

PhpWSAdmin

Version 2.1

Written by Scott Auge
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License:

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Table of Contents

Introduction:.....	4
Installation.....	5
Home Page.....	6
Help.....	7
About.....	8
The ubroker.properties File.....	9
The Admin Server.....	10
The Webspeed Brokers.....	14
Log Files.....	19
The Name Server.....	21
Database Definitions.....	24
Background Process Definitions.....	25
About Amduus™ Information Works, Inc.....	26
Programmer Notes.....	27
Change Log.....	27
Road Map.....	28

Introduction:

This program allows the user to manage the various components of a Webspeed installation on a UNIX based computer equipped with PHP and a web server.

One may be able to run the program on Windows by adjusting the system() calls found throughout the source code. If you do this, please send your changes along to sauge@amduus.com so they can be incorporated into the software.

The software acts as a replacement for the Progress Explorer, which is dependent on a Windows environment to run. The developer of phpWSAdmin uses Linux and Apple OS X, which makes use of the Progress Explorer “problematic.”

The software will allow you to perform the following from a web interface:

- Review the ubroker.properties file
- Start, Stop, and Query the Admin Server
- Start, Stop, and Query the Name Server
- Start, Stop, and Query the various Brokers
- Edit Broker definitions
- Create new Broker definitions
- View the Webspeed server and broker logs
- Start, Stop, and Query database servers
- Start, Stop, and Query background processes

Suggested software is PHP version 4.3 or better and Apache 1.3 or better. PHP was chosen because it runs independently of Webspeed. It is also available on many OS's (Linux, OS X, Solaris, HPUNIX, Windows, etc.) making this software available on many types of OS's.

Support for the program is available for a fee of \$50¹ for five incidents worth of questions. Installation of Apache or PHP requires local/remote access to the server hardware with root permissions.

Webspeed installation is NOT part of the package, but can be done for a negotiated fee.

For programming and consulting services, please see the end of this book.

¹ Subject to change.

Installation

Attention: This has only been tested against Webspeed 3.x (Progress Version 9) implementations. This will NOT work on Webspeed 2.x versions. It is unknown if it will work on Open Edge 10.

Once Apache and PHP have been installed and configured, installation of this software is easy. (Don't let Apache and PHP installation scare you either – most of the time it is about seven commands and done.)

You will need to set `register_globals=on` in your `php.ini` file. In future versions there will be updates to allow you to set these to off, provided anyone but me actually uses the software!

You will need to run the web server as a user or group who has permissions to execute the various `$DLC/bin` commands.

Amduus distributes the software in a ZIP file format. It is named `phpwsadmin.yyyydddhmm.zip` where:

- `yyyy` represents the build's year
- `ddd` represents the builds day (1-365)
- `hh` represents the build's hour
- `mm` represents the build's minute

This naming convention lets you know which builds are the latest and greatest.

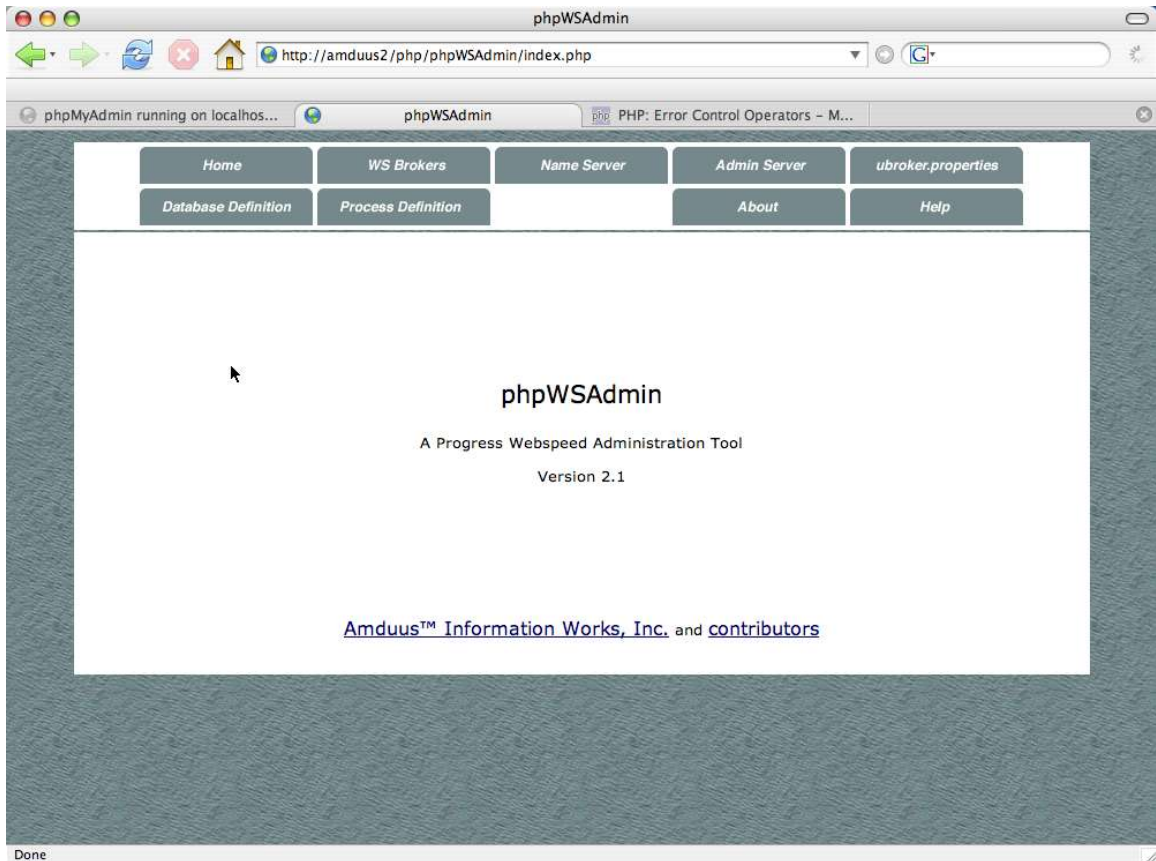
Merely unzip the file into one of the document directories of your web server. You may want to edit the `.htaccess` file or web server folder permissions to password protect access to this directory. `PhpWSAdmin` has some password oriented authentication to make changes, but not to prevent viewing or execution.

Edit the `config.php` file to locate your installation of Progress. The `config.php` file also includes a directory entry where temporary files should be stored. See the comments in the `config.php` file for more information.

Once this is done, you should be able to point a web browser at the machine and virtual directory set up at `index.php`. From there, the following instructions apply... .

Home Page

Should this page come up, it means you have configured Apache and PHP correctly!



From here, you can click on the tab menu at the top to reach the various portions of the application.

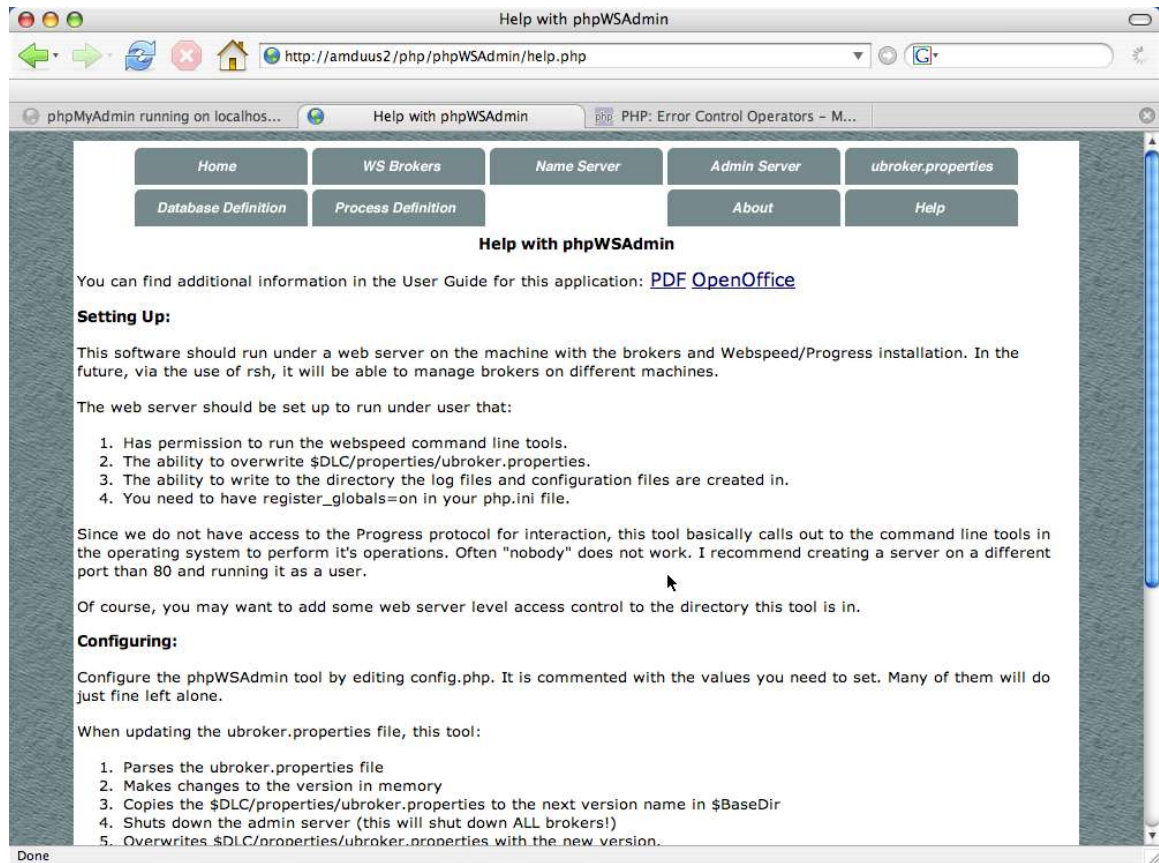
WS Brokers allows you to administer the brokers on that machine.

Name Server allows you to administer the default name server on a Webspeed installation (namely, NS1.)

Admin Server allows you to administer the administer server provided by Progress.

Ubroker.properties is a straight dump of the \$DLC/properties/ubroker.properties file to the web page.

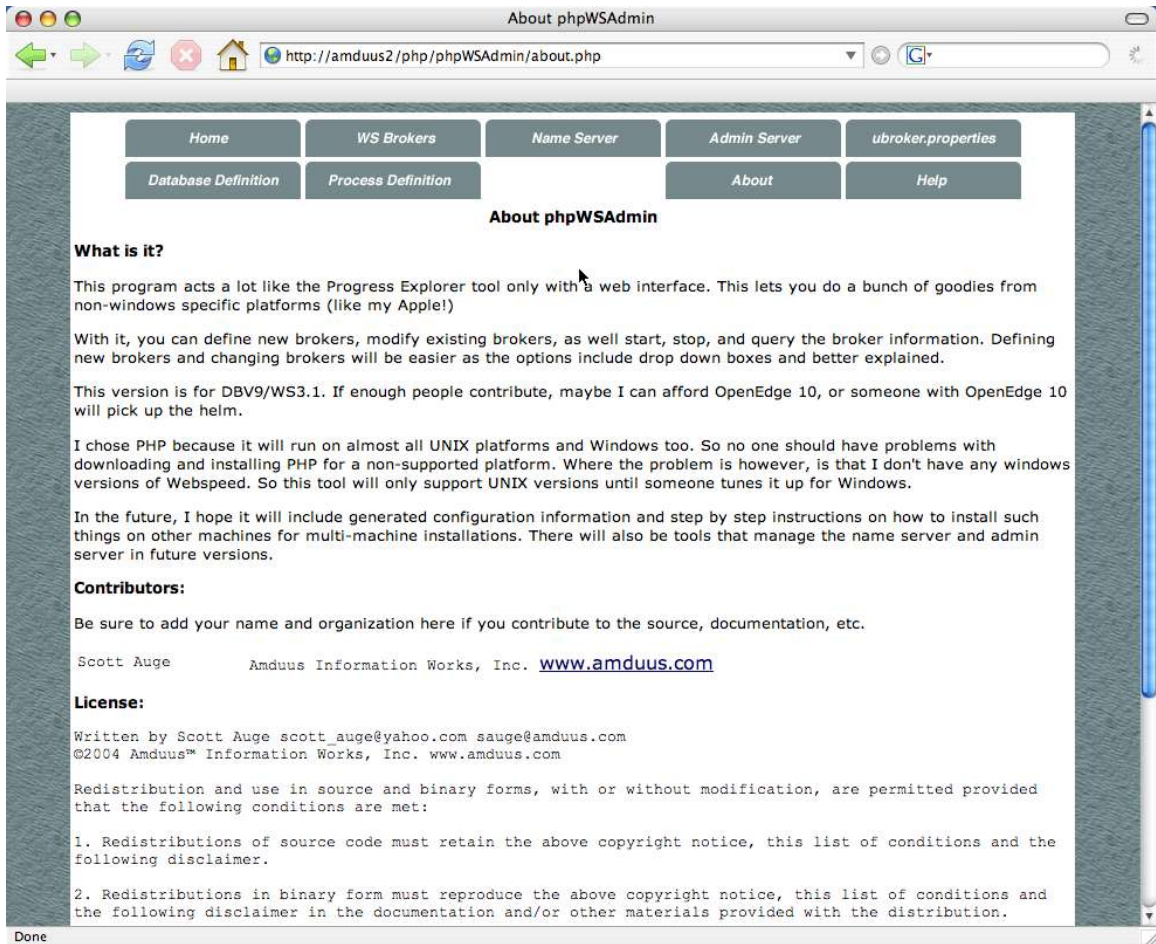
Help



This page provides some basic help. It was this document before this document existed!

It is meant as a refresher or a starting point as it points to this document.

About

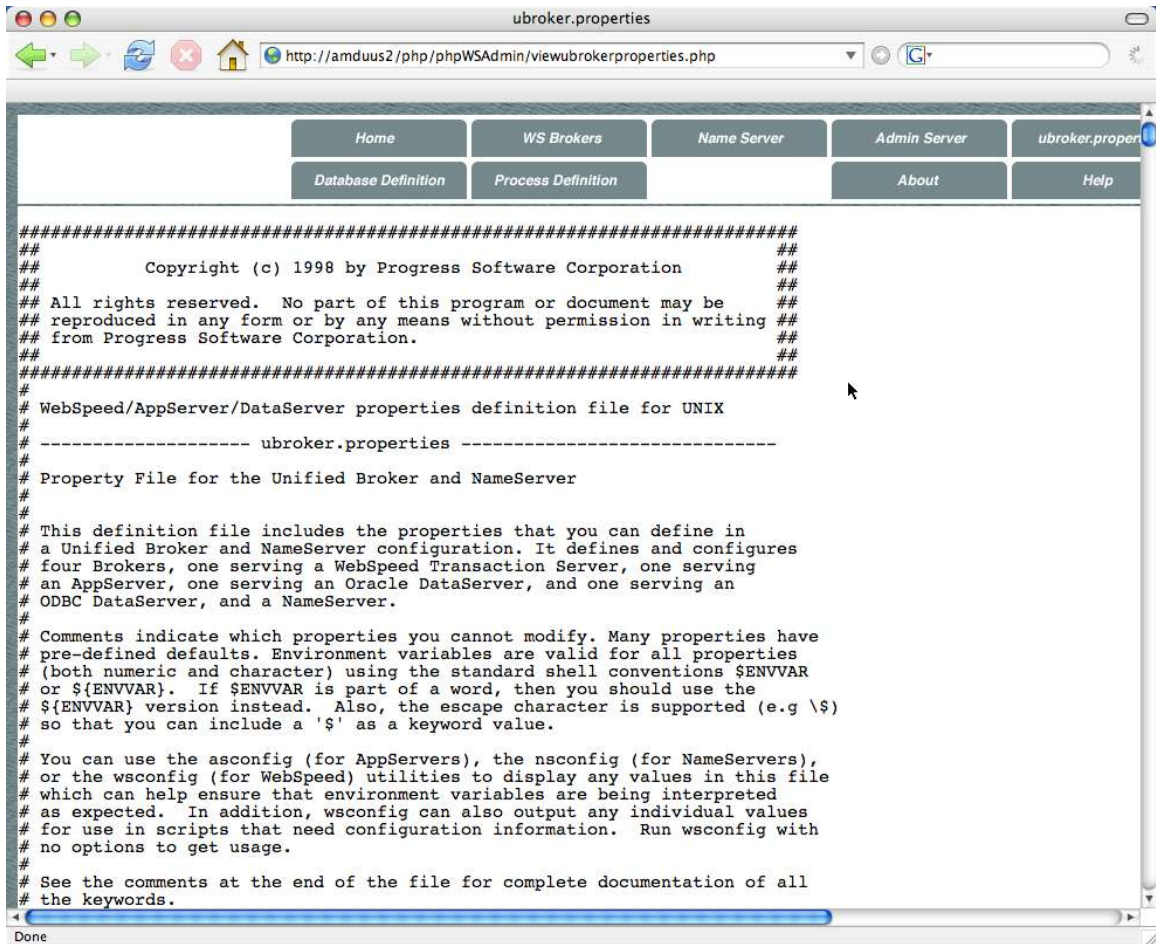


This page describes what the application does.

It also includes a list of contributors. When you contribute you some code or documentation to the tool, I will add your name, company, and URL to this page. It is a good way to get name recognition in the community.

The license information is also displayed here. It is the BSD Open Source license.

The ubroker.properties File

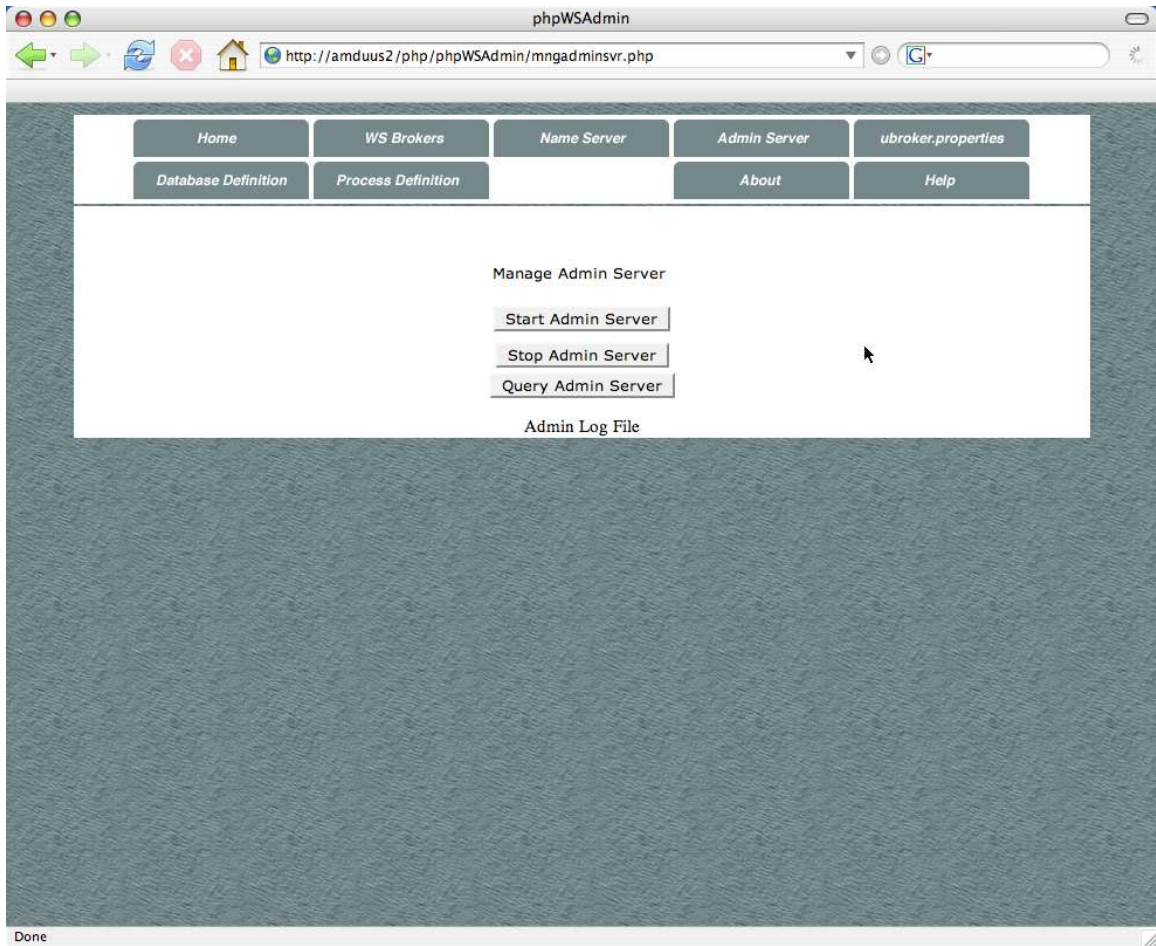


The screenshot shows a web browser window with the title "ubroker.properties". The address bar displays the URL "http://amduus2/php/phpWSAdmin/viewubrokerproperties.php". The browser's navigation bar includes buttons for "Home", "WS Brokers", "Name Server", "Admin Server", and "ubroker.properties". Below these are buttons for "Database Definition", "Process Definition", "About", and "Help". The main content area displays the text of the "ubroker.properties" file, which is a configuration file for the Unified Broker and NameServer. The text includes copyright information for Progress Software Corporation (1998), a disclaimer of liability, and detailed instructions on how to use the file, including the use of environment variables and the "wsconfig" utility. The text is formatted with comments and pre-defined defaults.

```
#####  
##  
##      Copyright (c) 1998 by Progress Software Corporation      ##  
##  
## All rights reserved. No part of this program or document may be ##  
## reproduced in any form or by any means without permission in writing ##  
## from Progress Software Corporation. ##  
##  
#####  
#  
# WebSpeed/AppServer/DataServer properties definition file for UNIX  
#  
# ----- ubroker.properties -----  
#  
# Property File for the Unified Broker and NameServer  
#  
# This definition file includes the properties that you can define in  
# a Unified Broker and NameServer configuration. It defines and configures  
# four Brokers, one serving a WebSpeed Transaction Server, one serving  
# an AppServer, one serving an Oracle DataServer, and one serving an  
# ODBC DataServer, and a NameServer.  
#  
# Comments indicate which properties you cannot modify. Many properties have  
# pre-defined defaults. Environment variables are valid for all properties  
# (both numeric and character) using the standard shell conventions $ENVVVAR  
# or ${ENVVVAR}. If $ENVVVAR is part of a word, then you should use the  
# ${ENVVVAR} version instead. Also, the escape character is supported (e.g \ $)  
# so that you can include a '$' as a keyword value.  
#  
# You can use the asconfig (for AppServers), the nsconfig (for NameServers),  
# or the wsconfig (for WebSpeed) utilities to display any values in this file  
# which can help ensure that environment variables are being interpreted  
# as expected. In addition, wsconfig can also output any individual values  
# for use in scripts that need configuration information. Run wsconfig with  
# no options to get usage.  
#  
# See the comments at the end of the file for complete documentation of all  
# the keywords.
```

This page allows you to review the ubroker.properties file directly from the \$DLC/properties directory. I find it useful to review the properties file when planning changes or figuring out “what happened?” scenerios.

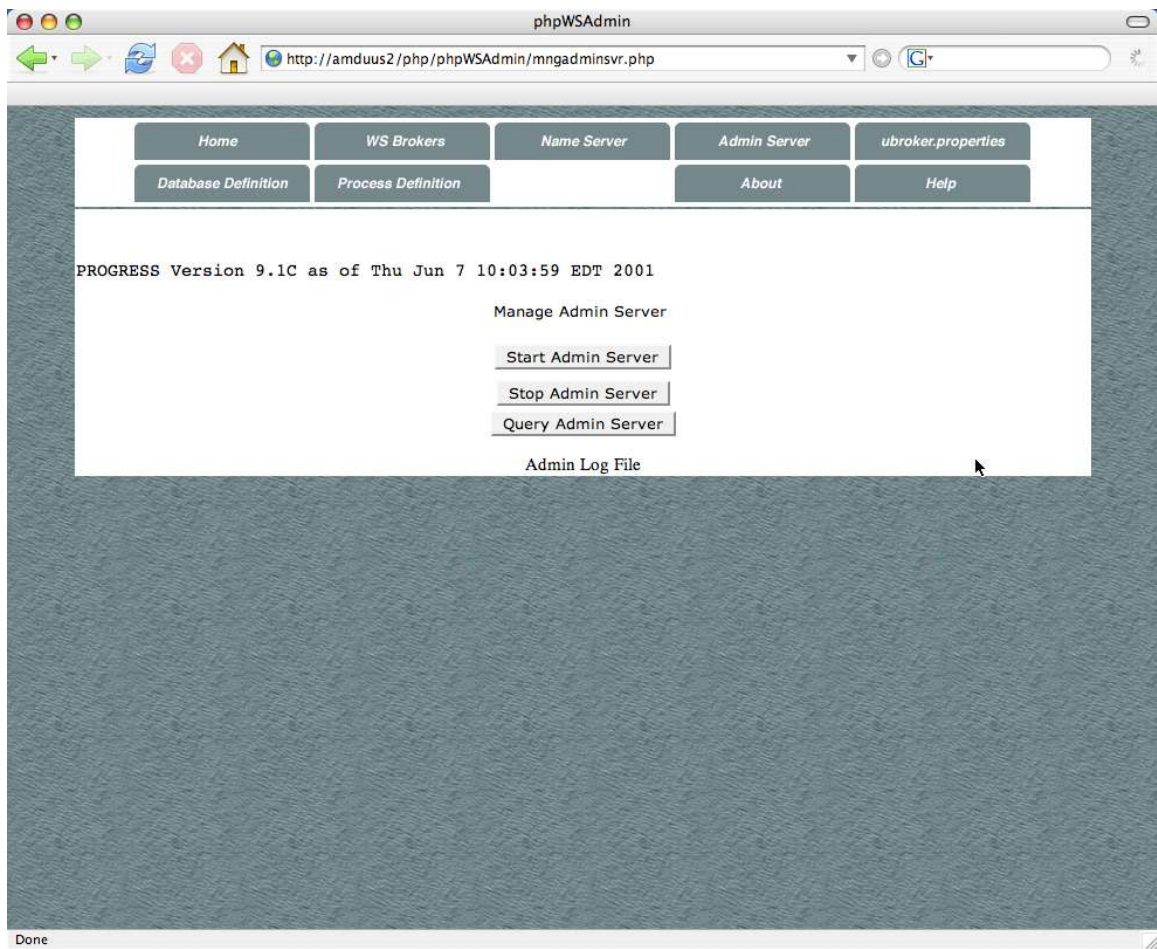
The Admin Server



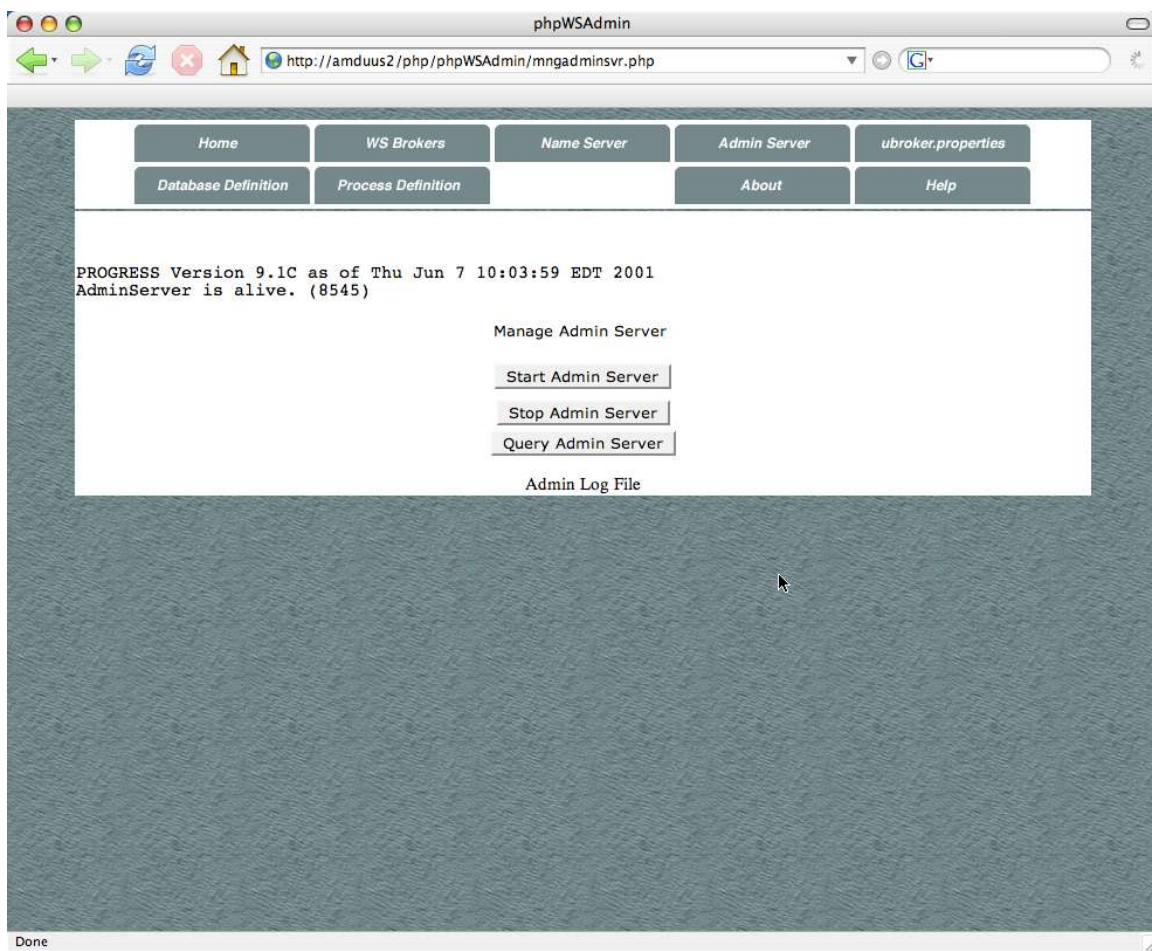
The admin server is the heart of the Webspeed architecture when it comes to controlling the various parts of it.

This is the tool that the Progress Explorer connects to, and the various command line tools use to communicate with the Progress processes making up the Webspeed architecture.

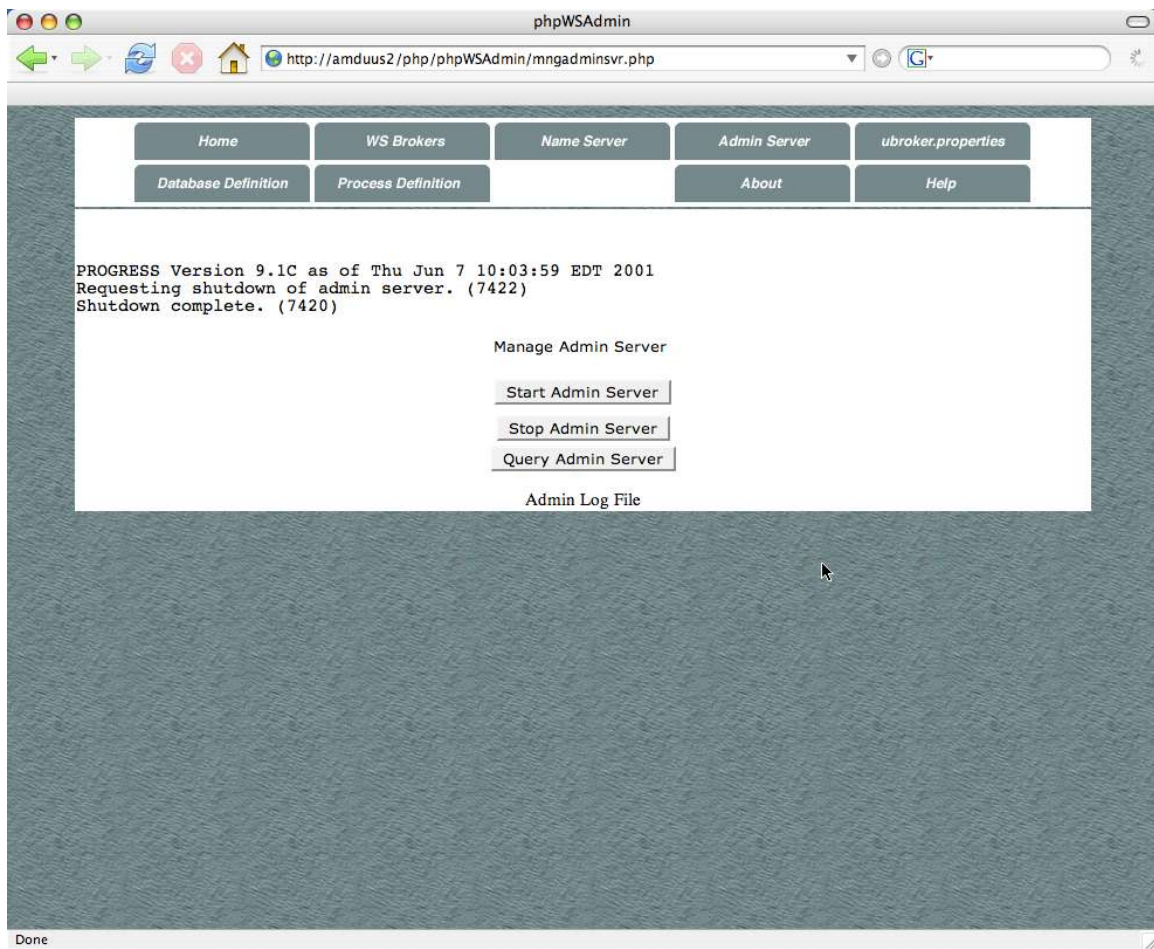
This is the first thing you should turn on when starting up Progress, and the last thing you shut down.



The above screen is the result when you get a good start up from the admin server.



To further verify the admin server is running, you can click the “Query Admin Server” button and you should get the result shown above.



When you want to do a complete shutdown of Webspeed, click the “Stop Admin Server” button. The above will show a good shutdown of the processes.

Note that when you shut down the admin server, the brokers usually go down also.

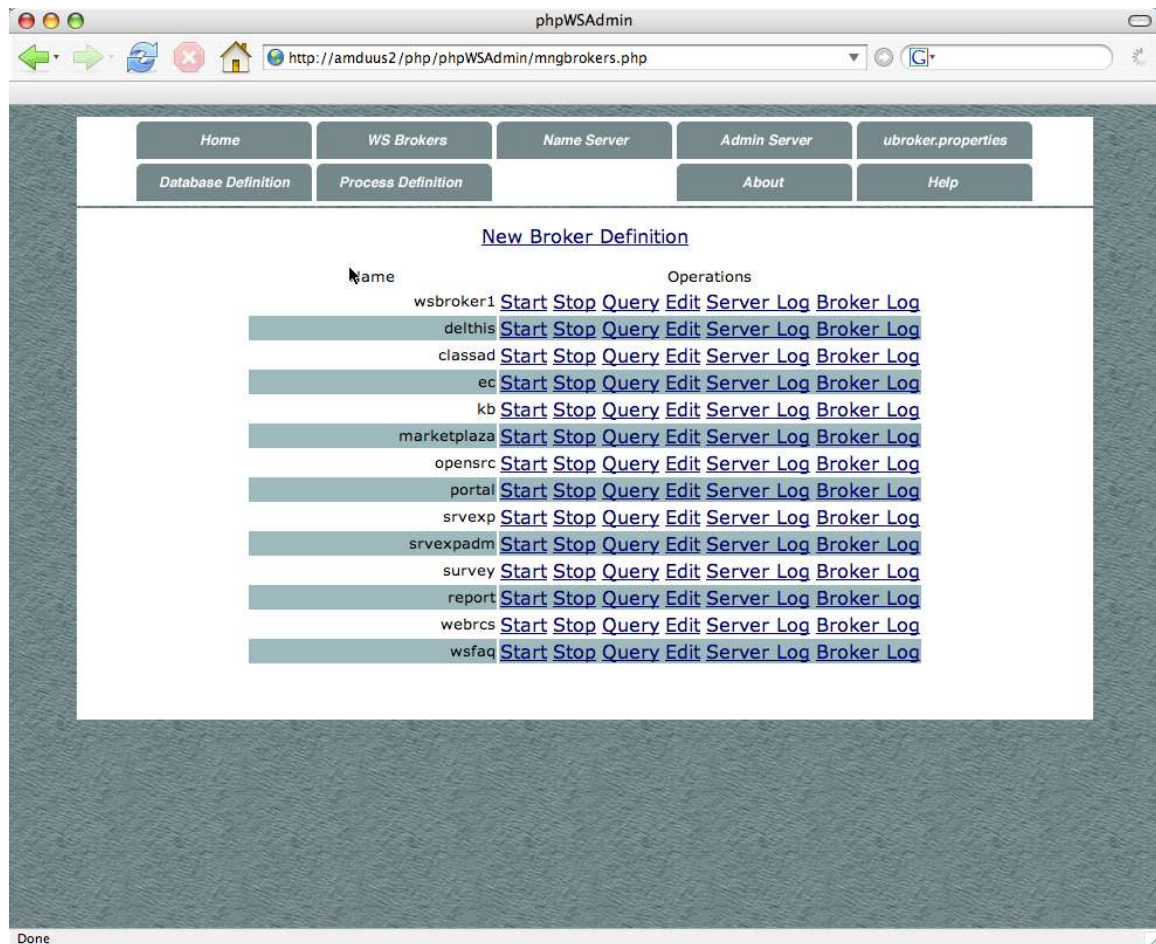
So do not shutdown the admin server if you do not wish to interrupt the Webspeed applications you have running.

This does NOT effect the database processes or background processes you may have started with this tool.

The Webspeed Brokers

It is important to note this tool works with an existing ubroker.properties file. You need the original to use this tool.

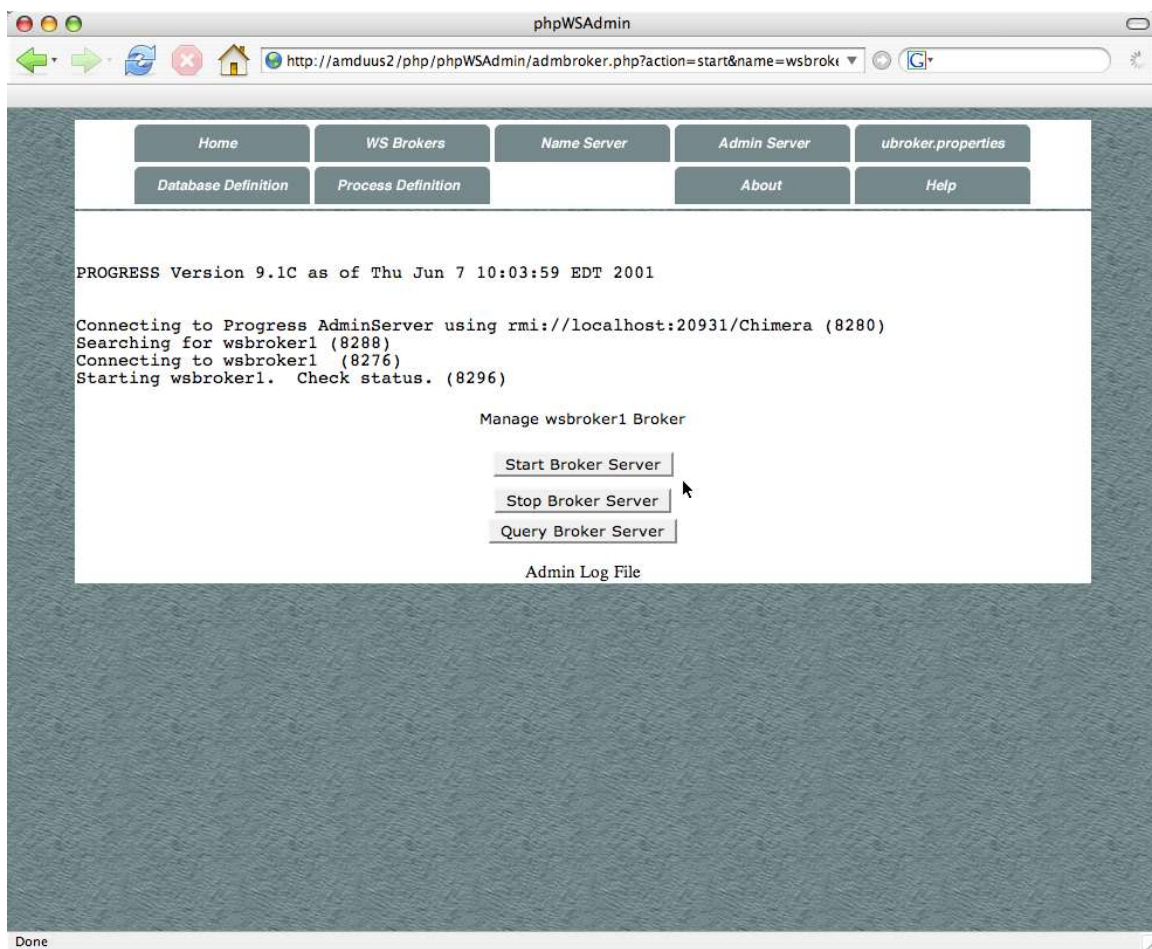
It will allow you to modify it, but it does not create a new “from scratch” file.



Clicking on the “WS Brokers” tab will bring up all the currently defined brokers. From here you can click on the appropriate link to start, stop, and query the brokers.

It also includes a link that will allow you to edit the configurations for the

broker as well links to the broker and server logs for that configuration.



Clicking the start link will bring you to this page.

You can see from the above illustration what a good start up of the broker looks like.

It includes buttons allowing you to shutdown, query, and start the broker in case you are trouble shooting.

The screenshot shows a web browser window titled 'phpWSAdmin' with the URL 'http://amduus2/php/phpWSAdmin/admbroker.php?action=start&name='. The interface has a navigation bar with buttons: Home, WS Brokers, Name Server, Admin Server, ubroker.properties, Database Definition, Process Definition, About, and Help. The main content area displays the following information:

```

PROGRESS Version 9.1C as of Thu Jun 7 10:03:59 EDT 2001

Connecting to Progress AdminServer using rmi://localhost:20931/Chimera (8280)
Searching for wsbroker1 (8288)
Connecting to wsbroker1 (8276)

Broker Name           : wsbroker1
Operating Mode        : Stateless
Broker Status         : ACTIVE
Broker Port           : 3055
Broker PID            : 12058
Active Agents         : 5
Busy Agents           : 0
Locked Agents         : 0
Active Agents         : 5
Active Clients (now, peak) : (0, 0)
Client Queue Depth (cur, max) : (0, 0)
Total Requests        : 0
Rq Wait (max, avg)    : (0 ms, 0 ms)
Rq Duration (max, avg) : (0 ms, 0 ms)

PID  State      Port  nRq  nRcvd  nSent  Started      Last Change
12129 AVAILABLE 03202 000000 000000 000000 Dec 29, 2004 18:34 Dec 29, 2004 18:34
12136 AVAILABLE 03203 000000 000000 000000 Dec 29, 2004 18:34 Dec 29, 2004 18:34
12139 AVAILABLE 03204 000000 000000 000000 Dec 29, 2004 18:34 Dec 29, 2004 18:34
12142 AVAILABLE 03205 000000 000000 000000 Dec 29, 2004 18:34 Dec 29, 2004 18:34
12202 AVAILABLE 03206 000000 000000 000000 Dec 29, 2004 18:34 Dec 29, 2004 18:34
  
```

Below the table, there is a section titled 'Manage wsbroker1 Broker' with three buttons: 'Start Broker Server', 'Stop Broker Server', and 'Query Broker Server'. At the bottom, there is a link for 'Admin Log File'.

The above is an example query on the broker. As you can see it returns some information that can be useful.

phpWSAdmin

http://amduus2/php/phpWSAdmin/editbroker.php?Action=Read&name=

Home WS Brokers Name Server Admin Server ubroker.properties

Database Definition Process Definition About Help

Authentication:

srvrStartupParam

uuid

srvrLogFile

controllingNameServer

brokerLogFile

environment

userName

groupName

appserviceNameList

description

portNumber

Submit

If you wish to make major modifications to a broker definition that does not have all the attributes, you may want to create a new definition with what you want with the same name, thereby replacing the old one.

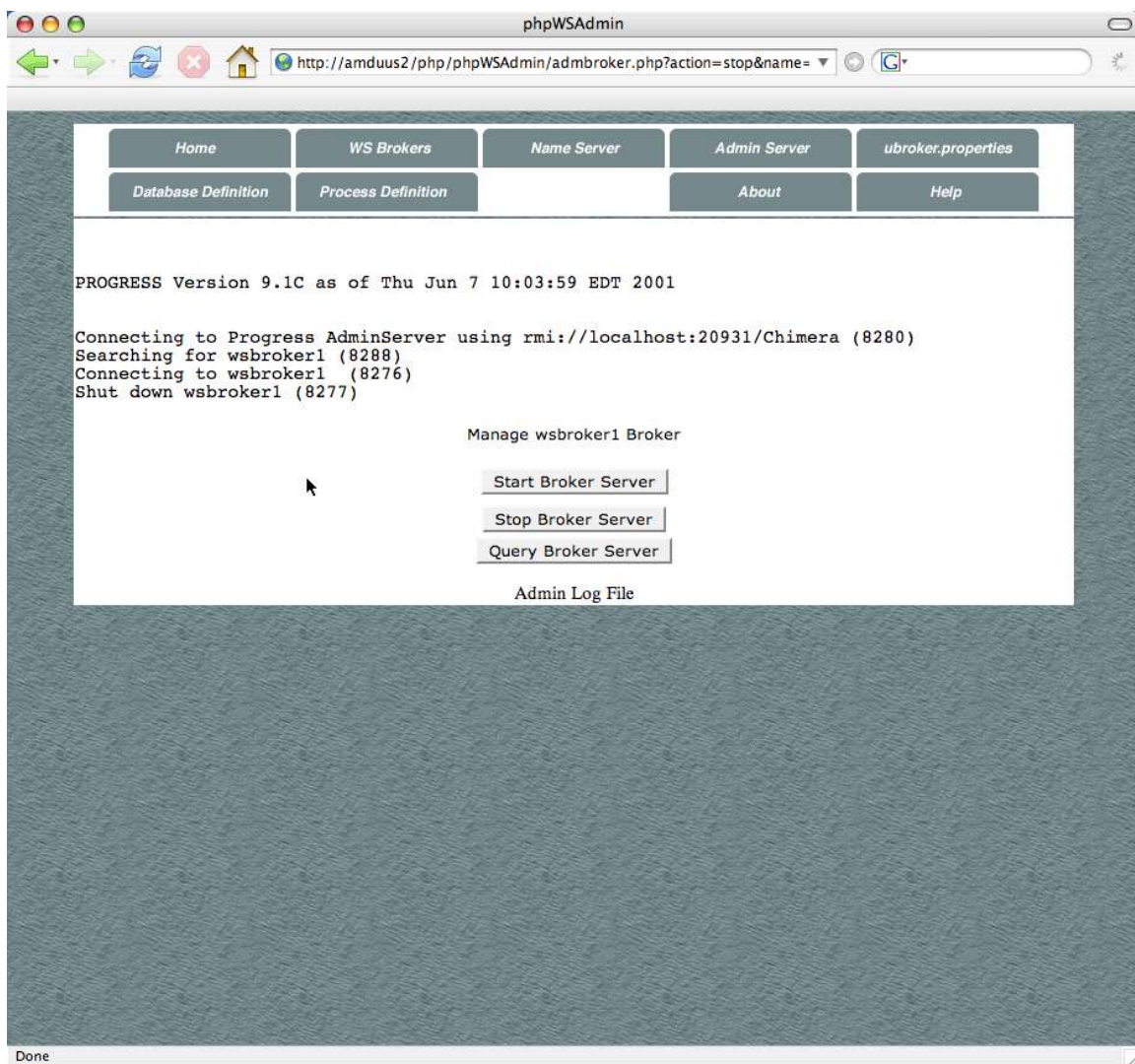
(The appServiceNameList is the name of the broker!)

Done

The above is the editing of that broker. Note that in order to commit the changes, you will need to enter an Authentication code. If that code does not match the value set in config.php, a pop-up will appear telling the user so and the values will be reset to those in the ubroker.properties file.

If you need all the available fields, you should delete the broker (after remembering the particulars!!!) and create a New broker.

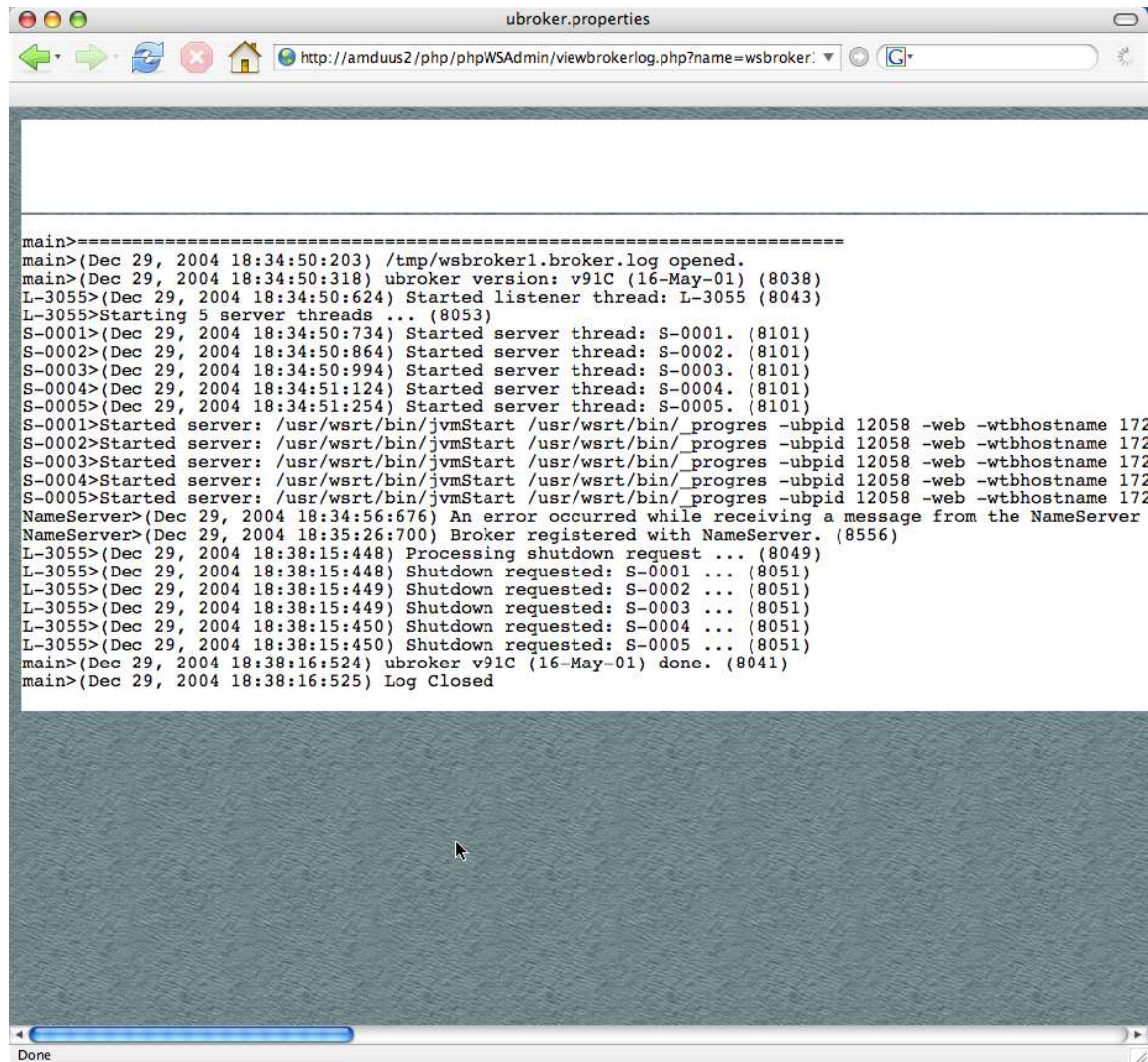
Note when you make changes to the file via this tool, it does reorganize the file a bit.



This is what the page looks like on a good shutdown of the broker.

Log Files

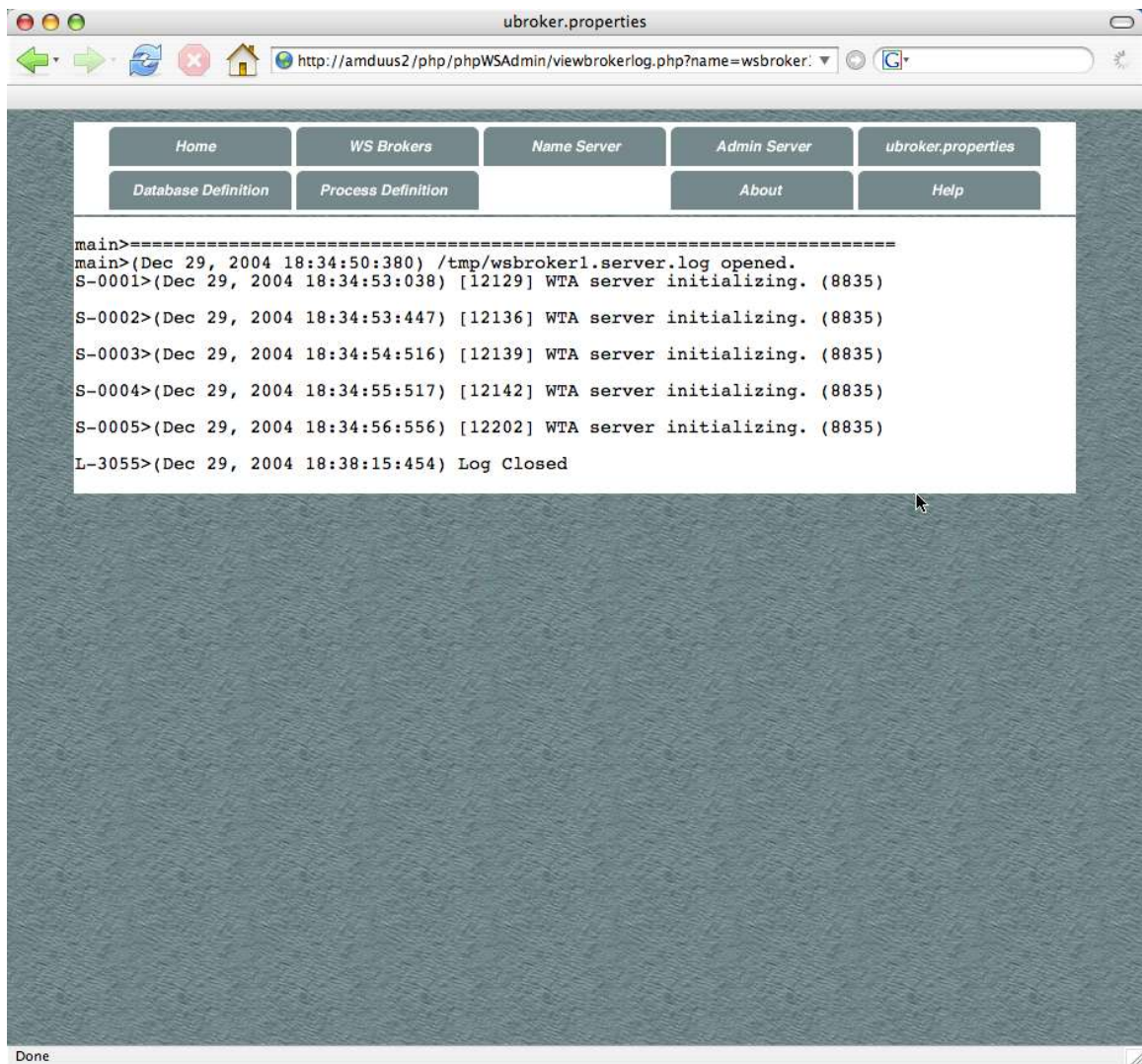
One of the useful functions for programmers and for troubleshooters is the ability to view the log files for the brokers.



```
main>=====
main>(Dec 29, 2004 18:34:50:203) /tmp/wsbroker1.broker.log opened.
main>(Dec 29, 2004 18:34:50:318) ubroker version: v91C (16-May-01) (8038)
L-3055>(Dec 29, 2004 18:34:50:624) Started listener thread: L-3055 (8043)
L-3055>Starting 5 server threads ... (8053)
S-0001>(Dec 29, 2004 18:34:50:734) Started server thread: S-0001. (8101)
S-0002>(Dec 29, 2004 18:34:50:864) Started server thread: S-0002. (8101)
S-0003>(Dec 29, 2004 18:34:50:994) Started server thread: S-0003. (8101)
S-0004>(Dec 29, 2004 18:34:51:124) Started server thread: S-0004. (8101)
S-0005>(Dec 29, 2004 18:34:51:254) Started server thread: S-0005. (8101)
S-0001>Started server: /usr/wsr/b/bin/jvmStart /usr/wsr/b/bin/_progres -ubpid 12058 -web -wtbhostname 172
S-0002>Started server: /usr/wsr/b/bin/jvmStart /usr/wsr/b/bin/_progres -ubpid 12058 -web -wtbhostname 172
S-0003>Started server: /usr/wsr/b/bin/jvmStart /usr/wsr/b/bin/_progres -ubpid 12058 -web -wtbhostname 172
S-0004>Started server: /usr/wsr/b/bin/jvmStart /usr/wsr/b/bin/_progres -ubpid 12058 -web -wtbhostname 172
S-0005>Started server: /usr/wsr/b/bin/jvmStart /usr/wsr/b/bin/_progres -ubpid 12058 -web -wtbhostname 172
NameServer>(Dec 29, 2004 18:34:56:676) An error occurred while receiving a message from the NameServer
NameServer>(Dec 29, 2004 18:35:26:700) Broker registered with NameServer. (8556)
L-3055>(Dec 29, 2004 18:38:15:448) Processing shutdown request ... (8049)
L-3055>(Dec 29, 2004 18:38:15:448) Shutdown requested: S-0001 ... (8051)
L-3055>(Dec 29, 2004 18:38:15:449) Shutdown requested: S-0002 ... (8051)
L-3055>(Dec 29, 2004 18:38:15:449) Shutdown requested: S-0003 ... (8051)
L-3055>(Dec 29, 2004 18:38:15:450) Shutdown requested: S-0004 ... (8051)
L-3055>(Dec 29, 2004 18:38:15:450) Shutdown requested: S-0005 ... (8051)
main>(Dec 29, 2004 18:38:16:524) ubroker v91C (16-May-01) done. (8041)
main>(Dec 29, 2004 18:38:16:525) Log Closed
```

The broker log file

Note in the broker log, that the lines are not wrapped.

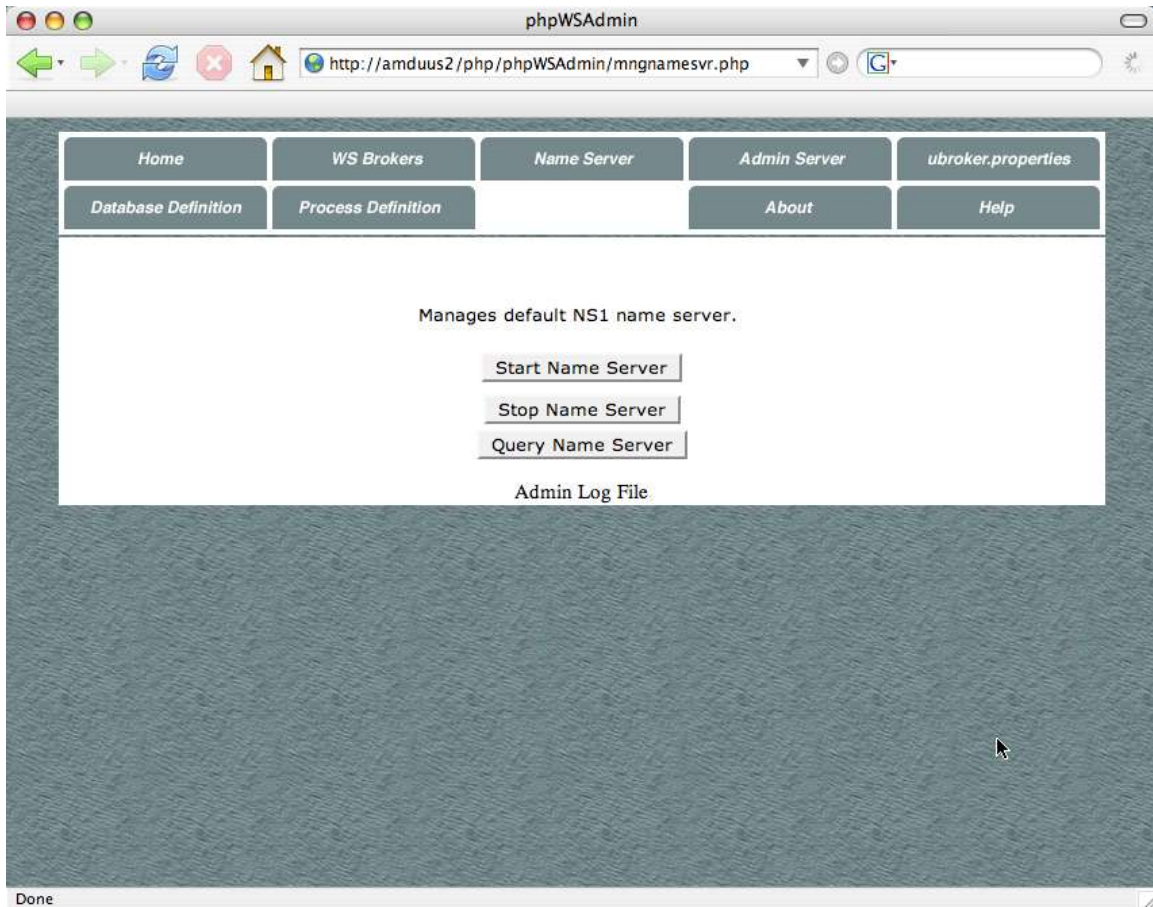


The server log file

The default configuration is to show only the last 50 lines of the log files. You can change that configuration in the config.php file.

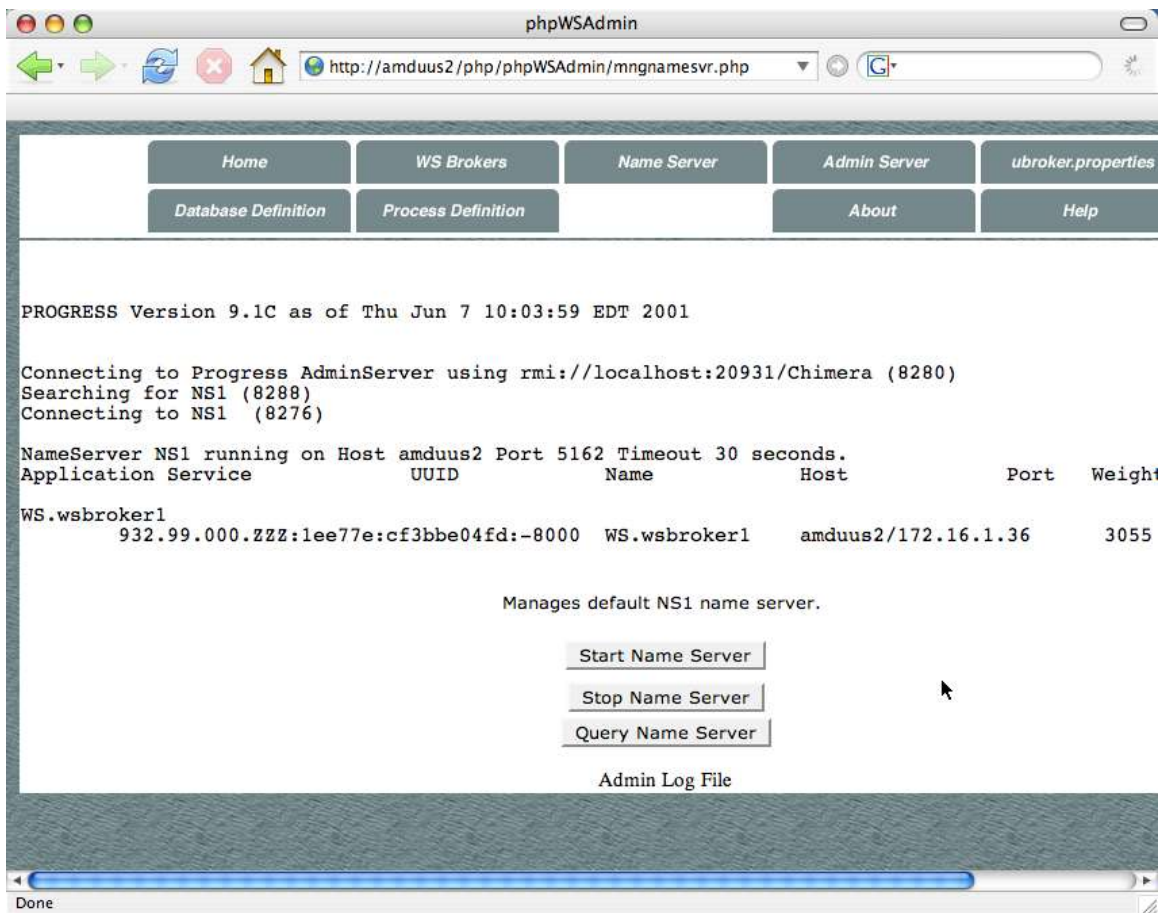
The Name Server

The name server portion of Webspeed helps various components find each other over the network.

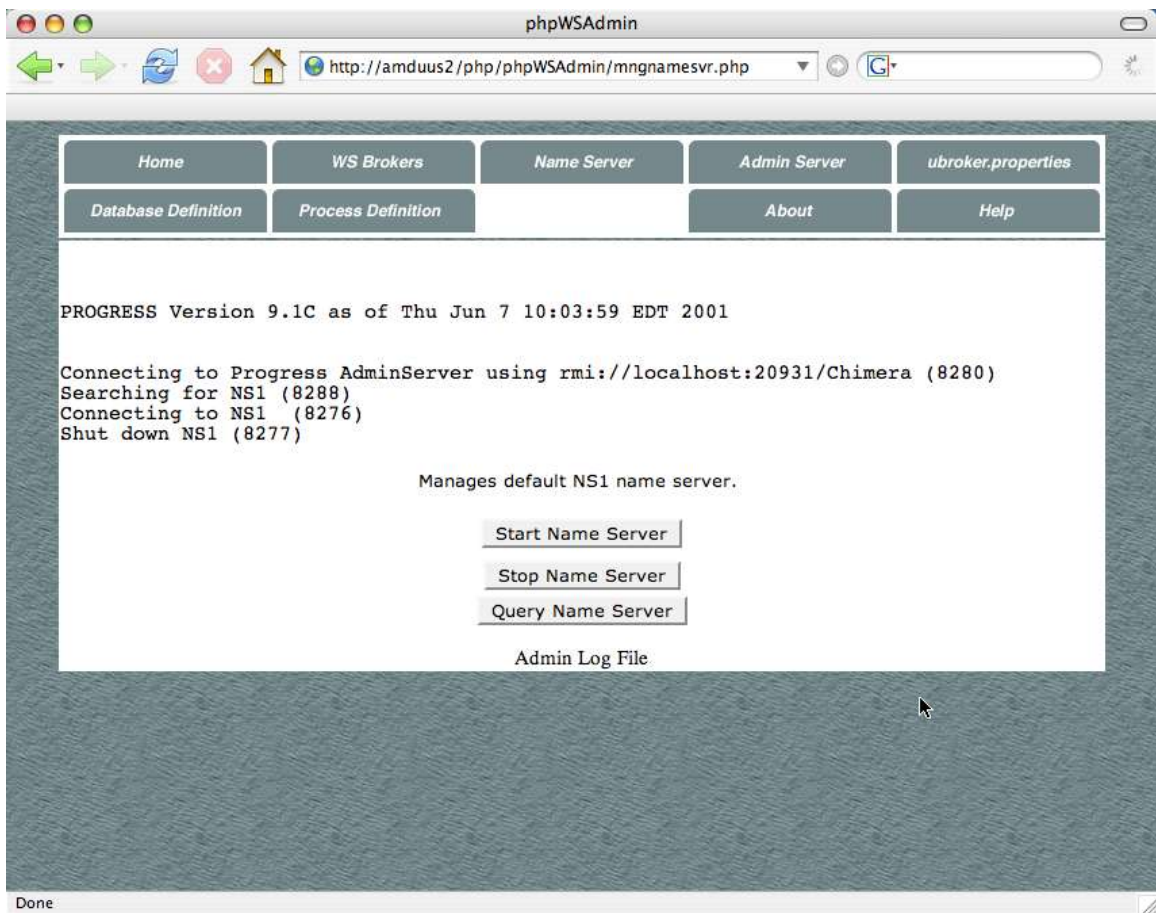


While you can have multiple name servers, at the moment the tool works with the default defined name server NS1.

Clicking on “Start Name Server” will start up the name server. This is usually automatically started with the admin server, unless you have configured it to not start automatically.



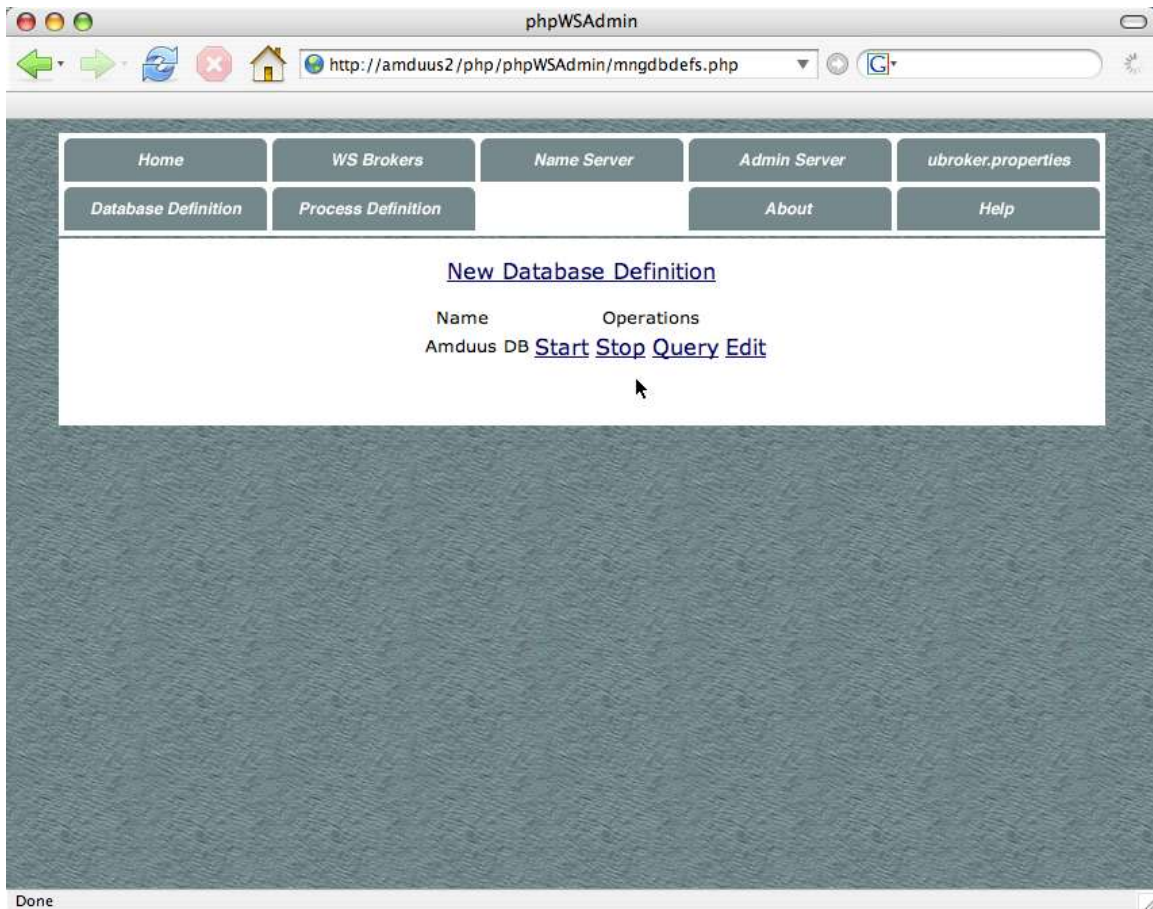
The above is an example query of the name server. You can see one broker registered with the server, as well the particulars of that broker.



A clean shut down of the name server appears in the above illustration.

Database Definitions

As of phpWSAdmin 2.1 you can start, stop, and query your database processes running on the same machine as the web server. You will likely want to create scripts for each of these activities and then reference those scripts in the database definition screen.



Lets begin by creating the above listed database definition. One would click on the “New Database Definition” link to receive the page following:

The screenshot shows a web browser window titled 'phpWSAdmin'. The address bar contains the URL 'http://amduus2/php/phpWSAdmin/editdbdef.php?Action='. The page has a navigation bar with buttons: Home, WS Brokers, Name Server, Admin Server, ubroker.properties, Database Definition, Process Definition, About, and Help. The main content area is titled 'Database Definition' and contains a form with the following fields:

Authentication:	amduus
Name	Amduus DB
StartScript	/db/amduus/script/startdb.ksh
StopScript	/db/amduus/script/stopdb.ksh
QueryScript	ps -efw grep pro grep amduus grep -v grep
Notes	N/A

Below the form is a 'Submit' button. At the bottom of the form area, there is a note: 'If you wish to make major modifications to a DB definition that does not have all the attributes, you may want to create a new definition with what you want with the same name, thereby replacing the old one.'

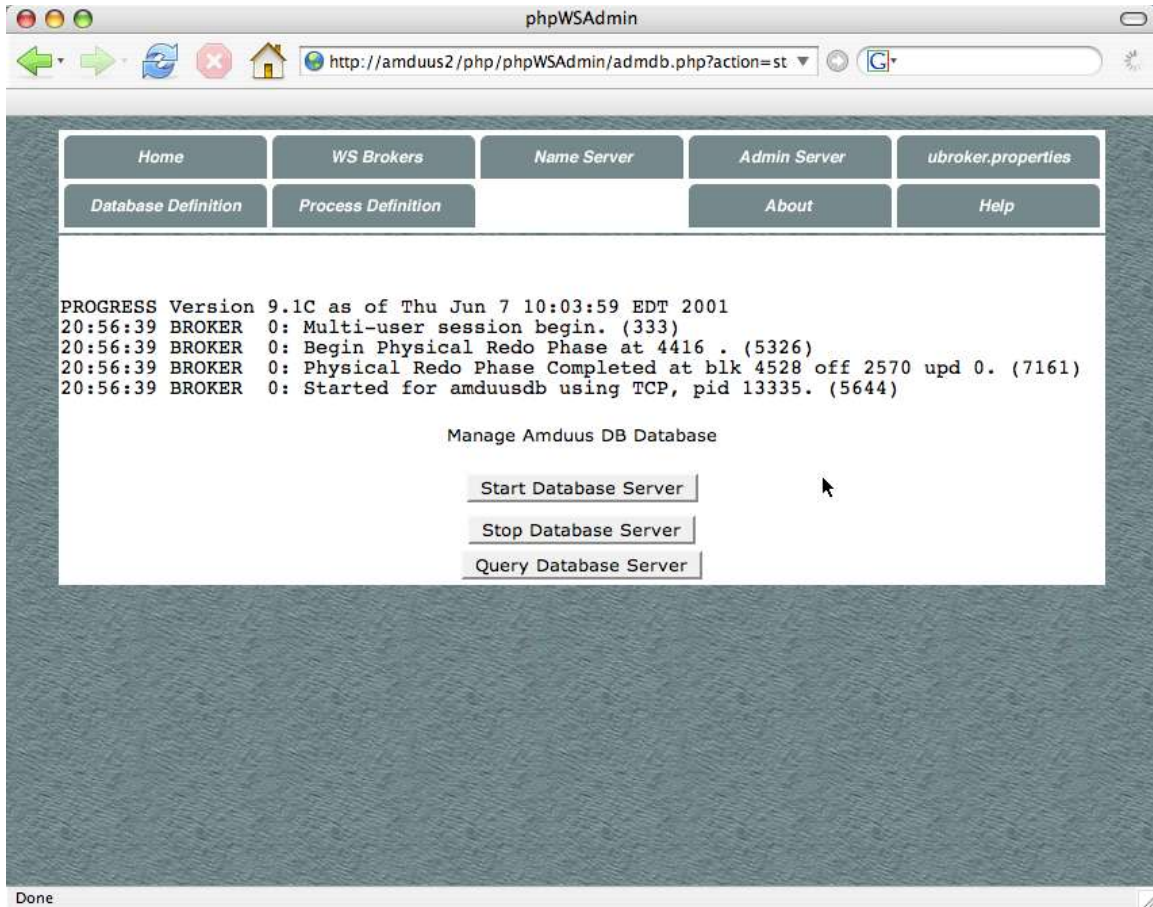
Since this is editing a database definition, you will need to enter the authentication value found in the config.php file.

Next you name the database uniquely. The name really has nothing to do with the database name it's self.

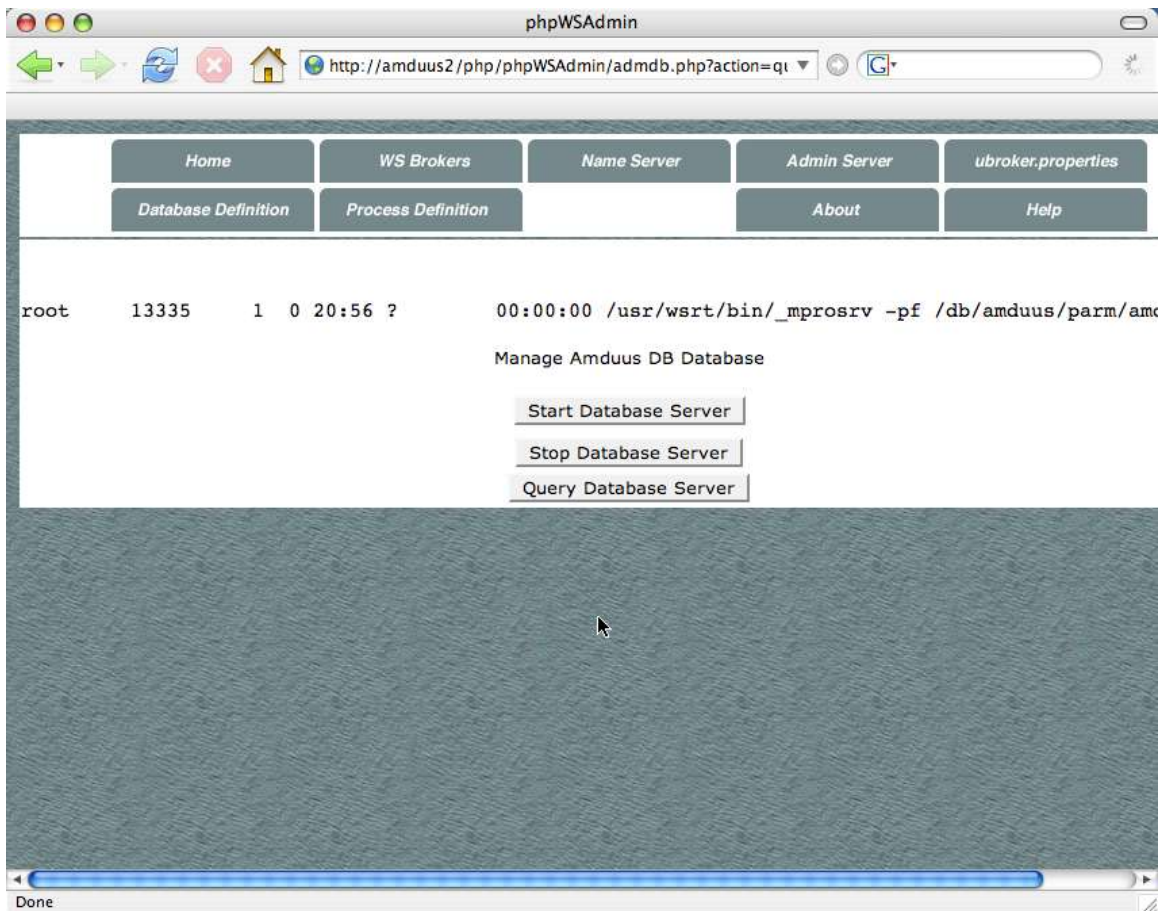
This tool really executes scripts and the like to start and stop the database. I do this because I know from experience different things need to happen when a database goes up and down (such as a web page stating the database is under maintenance or the like.)

There is an opening for a start, stop, and query script. Note that you can enter shell commands directly as I have with the query script shown above.

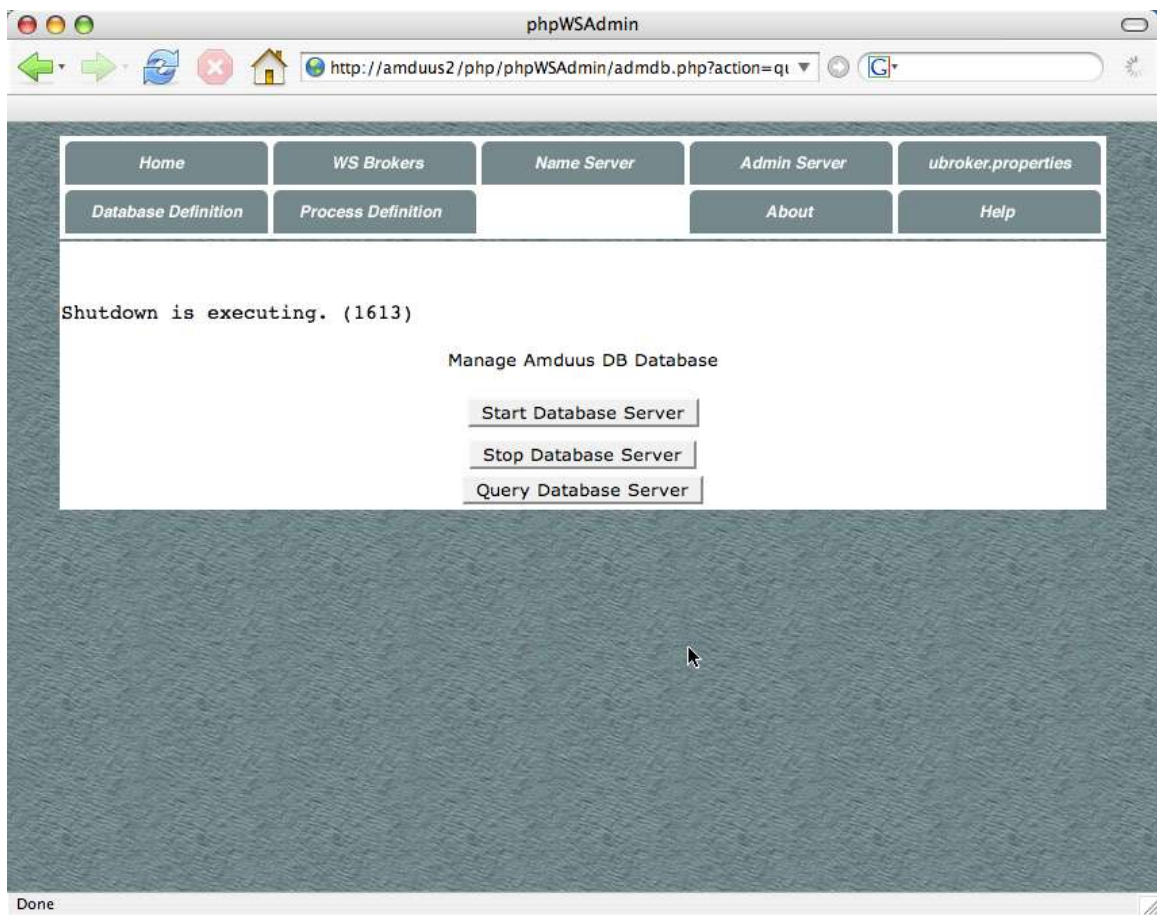
Once a definition has been created, you can execute it directly from the listing screen.



This places the results of the script into the web page so you can place additional messages if you need to.



Here is an example of the query script. Since I cannot talk to the admin server directly about databases started outside of it, I use a grep on the commands currently executing on the machine. Should I see that command running, I then know the database is running.

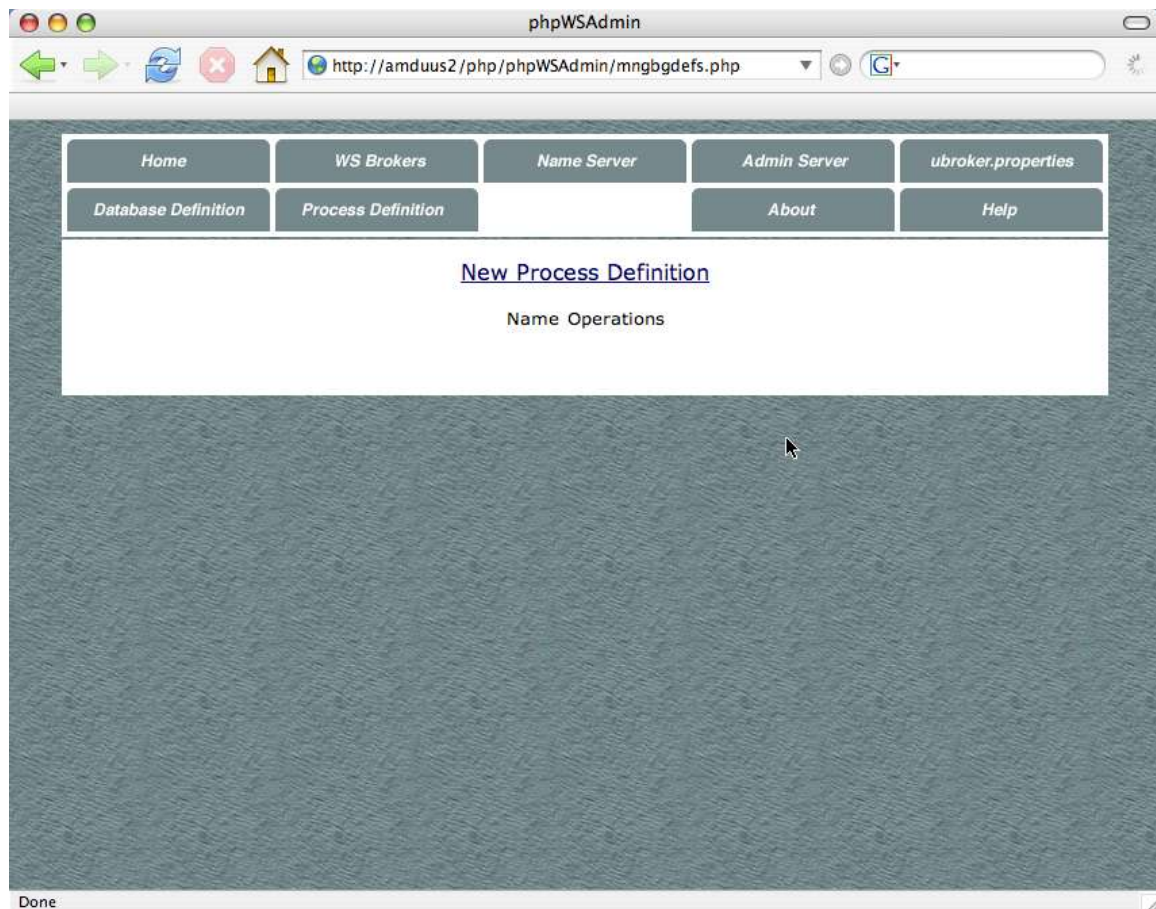


Here you can see the database being shut down.

Background Process Definitions

You can also manage simple background processes (Progress or not) with a web interface.

Like the other processes (which are themselves background processes) you can define those specifically outside the Progress architecture sphere.



As before, you would need to click on the “New Process Definition” to create a process.

This would lead you to a screen very similar to the database screen. In fact, it practically uses the same code between this and the database management pages.

phpWSAdmin

http://amduus2/php/phpWSAdmin/editbgdef.php?Action=

Home WS Brokers Name Server Admin Server ubroker.properties

Database Definition Process Definition About Help

Authentication:

Name Credit Card Processing

StartScript /tmp/ccstart.bash &

StopScript /tmp/ccstop.bash

QueryScript /tmp/ccquery.bash

Notes Background process for CC processing. Database needs to be up.

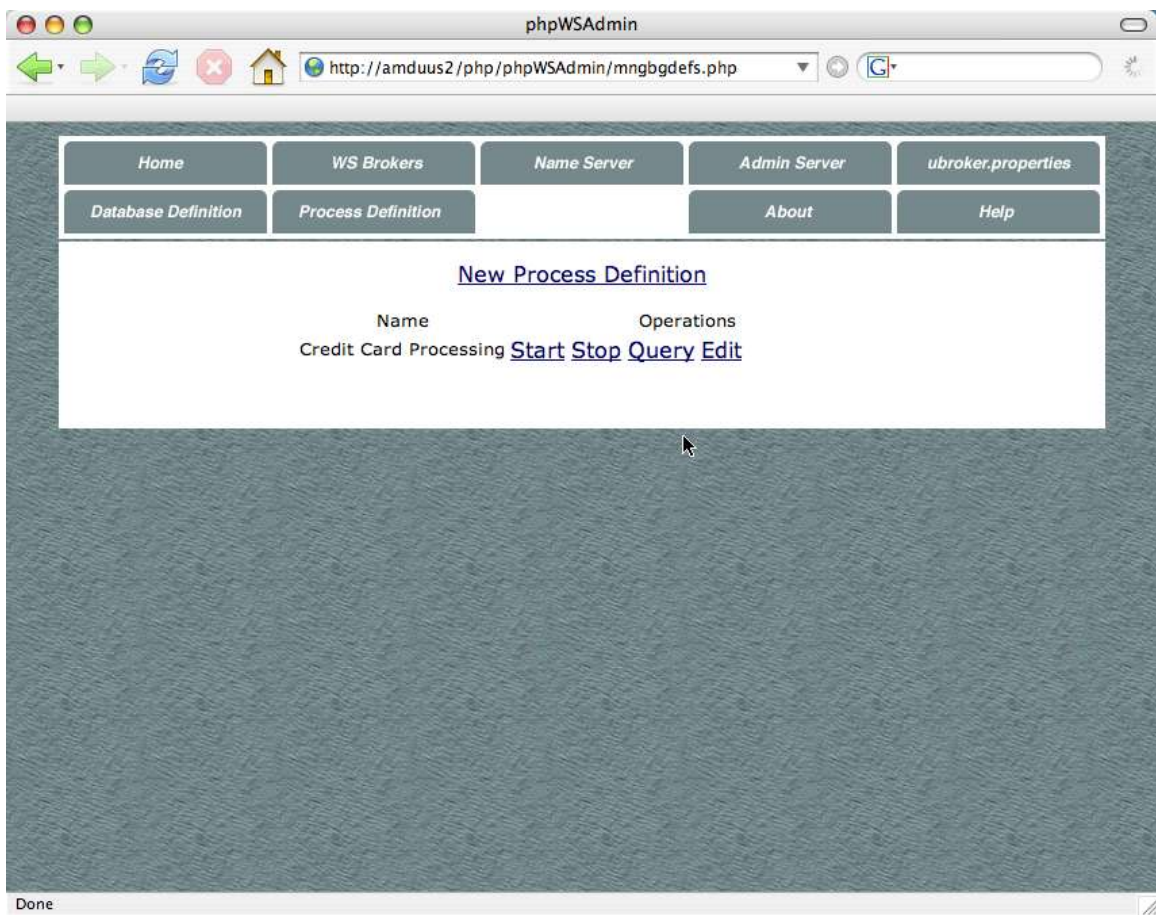
Submit

If you wish to make major modifications to a BG definition that does not have all the attributes, you may want to create a new definition with what you want with the same name, thereby replacing the old one.

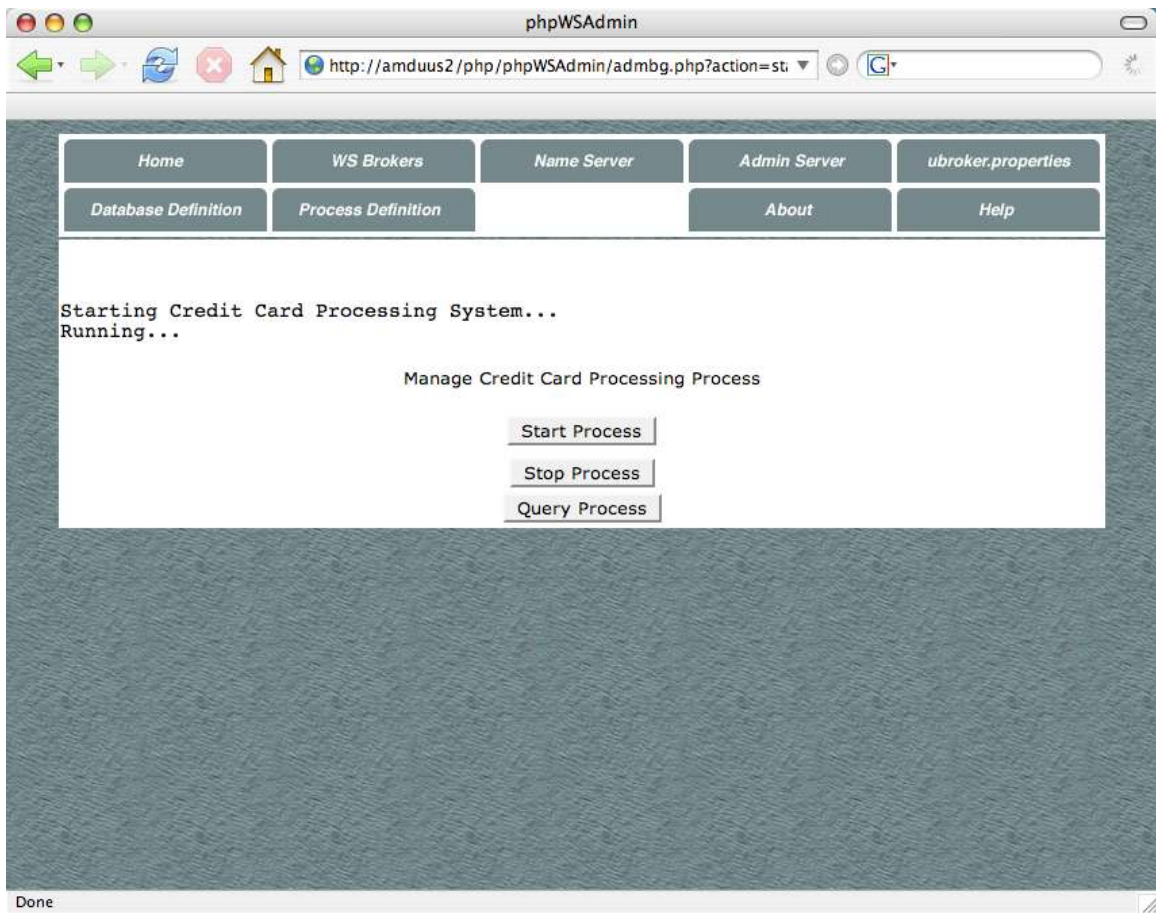
Done

It is separated out for our own logical means of processes associated with the application and those associated with the database.

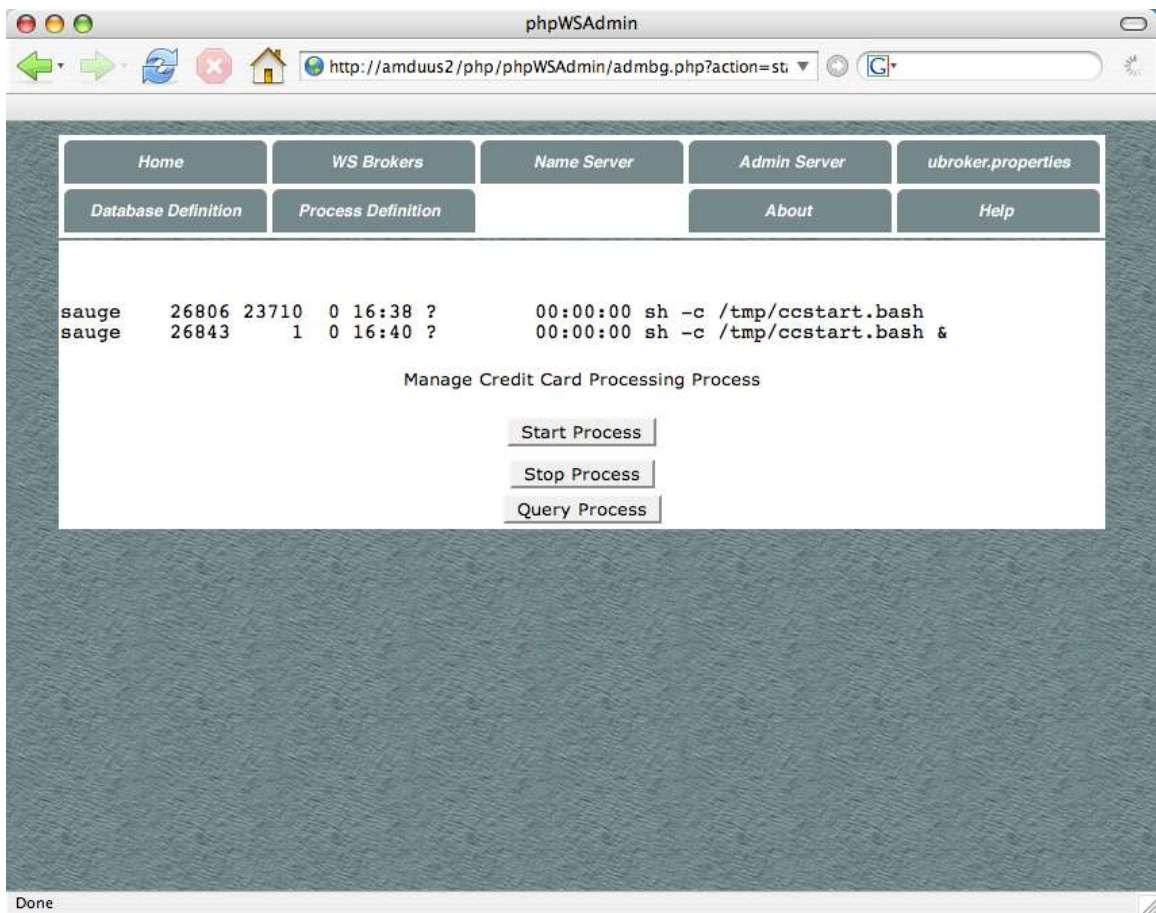
Note how the start script has the UNIX shell token & denoting a background process. If you start up a process, you will want to insure it runs in the background otherwise it will hold up the web server.



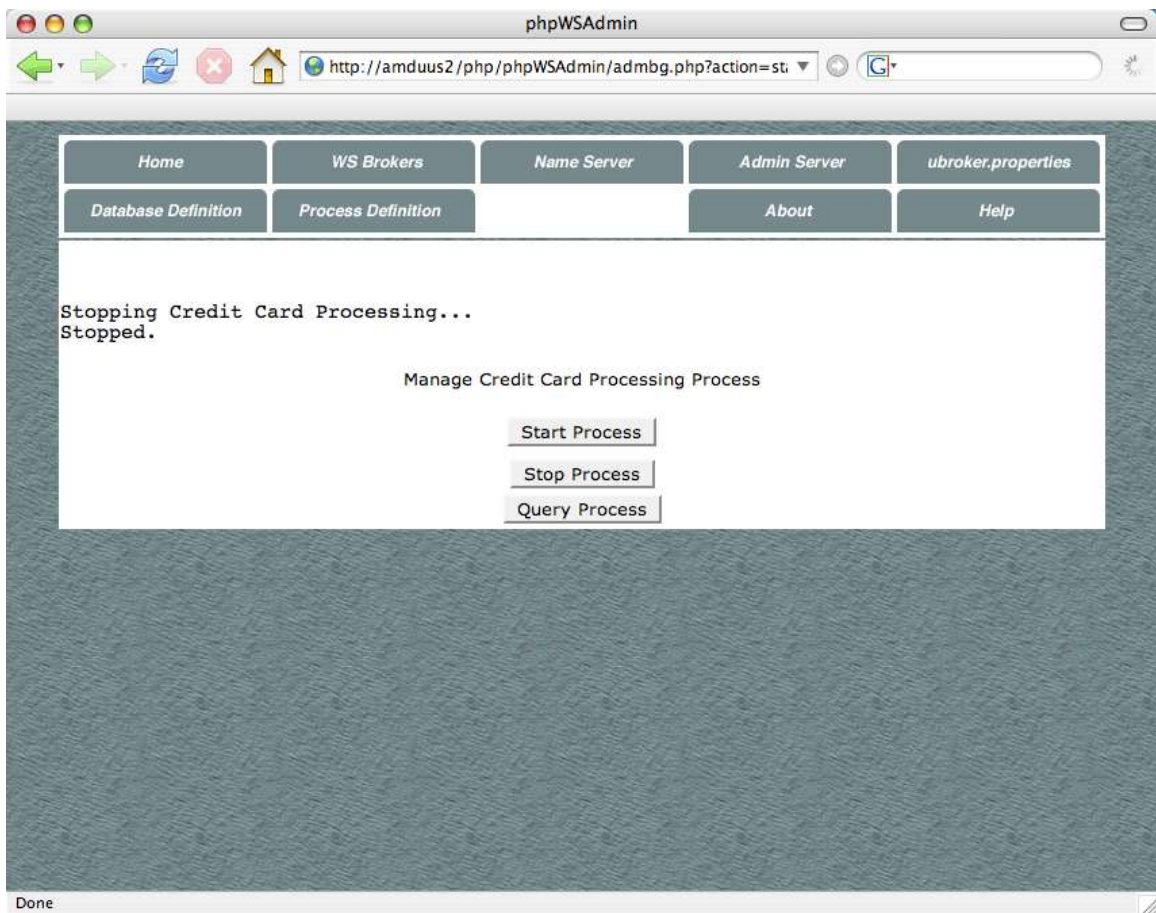
Once you have a process defined, it will come up in the Process Definition Listing screen with the usual links to operations.



Clicking start on the Process Definition Listing screen will put you directly into this page. You can also stop and query the process as well start from here again.



This is an example of the query. As one can see, there are actually two processes associated with credit card processing currently running.



To stop a background process, you will need to figure out a way to poll which one it is (ps and grep on a PID) and then either issue a signal to it (HUP, USR1, etc.) to shut it down.

Again, remember these are merely links to executing shell scripts via a hyperlink instead of a command line invocation.

About Amduus™ Information Works, Inc.

Amduus Information Works, Inc. is a for profit software development company.

We work mostly with web applications and integration technologies. Our industries of expertise include manufacturing, service provider, and law enforcement. We can write your software!

We also ASP service desk software. Please see <http://amduus.com/serviceexpress> for more information about this software.

Our preferred technologies are:

- Progress Webspeed
- Progress 4GL
- PHP
- MySQL, Progress RDBMS, DB2
- C++/C
- MQ Series
- UNIX based operating systems

Contact Scott Auge at sauge@amduus.com or 512-707-0677 for more information.

Programmer Notes

Developed with PHP 4.3.1 on Red Hat Linux 6.2 with Apache 2
Designed with Macromedia DreamWeaver MX (Apple OS X)
Graphics with Macromedia FireWorks (Apple OS X)
Browsers tested on Mozilla 1.5, Apple Safari, Internet Explorer 6.0+ (Apple OS X, Windows 2000, Linux), Fire Fox 1.0 (Apple OS X, Windows 2000)
Progress 9.1C/WS 3.1 on Linux
Progress 9.1D/WS 3.1 on Solaris

The /images/*.png files can be used to create new tabs with the correct color and font.

This document was written on OpenOffice, a freely available Office Suite available at <http://openoffice.org> for many types of operation systems.

Always start at config.php and then move towards the screens to set up your definitions.

Change Log

Version 1.1

- First public release.

Version 1.3

- Changed graphics view for better presentation
- Added User Guide documentation (Open Office and PDF)
- Changed <pre> to <xmp> in viewubrokerproperties.php
- Changed help to note the need for php.ini changes from default

Version 1.5

- Added password protection on editing existing broker definitions
- Added link to the server log file of a broker
- Added link to the broker log file of a broker

Version 1.53

- Correction in viewbrokerlog.php to handle Solaris' tail command
- Added links in Help page to this document.

Version 2.1

- Added database definitions capability.
- Added background processes definitions capability.

Updated this document.

Road Map

Recognize multiple Name Server configurations and allow manipulation of them.