Building Web Applications

In addition to building and managing VDAB flows, the VDAB server has the ability to serve as a standard web server to host VDAB web applications.

These capabilities are related to but independent of the VDAB Web Client which provides a limited subset of the client features provided by the VDAB Android Client.

This document DOES NOT cover VDAB Web Client but covers the following web features:

1. **VDAB Pager Server –Building standard web pages that are hosted in your VDAB container.**
2. **VDAB Web Applications - Building VDAB web applications.**

Before This	
	• You should have reviewed the VDAB introductory tutorial and documentation to understand how to create basic flows.
	• You should have some understanding of HTML and web applications.
	• You should have reviewed theVDAB Web Client documentation.

Contents

Related Documentation

The following document and tutorials either are a) available or b) being developed to further support this subject. Those available are highlighted in blue while those under development are not highlighted.

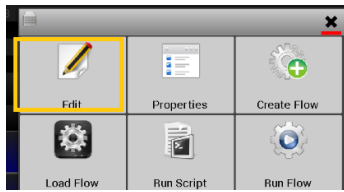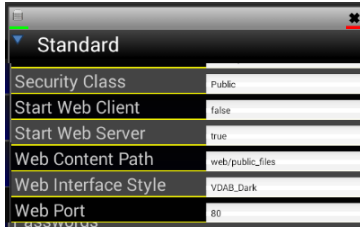| Related Documents	Details
Visual Event Dataflow Introduction	This Guide introduces the basic concepts of Event Dataflow programming and details how to build a simple flow.
VDAB Web Client	This Guide covers the features of the Web Client and distinguishes its capabilities from the standard Android Client.

Related Tutorial	Details

Starting and Configuring the Web Server

There are a number of container properties that control various capabilities of your local VDAB Web Server. Some properties apply to all of the VDAB Web capabilities and others only apply to a single feature.

Property	Applies To	Details
Web Port	VDAB Web Client VDAB Web Apps VDAB Page Server	Set the port for all types of web access. (By default this is set to port 80).
Start Web Client	VDAB Web Client VDAB Web Apps	If set to true, the VDAB web client is started. In addition Web Applications can also be accessed.
Start Web Server	VDAB Page Server	If set to true, the web page server is started and available to serve pages and content found in the Web Content Path.
Web Content Path	VDAB Page Server	Selects the relative path in the VDAB directory where standard web pages and files can be located. (By default this is set to `./web/public_files`)
Web Interface Style	VDAB Web Client	Use this property to select the type of Web Client appearance you prefer. (Currently on light and dark styles are supported.
Security Class	VDAB Web Client	Identifies the level of access provided using the Web Client. This should be set to Standard or Private to ensure that outside users can not alter the system using the Web Client

Any of the above features can be set by editing the container properties.

1. Select the container and click to get the actions menu. Click on the Edit option.

2. Edit one or more of the properties associated with the VDAB web server. Click in the upper left to save the changes.

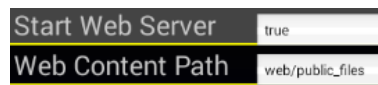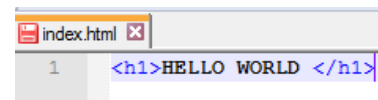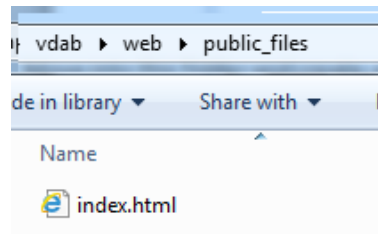3. Click on the Save icon to save the container configuration. Restart the Container

Serving Web Pages in VDAB

VDAB has a built in web server which can be used to serve web content and standard web content.

Building a "Hello World" Web Page

Building a "Hello World" Web Page

1. Create a file name index.html in the ./web/public_files directory. (The base web directory can be changed but this is the default location.)

2. Edit the file and add a header saying "HELLO WORLD". Save the file.

3. Ensure that Start Web Server container property was previously set to true and you have placed your file in the Web Content Path.

4. Using your web browser, go to VDAB's web server using the following URL: http://localhost

5. More complex and additional web pages can placed in this directory and referenced from the index.html.
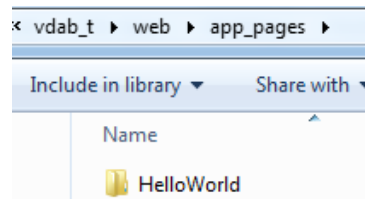
VDAB Web Applications

Going beyond just serving standard web pages, VDAB introduces the concept a web application.

A web application is declared by creating a subfolder under the *web/app_pages* directory. The first page is declared by adding and editing an *index.html* file found in this directory.
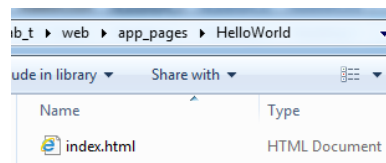
Building a "Hello World" Web Application

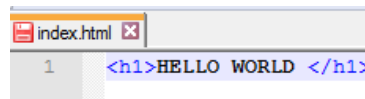The steps below would create a "Hello World" web application.

1. Create a folder under the web/app_pages directory with the name of the web application. Use mixed case without spaces.

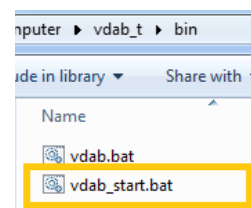2. Move into this folder and create a file named index.html.

3. Edit the file and add a header saying "HELLO WORLD". Save the file.
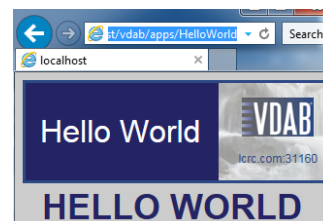

4. Ensure that Start Web Client container property is set to true.
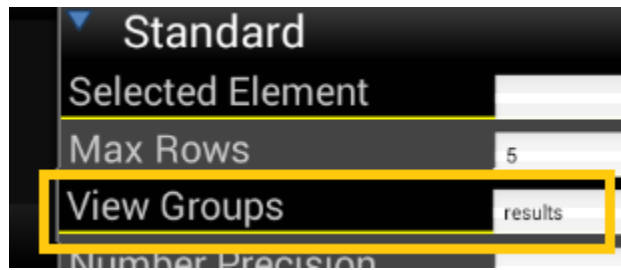

5. Start or restart VDAB.

6. Using your web browser, go to VDAB's web server using the following URL:
   http://localhost/vdab/apps/HelloWorld
   A web application title bar will appear at the top. The remainder of the page will display the page you defined in the *index.html* file.

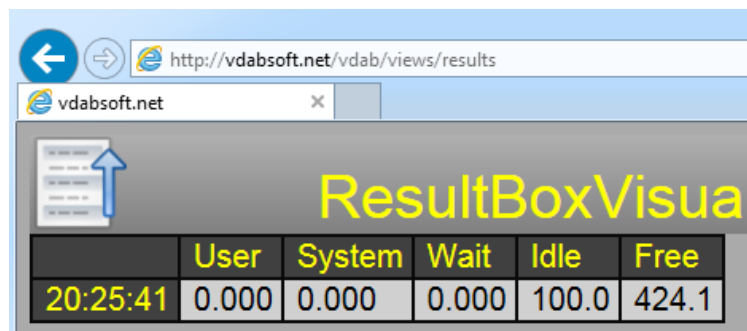Copyright 2020 – MJA Technology LLC http://www.vdabtec.com

Inserting Views in the VDAB Web Application

VDAB Web Applications can include specially defined VDAB content by defining a View Group label for the Node. In the case below a ResultBox is defined to be in the View Group **results.**

The view data can be displayed directly using the path http://<server>:<port>/vdab/views/<ViewGroup>. With a view group of results, the result box could be viewed by entering the URL below:
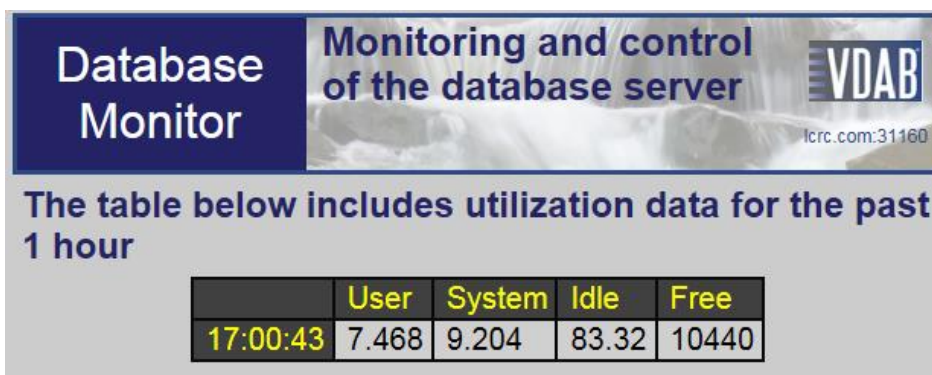

This same view can be included in a VDAB Web Application by specifying [[views/results]] within the HTML provided for your web application. A description can also be added.

```
[[WebApp.Description=Monitoring and control of the database server]]
<h2>The table below includes utilization data for the past 1 hour</h2>
<center>
[[views/results]]
</center>
```

The VDAB web application is displayed with a specialized format and includes the embedding of various VDAB visual nodes.

Special Web Application Directives

WebApp.Description	Allows entry of a description for the Web Application. This data is displayed in the application header. **`[[WebApp.Description=Performs a complete performance regression test: After generating a fixed number of claims the resource cost is calculated.]]`**
WebApp.RefreshInterval	Sets this page to automatically refresh after the indicated number of milliseconds **`[[WebApp.RefreshInterval=2000]]`**

Special Web Inclusions

Web.AppFlowSection	Inserts a list of VDAB flows that are associated with this Application. **`[[Web.AppFlowSection]]`**
Web.ImageSection	Displays a section containing the images found within a specified subdirectory. **`[[Web.ImageSection=VDABScreenShots(open=true)]]`**
Web.IFrame	Insets an IFrame referencing another VDAB web application page. **`[[Web.IFrame=Results(width=100%,height=220)]]`**