts used by the DFW.

General Navigation
Four contracts entitled "Go to the first (or last, next, previous) record…" are direct interactions between a recordset and a submit button. These are typically used on a page that contains a number of text or edit boxes bound to a recordset. The recordset, in turn,

interacts with a submit button via these contracts. When the button is clicked, the recordset is moved to the record specified by the contract (i.e., next, previous, etc.) and the page elements are updated with the new record's data.

AutoTable Navigation
Two contracts entitled "Set/move AutoTable [target] direction…" are interactions between an AutoTable and a submit button. When the submit button is clicked, the AutoTable's record source is moved forward or backward by a 'set' of records specified by the AutoTable's Page Size attribute. Note that there is no direct interaction with a recordset in this case. The AutoTable's record source can be a recordset or a static content table associated with the page.

Looper Navigation
The three Looper contracts are similar in function to the AutoTable contracts, except that they are designed explicitly for the Looper. Unlike the AutoTable contracts, however, these are interactions between a recordset and a submit button, and the Looper's content must be bound to the recordset (via its content attribute). The Page Size parameter should match the Looper's page Size attribute. When applied, the contracts will increment the recordset by the Looper's Page Size attribute and move in the specified direction.

Miscellaneous Database Navigation Contracts

• Go to pagename when [source] is clicked, maintaining state of [target]
  This contract is an interaction between a submit button (source) and a recordset (target). Clicking the button executes the link specified in the PageName parameter, but retains the original state of the recordset in the originating page. Thus, after executing the link, the original page can be retrieved in its original state when the browser's 'Back' button is pushed.

• Navigate [target] when [source] is clicked and submit form
  Allows interaction of a recordset (target) with an integrated navigation SmartElement (source), enabling the SmartElement to navigate the source's records and update the display of a form bound to the recordset. Potential sources include the DHTMLRecordsetNavigation and the RecordsetNavigationScriptlet SmartElements.

• Replace Tokens in [Text Element] with current record number of [Recordset]
• Replace Tokens in [Text Element] with record numbers displayed in [Table]
  Two contracts with similar functionality. The first contract allows a text box to display record navigation status on a page that displays a single record detail (i.e., "Record 10 of 25"). The second displays record navigation status on a page that contains a table of records (i.e., "Records 11-20 of 125").

- Redirect if Recordset is empty
  A single element contract on a recordset that navigates to another page if the recordset is empty. This can be used to inform the user if there are no records to display via a message on the redirected page.

- Do not allow navigation past the end of the recordset
  A single element contract applied to a recordset that prevents navigation past the beginning or end of a recordset.