



How To

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Displaying Instructional “Helper Pages” Using Framesets – Corvid Servlet Runtime

A system demonstrating this “How To” can be run from the “Displaying Instructional ‘Helper Pages’ Using Framesets – Corvid Servlet Runtime” section of:

<http://www.exsys.com/support/howto>

The code for the sample system can be downloaded from the same page.



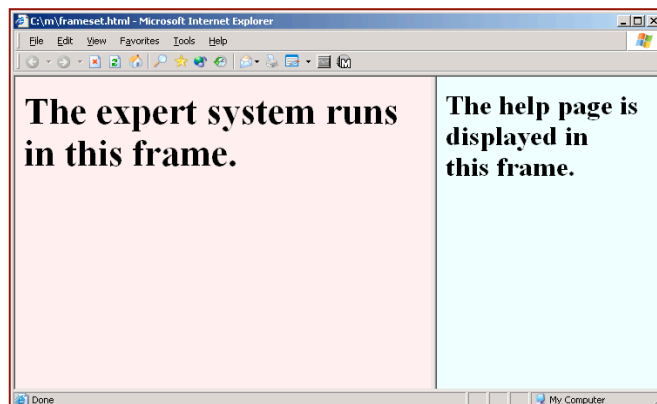
Ideally, when a system asks the end user a question, they will be able to answer the question easily. However, in many cases the user may not understand the question or it may be preferred to provide a more detailed explanation of what is being asked. Some systems provide detailed “instructional” text with each question to help educate the user. Some systems may even have questions that require the user to do research on other web pages to be able to provide an answer.

There are various ways of dealing with these issues. The simplest is to have URL links in the text of the question that can be clicked on to open other browser pages with the needed content. This is done by simply embedding the HTML code:

```
<a href="..."> text </a>
```

in the prompt of the question or in other text displayed with the question. Clicking on the link will open the new page. Links can be used in either the Applet or Servlet Runtime programs. However, it requires that the user take an action to click on the link. In some cases, the “Helper Page” will always be needed and should always be displayed with the question. In these cases frames are the answer.

Frames provide a way to divide the browser window into regions that each display separate HTML pages. This is easy to do with the Applet Runtime by using a DISPLAY_HTML command. (See the How To document on “Displaying Instructional ‘Helper Pages’ in Framesets - Applet Runtime”).



However, when running using **Corvid Servlet Runtime**, you may have the same requirements, to show helper pages with questions, and this is more complicated to do. The approach described here uses many

advanced Corvid commands and options. Consult the Exsys Corvid manual for details on any of the commands that are not familiar to you.

When running using Corvid Servlet Runtime, the Corvid system can ask the same questions without a frameset (so the entire window can be used to ask forms with many questions) and then ask other questions with a frameset.

This How To shows how the Corvid Servlet Runtime can switch back and forth between using framesets for some questions and not using framesets for others. It shows how the KB can control this and how this control can be given to the user.

The questions that need no additional help will be asked in a form (many questions asked in one web page) that occupies the entire web page (no frameset).

The questions that need an additional helper page displayed can be asked individually and display the helper pages in a frame of the frameset. Both the question and the helper page can have hypertext links that open other pages into the right frame so the question is never obscured.

A demo system is provided that will:

- Ask several questions in a form using the entire browser window (without a frameset), and then
- Ask questions inside a frameset sending helper pages to the right frame
- In the last question, the user can choose to break out of the frameset by clicking a link (Instructions below show how the KB can break out of the frameset without user interaction.)
- Show the results sending a helper page to the right frame (or popping it up if the user broke out of the frameset)

To run the demo system, you must have Tomcat (or some other servlet container) installed and the Corvid Servlet Runtime installed.

To run the demo files:

1. Put the folder 'FramesetJumpBase' in Tomcat's 'webapps/ROOT' folder and put 'FramesetJumpKB' in 'webapps'.
2. Open 'webapps/FramesetJumpKB/frameset_example.CVD' in Corvid editor.
3. In the 'Properties' window under the 'Servlet' tab, change the host to match your host. Also change the host under the "Test Run" tab.
4. If Tomcat is running on its default port of "8080", be sure to include the port number, like this:
localhost:8080
5. Move the frameset_example.cvr file to the server and run like any other Corvid system.

How It Works

Ask form without frameset

The first question does not use a frameset and, in this demo, asks several questions on one screen. This question is asked the normal way, using a template for the Corvid Servlet Runtime. To get multiple questions on the same screen, the variable asked by the ASK command has the other variables in its "Also Ask" list. See 'Command Block 1'.

Switch to frameset

To start the frameset in the middle of the run, the KB must ask the variable [pop_up_frameset] which will not actually be asked of the user. The variable has a servlet template of 'PopUpFrameset.html' which displays the frameset that, for the left frame, uses a URL that automatically answers [pop_up_frameset]. Since [pop_up_frameset] has been automatically answered, the KB immediately asks the **next** question. This occurs inside the left frame. That next question pops up a helper page in the right frame. (If the next question in your KB does not have a helper page, the right page would not change.)

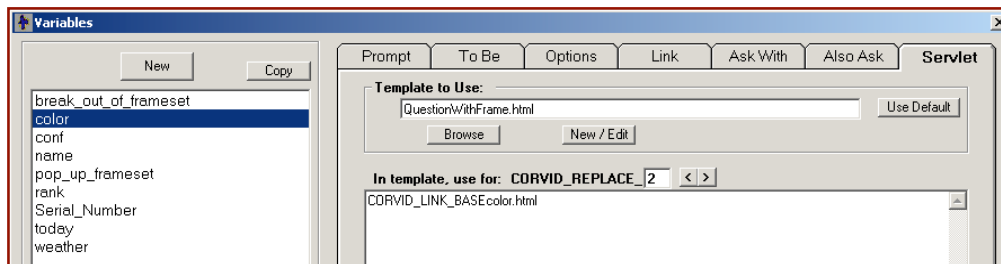
To display helper pages in the right frame, the question uses:

QuestionWithFrame.html

as the servlet template. That template uses javascript to display the helper page in the right frame. The name of the helper page is embedded into the template via the replaceable parameter 'CORVID_REPLACE_2'.

```
onLoad="window.open('CORVID_REPLACE_2','rightframe')"
```

For example, [color] uses that template under the 'Servlet' tab and the value of 'CORVID_REPLACE_2' is the file named 'color.html'. Actually, the full name of the file is 'CORVID_LINK_BASEcolor.html' where CORVID_LINK_BASE will be embedded with its value as specified in the Properties window under the Servlet tab.



Switching out of the Frameset

To break out of a frameset, the expert system must re-ask the current question but do so using the entire browser window instead of its current frame. This is done by using a hypertext link (or a DISPLAY_HTML command) that sends the page to the "_parent" frame. So this hypertext link in the web page will do it:

```
<a href="..." target="_parent"> (Break out of frameset) </a>
```

That text can be put into the template of the question. But when the question is re-asked, we want the link to disappear because we are no longer in a frameset. The first time, the link is there, and the second time, it is not. It varies, so this can be done by using an embedded variable.

Embed [break_out_of_frameset] where the link goes and make the value of [break_out_of_frameset] be the text of the link. Clicking on the link not only targets the parent, but overwrites [break_out_of_frameset] with the value " ". So initialize [break_out_of_frameset] to:

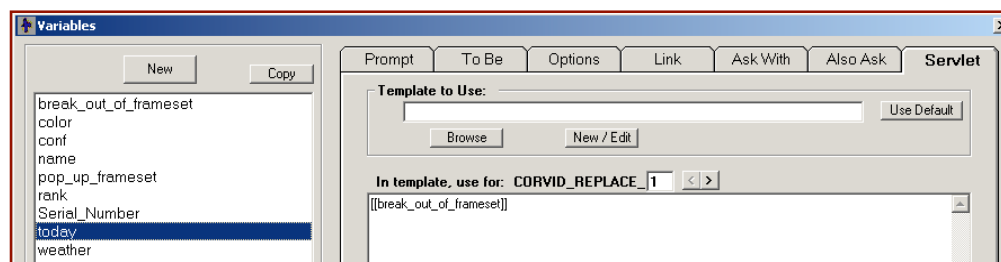
```
<a href="CORVID_SERVLET_GET [break_out_of_frameset]=%20"target="_parent">  
(Break out of frameset) </a>
```

This is the same as before except the value of href is specified as:

```
CORVID_SERVLET_GET [break_out_of_frameset]=%20
```

The CORVID_SERVLET_GET just means the hypertext link will continue the run and the rest means it sets [break_out_of_frameset] to a space (%20 is the URL encoding of a space character).

So [break_out_of_frameset] is embedded into the page that asks the question.



If the user clicks on the hypertext link, it asks the question again but this time there is no hypertext link – just a space, which is invisible.

The value of [break_out_of_frameset] is embedded into the web page for the questions where you want to allow the user to break out. The user can break out just once. (Should the system enter the frameset again, it must reset the variable [break_out_of_frameset] to re-initialize it to the hypertext link.)

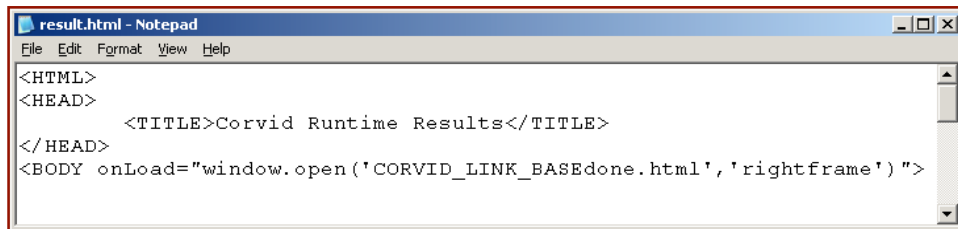
KB switches out of frameset

To modify the KB to break out of the frameset without user interaction, uncomment the COMMENT in 'Command Block 1'. When [break_out_of_frameset] is asked, it uses the servlet template 'BreakOutOfFrameset.html' which uses javascript to break out of the frameset and answer [break_out_of_frameset] by setting it to a space. Corvid continues the run without a frameset.

Results

The RESULTS command displays the results and the 'done.html' helper page. This is accomplished via a command hard coded into the 'result.html' template.

Look in the <BODY> tag of 'result.html'. It has:



```
result.html - Notepad
File Edit Format View Help
<HTML>
<HEAD>
  <TITLE>Corvid Runtime Results</TITLE>
</HEAD>
<BODY onLoad="window.open('CORVID_LINK_BASEdone.html','rightframe')">
```

The CORVID_LINK_BASE is necessary before the file name, even if you have:

```
<base href="CORVID_LINK_BASE">
```

because Internet Explorer does not honor the <BASE> tag for file names used in Javascript. By embedding CORVID_LINK_BASE before the file names, the file name will not be relative but will have an absolute address. This works in alal browsers that do not have Javascript turned off.