RestApi Demo Quick Start

Friday, March 31, 2017   12:19 PM

Purpose:
 This document provides the basic steps to setup and configure the 9.9A PL/B Web Server and 9.9A PLBWIN to demonstrate the PWS RESTAPI Services.

Requirements:

1. 9.9A PL/B Web Server.

2. 9.9A PLBWIN, PLBNET, or PLB (Unix) runtime.

3. DemoRestApi.zip contains demo zip files referenced in this document.

   See 'c:\sunbelt\plbwebsrv.99A\demo\programs\source\DemoRestApi.zip'

Demo Programs:

 When the PL/B Web Server is configured to support the RESTAPI services, it executes a configuration command line the invokes a PLB runtime to process an HTTP request received from a client browser executing an HTML web page with JavaScript routines.

 PHONEMSG
  This program processes a RESTAPI request by using the RUNTIME object 'CgiString' method to access CGI keyword data. Depending on the type of RESTAPI request received, the program uses DBxxxxx statements to access a SQLite test database. Once the request data is properly processed, an HTTP response is returned using the RUNTIME object 'HttpResponse' method. This program is implemented to do simple manipulation of a SQLite test database to fetch, write, and delete messages.

 PHONEMSGDEB
  This program processes the same as the 'PHONEMSG' program except it has been modified to provide some debugging output.

Html Web Pages, CSS, and Javascript Demo:

 Restmain.html - Main page with description of supported REST methods.

 Restentry.html - Page to allow entry of a phone message.

 Restquery.html - Page to allow query of messages. Messages can be filtered by To name.

 Restsupp.css - CSS support file.

 Resetsupp.js - Javascript support file to be modified by user.

Configurations and Setup:

 PlbWebSrv

1. Create a directory named 'PwsCgi' in the 'c:\temp\' directory.
   The 'c:\temp\PwsCgi' is the directory where temporary CGI data files are created and processed from. The 'plbwebsrv' must be configured to use this directory.

2. Add and modify the following for your 'plbwebsrv' server:

   ##

```
# The 'PLBWEB_CGI_INFODIR' keyword can be assigned
# to a fully qualified path and optional 'prefix' where
# working PWS CGI data files are rendered. By default
# these CGI data files are temporary and are deleted
# after the data is moved into a PWS child process.
#
#   Note:
#     When using the 'PLBWEB_CGI_INFODIR' keyword, the
#     PWS server DOES NOT delete the CGI temporary files.
#     However, the PLB runtime DOES delete any CGI file
#     that is used.
#
PLBWEB_CGI_INFODIR=c:\temp\PwsCgi\z
#
#######################################################
# The configuration keywords found in this paragraph are
# used to setup a PLB Rest Service. There can be up to
# 99 Rest Service definitions supported by the PWS server.
#
# Please note:
#   1. The ONLY PLB runtimes which can be used to execute
#      a Rest Service program are PLBWIN, PLBNET, or
#      PLB (Unix).
#
PLBWEB_REST_BASEURL01=MyServices/
PLBWEB_REST_CMDLINE01=c:\sunbelt\plbwebsrv.99A\code\restapi\plbwin.exe -ic:\sunbelt
\plbwebsrv.99A\code\restapi\plbwin_rest.ini -h %s %s
#
#######################################################
```

Plbwin

1. Create a subdirectory named 'restapi' in the 'c:\sunbelt\plbwebsrv.99A\code' directory. The
   'c:\sunbelt\plbwebsrv.99A\code\restapi' directory contains the RESTAPI demo programs,
   PLBWIN runtime, and supporting files.

     A. Copy the 'restapi_plbwin.zip' files into the 'c:\sunbelt\plbwebsrv.99A\code\restapi'
         directory.

2. A PLBWIN serialized for the customer must be moved into the 'c:\sunbelt\plbwebsrv.99A
   \code\restapi' directory. The demo configuration will allow the customer PLBWIN to
   execute a demo program 'phonemsg' or 'phonemsgdeb' via a RESTAPI service request from
   a client browser web page.

3. The 'c:\sunbelt\plbwebsrv.99A\code\restapi\plbwin_rest.ini' runtime INI file may need to be
   modified to use valid customer directories where the 9.9A PWS has been installed.

RestCli WebPages

1. The Sunbelt RestCli Web Pages, CSS, and Javascript is found in a zip file named
   'RestCli_WebPages.zip' file. Copy these files into any\some directory to be executed.

2. Edit the 'restsupp.js' JavaScript file and modify the source line as follows to use the URL\IP
   address that is the same as the 9.9A PWS Server configuration.

        var commAddr = "http://10.149.71.107:8081/MyServices/phonemsgdeb";

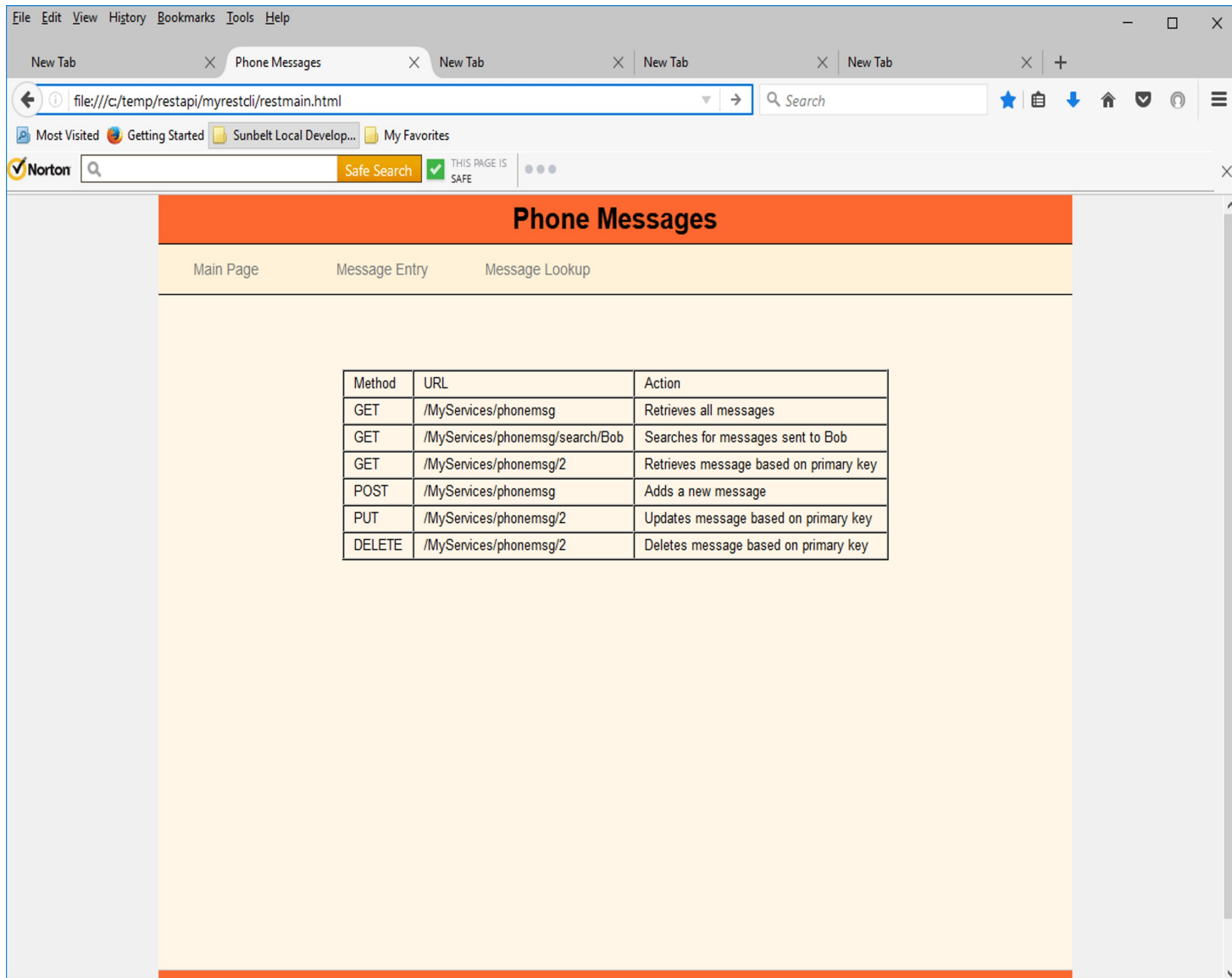**Steps to Run RESTAPI Demo Using Customer 9.9A PWS:**

1. Start 9.9A PWS Server.

2. Copy the 'RestCli_WebPages.zip' files into a customer directory like:
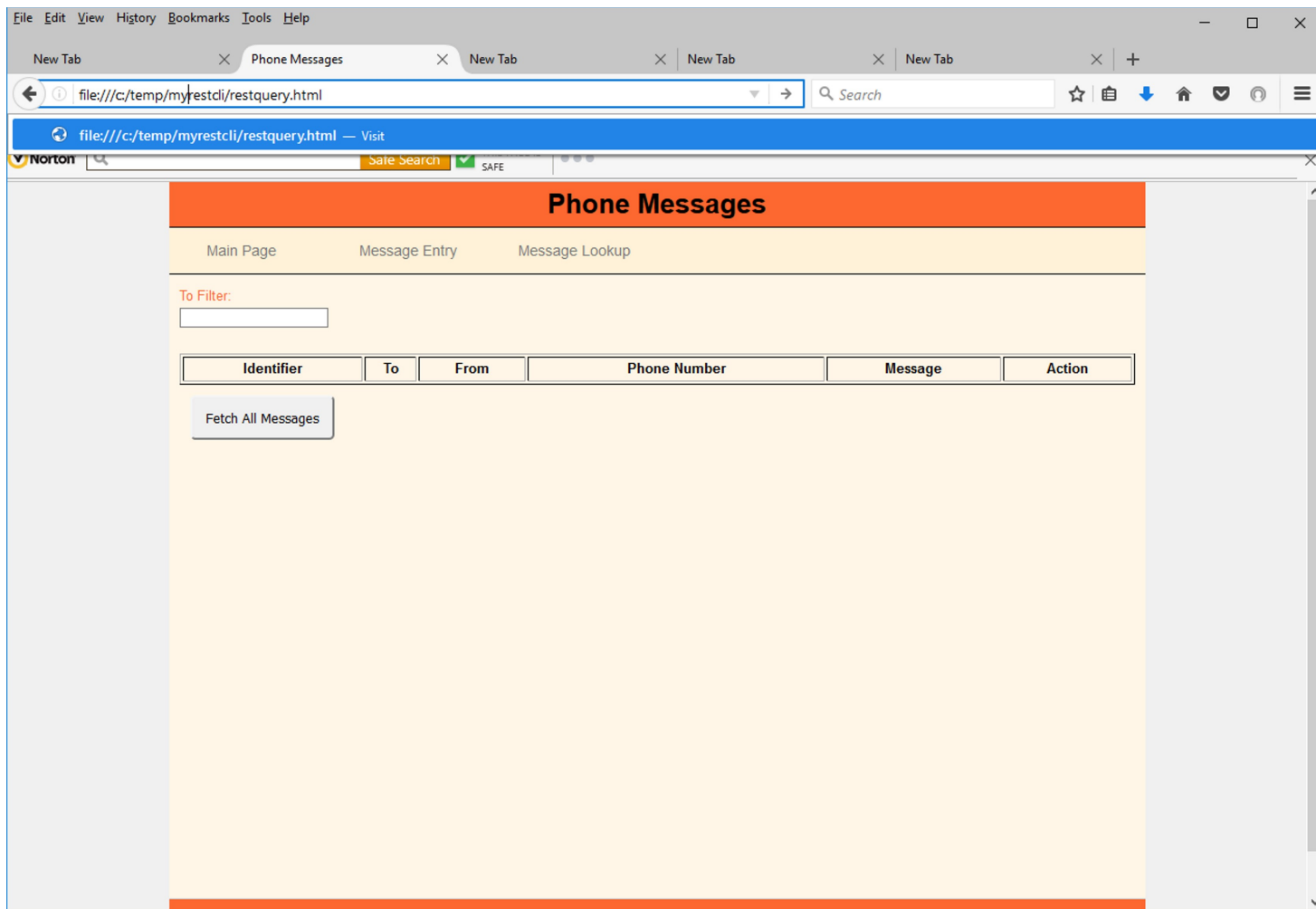
   C:\temp\myrestcli\

3. Using any Browser, enter and execute the URL command as follows:

   file:///c:/tempi/myrestcli/restmain.html

4. The Sunbelt RestCli Main Web Page Appears as follows:

5. Use Menu Items to select the 'Message Lookup'. Then click on 'Fetch All Messages' to see the following:

6. Various RestApi Service requests can be executed.

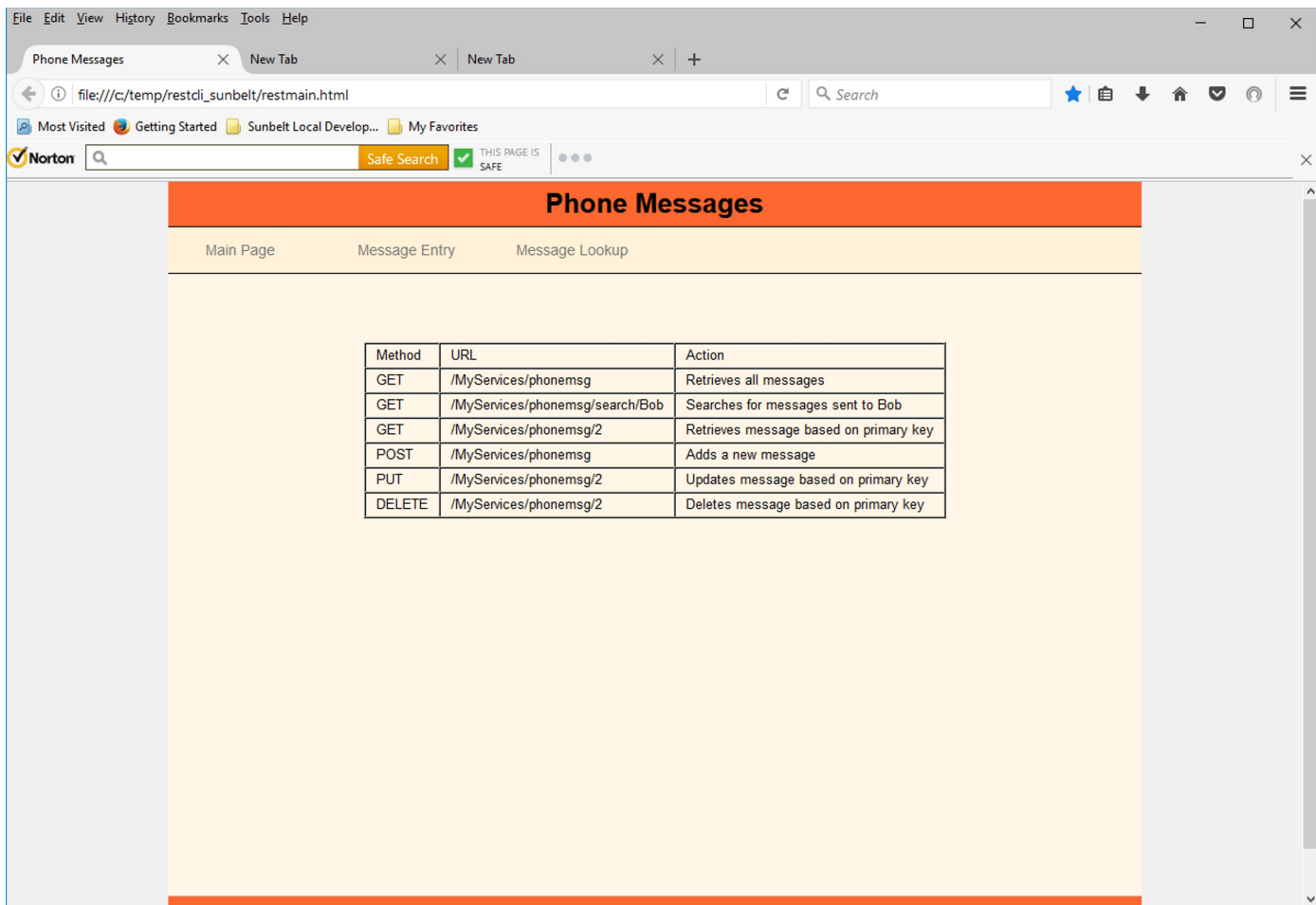**Steps to Run RESTAPI Demo Using Sunbelt Dallas Server:**

1. Copy the 'RestCli_Sunbelt_WebPages.zip' files into a customer directory like:
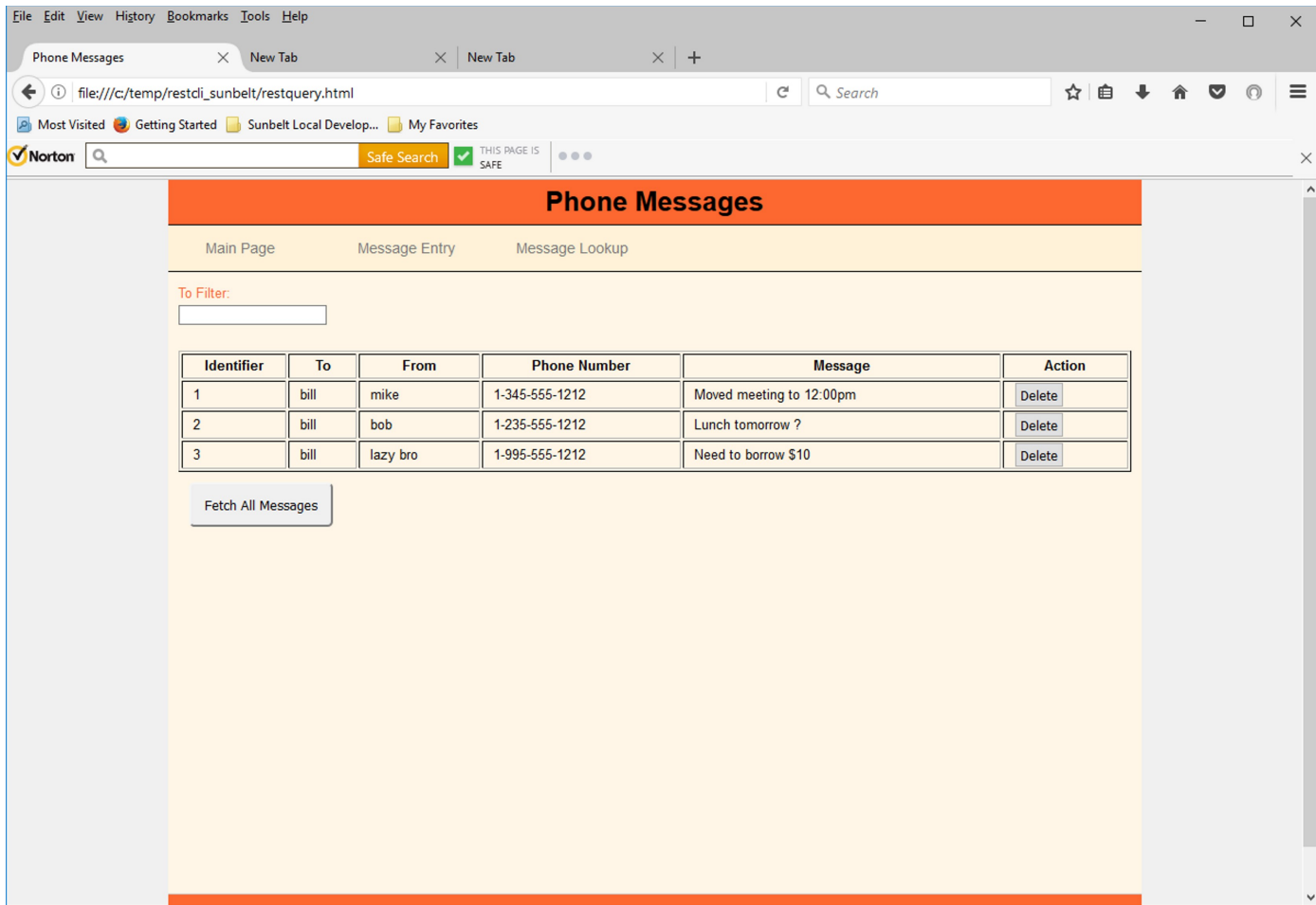
    C:\temp\restcli_sunbelt\

1. Using any Browser, enter and execute the URL command as follows:

    file:///c:/tempi/restcli_sunbelt/restmain.html

2. The Sunbelt RestCli Main Web Page Appears as follows:

Phone Messages

Main Page   Message Entry   Message Lookup

Method	URL	Action
GET	/MyServices/phonemsg	Retrieves all messages
GET	/MyServices/phonemsg/search/Bob	Searches for messages sent to Bob
GET	/MyServices/phonemsg/2	Retrieves message based on primary key
POST	/MyServices/phonemsg	Adds a new message
PUT	/MyServices/phonemsg/2	Updates message based on primary key
DELETE	/MyServices/phonemsg/2	Deletes message based on primary key

3. Use Menu Items to select the 'Message Lookup'. Then click on 'Fetch All Messages' to see the following:

4. Various RestApi Service requests can be executed.