GroupWise Security GroupWise Security GroupWise Security

GWAVA

GWAVA 3.6 Installation Guide

&

User Manual

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Getting Started

This manual is intended for IT administrators in their use of GWAVA or anyone wanting to learn more about GWAVA. It includes installation instructions and features descriptions as well as detailed instructions for the operation of GWAVA.

Technical Support

If you have a technical support question, please consult the GWAVA Technical Support section of our website at http://www.gwava.com/.

Your copy of GWAVA includes 30 days or three incidents (whichever comes first) of complimentary technical support.

E-mail support@gwava.com

Technical support: (801) 437-5678.

Sales

To contact a Beginfinite sales team member, please e-mail info@gwava.com or call Tel: 866-GO-GWAVA (866-464-9282) in North America or +1 514 639 4850.

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About GWAVA

GWAVA 3 is a powerful anti-virus agent, anti-spam filter, and content monitoring package designed for use with Novell GroupWise. GWAVA 3 defends against the spread of virus-infected e-mail, prevents the receipt of unwanted Spam, blocks unwanted file attachments, filters and provides surveillance of messages for restricted or inappropriate content, prevents the transfer of oversized messages that could cause mail server performance issues, and more. GWAVA 3 is installed on each of your MTAs to protect your entire GroupWise environment (including post offices) from virus infection, to automatically administer corporate e-mail policies, and manage message archiving for compliance auditing needs.

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This product includes software developed by vbAccelerator (http://vbaccelerator.com/).

® GWAVA is a registered trademark.

™ SmartBlocker is trademarked.

v-36i

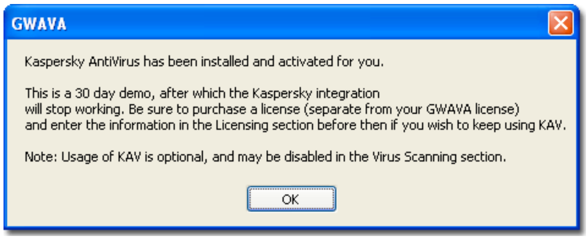
Introduction

GWAVA is an anti-spam and anti-virus security layer for your GroupWise Messaging System. GWAVA is installed on your MTA server, where it manages AV scanning of messages, blocks Spam, blocks attachments, and filters message content. GWAVA provides better AV protection at a lower level than other perimeter AV solutions, protecting and filtering messages sent to, from, and within your domain. Capabilities include:

- Defending against e-mail virus attack
- Preventing receipt of unwanted spam
- Blocking attachments and oversized messages
- Filtering message content
- Archiving messages (and an integrated archive viewer with a secure browser)
- Notifying system administrator when a message triggers a GWAVA filter (optional)
- Multi-server deployment and management
- E-Mail surveillance and monitoring

GWAVA is the most complete message scanning and filtering solution available for Novell's GroupWise.

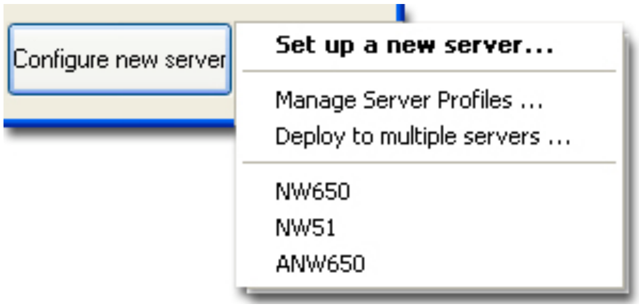
What is New in GWAVA 3.6



Kaspersky AntiVirus has been installed and activated for you.

This is a 30 day demo, after which the Kaspersky integration will stop working. Be sure to purchase a license (separate from your GWAVA license) and enter the information in the Licensing section before then if you wish to keep using KAV.

Note: Usage of KAV is optional, and may be disabled in the Virus Scanning section.



- Kaspersky AV integration with its own 30-day evaluation demo
- Support for SuRBL
- 'Find Mistakes' feature in SmartBlocker helps identify problems with your ham/spam corpus which may prevent effective spam blocking
- Profile Manager and Deployment Manager now incorporated into the GWAVA configuration program.
- Archive File Name can now be specified in the search scope menus of the Archive Viewer
- Digest reports of blocked spam
- Improved multiple monitor support for MConfig, PMAN, DMAN and Arcview - Support for multiple monitors and complete saving/restoring of coordinate system for windows
- Installation Wizard improvement makes suggestions for optimizing your GWAVA installation
- Improved SmartBlocker speed: server-side compiles of PCRs are three to five times faster and take one-tenth the memory.
- Password encryption
- Improved ruleset and score processing
- Improved cluster support
- Installation Report generation: with one click, GWAVA lists an inventory of all files in its installation
- Back end and front end redesigned interfaces. The backend features much more statistical information. The front end is much more quickly navigable thanks to mouse wheel support and keyboard navigation of buttons.
- GroupWise address book integration
- Redesigned and powerful Notification Templates, supporting tremendously increased functionality via a metalanguage, and supporting HTML/Text, customizable subjects and per event information, all fully localizable
- Scheduled Output - allowing you to schedule outputs or e-mails of specific information at times you request. This replaces the daily reports option.
- Event Logging - allowing nearly unlimited control of specific information you want outputted when events occur. This replaces the event.log schema used in earlier versions of GWAVA.
- Archive override control (per item per event basis)
- Spam Tagging or "Catch and Release"
- Event Order/Break on Event
- Multiple Event firing
- Decompress before everything occurs
- Archive Viewer:
    - SQL Integration permits fast and flexible searching, filtering, and sorting.
    - Speed enhancements
    - Web Browse html, jpeg, gif files in a safe browser interface (ActiveX, cookies, java, javascript are disabled)
    - Block or view password protected Zip attachments and extract the contents.
    - Open SpamID files directly.
    - WhiteList/BlackList
    - Export to HTML
    - Submit as Spam/Ham to SmartBlocker Manager™
    - Search for text in columns
- SmartBlocker Manager™, a new technology for editing and creating spam rules. This includes a powerful iterative score generator.
- The PCR files created by SmartBlocker Manager are loaded much faster than compiling the rules from scratch.
- More granular control over archiving in general, including an on/off Archive when no events occurred.
- Prune/Control Spam ID and Archive files
- Supports GWAVA running in directories other than SYS:SYSTEM (particularly useful for clustering)
- Improved persistent install options
- Support for Protected Memory
- Import Tool—an easy way to install previously existing exceptions and customizations

For a complete list of changes, consult C:\PROGRAM FILES\BEGINFINITE\GWAVA\README.TXT or visit www.gwava.com.

System Requirements

- NetWare 5.1, 6.0, 6.5. Regular and Small Business editions supported.
- Disk space usage is 50 MB on the workstation, 48 MB on the server. (This excludes archive and log files, as well any spam/ham corpus built.) Most of this space is taken by the compiled .pcr file, which is optional (but greatly decreases the load time of the anti-spam engine)
- Memory usage on the server is about 8 MB without the anti-spam engine, and 38 MB with the anti-spam engine active
- A third-party anti-virus scanner product installed on the server (optional, for virus scanning). Alternatively, the integrated Kaspersky scanner included with GWAVA can be used for an additional fee after 30 days of evaluation.
- GWAVA must be installed on the same server as your Message Transfer Agent (MTA).
- The GroupWise MTA must be version 5.5.2 or greater (06/99 date stamp). 5.5 Enhancement Pack, GroupWise 6.0 and GroupWise 6.5 are all supported.
- The GroupWise MTA must be local to its domain.
- TCP/IP must be installed and configured on the servers running GWAVA even if the MTA is using UNC links to domains
- Long filename support must be enabled on the server with the GWAVA directories.
- /Attachmsg must be in the GWIA.CFG. It is by default.

We STRONGLY recommend the latest GroupWise patches are applied to your system.
At press time these were:

GroupWise 5.5 (non-EP)	SP5
GroupWise 5.5 (EP)	SP5 (see Recommended Settings)
GroupWise 6.0	SP4
GroupWise 6.5	SP5
GroupWise 7.0	No patches at this time

Recommended Settings

Internet Addressing should be enabled. This is set in the Internet Addressing options under GroupWise System Operations in NWADMIN or ConsoleOne. If this is not enabled, GWAVA may not be able to send notification messages to the system administrator (or to other notification recipients).

- To allow GWAVA to send notifications and administrative messages GWAVA will need to be able to login to your GWIA or SMTP server. This is accomplished by supplying GWAVA with an email ID and password that is stored in the Advanced SMTP Options under Notify Options. Remember this is usually a GroupWise user id and password, not an eDirectory login.
- If you are using GroupWise 5.5 or your SMTP server does not support authentication you will need to create a relay exception. Normally your GWIA or SMTP server should be configured to NOT allow relaying of mail messages.

Set GWAVA subdirectories, as well as all the GWVSCAN directories to Immediate Purge of Deleted Files (a general Novell recommendation for any GroupWise server). This will prevent your GWAVA server from becoming too busy with old files in temporary directories. If you experience an issue with NGW-VSCAN-CONTROLLER errors when unloading or restarting the MTA, this is *probably* the issue.

5.5/5.5EP Service Pack FTF Update

Novell has recently identified a bug in a program file that is essential to GWAVA's functionality called GWMTAVS.NLM. Novell has updated the file; however, you must also apply the GroupWise 5.5 Service Pack FTF in order to take advantage of the updated NLM for GWAVA. GroupWise 6 and above do not require this procedure. To accomplish this:

- Unload the GroupWise agents (POA, MTA)
- Rename SYS:SYSTEM\GWMTAVS.NLM
- Download and install the following GroupWise 5.5 / 5.5 EP Agent FTF from Novell at: http://support.novell.com/servlet/tidfinder/2964030
- Download and install the Updated GWMTAVS.NLM from Novell at: http://support.novell.com/servlet/tidfinder/2963978
- Edit the MTA startup file for the domain and add the following switch indicating the TCP port on which you would like to have the MTA listen for communication from GWMTAVS. At the bottom of the startup file after the other vs switches, add /vsport=7108.
- Re-load the GroupWise agents

Note: The Agent FTF, for Support Pack 3 or later is required to be able to configure the MTA to work with the new virus scan NLM.

Licensing

GWAVA is licensed on a per user basis. You must purchase a license for the appropriate number of users on your system. KAV licenses are sold separately, but can be obtained through GWAVA.

Configuration

When you run GWAVA for the first time after installation, the **Configuration Wizard** will guide you through the set up process. It is important to remember that the wizard will automatically complete some of GWAVA's settings based on the information you enter. These will be easily updated through the GWAVA Manager, which opens when the wizard is complete.

When the wizard is done, the GWAVA program files will be installed. The wizard will not run again unless you reinstall the system, or select **Choose Another MTA Startup File** from the GWAVA Manager.

Note: Configuration changes will not affect the GWAVA program until the MTA is restarted.

Installation

To begin installing GWAVA, run the GWAVA___.EXE file, where "___" is the version number. Install to a local workstation that has mapped drive access to the server(s) on which you will install the GWAVA program files.

Passwords

Passwords are now encrypted/decrypted in all GWAVA ini files (MCONFIG, DMAN, IPSync, PMAN, ARCVIEW, GENKEY). Hence, in PMAN and MConfig, local password caching is now on and cannot be disabled. MCONFIG and PMAN will automatically switch off Encryption when saving to pre 3.1x configuration files.

If you need to turn off Encryption entirely, create Encrypt.INI in the application directory with

```
[Settings]
EncryptPasswords=0
```

Upgrading

If you are upgrading from a previous version of GWAVA: First run the GWAVA___.EXE file, where "___" is the version number. Install to a local workstation that has mapped drive access to the server(s) on which you will install the GWAVA program files. Then Instead of immediately launching the GWAVA Configuration Program, Click on START → Run and input the following command:

"C:\PROGRAM FILES\BEGINFINITE\GWAVA\MCONFIG.EXE" /FORCEUPGRADE

Reverting to a pre-3.1 version of GWAVA

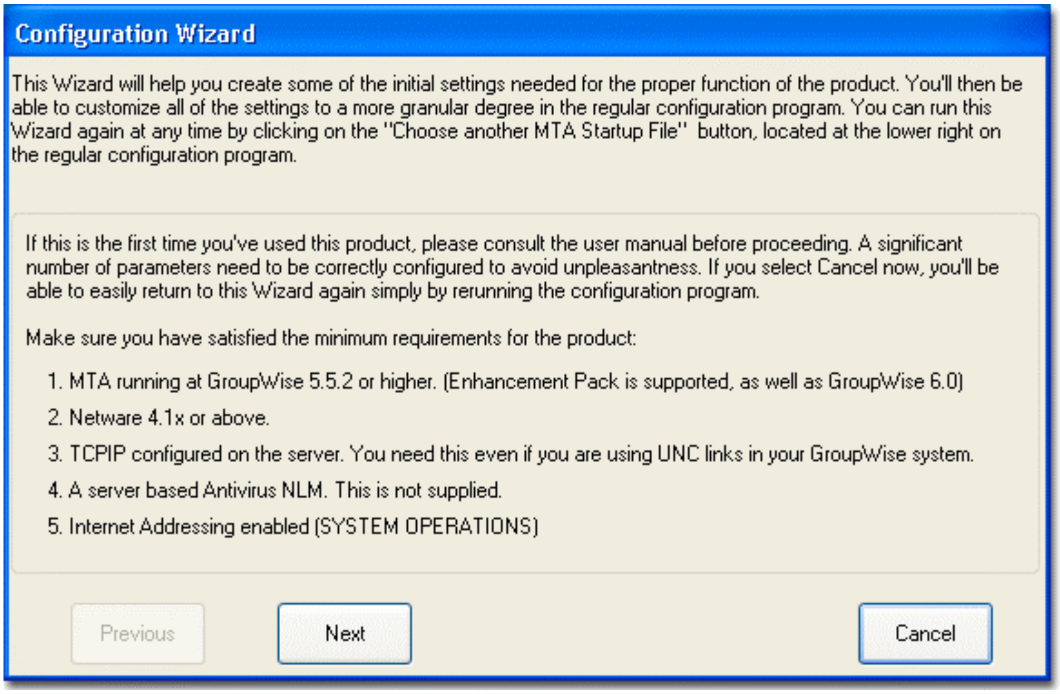
You may encounter issues if you revert to a pre-3.1 edition of GWAVA.

- Encryption of Passwords: If you backrev to 3.03, you will probably have to reenter passwords as 3.03 doesn't understand the encryption, only plaintext. The 3.10 backend and front end can understand both encrypted and plaintext passwords. By default, when 3.10 front end saves a 3.10+ configuration files using encryption. (It will always save plaintext to a 3.03- configuration file however). **Note:** The pre 3.10 upgrade GMTACFG.INI is backed up to GMTACFG.310 in the GWAVA configuration directory.
- SPAMCFG upgrade: As part of the upgrade to 3.10, several files are fundamentally changed. If you must reinstall a previous version of GWAVA, then:
- Revert to the older version of SpamTools.EXE on the front end
- Restore the backed up files from the SPAMCFG\CFBAK3.10 directory on the backend to SPAMCFG. (Before you do so, delete all files currently extant in SPAMCFG directory, including the PCR file)
- Run SmartBlocker to recreate the PCR file
- GWAVA 3.1 CF files correspond to shipping rules and CFG have all user customizations. Thus to roll back all customizations is simply a matter of deleting CFG files from server CFG

Configuration Wizard

Step 1

Starting the Configuration Wizard



Configuration Wizard

This Wizard will help you create some of the initial settings needed for the proper function of the product. You'll then be able to customize all of the settings to a more granular degree in the regular configuration program. You can run this Wizard again at any time by clicking on the "Choose another MTA Startup File" button, located at the lower right on the regular configuration program.

If this is the first time you've used this product, please consult the user manual before proceeding. A significant number of parameters need to be correctly configured to avoid unpleasantness. If you select Cancel now, you'll be able to easily return to this Wizard again simply by rerunning the configuration program.

Make sure you have satisfied the minimum requirements for the product:

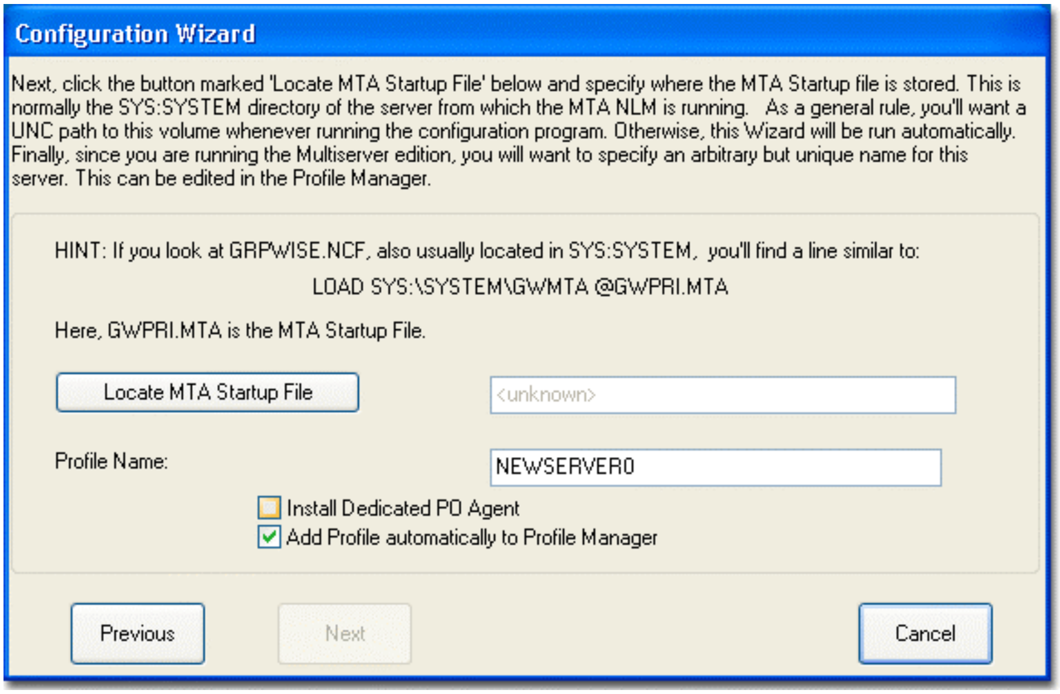
1. MTA running at GroupWise 5.5.2 or higher. (Enhancement Pack is supported, as well as GroupWise 6.0)
2. Netware 4.1x or above.
3. TCPIP configured on the server. You need this even if you are using UNC links in your GroupWise system.
4. A server based Antivirus NLM. This is not supplied.
5. Internet Addressing enabled (SYSTEM OPERATIONS)

The first step of the wizard is informational. Please read the information on this screen. If your NetWare and GroupWise installations do not meet the requirements outlined in this step, GWAVA will not function properly.

Click **Next** to continue or **Cancel** to stop.

Step 2

Choosing the MTA startup file.



Configuration Wizard

Next, click the button marked 'Locate MTA Startup File' below and specify where the MTA Startup file is stored. This is normally the SYS:SYSTEM directory of the server from which the MTA NLM is running. As a general rule, you'll want a UNC path to this volume whenever running the configuration program. Otherwise, this Wizard will be run automatically. Finally, since you are running the Multiserver edition, you will want to specify an arbitrary but unique name for this server. This can be edited in the Profile Manager.

HINT: If you look at GRPWISE.NCF, also usually located in SYS:SYSTEM, you'll find a line similar to:

LOAD SYS:\SYSTEM\GWMTA @GWPRI.MTA

Here, GWPRI.MTA is the MTA Startup File.

Locate MTA Startup File <unknown>

Profile Name: NEWSERVER0

□ Install Dedicated PO Agent

☑ Add Profile automatically to Profile Manager

Locate the MTA Startup File for the MTA server on which you are installing GWAVA. This step must be completed in order to continue with the configuration. The MTA startup file contains the configuration parameters for your MTA. If you are uncertain of this file's location, consult GRPWISE.NCF. The MTA startup file is typically referenced in GRPWISE.NCF with the following line:

LOAD SYS:\SYSTEM GWMTA @GWPRI.MTA

In this example, GWPRI.MTA is the MTA startup file, and is located in SYS:SYSTEM. GWPRI.MTA is a standard text file, with the first few lines reading:

```
;==========================================
; GroupWise 5.5 MTA (or 6.0, etc.)
; Sample Startup File
;------------------------------------------
```

GWAVA needs access to this file for two reasons:

The /HOME switch, which indicates the UNC Path to the Domain Directory is located in this file. GWAVA will use the contents of this switch as the default for the Domain Directory location in the Location of Files settings. It will also be used as the base directory for the default GWAVA directories. The switches activating the Virus Scanning API are written to this file. When you restart your MTA they will be active. Please read **Switches Placed in the MTA Startup File** for more information on these switches. Should you ever choose, removing these switches and restarting your MTA will effectively uninstall GWAVA.

GWAVA only needs access to this file under these conditions:

- Initial set up
- When using the Deployment Manager if the validate startup switches option is selected.
- If MTA Startup options have been altered from the Miscellaneous screen.

For further instructions on uninstalling **GWAVA**, please consult the README.TXT found in /Program Files/Beginfinite/GWAVA.

Install a Dedicated PO Agent

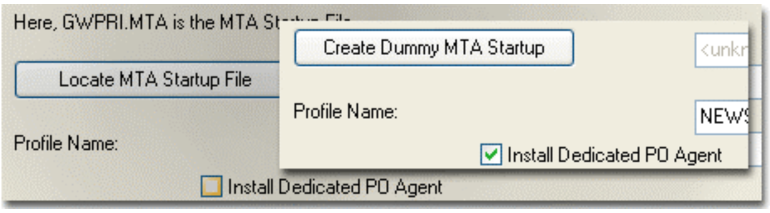
New to this screen in GWAVA 3, this option only installs GWAVAPOA to the server. It is useful when there's only a POA to protect on that machine. GWAVAPOA can be loaded by running typing SAPO on your server console.

Notice that when Install Dedicated PO Agent is enabled, the button **Locate MTA Startup File** changes to read **Create DUMMY MTA Startup**.

This can be useful when installing GWAVA in systems where directories, MTAs and Post Offices are located on different volumes**.** You will then be asked to specify the location of this Dummy MTA Startup file. (Usually Sys: System.) Click **OK** to confirm the path and return to the configuration process.

The **Next** button will now be highlighted and should now be clicked to continue.

5000 Messages per folder limitation


Here, GWPRI.MTA is the MTA St
Locate MTA Startup File
Profile Name:
□ Install Dedicated PO Agent
Create Dummy MTA Startup
<unkr
Profile Name:
NEWS
☑ Install Dedicated PO Agent

When performing a post office scan, GWAVA cannot be default scan more than 5000 items per folder. This is a built in limitation in Novell's post office agent.

With GroupWise 6.5.3, this limit can be bypassed by the inclusion of a switch in the POA start-up file: The new startup option for both POA and GWIA is /imapreadlimit-X. The X is a numeric variable representing thousands.

For example, /imapreadlimit-2 instructs the IMAP server to read up to 2,000 items per folder, while –20 would be 20,000, and so forth.

Notes about validations performed

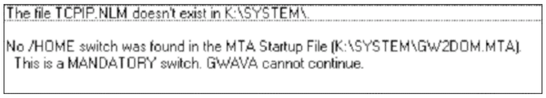
After you select the MTA startup file, a few validations are performed:

GWAVA reads the MTA startup file to confirm the location of the /HOME switch. If the switch is missing, the configuration wizard will not be able to proceed.

The following three files are checked to see if they exist on your system. If they do not, you will be warned of their importance, but the configuration will proceed without them. If you have installed the GWAVA program files into a directory other than SYS:SYSTEM, these errors can be safely ignored.

Filename	Comment
TCPIP.NLM	TCP/IP must be configured on your server. If it is not, when the VS.NLM is loaded you will encounter "cannot find public symbols" errors.
NETDB.NLM	NETDB (and a host of supporting NLMs are used by GWAVA for TCP/IP library functions. VS.NLM will not load without the NETDB.NLM (but loads automatically if NETDB.NLM is present).
GWMTA.NLM	This is the GroupWise MTA file. It must be dated after June 1999.

The profile is compared to existing profiles to ensure duplicates are not created. If any of these are missing, an error log will open indicating **Some odd configuration issues….**



```
The file TCPIP.NLM doesn't exist in K:\SYSTEM\.

No /HOME switch was found in the MTA Startup File (K:\SYSTEM\GW2DOM.MTA).
  This is a MANDATORY switch. GWAVA cannot continue.
```

Note the problems, click **Close Error Log**, and reselect the MTA startup file.

GWAVA will then ask you to select which version of GroupWise you are running. Choose your version of GroupWise and click **OK**.

You will notice there are several options here. The reason for these options is to ensure correct configuration of the /VSPORT switch, if necessary, relative to which patch/service pack you have installed with GroupWise.

When you make this selection, one of the following files will be copied to SYS:SYSTEM and renamed GWMTAVS.NLM

- GWMTAVS.55 – for GroupWise 5.5 and GroupWise 5.5 EP
- GWMTAVS.EP – for GroupWise 5.5 using post SP5 MTA patch
- GWMTAVS.BP – for GroupWise 6.0.0, 6.0.1, and 6.0.2
- GWMTAVS.BP3 – for GroupWise 6.0.3 and subsequent releases
- GWMTAVS.HT – for GroupWise 6.5 and subsequent releases

The GWMTAVS.EP, GWMTAVS.HT, and GWMTAVS.BP3 NLMs require the /VSPORT switch be configured. In this case, GWAVA will prompt you to configure the switch. GWAVA may grab a port address automatically, be certain this is correct. You will be able to change this setting, if you need, in the Miscellaneous settings section of the GWAVA configuration program.

Upgrades and the Configuration Wizard

If you upgrade your GroupWise installation with a version upgrade or a service pack or enhancement pack, you will need to re-run the configuration wizard and select the correct version of GroupWise. To do so, run MCONFIG.EXE with the command line option **/forceupgrade** to ensure the correct GWMTAVS NLM is copied.

TCP port

GWAVA requires the use of an unused TCP port on the MTA server so that GWAVA can communicate with the MTA. The port cannot already be in use by the MTA, POA or any program on the server except for this purpose.

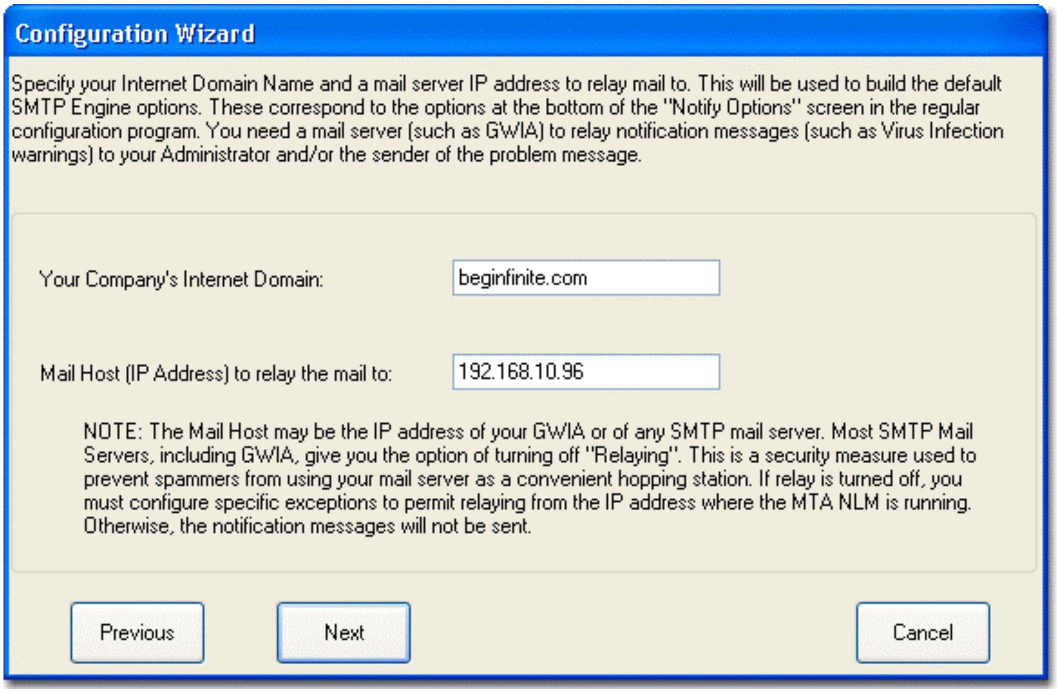
Choosing a TCP port in use might cause your server to malfunction. To determine whether a port is in use:

- Load TCPCON on your server console
- Choose TCP from the Protocol Information menu
- Choose TCP connections
- Make certain the port is unlisted
- Click **OK**

This choice can be altered in the future by altering the VSPORT parameters in the Miscellaneous section of the GWAVA configuration program or by directly changing the /vsport parameter in the MTA startup file.

Step 3

Configure your Internet Domain and Mail Host (IP Address) for GWAVA.



Configuration Wizard

Specify your Internet Domain Name and a mail server IP address to relay mail to. This will be used to build the default SMTP Engine options. These correspond to the options at the bottom of the "Notify Options" screen in the regular configuration program. You need a mail server (such as GWIA) to relay notification messages (such as Virus Infection warnings) to your Administrator and/or the sender of the problem message.

Your Company's Internet Domain: beginfinite.com

Mail Host (IP Address) to relay the mail to: 192.168.10.96

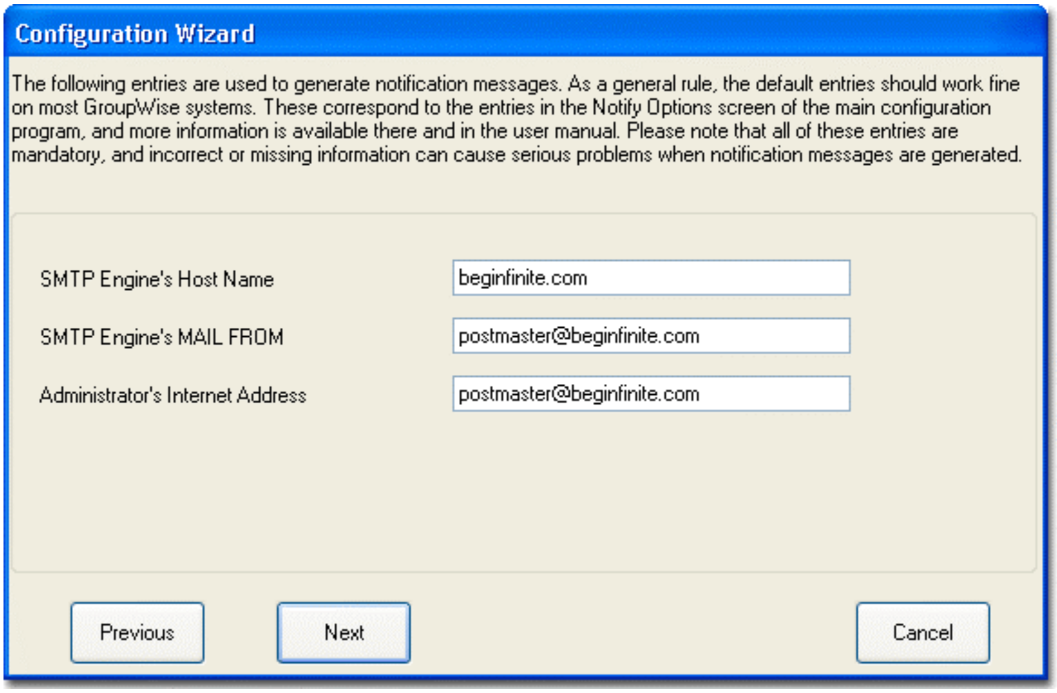
NOTE: The Mail Host may be the IP address of your GWIA or of any SMTP mail server. Most SMTP Mail Servers, including GWIA, give you the option of turning off "Relaying". This is a security measure used to prevent spammers from using your mail server as a convenient hopping station. If relay is turned off, you must configure specific exceptions to permit relaying from the IP address where the MTA NLM is running. Otherwise, the notification messages will not be sent.

The configuration wizard will use the values you enter in this step to set up the Notify Options, for sending GWAVA notification messages. You will be able to change these values later with the GWAVA Manager.

Complete the **Your Company's Internet Domain** and **Mail Host** (IP Address) to relay the mail to fields and click **Next**. After entering the Internet Domain and Mail Host settings, click **Next** to continue.

Step 4

Enter SMTP and e-mail settings for GWAVA's Notification Options.



Configuration Wizard

The following entries are used to generate notification messages. As a general rule, the default entries should work fine on most GroupWise systems. These correspond to the entries in the Notify Options screen of the main configuration program, and more information is available there and in the user manual. Please note that all of these entries are mandatory, and incorrect or missing information can cause serious problems when notification messages are generated.

SMTP Engine's Host Name	beginfinite.com
SMTP Engine's MAIL FROM	postmaster@beginfinite.com
Administrator's Internet Address	postmaster@beginfinite.com

Enter your SMTP Engine's host name, usually your dot-com domain used for e-mail. If you have more than one domain, enter your primary internet domain here. Additional domains may be configured in the Notification section of the GWAVA configuration program.

Now, enter the **From** address you would like notification e-mail messages to appear to be sent by (please see Notify Options). Finally, enter your Administrator's e-mail address. This address is where notification messages will be sent by GWAVA. These settings can be altered at a later time, if you choose, through the Notification Options settings accessed through the GWAVA Configuration program. When your settings have been entered, click **Next**.

Step 5

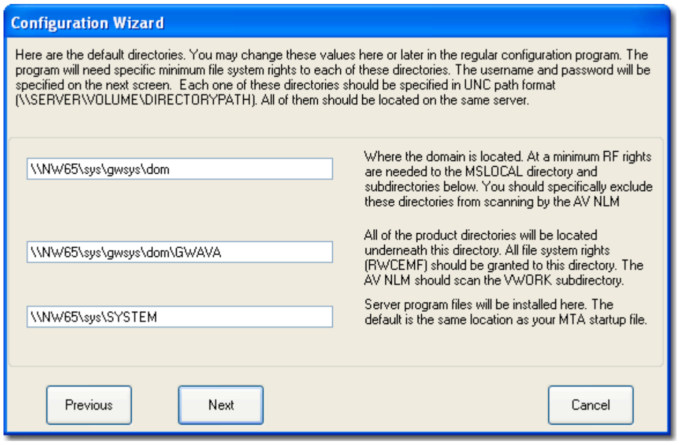
Review the default directories

This screen confirms the location of the domain is the same as that pointed to by the /HOME switch in the MTA startup file, as well as the location of the GWAVA directory as subdirectory of the domain directory. The information presented in this step is important, please read if before proceeding.

It is particularly important at this step to note that specific file system rights need to be granted to a user account for GWAVA. In addition, the AV Scanner must be configured to ignore the MSLOCAL directory (for more information on configuration, see the section on directories to Exclude from Scanning).

The last entry field notes where server program files will be installed. The default location for this is the same location as the MTA start up file.

When done reading this information, click **Next**.



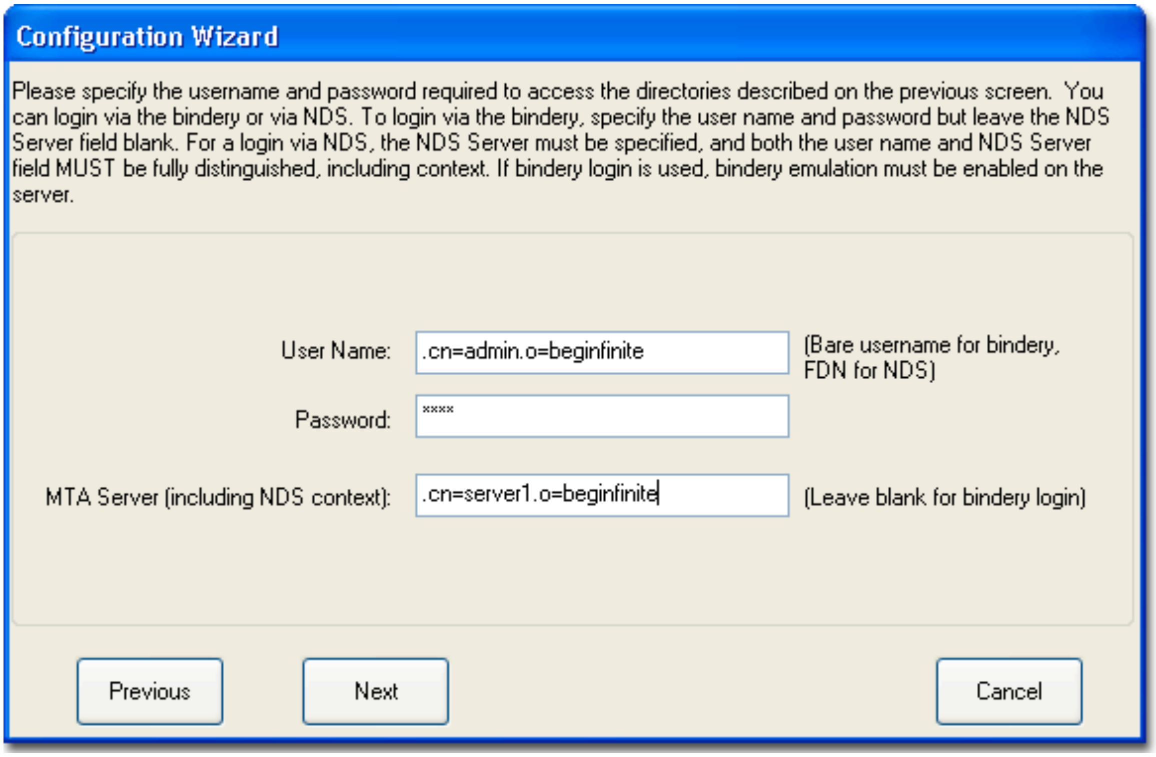
Configuration Wizard

Here are the default directories. You may change these values here or later in the regular configuration program. The program will need specific minimum file system rights to each of these directories. The username and password will be specified on the next screen. Each one of these directories should be specified in UNC path format (\\SERVER\VOLUME\DIRECTORYPATH). All of them should be located on the same server.

\\NW65\sys\gwsys\dom	Where the domain is located. At a minimum RF rights are needed to the MSLOCAL directory and subdirectories below. You should specifically exclude these directories from scanning by the AV NLM
\\NW65\sys\gwsys\dom\GWAVA	All of the product directories will be located underneath this directory. All file system rights (RWCEMF) should be granted to this directory. The AV NLM should scan the VWORK subdirectory.
\\NW65\sys\SYSTEM	Server program files will be installed here. The default is the same location as your MTA startup file.

Step 6

Set up a user account.



Please specify the username and password required to access the directories described on the previous screen. You can login via the bindery or via NDS. To login via the bindery, specify the user name and password but leave the NDS Server field blank. For a login via NDS, the NDS Server must be specified, and both the user name and NDS Server field MUST be fully distinguished, including context. If bindery login is used, bindery emulation must be enabled on the server.

User Name: .cn=admin.o=beginfinite (Bare username for bindery, FDN for NDS)

Password: ****

MTA Server (including NDS context): .cn=server1.o=beginfinite (Leave blank for bindery login)

Admin is the default set by the wizard. You can change the User Name and Password here if you have one ready, or change it later in the Miscellaneous section of the GWAVA Manager.

Important

Make sure that the user has RWCEMF rights to the Domain directory and all subdirectories.

GWAVA supports both Bindery and NDS logins. For bindery login, please ensure your server is running bindery emulation, and that you have specified a leaf object in the Bindery Context (for example, Admin). You do not need to complete the NDS Server Context when performing a bindery login.

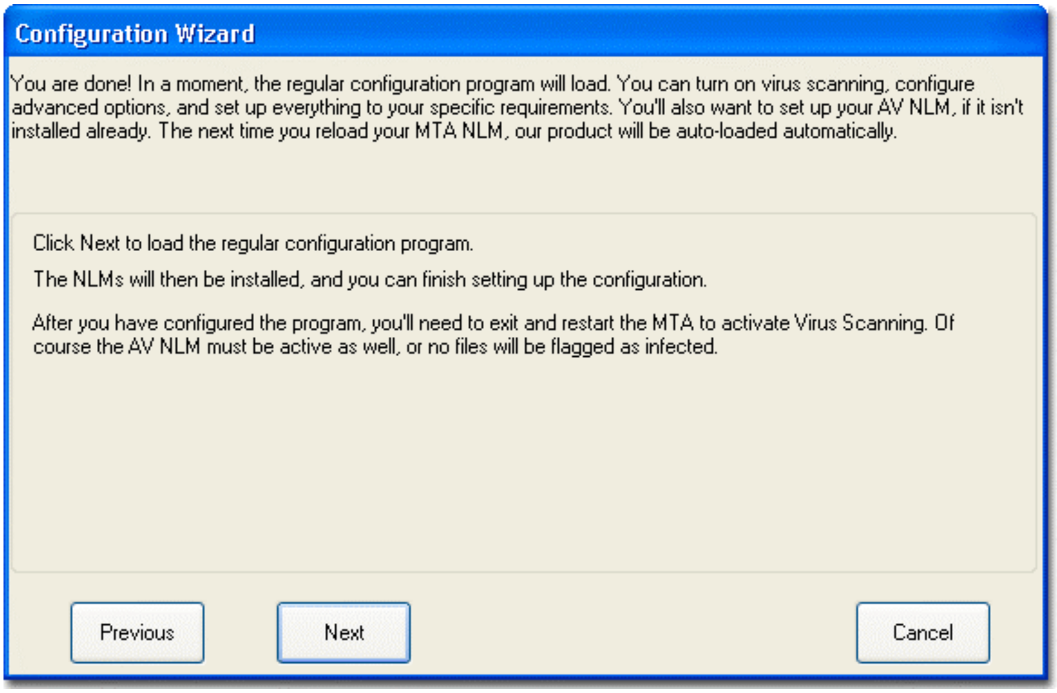
For NDS logins, the **User Name** should be the FDN (.CN=Admin.O=Company), and the **NDS Server Context** should be the FDN as well (.CN=MyServer.O=Company), as shown in the screen capture above.

Note: The only GWAVA feature requiring a valid login is Virus Scanning; all other features function without logging in. Virus scanning requires a valid login only if the File Locking integration has been selected.

Once the required information is entered, click **Next**.

Step 7

The last step of the Configuration Wizard is informational.



Configuration Wizard

You are done! In a moment, the regular configuration program will load. You can turn on virus scanning, configure advanced options, and set up everything to your specific requirements. You'll also want to set up your AV NLM, if it isn't installed already. The next time you reload your MTA NLM, our product will be auto-loaded automatically.

Click Next to load the regular configuration program.

The NLMs will then be installed, and you can finish setting up the configuration.

After you have configured the program, you'll need to exit and restart the MTA to activate Virus Scanning. Of course the AV NLM must be active as well, or no files will be flagged as infected.

This screen confirms your GWAVA configuration wizard is complete. Click **Next** to launch the GWAVA Manager. Please wait, this could take a few seconds.

Once you have completed the configuration, you will need to restart the MTA to activate Virus Scanning. Remember to ensure your AV scanner is active and functioning properly.

Program Files

When the Configuration wizard is complete, or anytime the Configuration Program has been run, GWAVA checks to ensure if the latest program files have been installed. If the MconfigVersion in GMTACFG.INI is less than the version stored internally in the Configuration Program, the program files will be reinstalled.

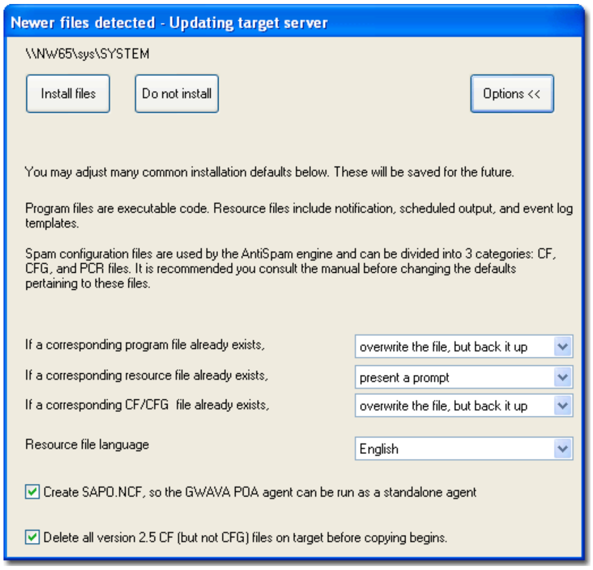
GWMTAVS.NLM is a Novell supplied file that acts as a communication layer between GWAVA and the GroupWise MTA. This file is normally installed in SYS:SYSTEM and is dependent on the version of GroupWise in use.

Note for upgraders from GWAVA 2.x: /forceoverwrite no longer exists. It has been replaced by the new Update Control screen.

Update Control

The GWAVA 3 installer detects files that are newer than the ones to be installed, the administrator will be presented with the file overwrite editor. It allows staff to determine which older and newer files will be kept or replaced as the installer is run or re-run. The settings will be saved for future reuse.

You may choose to overwrite, skip over or delete classes of files during the installation. The classes are:



Newer files detected - Updating target server

\\NW65\sys\SYSTEM

You may adjust many common installation defaults below. These will be saved for the future.

Program files are executable code. Resource files include notification, scheduled output, and event log templates.

Spam configuration files are used by the AntiSpam engine and can be divided into 3 categories: CF, CFG, and PCR files. It is recommended you consult the manual before changing the defaults pertaining to these files.

If a corresponding program file already exists, overwrite the file, but back it up

If a corresponding resource file already exists, present a prompt

If a corresponding CF/CFG file already exists, overwrite the file, but back it up

Resource file language English

☑ Create SAPO.NCF, so the GWAVA POA agent can be run as a standalone agent

☑ Delete all version 2.5 CF (but not CFG) files on target before copying begins.

- **Program files** – core GWAVA program files.
- **Resource files** – Everything stored under the RESOURCE subdirectory of the GWAVA server installation, consisting of notification templates, event log and scheduled event templates, help files, etc.
- **CF/CFG files** – Anti-spam configuration files. CF files are the core spam files provided with GWAVA. CFG files are created by the user, using SmartBlocker Manager™ - a new helper application now include with GWAVA 3. CFG files are loaded by GWAVA after CF files and thus in the event of conflicting rules take precedence.
- **Resource File Language** – This drop-down menu allows alternative languages to be used for some of the notification and digest templates. The main GWAVA user interface remains in English, however.

There are three other options included in this window.

- **Create SAPO.NCF** so the GWAVA POA agent can be run as a stand alone agent.
- **Delete all CF** (but no CFG) files on the target before copying of rules, so that mismatches of rules are avoided.

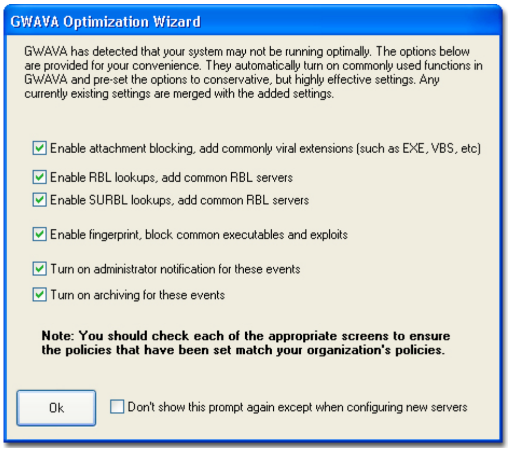
Once the GWAVA installer is run, you may need to restart your server.

GWAVA Optimization Wizard

GWAVA's installer now includes an optimization wizard to ensure commonly used settings and features can be activated immediately to ensure proper "out of the box" operation of GWAVA. These include:

- Enable attachment blocking for commonly problematic attachments
- Enable RBL lookups and add common RBL servers
- Enable Super RBL lookups and add common RBL servers
- Enable Fingerprinting, block common executables and exploits
- Turn on administrative notification for these events
- Turn on archiving for these events
- Don't show this prompt again except when configuring new servers

Once the install Wizard runs, you are presented with the options of running GWAVA and the Export Spam module.



GWAVA Optimization Wizard

GWAVA has detected that your system may not be running optimally. The options below are provided for your convenience. They automatically turn on commonly used functions in GWAVA and pre-set the options to conservative, but highly effective settings. Any currently existing settings are merged with the added settings.

☑ Enable attachment blocking, add commonly viral extensions (such as EXE, VBS, etc)

☑ Enable RBL lookups, add common RBL servers

☑ Enable SURBL lookups, add common RBL servers

☑ Enable fingerprint, block common executables and exploits

☑ Turn on administrator notification for these events

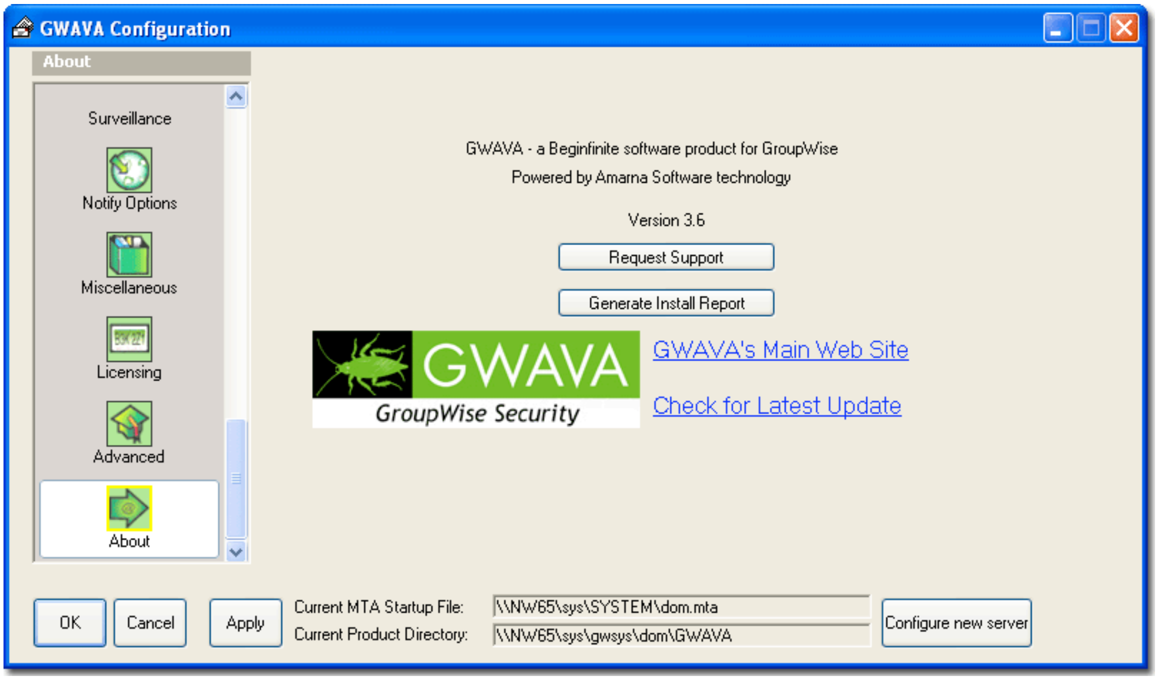
☑ Turn on archiving for these events

Note: You should check each of the appropriate screens to ensure the policies that have been set match your organization's policies.

☐ Don't show this prompt again except when configuring new servers

The GWAVA Manager

When the GWAVA Manager launches, it opens to the About screen.



GWAVA - a Beginfinite software product for GroupWise
Powered by Amarna Software technology

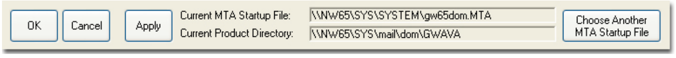
Version 3.6

Current MTA Startup File: \\NW65\sys\SYSTEM\dom.mta
Current Product Directory: \\NW65\sys\gwsys\dom\GWAVA

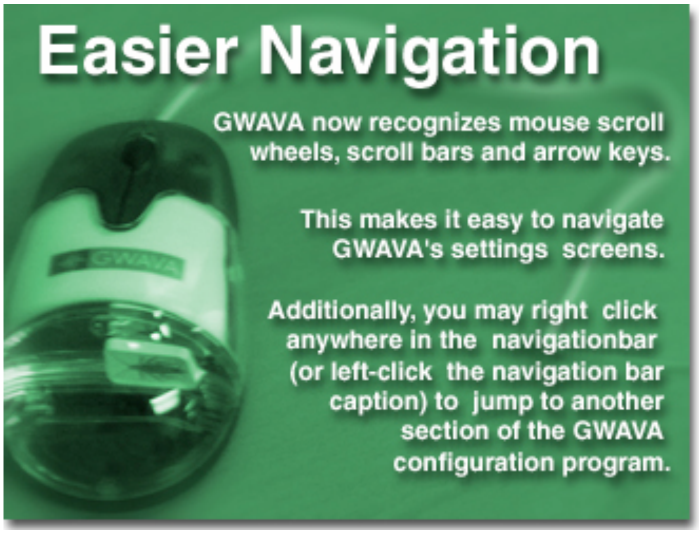
The GWAVA 3 Interface

From here, use the button bar on the left to access the features of the GWAVA Manager. The GWAVA Manager gives you access to all of GWAVA's features (depending on which version of GWAVA you purchased).

This interface contains all the tools necessary for configuring GWAVA's many features. The first time you run the program, you will notice a number of settings that were established by the Configuration Wizard. For example, the operating MTA is always listed at the bottom of the screen between three buttons.



Current MTA Startup File: \\NW65\SYS\SYSTEM\gw65dom.MTA
Current Product Directory: \\NW65\SYS\mail\dom\GWAVA



Easier Navigation

GWAVA now recognizes mouse scroll wheels, scroll bars and arrow keys.

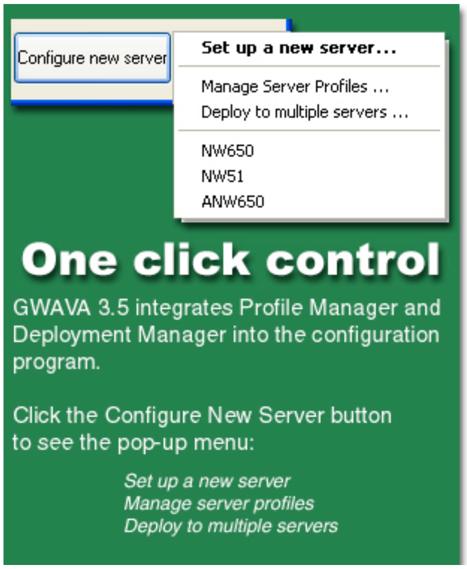
This makes it easy to navigate GWAVA's settings screens.

Additionally, you may right click anywhere in the navigationbar (or left-click the navigation bar caption) to jump to another section of the GWAVA configuration program.

Four buttons are present at the bottom of all screens in the Configuration Program—**OK**, **Cancel**, **Apply**, and **Configure New Server**. **OK** accepts and saves any changes you have made before exiting the program. **Apply** saves the changes, just as if you clicked OK, but does not exit the Configuration Program. **Cancel** undoes any changes you have made and exits the program; and **Configure New Server** runs the wizard so you can install GWAVA on another server. The location of the current MTA startup file is displayed at the bottom of the screen as well.

What are the setting screens in GWAVA?

- **Virus Scanning**: toggle virus scanning options, specify messages to be scanned and set notification options.
- **Oversized Messages**: toggle oversized message filtering, limit the maximum size or maximum aggregate size of messages that can be sent by users, set exceptions to the rules, and set notification options.
- **Attachment Blocking**: Blocks attachments based on file **name**. Toggle attachment blocking options, specify filenames or file types to be blocked, set exceptions to rules, and set notification options.
- **Fingerprinting**: Blocks attachments based on file **format**. Configures GWAVA's ability to identify file types even when their extensions have been changed.
- **Content Filtering**: toggle content filtering, set rules for blocking messages containing restricted or inappropriate content.
- **RBL and SuRBL**: configure GWAVA to check messages against Real-time Blackhole List database(s).
- **Spam Heuristics**: toggle and adjust settings for Anti-Spam Heuristics which test message based on a number of criteria. You can also launch SmartBlocker Manager™ from here, a new helper application for configuring spam/ham rules.
- **Address Blocking**: toggle Address Blocking, and manage the list of blocked addresses.
- **Archiving**: toggle archiving, specify criteria for archiving messages, and limit disk space used by the archive.
- **Exceptions**: global settings for user exceptions.
- **Logging**: Configure the creation of logs, event logs, schedule output at particular times, generate reports
- **Post Office Scan**: configure post office-level scans of messages traveling within your network. Post Office specific configurations possible.
- **Location of Files**: specify the location of the Domain and GWAVA directories, as well as the location of the notification templates.
- **Server Profile**: used to change settings for the currently loaded GWAVA profile.
- **Surveillance**: Configure GWAVA to scan and report rule violations without blocking mail. A discrete way to notify management of e-mail policy violations.
- **Notify Options**: configure the settings for sending notification messages.
- **Miscellaneous**: set the username and password for GWAVA, toggle and set up logging, clustering and toggle the decompression engine.
- **Licensing**: Enter **BOTH** your GWAVA **license code and license key.**
- **Advanced**: only adjust these settings under the guidance of GWAVA Technical Support, do not change these settings without contacting Beginfinite Technical Support.
- **About**: informational screen about GWAVA. Your version number is found here. You can also generate a report about all the major files involved in your GWAVA installation from this screen with one click.



One click control

GWAVA 3.5 integrates Profile Manager and Deployment Manager into the configuration program.

Click the Configure New Server button to see the pop-up menu:

Set up a new server
Manage server profiles
Deploy to multiple servers

Note: The GWAVA Manager can be resized to fit the width of your workstation monitor. To adjust the width of the GWAVA 3 interface, hover your mouse over the left or right edge of the GWAVA Manager; when the mouse cursor changes to the resize arrows, click and drag the edge until the GWAVA manager has reached the desired width.

This can also be adjusted by editing the LMTACFG.INI file in your **/Program Files/Beginfinite/GWAVA**. Please see Configuration File Format or further information.

About

This is the first screen visible each time the GWAVA Manager launches. You can confirm your GWAVA version number from this screen, as well as check for updates to the software.

Demo Options

If you are evaluating GWAVA without a valid license, you automatically enter Demo mode.

Request Support

The automated Request Support application makes it easy for you to communicate with our support team.

Click the **Request Support** button to begin the process. You may cancel the request for support at any time.

The more information you provide in the request, the greater the speed with which your support technician will have the answers to your problem. In some instances, our support team may first try to solve the issue by recreating it on a test machine.

Generate Install Report

The **Installation Report** button generates a report detailing all the files involved in your GWAVA installation. With one click, a HTML report will be printed to your GWAVA application directory, allowing you to see which files and versions are in use. This report can be useful for fine-tuning and debugging your installation of GWAVA. File categories included in the report generation include:

- GWAVA executables
- GroupWise files
- Server program files
- Server resource files
- Spam configuration files

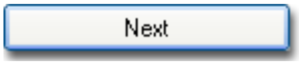
Beginning your request for support

The first screen is informational. It explains the request support process: These are to compose a request, attach files if necessary, and the store the generated result in a password protected archive.

- The password is always set to "help".

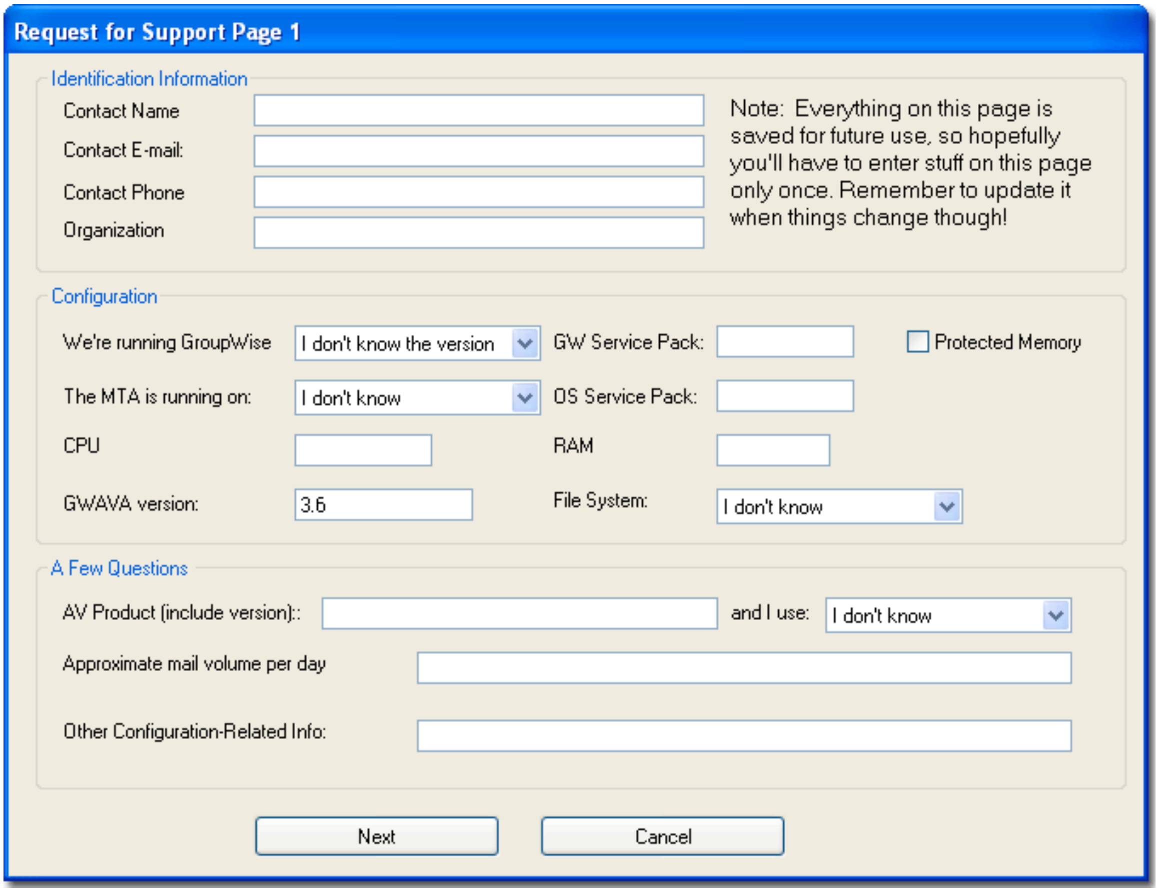
The result may be sent to GWAVA manually or by auto-mailing GroupWise. Alternatively, you can send an e-mail to GWAVA directly at support@gwava.com.

Click **Next** to continue.



Step 1

Contact and system information required



Request for Support Page 1

Identification Information

Contact Name

Contact E-mail:

Contact Phone

Organization

Note: Everything on this page is saved for future use, so hopefully you'll have to enter stuff on this page only once. Remember to update it when things change though!

Configuration

We're running GroupWise: I don't know the version

GW Service Pack:

□ Protected Memory

The MTA is running on: I don't know

OS Service Pack:

CPU

RAM

GWAVA version: 3.6

File System: I don't know

A Few Questions

AV Product (include version)::

and I use: I don't know

Approximate mail volume per day

Other Configuration-Related Info:

The Request Support screen is a contact information form. There are three sections: Identification information, Configuration information and A Few Questions related to your network set-up. Your entries—-including items in the drop-down menus—will be stored for your convenience so the same data does not have to be entered each time you wish to contact the GWAVA support team.

Identification Information

Enter the preferred **Contact Name**, **Contact E-Mail**, **Contact Phone** number and **Organization** name in the first section.

Configuration

The Configuration portion is where you provide details about the environment in which your copy of GWAVA is operating. Please enter which **GroupWise Version** and **Service Pack** are in use, **what OS the MTA is running on**, and any **OS Service Pack** installed. There are also fields for you to identify your **CPU**, the amount of **RAM**, the GWAVA version installed and your type of **File System** (I.E Traditional File System or NSS File System). There is also a checkbox asking if your system using protected memory.

A Few Questions

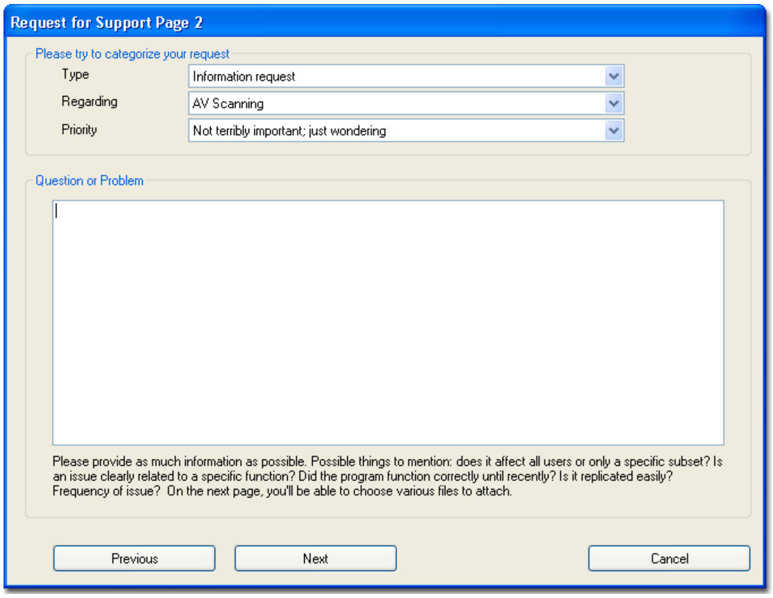
The final section of this screen is where you answer a few questions about your GWAVA configuration. Please tell us which AV Product is in use, and, if possible, the version number. Tell us how your anti-virus product is used with the And I Use drop-down menu to its right.

As well, please estimate your approximate mail volume per day. Add any Other Configuration-Related information you believe would help us understand your set-up. Then, click **Next** to continue. Clicking **Cancel** returns you to the About screen.

Step 2

Describe the issue

The second page of the Request Support form has two sections. The top part is where you categorize your request. The second is a blank field where you detail your request for support.



Request for Support Page 2

Please try to categorize your request

Type	Information request
Regarding	AV Scanning
Priority	Not terribly important; just wondering

Question or Problem

Please provide as much information as possible. Possible things to mention: does it affect all users or only a specific subset? Is an issue clearly related to a specific function? Did the program function correctly until recently? Is it replicated easily? Frequency of issue? On the next page, you'll be able to choose various files to attach.

Categorizing Your Request

Three drop-down menus are provided to help us direct your request for support to the appropriate staff. The **Type** menu has three request descriptions:

- Information Request
- Bug Report
- Enhancement Request

The **Regarding** drop-down menu classifies your request into one of eight categories:

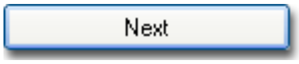
- AV Scanning
- Attachment Blocking
- AntiRelay Protection
- Mail Filtering/Forwarding
- Spam Heuristics
- Archiving
- Notification
- Something Else

The **Priority** drop-down menu helps us prioritize your communication:

- Not Terribly Important; Just Wondering
- Of Some Importance
- Pretty Important to us
- Very Important to us
- CRITICALLY important to us

Question or Problem?

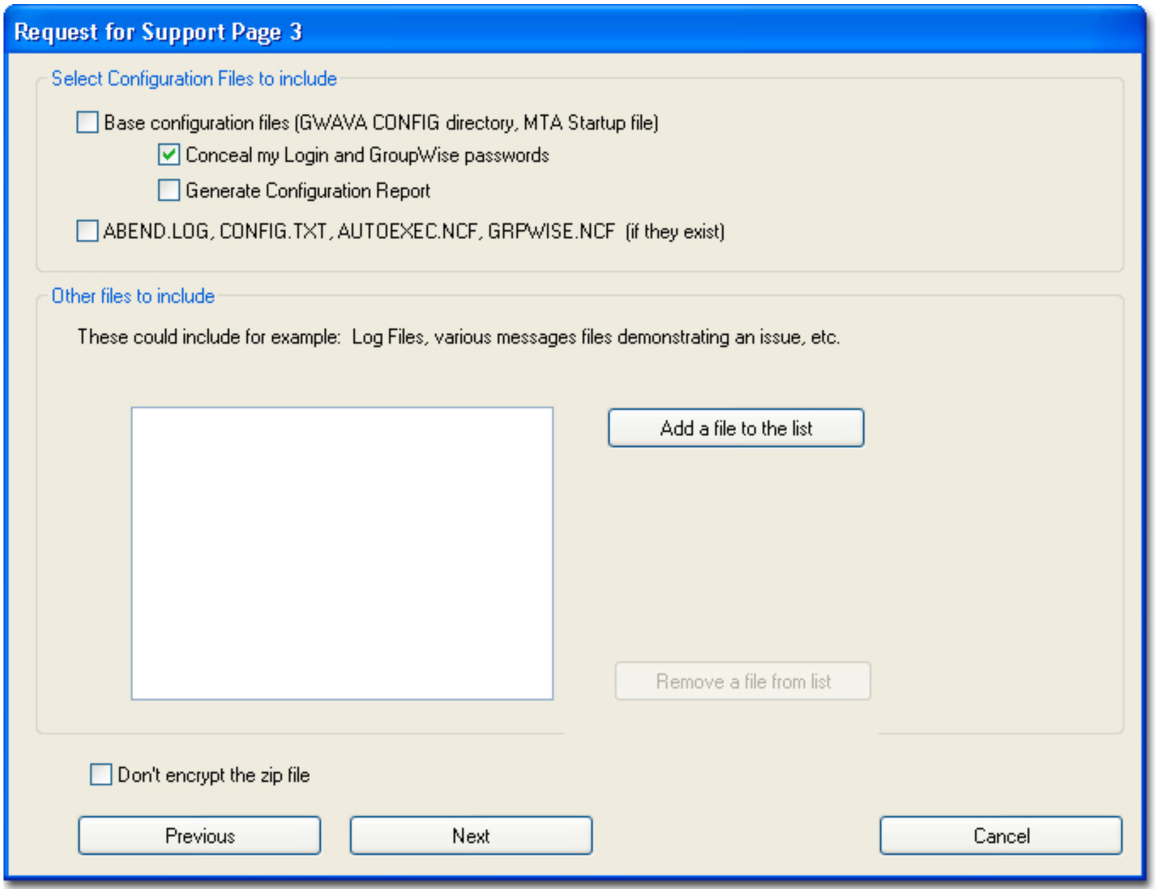
Please provide as much information as possible in the text entry field. Does it affect all users or only a specific subset? Is the trouble clearly related to a specific function? Did GWAVA function correctly until recently? Can the error be replicated easily? How frequently does the problem occur?



Click **Next** once you have completed the form. Clicking **Cancel** returns you to the About screen while the **Previous** button allows you to edit the previous screen.

Step 3

Attach documents to your request for support



Request for Support Page 3

Select Configuration Files to include

□ Base configuration files (GWAVA CONFIG directory, MTA Startup file)

☑ Conceal my Login and GroupWise passwords

□ Generate Configuration Report

□ ABEND.LOG, CONFIG.TXT, AUTOEXEC.NCF, GRPWISE.NCF (if they exist)

Other files to include

These could include for example: Log Files, various messages files demonstrating an issue, etc.

□ Don't encrypt the zip file

This screen is where you choose which files will be appended to your request. To attach configuration files, click **Base configuration files** checkbox. To ensure your security, the **Conceal my Login and GroupWise password** is on by default. There is also another checkbox option to **Generate Configuration Report**.

If your system has been set up to generate ABEND.LOG or CONFIG.TXT files, and you believe this data may help us diagnose and resolve your support request, click the ABEND.LOG, CONFIG.TXT box to automatically attach them.

The final option in this screen is the **Don't encrypt the zip file** checkbox. This is unchecked by default.

Other Files to Include

Use the **Add A File to the List** button to attach any other documents to your request for support. This may include log files or error messages. Click **Next** once you have completed the form. Clicking **Cancel** returns you to the GWAVA Manager About screen while the **Previous** button allows you to edit the previous screen.

Don't forget!

The Generate Install Report button creates a list of all files used by your GWAVA installation. You may find it helpful to include this request for support.

Step 4

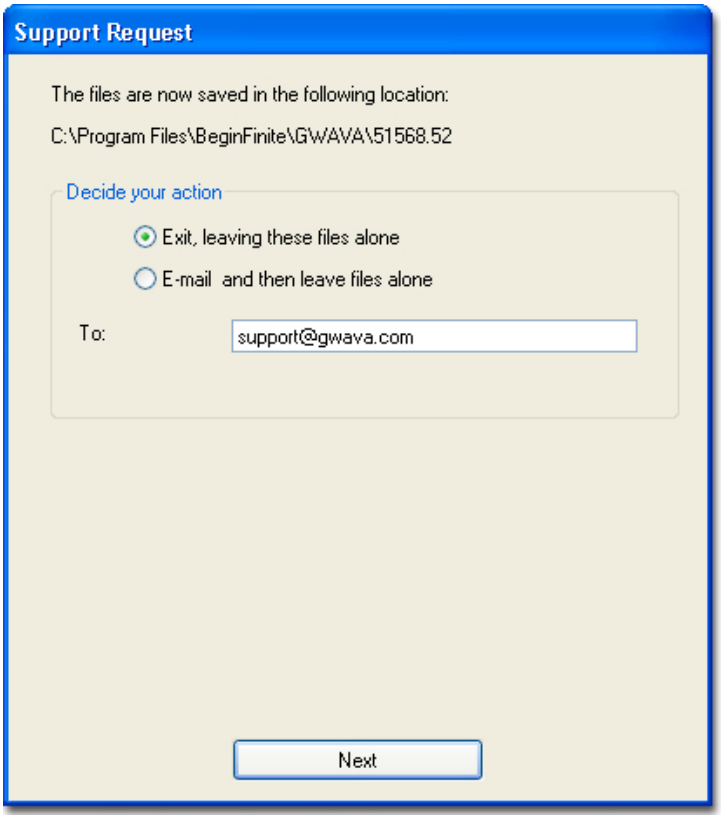
Confirm the request.

This is the final step in the GWAVA Manager Request Support function.

All the information in your request for support is now in a compressed archive in the GWAVA directory. You have two options: **Exit** the automated request support function without e-mailing the archive or **E-Mail** the archive automatically.

Choose by clicking on one of the radio buttons. In either case, the archive will remain in the GWAVA program directory.

Clicking **Next** returns you to the About screen.



Support Request

The files are now saved in the following location:

C:\Program Files\BeginFinite\GWAVA\51568.52

Decide your action

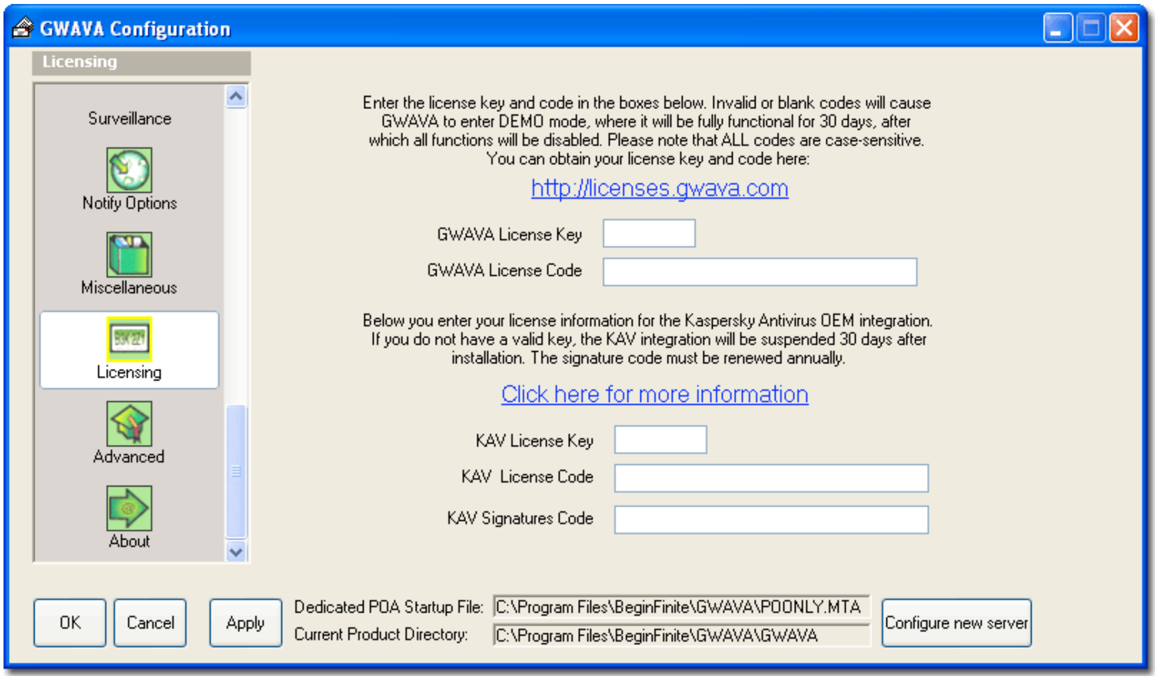
● Exit, leaving these files alone

○ E-mail and then leave files alone

To: support@gwava.com

Licensing

Once you register your license on our web site, you will be automatically e-mailed licensing details which include your key and code, ***both*** of which are needed to unlock the demo. Note that the Key and Code are case sensitive.



Enter the license key and code in the boxes below. Invalid or blank codes will cause GWAVA to enter DEMO mode, where it will be fully functional for 30 days, after which all functions will be disabled. Please note that ALL codes are case-sensitive. You can obtain your license key and code here:

http://licenses.gwava.com

GWAVA License Key

GWAVA License Code

Below you enter your license information for the Kaspersky Antivirus OEM integration. If you do not have a valid key, the KAV integration will be suspended 30 days after installation. The signature code must be renewed annually.

Click here for more information

KAV License Key

KAV License Code

KAV Signatures Code

Dedicated POA Startup File: C:\Program Files\BeginFinite\GWAVA\POONLY.MTA

Current Product Directory: C:\Program Files\BeginFinite\GWAVA\GWAVA

Notes about the Demo Version

Without a licensed version of GWAVA, and provided your demo has not yet reached its 30-day time limit, you can switch between versions of GWAVA from the About screen.

Unlocking the GWAVA3 Demo after installation

- In the GWAVA Configuration Program, click **Licensing**
- Copy & Paste in your v 3.0 License Key and License Code
- Click **OK** to exit the Configuration Program, select **NO** to a requested reload
- At the MTA Console, press **F7** to unload the MTA
- At the Server Console, type **NOGWAVA**, then <**enter**>
- Once all the GWAVA modules have unloaded, reload the MTA
- GWAVA 3 should now be fully functional

There is no need to re-install and reconfigure GWAVA as it remembers all of your settings and customizations. If your license is delivered to you in the form of a license file, you can also import an existing license key by means of the **Import License File** button. To use this feature, click the button and navigate to your existing license key file.

Demo Tip:
The day you install the GWAVA Demo, put a note in your electronic calendar 29 days hence.

One month from now, you may not recall the exact date you installed your demo of GWAVA.

Better to be safe than surprized.

Two-part combination

GWAVA uses a two-part combination. There is a License *Key* and a License *Code*. For GWAVA to work properly, and not time out after 30 days, you must enter both pieces of information correctly. Invalid keys and codes or fields left blank will cause GWAVA3 to remain in Demo or By-Pass mode. **Remember:** Copy and paste the licensing key and code GWAVA e-mails to you to prevent retyping errors that will cause your installation to time out in 30 days.

Kaspersky Licensing Options

GWAVA is pleased to present Kaspersky Antivirus as an OEM offering to our users. This integration comes with a free 30 day fully functional demo of the Kaspersky AV system allowing GWAVA customers to have protection against spam and viruses “out of the box”. Licenses for Kaspersky must be purchased for continued use after the 30-day period expires. **The integration will no longer function or update virus signatures after this period**. Enter the:

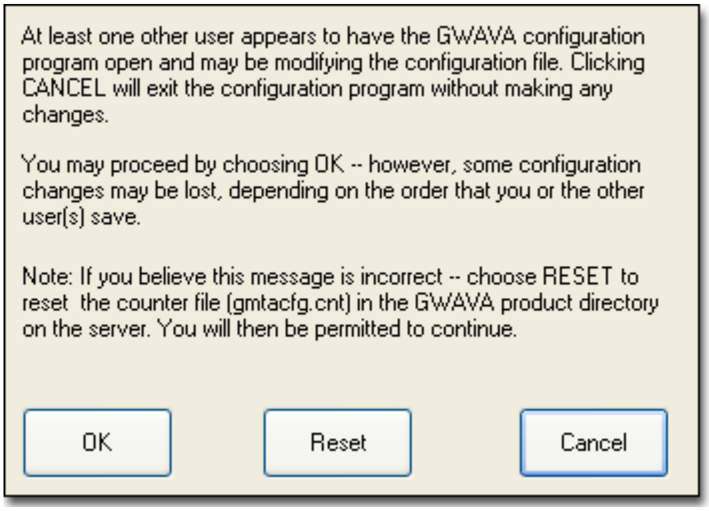
- KAV License Key
- KAV License Code
- KAV Signature Code

If you have purchased Kaspersky separately, see the Configuring your AV scanner section of this manual.

Multiple User Control

GWAVA now has a multiple user safety feature built in to prevent conflicting edits to your settings being made. If more than one user appears to be using the GWAVA Configuration at the same time in the same network, a warning dialogue box will be presented

Click **OK** to continue, or **Cancel** to quit. If you believe this caution has been shown to you erroneously, click **Reset**.



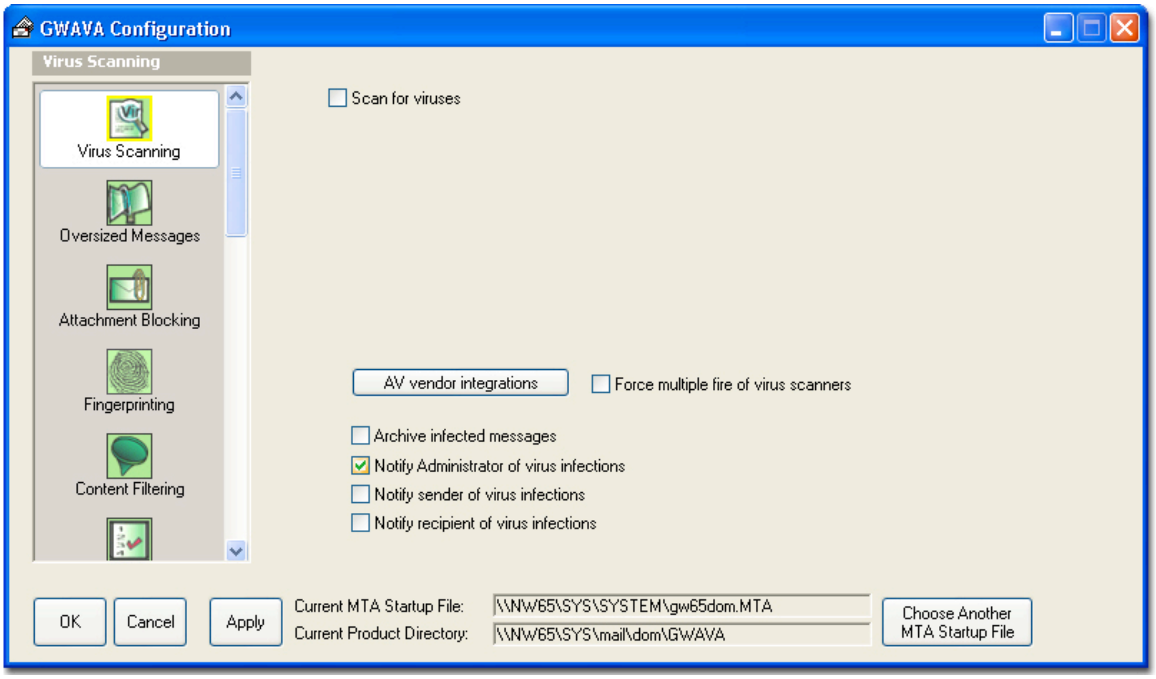
At least one other user appears to have the GWAVA configuration program open and may be modifying the configuration file. Clicking CANCEL will exit the configuration program without making any changes.

You may proceed by choosing OK -- however, some configuration changes may be lost, depending on the order that you or the other user(s) save.

Note: If you believe this message is incorrect -- choose RESET to reset the counter file (gmtacfg.cnt) in the GWAVA product directory on the server. You will then be permitted to continue.

Virus Scanning

Configure GWAVA's virus scanning options.



□ Scan for viruses

□ Force multiple fire of virus scanners

□ Archive infected messages

☑ Notify Administrator of virus infections

□ Notify sender of virus infections

□ Notify recipient of virus infections

Current MTA Startup File: \\NW65\SYS\SYSTEM\gw65dom.MTA

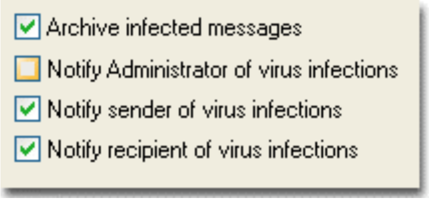
Current Product Directory: \\NW65\SYS\mail\dom\GWAVA

Turn on virus scanning by clicking the **Scan for viruses** checkbox.

☑ Scan for viruses

Notification Options

There are four notification options for virus scanning: Archive infected message, notify the administrator of virus infections, notify the sender of virus infections and notify the recipient.



☑ Archive infected messages

□ Notify Administrator of virus infections

☑ Notify sender of virus infections

☑ Notify recipient of virus infections

The notify messages inform the recipients (administrator, sender, or intended recipient) that the message was blocked because of virus infection.

The **Attach Infected Attachment** option in Virus Scanning is gone in GWAVA 3. The %%AttachSourceMessage variable is present for infected messages by default in the Administration notification template—Tadmin.822, and thus infected messages will be attached to the Administration notification automatically. It can be removed from this template if desired. See the appendices for more information about GWAVA 3's metavariables and administrative templates.

Also on this screen is the ability to **Force multiple fires of virus scanners** by enabling a checkbox. Normally, GWAVA stops processing a message after a single virus scan integration reports a virus infection in that message; this feature overrides that function and allows all virus scanners to scan the message.

☑ Force multiple fire of virus scanners

Specific Users

To exempt users from the Virus Scanning rules, please use the Exceptions feature. This is not normally recommended, but may be useful for diagnostic purposes.

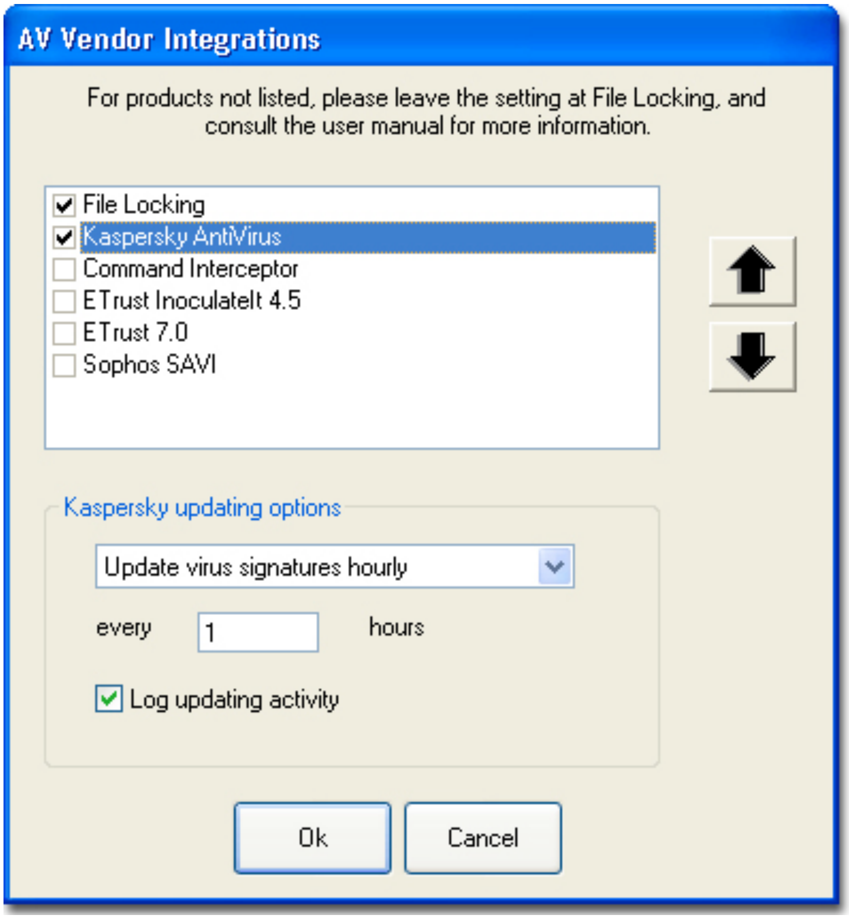
AV Engine Options

If you are running CA eTrust InoculateIT, Command Interceptor, Sophos SAVI or ETrust 7.0 on your server, you can select either or both of them, as well as a third AV engine to scan messages.

To select which will be used by GWAVA click **AV Vendor Integrations** and click to enable one or more options. If you are running McAfee Netshield, Norton Corporate Edition, Sophos, Trend Micro, Panda or Command Antivirus (not Interceptor), please be certain to select **File Locking**.

Integration Order

GWAVA has the ability to alter the order of your AV integrations. Select the active AV integration in the AV Vendor Integrations window, then use the Up and Down arrows to the right to alter the scanning order.



AV Vendor Integrations

For products not listed, please leave the setting at File Locking, and consult the user manual for more information.

☑ File Locking
☑ Kaspersky AntiVirus
☐ Command Interceptor
☐ ETrust InoculateIt 4.5
☐ ETrust 7.0
☐ Sophos SAVI

Kaspersky updating options

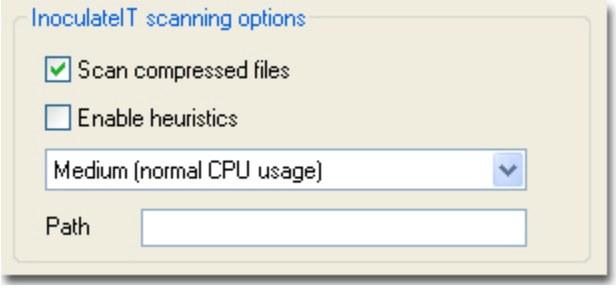
Update virus signatures hourly

every 1 hours

☑ Log updating activity

ETrust InoculateIT

Scanning options for ETrust InoculatIT are also configured from this screen including: Scan Compressed Files, Enable Heuristics, CPU load preferences and the **Path** to the VIRSIG.DAT file (Normally it's SYS:INOCULAN). CPU load preferences are managed by a drop down menu at the bottom of the window. The options available are **low**, **medium** and **high**.



InoculateIT scanning options

☑ Scan compressed files

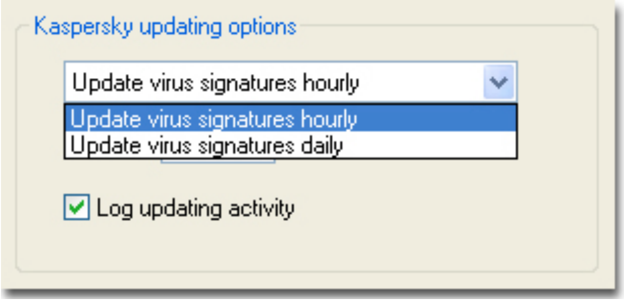
☐ Enable heuristics

Medium (normal CPU usage)

Path

Kaspersky

Virus signature update options for Kaspersky are configured from this screen including: the ability to **Update Virus Signatures Hourly** or **Daily**. There is also a checkbox, enabled by default, to **log update activity**. This is recorded in the log directory under KAV in the file in log.txt.



Kaspersky updating options

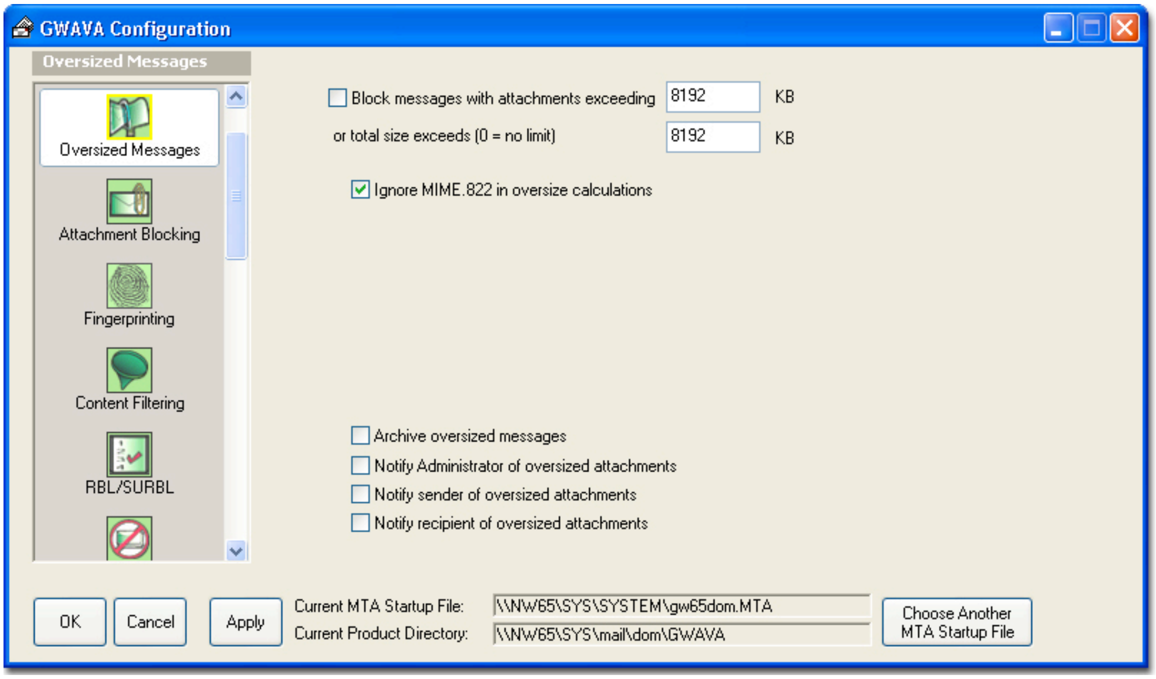
Update virus signatures hourly

☑ Log updating activity

30 day evaluation - Kaspersky's 30 day demo is separate from GWAVA's 30 day demo. A Kaspersky licence key must be purchased for continued use of Kaspersky beyond its 30-day demo.

Oversized Messages

This section configures how GWAVA processes large messages and attachments.



□ Block messages with attachments exceeding 8192 KB

or total size exceeds (0 = no limit) 8192 KB

☑ Ignore MIME.822 in oversize calculations

□ Archive oversized messages

□ Notify Administrator of oversized attachments

□ Notify sender of oversized attachments

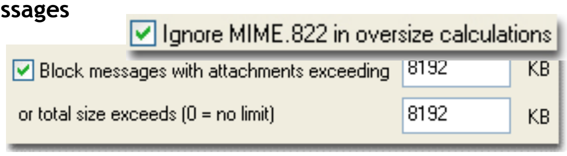
□ Notify recipient of oversized attachments

Current MTA Startup File: \\NW65\SYS\SYSTEM\gw65dom.MTA

Current Product Directory: \\NW65\SYS\mail\dom\GWAVA

Use the features in this section to prevent your mail servers from becoming overburdened with excessively large files.

Turn on oversized message blocking by clicking the **Block messages with attachments** exceeding checkbox. Enter a message size limit in KB in the field provided. All messages with attachments larger than this limit will not be delivered. Enter an aggregate size limit in KB in the **total size** field to limit message broadcasts. **Ignore MIME.822 in oversize calculations.** Enabling this checkbox forces GWAVA to ignore the size of the MIME.822 file when calculating the message size.



☑ Ignore MIME.822 in oversize calculations

☑ Block messages with attachments exceeding 8192 KB

or total size exceeds (0 = no limit) 8192 KB

Notification Options

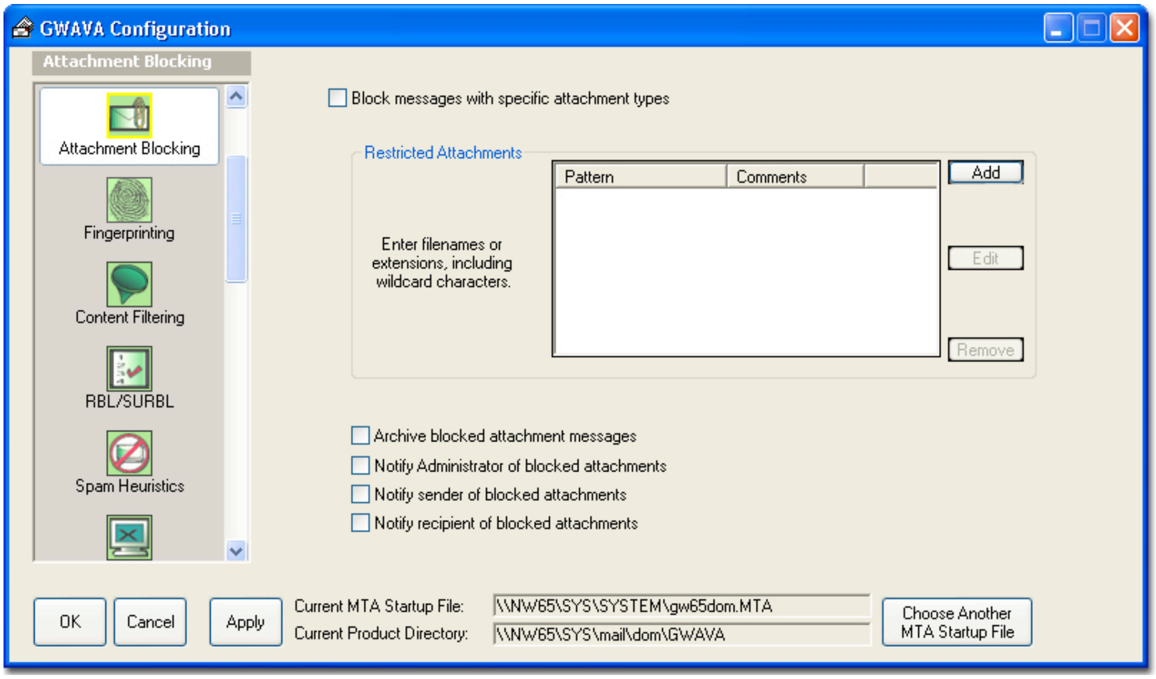
There are four additional options for Oversized Messages:

- Archive oversized attachments
- Notify administrator
- Notify sender
- Notify recipient

The notify messages inform the recipients (administrator, sender, or intended recipient) that the message was blocked because an attached file exceeded the limit at the top of this screen. Please see Notify Options for more on these messages.

Attachment Blocking

Options for preventing the sending and receipt of file attachments.



□ Block messages with specific attachment types

Enter filenames or extensions, including wildcard characters.

□ Archive blocked attachment messages
□ Notify Administrator of blocked attachments
□ Notify sender of blocked attachments
□ Notify recipient of blocked attachments

Current MTA Startup File: \\NW65\SYS\SYSTEM\gw65dom.MTA
Current Product Directory: \\NW65\SYS\mail\dom\GWAVA

Use the features here to prevent attachments from entering or leaving your system via GroupWise. This is not only an excellent secondary line of defense for preventing the spread of viruses, it also helps ensure that only business related information is moving through your e-mail network.

- It is strongly recommended that this feature be enabled in addition to Fingerprinting for maximum protection.

Users and viruses may change file extensions to disguise the true nature of an attachment. To prevent the receipt of files that may be disguised as accepted file types, use the GWAVA's Fingerprinting feature (see below), which opens the file for analysis to verify the file type against the extension in the file name.

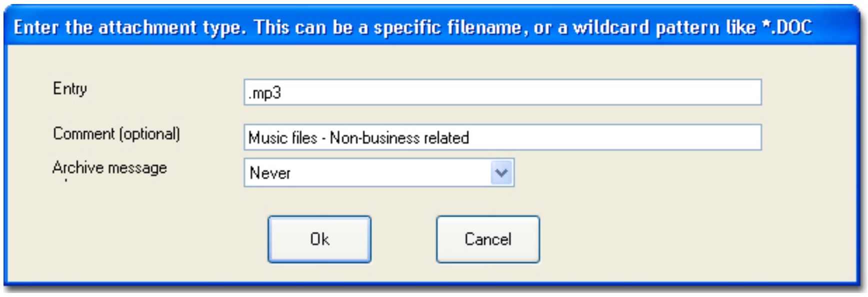
Getting started with attachment blocking
Turn on attachment blocking by clicking the **Block messages with specific attachments** checkbox.

☑ Block messages with specific attachment types

To block an attachment by filename or file type, click **Add** under **Restricted attachments**. Complete file names—such as HAPPY99.EXE—can be blocked, as can wildcard filenames—such as *VBS or *EXE files. To an entry in the list, click that entry, and then click **Edit**.

To remove an entry from the blocked list, click that entry. Then click **Remove**.

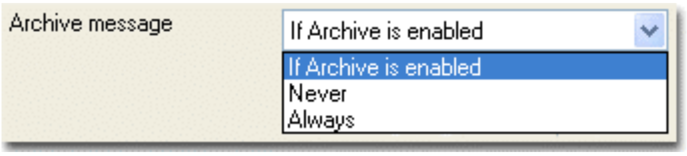
The **Comment** field is optional, but is useful to remind or explain to system administrators and managers why this particular attachment block was created.


Enter the attachment type. This can be a specific filename, or a wildcard pattern like *.DOC
Ok
Cancel

Entry: .mp3
Comment (optional): Music files - Non-business related
Archive message: Never

Archive message

There are three final options to this screen for archiving messages. These options are controlled via a drop down menu. The settings are archive message if archive is enabled, never and always.



Archive message: If Archive is enabled

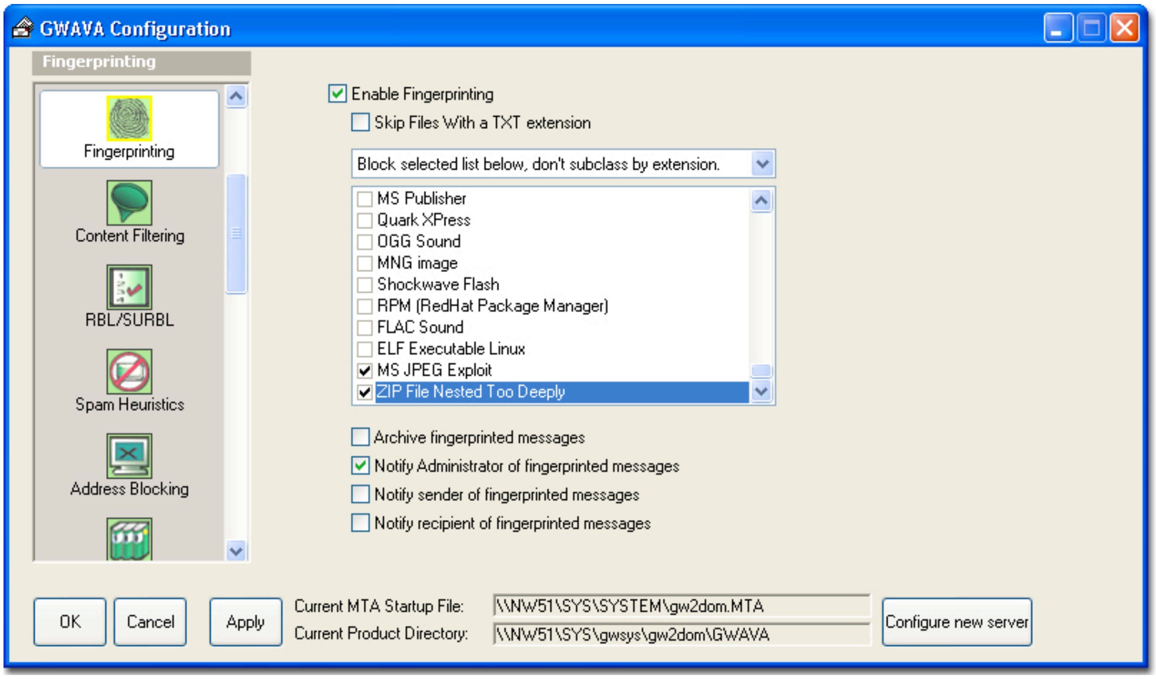
Notification Options

There are three notification options for Blocked Attachment types:

- Notify administrator
- Notify sender
- Notify recipient
- Fingerprinting

Fingerprinting

This screen configures the options for identifying file types even when their extensions have been changed.



☑ Enable Fingerprinting
□ Skip Files With a TXT extension

Block selected list below, don't subclass by extension.

□ MS Publisher
□ Quark XPress
□ OGG Sound
□ MNG image
□ Shockwave Flash
□ RPM (RedHat Package Manager)
□ FLAC Sound
□ ELF Executable Linux
☑ MS JPEG Exploit
☑ ZIP File Nested Too Deeply

□ Archive fingerprinted messages
☑ Notify Administrator of fingerprinted messages
□ Notify sender of fingerprinted messages
□ Notify recipient of fingerprinted messages

Current MTA Startup File: \\NW51\SYS\SYSTEM\gw2dom.MTA
Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

In previous versions of GWAVA, Fingerprinting options were a subset of the **Attachment Blocking settings.** Fingerprinting takes attachment blocking a step further by opening the attached files to compare the actual file type versus the attachment's extension. It is a powerful and strongly recommended feature.

Differences between Fingerprinting and Attachment Blocking

Fingerprinting is *similar to, but different from* Attachment Blocking. The simplest way to explain it: Attachment Blocking = block by file **name**, and Fingerprinting = block by file **format.**

An attachment block for **DOC* would only block a DOC file that has an extension of DOC, like *test.doc*. If you were to rename *test.doc* to *test.123* the attachment would not be blocked. Fingerprinting ignores the file name and extension and concentrates on the file format, so a renamed DOC file like *test.123* could not slip past GWAVA's Fingerprinting.

☑ Enable Fingerprinting

To exempt users from the Fingerprinting rules, please use the Exceptions feature. To enable fingerprinting, click the **Enable Fingerprinting** box in the Fingerprinting window.

There are several options when enabling fingerprinting. The first is **Skip Files With a TXT extension** will ignore all files with a .txt extension regardless of what the file really is. Below this is a drop down menu with three general options for blocking:

☑ Skip Files With a TXT extension

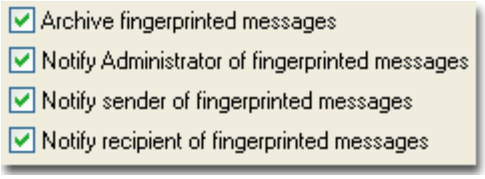
- Block all forms of DOS and Windows executables
- Block selected list below, don't subclass by extension
- Block selected list below, do subclass by extension

The first option is a blanket blocking of all executables, but no document types. The second and third options are user selectable lists of file types that can be blocked.

Options

The window below this contains a wide range of file types for fingerprinting. Finally, this window also contains notification options for fingerprinted files.

These include: archive the fingerprinted message, notify administrator of fingerprinted messages, notify sender of fingerprinted messages and notify recipient of fingerprinted messages.



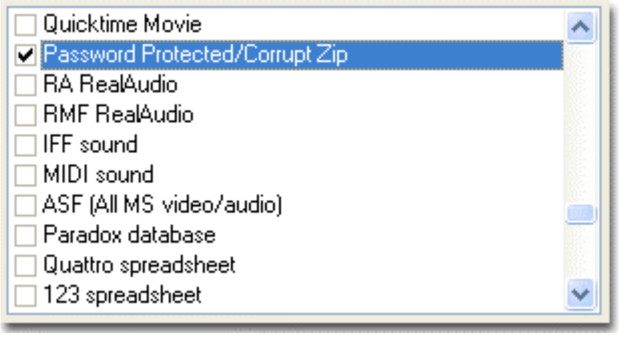
☑ Archive fingerprinted messages
☑ Notify Administrator of fingerprinted messages
☑ Notify sender of fingerprinted messages
☑ Notify recipient of fingerprinted messages

Password Protected and Corrupted Zip Archives

GWAVA 3 has the ability to block or examine password protected and corrupted zip archives. While this has been classified as a Fingerprinting feature, it requires Scan Archive Shell to be enabled. This is found in the decompression engine settings in the Miscellaneous menu.

And, naturally, both the Enable Fingerprinting and **Password Protected/Corrupt Zip** checkboxes in the Fingerprinting window must both be enabled.

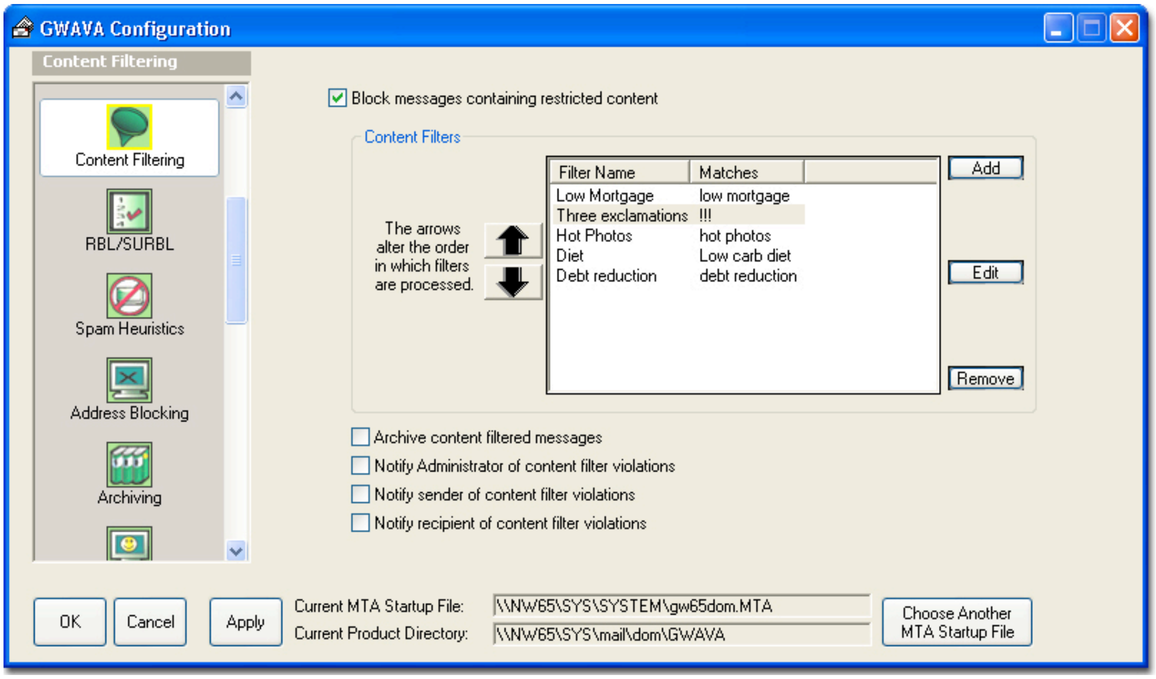
Note: Recursion Depth is controlled in the Decompression Engine screen.



☐ Quicktime Movie
☑ Password Protected/Corrupt Zip
☐ RA RealAudio
☐ RMF RealAudio
☐ IFF sound
☐ MIDI sound
☐ ASF (All MS video/audio)
☐ Paradox database
☐ Quattro spreadsheet
☐ 123 spreadsheet

Content Filtering

The features here are used to both block spam and monitor messages with restricted content.



☑ Block messages containing restricted content

Content Filters

The arrows alter the order in which filters are processed.

Filter Name	Matches
Low Mortgage	low mortgage
Three exclamations	!!!
Hot Photos	hot photos
Diet	Low carb diet
Debt reduction	debt reduction

□ Archive content filtered messages

□ Notify Administrator of content filter violations

□ Notify sender of content filter violations

□ Notify recipient of content filter violations

Current MTA Startup File: \\NW65\SYS\SYSTEM\gw65dom.MTA

Current Product Directory: \\NW65\SYS\mail\dom\GWAVA

GWAVA can prevent restricted text content in message subject lines, bodies, and attachments from being sent to and from the GroupWise system.

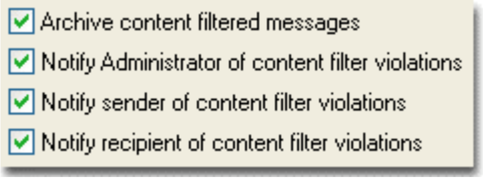
GroupWise administrators have long sought content filtering for spam, and GWAVA provides this. Using GWAVA's Content Filtering feature, administrators can block the flow of confidential, restricted, or inappropriate text in a company or institution. This help ensures that your e-mail network is used for professional purposes only, and that confidential information does not leave your firm. For additional anti-spam features, see the Spam Heuristics section.

Turn on content filtering by clicking the **Block messages containing restricted content** checkbox. When this box is checked, the **Add**, **Edit**, and **Remove** buttons become active.

☑ Block messages containing restricted content

Notification Options

There are four notification options for content filtered messages: archive content filtered messages, notify administrator of content filtered messages, notify sender of content filtered messages and finally, notify recipient of content filter violations. Please see Notify Options for more about these messages.



☑ Archive content filtered messages

☑ Notify Administrator of content filter violations

☑ Notify sender of content filter violations

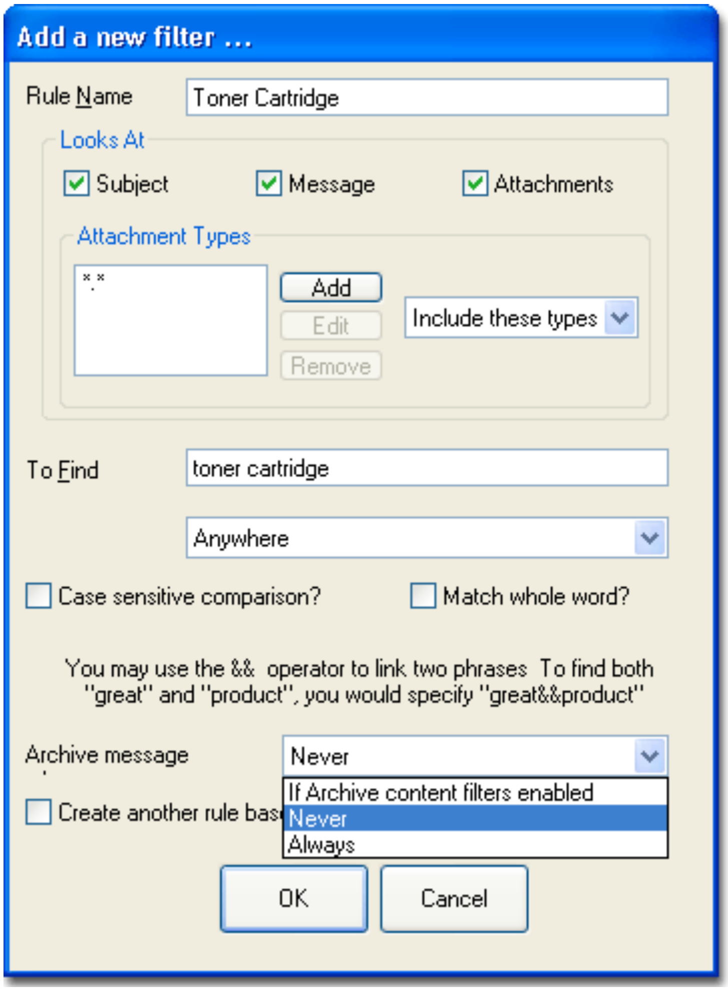
☑ Notify recipient of content filter violations

Add a Filter

To add a new filter, click **Add**.

Follow these steps to create a new filter:

- Enter a name for this rule in the **Rule Name** field. There are no requirements for naming filters but it is advisable that you use a plain, easy to understand name, which will help you, and other members of staff know at-a-glance what content the filter is checking.
- Select what the filter applies to: **Subject, Message**, or **Attachments**. You can choose one, two, or all three message components for filtering.
- Add attachment types by clicking Add in the **Attachment Types** area.
- You then opt to Include or Exclude the attachment type from the filtering process. If, for example, you entered a type *.TXT, choosing Include will have GWAVA filter all *.TXT attachments for this content; choosing Exclude will have GWAVA scan all attachments but *.TXT for this content.
- Enter the text you want this filter to locate in the **To Find** field. GWAVA 3 also allows you to link phrases with the && operator. For example "make&&money" will filter out "make money", "make lots of money", "make more money", etc. Note: ensure there are no spaces between the words and the && operators.
- Use the drop-down list below to choose where GWAVA should look for this content—at the beginning of, or anywhere in a line of text.
- Check **Case Sensitive** comparison if you want GWAVA to match character cases during the search.
- **Check Match whole word?** If you want GWAVA to treat the entry as a word rather than a sub string within a word. An example would be the word "ball." If you add this word and select Match whole word, then only instances of the word "ball" will be filtered. If, however, you do not select Match whole word, all words containing the string "ball," such as "ballgame" and "basketball" will be filtered.



Add a new filter ...

Rule Name: Toner Cartridge

Looks At: ☑ Subject ☑ Message ☑ Attachments

Attachment Types: *.* — Include these types

To Find: toner cartridge

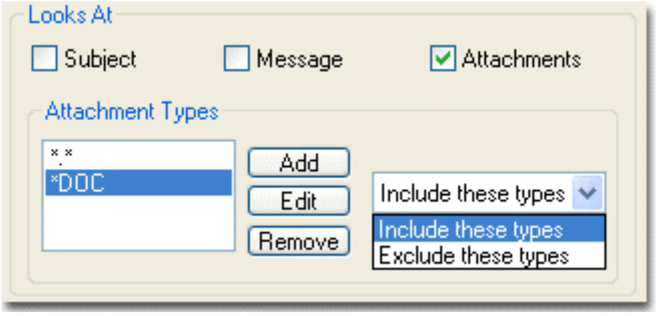
Anywhere

☐ Case sensitive comparison? ☐ Match whole word?

You may use the && operator to link two phrases To find both "great" and "product", you would specify "great&&product"

Archive message: Never

☐ Create another rule bas

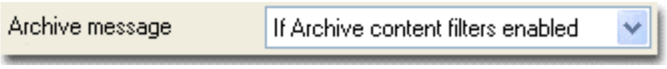


Looks At: ☐ Subject ☐ Message ☑ Attachments

Attachment Types: *.* , *DOC — Include these types

Archiving Options

You can set archiving options for fingerprinting from this screen with the drop down menu provided.
Options here include archive if archive content filters are enabled, never and always.



Archive message: If Archive content filters enabled

Create a new rule based on this rule

Enabling the **Create a new rule based on this rule** checkbox and clicking **OK** will save the changes or additions you have entered above and immediately open a new window. You can then add a new name—possibly a derivative one—and then customize this rule further.

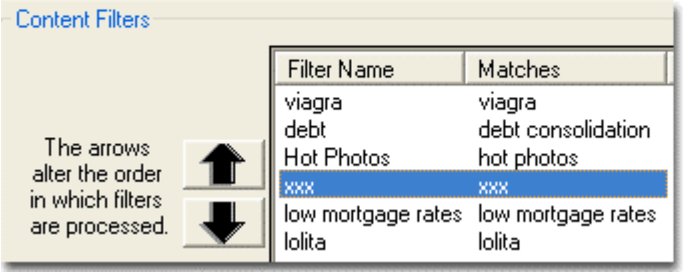
☑ Create another rule based on this one.

Click **OK** to complete the filter.

Select an existing filter and click **Edit** to change the parameters of that filter. To remove a filter, select it from the list and choose **Remove**. A removed filter will no longer affect message traffic.

Filtering Order

With more than one content filter enabled, the filter at the top of the list will be processed first. To change the order in which GWAVA uses your filters, select a filter and click the Up or Down arrows to move the filter.



Content Filters

Filter Name	Matches
viagra	viagra
debt	debt consolidation
Hot Photos	hot photos
xxx	xxx
low mortgage rates	low mortgage rates
lolita	lolita

The arrows alter the order in which filters are processed.

To exempt users from the Virus Scanning rules, please use the Exceptions feature.

Content Filtering Ideas

Because GroupWise sends MIME headers as attachments, and GWAVA can scan attachments for content filters, you can use Content Filtering to block full or partial IP addresses, or domain names. Consider these examples:

IP blocking: by establishing a filter to scan attachments for 100.100. You can effectively block all email originating from any IP address that starts with 100.100. When a specific IP address is troublesome, you can create a filter for the specific IP. Scanning attachments will allow GWAVA to filter MIME.822. This is the MIME header (that will contain the IP address) and is delivered in the form of an attachment to the e-mail.

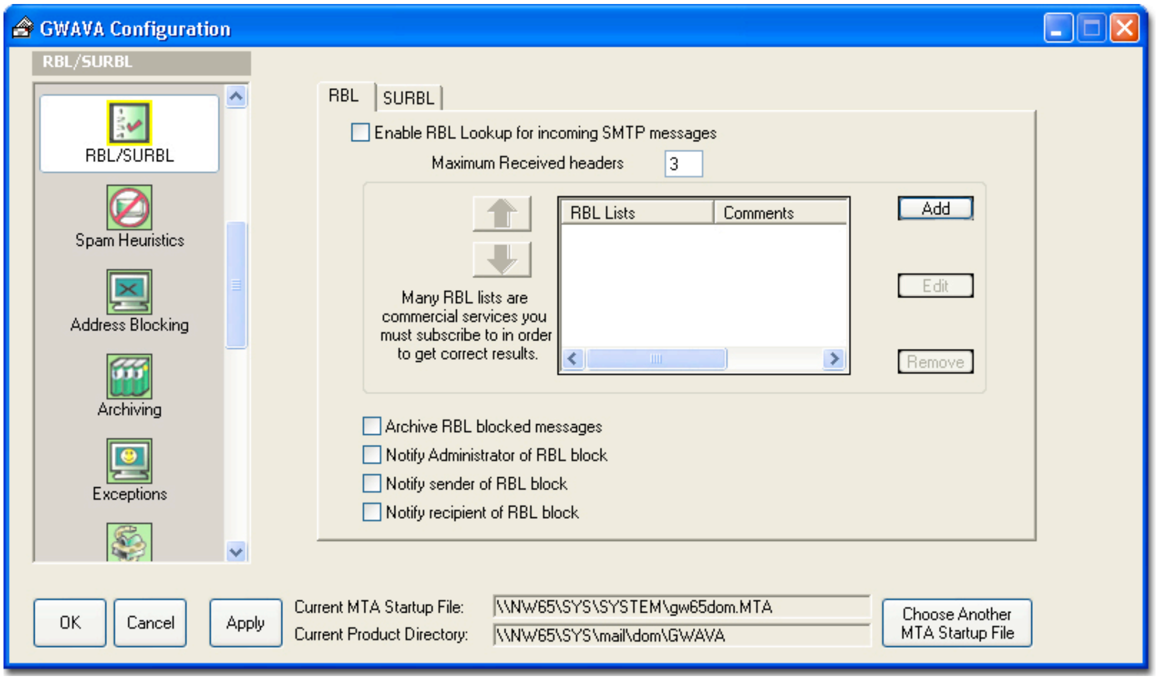
Domain blocking: to stop, for example, all mail from *reallygreatdeals.com* create a content filter to scan attachments for *reallygreatdeals.com*. In addition, since sub-domains are often involved in mail sending, using a wildcard extends the reach of this filter. For example, *hotmail.com will block messages originating at both hotmail.com and mail1.hotmail.com. Scanning attachments will allow GWAVA to filter TEXT.HTM and MIME.822. MIME.822 is the MIME header (that will contain domains) and TEXT.HTM will be present if the e-mail contains HTML (domain names will often appear in URL links embedded in HTML). Both files are delivered in the form of an attachment to the e-mail.

Keyword blocking: to eliminate messages with certain keywords, create a filter with “keyword” and all instances of that word will be blocked. For example, to block all incoming mail with the word “offers” in the from email address/name, create a filter that scans attachments for “offers”.

These are just a few creative ways you can use Content Filtering to further enhance the already powerful Anti-Spam features of GWAVA. For information about spam tagging, also known as “catch and release” of spam content, see the Spam section

RBL/SuRBL

RBL Lists—Real-time Blackhole Lists—are databases of known spammers and known mail servers that allow open-relay mail sending (of which spammers take advantage). SuRBL blocking—an innovation increasing the effectiveness of this kind of blocking—is also configured here.



□ Enable RBL Lookup for incoming SMTP messages

Maximum Received headers 3

Many RBL lists are commercial services you must subscribe to in order to get correct results.

□ Archive RBL blocked messages
□ Notify Administrator of RBL block
□ Notify sender of RBL block
□ Notify recipient of RBL block

Current MTA Startup File: \\NW65\SYS\SYSTEM\gw65dom.MTA
Current Product Directory: \\NW65\SYS\mail\dom\GWAVA

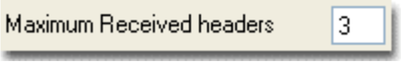
The RBL Lists feature of GWAVA compares the e-mail address and mail server information found in a message's header against black lists you specify. This will block messages that arrived from a known spam source.

RBL lists are typically subscription services. You must subscribe before you can attempt to use an RBL database with your installation of GWAVA. To add a RBL database to GWAVA, click **Add** and enter the internet server address of the RBL database to which you have subscribed. Once a RBL has been included, the **Edit** and **Remove** buttons become active.
Then, click the **Enable RBL Lookup for Incoming SMTP messages** checkbox.

☑ Enable RBL Lookup for incoming SMTP messages

Maximum Received Headers

This setting helps if you are using a firewall or proxy server that will show up in the MIME headers as the most recent IP address to handle the message. Basically, it will ignore this hop and move to the second. A setting of **3** should be sufficient in 85% to 90% of cases. It is the default. If the RBL feature doesn't seem to be catching any spam, increase this to 5 or 6. Do not increase this setting excessively.



Maximum Received headers 3

Notes about using the RBL feature

Some RBL databases are very liberally maintained, and are therefore *widely inclusive* of e-mail and server addresses. While these lists provide a worthwhile means of preventing the receipt of spam in your organization, you should be certain your RBL subscription/use will not prevent you from receiving legitimate e-mail messages.

To exempt users from the Virus Scanning rules, please use the Exceptions feature.

More Information about RBL Lists

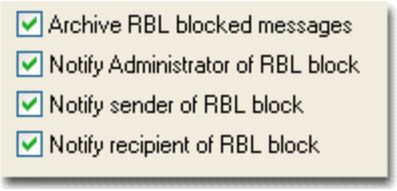
For a lengthy list of Spam-blocking RBL databases, we suggest looking at http://moensted.dk/spam/ or http://www.declude.com/junkmail/support/ip4r.htm. These lists are among the most comprehensive available, however, we remind you that they are not definitive, and that you should research any RBL service provider before using their RBL database with GWAVA.

Some RBL services you might consider:

- **SPAMCOP**: bl.spamcop.net
- **SPAMHAUS**: sbl.spamhaus.org
- **ORDB**: relays.ordb.org
- **BLITZEDALL**: opm.blitzed.org
- **WIREHUB**: blackholes.wirehub.net
- **DSBL**: list.dsbl.org, multihop.dsbl.org
- **RSL**: relays.visi.com
- **MAPS:** blackholes.mail-abuse.org, dialups.mail-abuse.org, relays.mail-abuse.org (MAPS is a paid service; it is not free.)

Notification Options

There are four notification options for RBL blocks: **Archive RBL blocked messages, Notify administrator of RBL block, Notify sender of RBL block** and **Notify recipient of RBL block.** The notify messages inform the recipients (administrator, sender, or intended recipient) that the message was blocked because it violated a RBL blocking rule.



☑ Archive RBL blocked messages

☑ Notify Administrator of RBL block

☑ Notify sender of RBL block

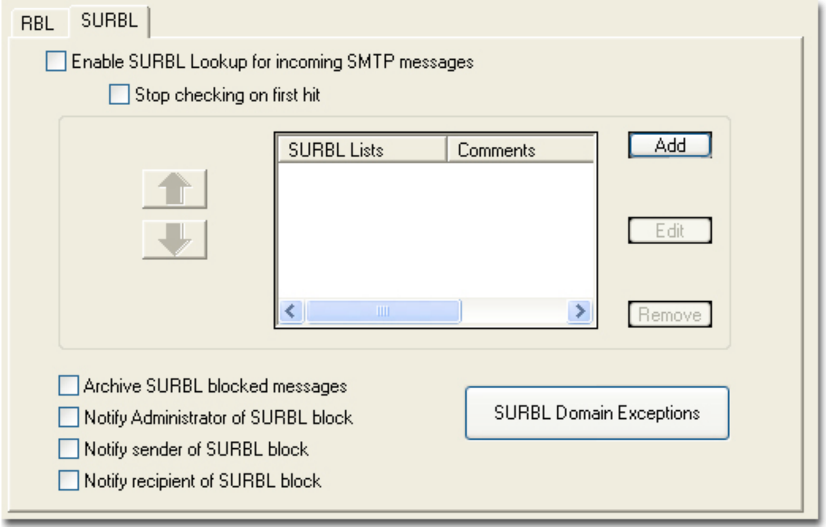
☑ Notify recipient of RBL block

Re-Order seek order

GWAVA has the ability to change the order that the RBL lists are referenced by GWAVA. To change the order, select an entry in the list of RBLs and choose a direction—up or down. Arrows become grey when the top or bottom of the list is reached.

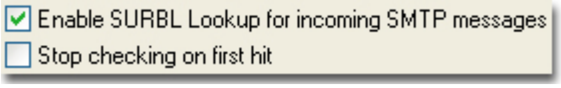
SuRBL

The traditional RBL is a list of IP addresses. The Super RBL is a more refined tool: this list is for blocking all Uniform Resource Identifiers—whether http address, ftp address, image, mailto, or gopher link. These are harder for spammers to change than their IP addresses since the spam message must provide a link to purchase the advertised product.



☐ Enable SURBL Lookup for incoming SMTP messages
☐ Stop checking on first hit
☐ Archive SURBL blocked messages
☐ Notify Administrator of SURBL block
☐ Notify sender of SURBL block
☐ Notify recipient of SURBL block

To enable the Super RBL block, select the SuRBL tab from this portion of the GWAVA configuration program interface. Click the **Enable SuRBL Lookup for Incoming SMTP messages** checkbox. Beneath that is **Stop checking on the first hit** checkbox. Enabling this reduces the resources GWAVA requires by ceasing SuRBL analysis after a single correlation with any SuRBL list.



☑ Enable SURBL Lookup for incoming SMTP messages
☐ Stop checking on first hit

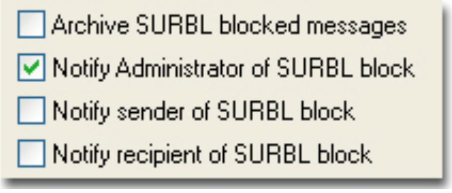
To **add** a new or **edit** an existing SuRBL look-up, click the desired button. The functionality for both buttons is the same. GWAVA will present a dialogue box with two fields: entry and comment. In the entry field, include the SuRBL List's host name or IP address. The comment field is optional, but should be filled out with a plain text explanation. To delete an entry, select it and click the **remove** button.

Domain Exceptions

SuRBL exceptions can also be customized. This is useful for white-listing specific domains if the SURBL server has wrongly classified them. Click the **SuRBL Domain Exceptions** button to present a dialogue box with a list of your configured SuRBL exceptions. The list is empty by default. To add or change an exception, click the **Add** or **Edit** buttons as needed and enter a domain to be excluded from the SuRBL lookup. To remove an entry from this list, select the needed item before clicking **Remove**.

Notification Options

There are four notification options for SuRBL blocks: Archive SuRBL blocked messages, Notify administrator of SuRBL block, Notify sender of SuRBL block and Notify recipient of SuRBL block. The notify messages inform the recipients (administrator, sender, or intended recipient) that the message was blocked because it violated a SuRBL blocking rule.



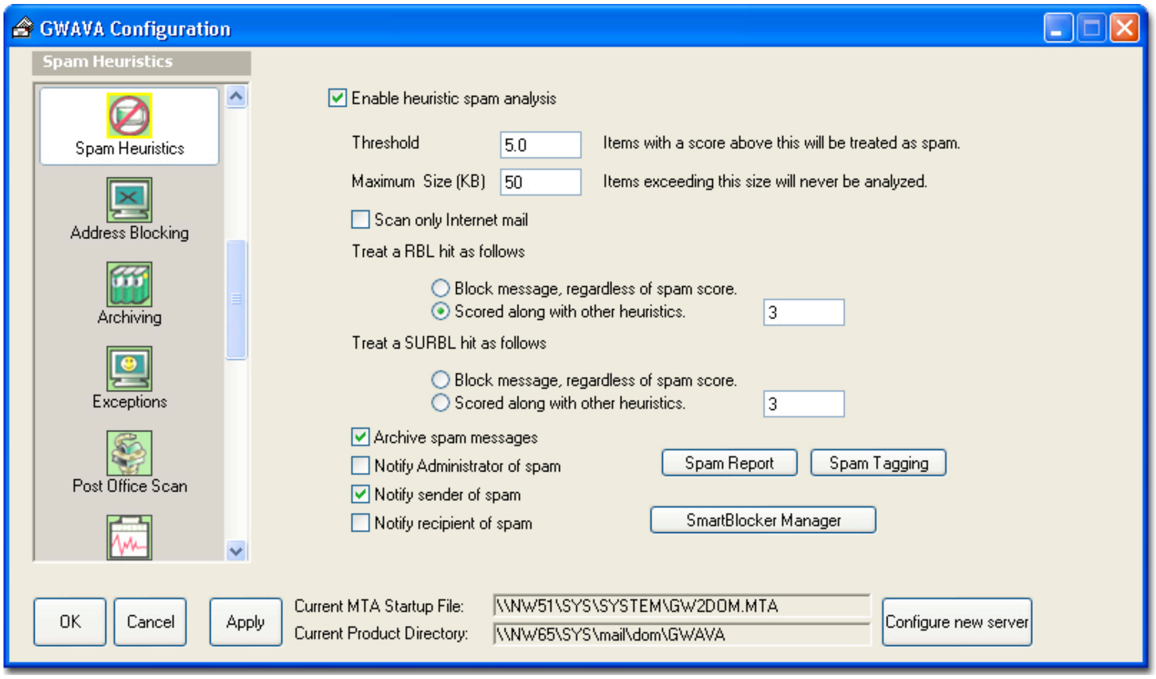
☐ Archive SURBL blocked messages
☑ Notify Administrator of SURBL block
☐ Notify sender of SURBL block
☐ Notify recipient of SURBL block

Re-Order seek order

GWAVA has the ability to change the order that the SuRBL lists are referenced by GWAVA. To change the order, select an entry in the list of SuRBLs and choose a direction—up or down. Arrows become grey when the top or bottom of the list is reached.

Spam Heuristics

GWAVA's anti-spam heuristic features are configured here.



☑ Enable heuristic spam analysis

Threshold 5.0 Items with a score above this will be treated as spam.

Maximum Size (KB) 50 Items exceeding this size will never be analyzed.

□ Scan only Internet mail

Treat a RBL hit as follows

○ Block message, regardless of spam score.
● Scored along with other heuristics. 3

Treat a SURBL hit as follows

○ Block message, regardless of spam score.
○ Scored along with other heuristics. 3

☑ Archive spam messages
□ Notify Administrator of spam
☑ Notify sender of spam
□ Notify recipient of spam

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA
Current Product Directory: \\NW65\SYS\mail\dom\GWAVA

How anti-spam heuristics work

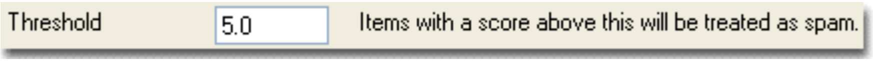
GWAVA intelligently analyzes messages to determine if they are spam. To do this, the message is analyzed part-by-part. GWAVA will look for typical signs that a message is spam. It will also score points, for example, if it was sent using a bulk mailer. A tally of points is kept, and if the message accumulates more points than the threshold you set (above), it will be considered Spam and blocked.

It may be wise to archive messages blocked by the anti-spam heuristics until you have adjusted the threshold to minimize false positives (legitimate mail blockages). Using the Archive Viewer you will be able to resend legitimate messages that were blocked.

Getting started

To enable the anti-spam heuristics, click the **Enable heuristic spam analysis** checkbox.

☑ Enable heuristic spam analysis



Threshold 5.0 Items with a score above this will be treated as spam.

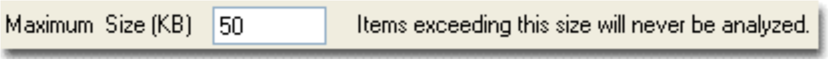
Once enabled, establish a Threshold score. A higher threshold means fewer messages will be blocked by anti-spam heuristics; a lower threshold means more messages blocked by anti-spam heuristics.

At the bottom of this screen are four options for configuring spam heuristic notification options. They are:

- Archive spam messages
- Notify administrator of spam
- Notify sender of spam
- Notify recipient of spam

Size considerations

For professional spammers, business is a numbers game. They need to send out millions of e-mails per month in order to earn a living. Since bandwidth is finite, the smaller their e-mail messages are, the more spam they can send per day. If you were look at the size of the spam you receive, you'll probably notice that majority of it is between 2 and 15 Kilobytes. Some may be as large as 35 Kilobytes, but hardly any spam will be larger then that.


Maximum Size (KB) 50 Items exceeding this size will never be analyzed.

We recommend lowering this setting to anywhere between 10 and 15 Kilobytes. By not scanning large messages (which are most certainly not spam) you save system resources, speed up the scanning process (by scanning less), and most importantly, you eliminate any risk of larger e-mail being falsely identified as spam.

Scan only Internet mail

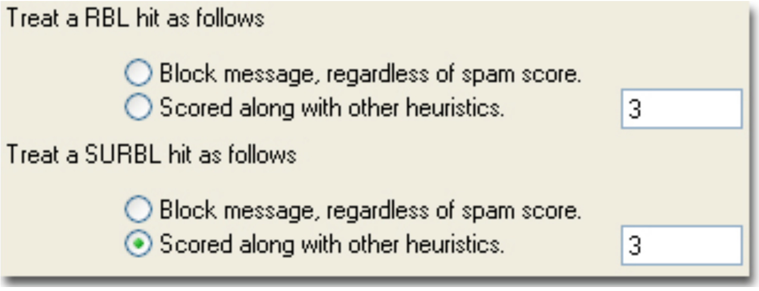
The **Scan only Internet mail** checkbox makes GWAVA scan only internet mail, not internal mail; when enabled will cause the Anti-Spam Heuristics to ignore messages transferred within your domain, as naturally you do not expect spam to be circulating from within your organization.

☑ Scan only Internet mail

Teamwork: Heuristics, RBL and SuRBL

Anti-Spam Heuristics can also consider RBL and SuRBLs when scoring messages.

You have two options concerning RBL and SuRBL hits: **Block message regardless of Spam score**, which will block a RBL and SuRBL hits as spam regardless of the Anti-Spam Heuristics score received by the message; and **Scored along with other Heuristics**, which assigns the score you assigned to an RBL hit (entered in the field to the right of this option) and tallies it along with other anti-spam scoring. You can use RBL and SuRBLs together, separately or not at all.


Treat a RBL hit as follows

○ Block message, regardless of spam score.
○ Scored along with other heuristics. 3

Treat a SURBL hit as follows

○ Block message, regardless of spam score.
● Scored along with other heuristics. 3

Notification Options

There are four notification options for Spam Heuristics: Archive spam messages, Notify administrator, Notify sender and the Notify recipient.

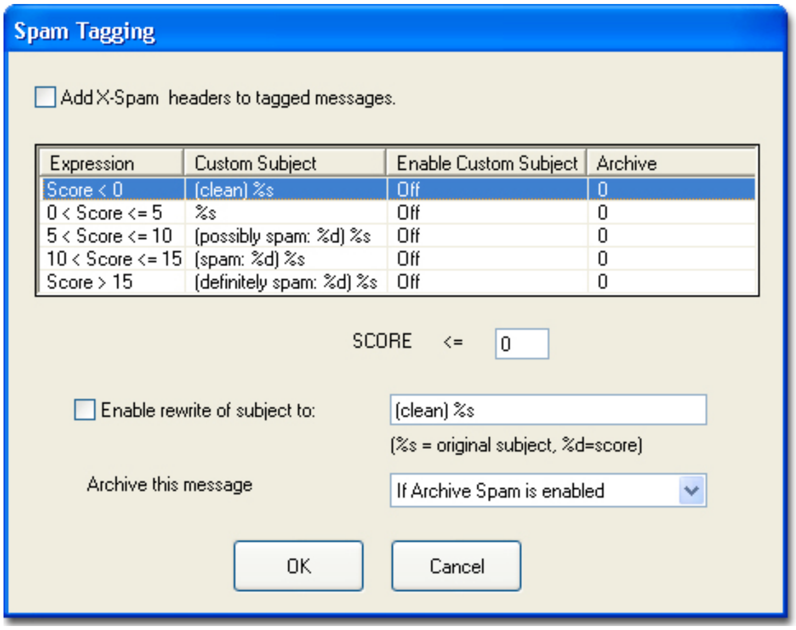
Spam Tagging

GWAVA 3 allows administrators to tag or "catch and release" spam. It marks suspected spam with a changed subject, but allows the message to pass. What is the value? When implementing GWAVA, it can be useful in helping to identify the threshold that best serves your business or institution.

It also helps mail users identify quickly messages that may or may not be spam.

Click the **Spam Tagging** button to begin.

Configuring Spam Tagging



Spam Tagging

□ Add X-Spam headers to tagged messages.

Expression	Custom Subject	Enable Custom Subject	Archive
Score < 0	(clean) %s	Off	0
0 < Score <= 5	%s	Off	0
5 < Score <= 10	(possibly spam: %d) %s	Off	0
10 < Score <= 15	(spam: %d) %s	Off	0
Score > 15	(definitely spam: %d) %s	Off	0

SCORE <= 0

□ Enable rewrite of subject to: (clean) %s

(%s = original subject, %d=score)

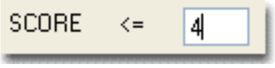
Archive this message: If Archive Spam is enabled

The spam tagging window has four columns: the score, custom subjects, enabled custom subjects, and the archive count.

The **Score** field is used to edit the scoring values for the expression value column.

- **Tip**: Remember that GWAVA can score negative numbers and that a very useful way of ensuring that false positives are not halted by GWAVA is to create a list of terms very specific to your working environment, then give each of these terms strong negative values.

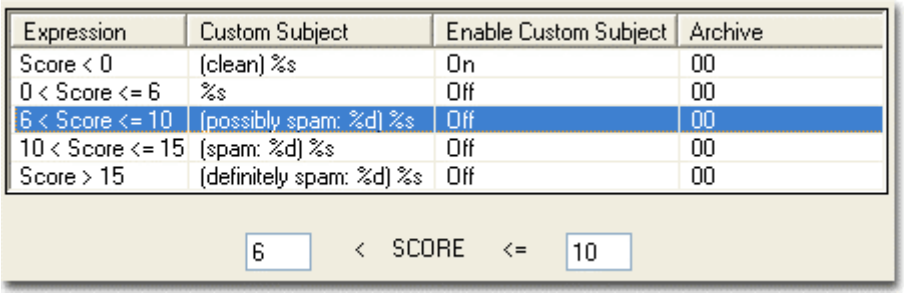
Judicious balancing of these scores can create a zone where obvious spam is caught by GWAVA, but true mail with spam-like characteristics will be allowed safe passage through with a caution to the recipient



SCORE <= 4

To edit the **Score** values click on a score in the window, then type the new value into the entry field.

Note: GWAVA ensures that you cannot accidentally have gaps between the scores. (ie. 0 to 6 = clean, 8 to 10 = possibly spam, leaving 7 unassociated with any action). GWAVA uses your current-most entry to ensure there are no gaps in your scoring system.



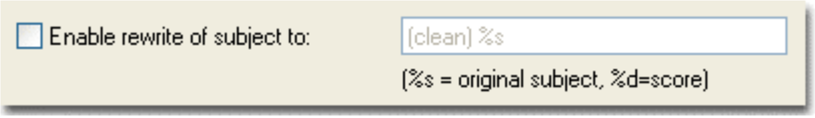
Expression	Custom Subject	Enable Custom Subject	Archive
Score < 0	(clean) %s	On	00
0 < Score <= 6	%s	Off	00
6 < Score <= 10	(possibly spam: %d) %s	Off	00
10 < Score <= 15	(spam: %d) %s	Off	00
Score > 15	(definitely spam: %d) %s	Off	00

6 < SCORE <= 10

Enable Rewrite of subject

Clicking the **Enable the Rewrite of Subject** box activates the entry field to its right. Here you can enter new subject headers to be attached to the messages falling into each scoring category.

Note that the value %s will automatically insert the original subject. The variable %d will insert the message's spam score as calculated by GWAVA on your installation. **Note**: Changes here apply to the messages falling inside the score range being edited, not all the other score ranges.



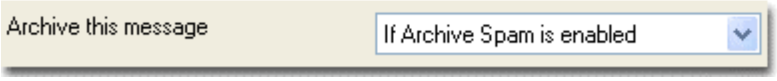
☐ Enable rewrite of subject to: (clean) %s

(%s = original subject, %d=score)

TIP: You can use the included RULESET.EXE utility (found under the C:\Program Files\Beginfinite\GWAVA\Tools\Ruleset directory) to automatically create rules for users that move mail to a folder if the subject line contains a unique string. An even more sophisticated and complete rule creation utility, RuleCreate is a free download from Beginfinite, part of the GWAVA Freeware utilities. If your organization is running GroupWise 6.5.2 or later it would probably be simpler to enable the X-Spam headers as discussed below, under Enable X-Spam Headers.

Archive spam

There is one last option on this screen: archive spam. There are three options available from the drop down menu; archive this message:



Archive this message: If Archive Spam is enabled

- If Archive Spam is enabled
- Never
- Always
- Click **OK** to save changes made or **Cancel** to return to the previous screen with no changes saved.

Enable X-Spam Headers

The Add X-Spam headers to tagged messages checkbox is for adding two headers to tagged and re-sent messages.

☑ Add X-Spam headers to tagged messages.

- **X-Spam-Flag** - Yes (or No) .... indicates if the message was spam. This may be used in conjunction with GroupWise 6.5.2+'s new /xspam switch (added in gwia.cfg), which redirects such items to the Junk Mail handler.
- **X-Spam-Status** - This header provides miscellaneous information such as the spam score, etc.

Enabling this option will add an extra X-Spam header to the MIME.822 file for inbound Internet email. With GroupWise version 6.5.2 or later, this setting is read by the Post Office Agent if the user has enabled Junk Mail handling. This allows the POA to place spam that has been tagged by GWAVA automatically in the Junk Mail folder for the user.

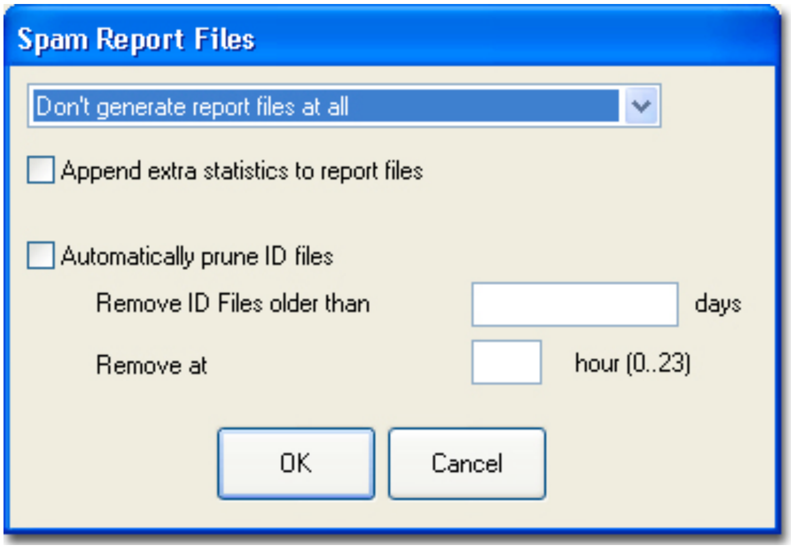
- The administrator must **add /xspam** to GWIA.CFG and **restart the GWIA** for this to take effect.

TIP: There is nothing that the end user has to do to make this work other than be at GroupWise version 6.5.2 (or newer) on the GWIA, MTA, and POA, and client code in order for this to work properly.

Spam Report

Clicking the **Spam Report** button opens a window which allows you to customize how and what GWAVA reports its spam handling activities on the MTAs it has been configured to protect.

- The first setting is a drop down menu with four options
- Do not generate report files (the default)
- Generate report files for spam and nonspam
- Generate report files for spam only
- Generate report files for nonspam only



Spam Report Files

Don't generate report files at all

□ Append extra statistics to report files

□ Automatically prune ID files

Remove ID Files older than days

Remove at hour (0..23)

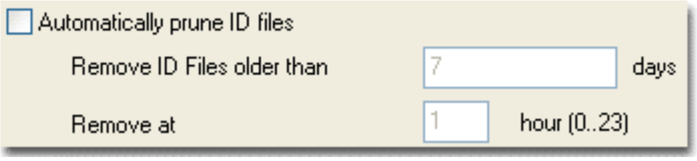
When any of the last three are enabled, GWAVA will generate and save in the Anti-Spam log directory a text file report concerning each message that is blocked by Anti-Spam Heuristics.

Append extra statistics to report files

When enabled GWAVA will include additional spam statistics in the generated report files.

Automatically prune files

Depending upon the settings in your installation of GWAVA, and the amounts of mail and spam processed by GWAVA, the number of ID files recorded can become quite large. When the **Automatically prune ID** files checkbox is enabled, you can customize how long recorded ID files are kept before they are deleted.



□ Automatically prune ID files

Remove ID Files older than 7 days

Remove at 1 hour (0..23)

There are two entry fields for customizing this, the first measures the time in days, the second uses a 24 hour clock to determine the hour the files are wiped.

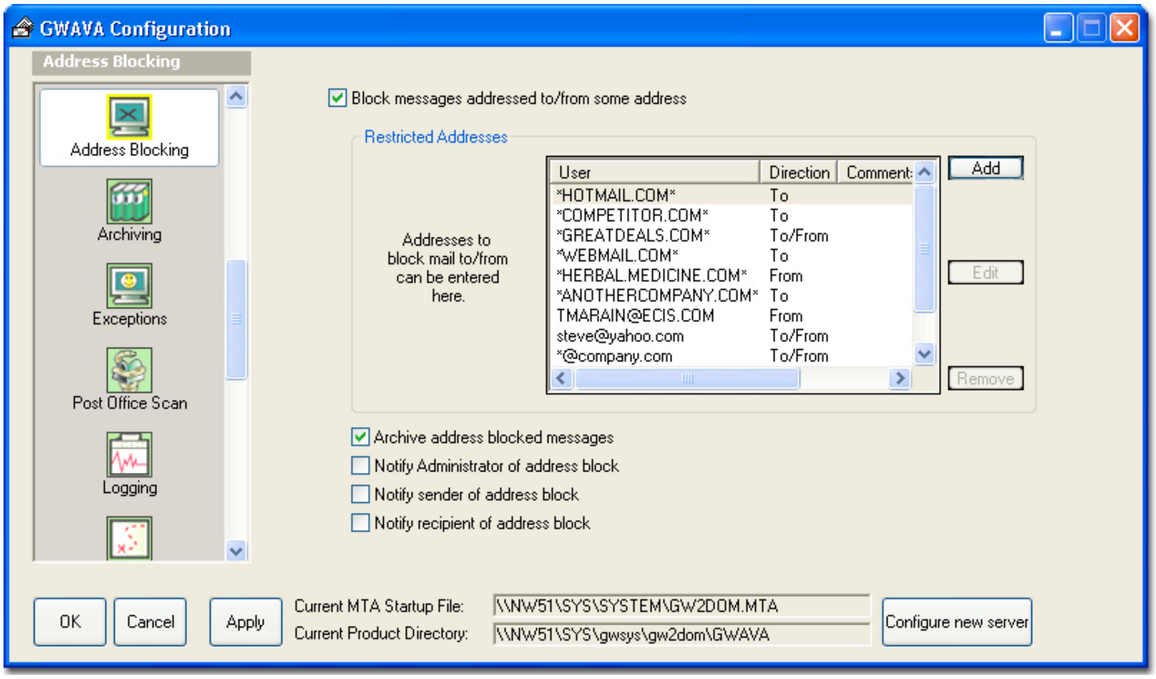
SmartBlocker Manager

SmartBlocker Manager is an application bundled with GWAVA 3. It enables administrators to simplify the maintenance and customization of spam-blocking rules. Without SmartBlocker Manager this task must be done by hand editing configuration files. Click the **Run SmartBlocker Manager** button to begin

See the SmartBlocker Manager section of this manual for details.

Address Blocking

Prevent the sending and receipt of unwanted mail and spam.



☑ Block messages addressed to/from some address

Restricted Addresses

Addresses to block mail to/from can be entered here.

User	Direction	Comment
HOTMAIL.COM	To	
COMPETITOR.COM	To	
GREATDEALS.COM	To/From	
WEBMAIL.COM	To	
HERBAL.MEDICINE.COM	From	
ANOTHERCOMPANY.COM	To	
TMARAIN@ECIS.COM	From	
steve@yahoo.com	To/From	
*@company.com	To/From	

☑ Archive address blocked messages
☐ Notify Administrator of address block
☐ Notify sender of address block
☐ Notify recipient of address block

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA
Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

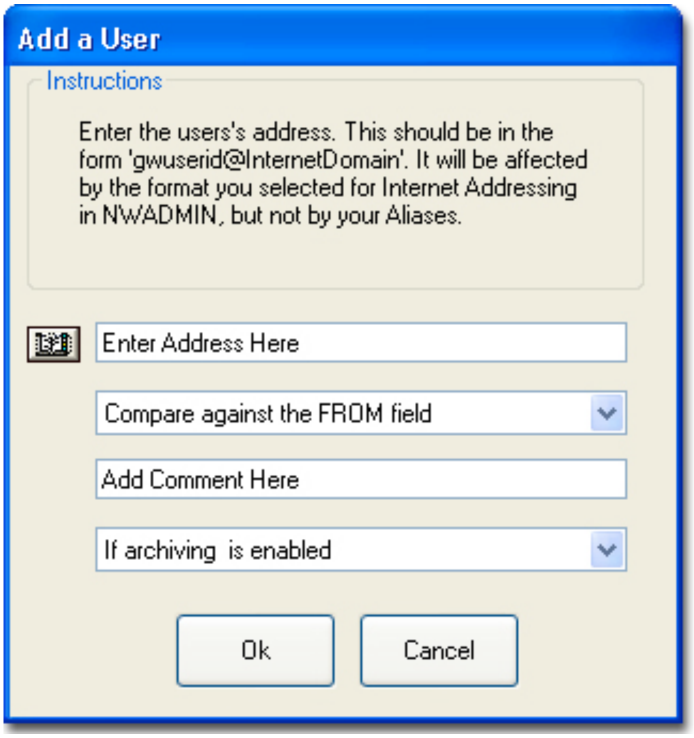
Turn on address blocking by enabling the **Block messages to/from some address** checkbox.

☑ Block messages addressed to/from some address

To block a specific senders or recipients, click **Add** in the **Restricted Addresses** list. For best results, use Internet addressing (user@domain.com). Note that the functionality here is separate from RBL lists. You might use it to keep employees from sending mail to competitors, or to keep mail from a merchant with an aggressive communication program. When adding an e-mail address in the list of exceptions Restricted Addresses, there are three options for how that e-mail address is handled.

Add an Address Block

The **Add** button creates a window for adding a user to block. There are four components to this window. Enter Address here. Reminder: For best results, use internet address format: user@domain.com and not simply the user’s prefix. There is a drop down menu. It has three options



Instructions

Enter the users's address. This should be in the form 'gwuserid@InternetDomain'. It will be affected by the format you selected for Internet Addressing in NWADMIN, but not by your Aliases.

Enter Address Here

Compare against the FROM field

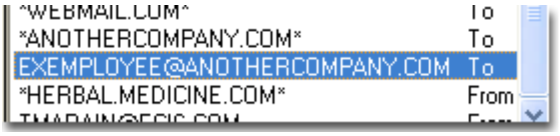
Add Comment Here

If archiving is enabled

- **Compare against the FROM** field: this will only block the address if the message is sent from, but not to that address
- **Compare against the TO** field: which will only block the address if the message is sent to, but not from that address
- **Compare against both** fields: this blocks mail traveling to and from the given address.

Address book integration

Click the Address Book icon to the left of the **Address** field to gain access to your address book. Note that you will be asked to log into GroupWise if you are not already running GroupWise. The **Add Comment** field is an optional section where you can add a descriptive piece of text which explains why the block has been installed. This might be very useful when several administrators may be required to be alerted, or your IT staff needs to edit the block, or as a reminder as new administrators may not be aware of outstanding issues.



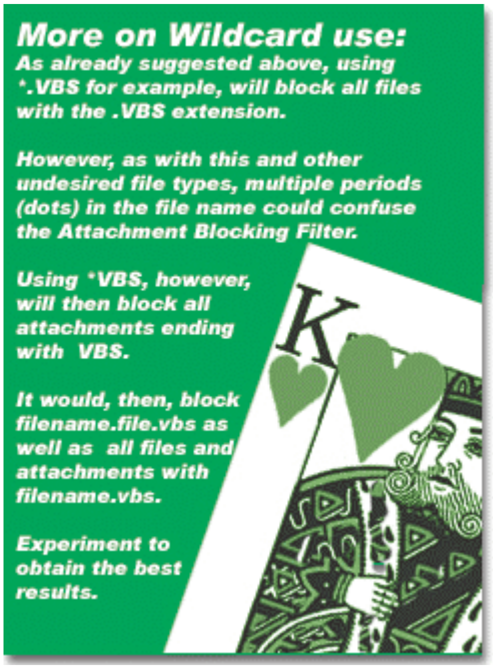
```
*WEBMAIL.COM*                   To
*ANOTHERCOMPANY.COM*            To
EXEMPLOYEE@ANOTHERCOMPANY.COM   To
*HERBAL.MEDICINE.COM*           From
```

Comments

There is one last option on this screen: archive. There are three options available from the drop down menu; archive this message:

- If archiving is enabled
- Never
- Always

The **Edit** has similar functionality to the **Add** button. To remove a block, select the item required for deletion and click the Remove button.



More on Wildcard use:

As already suggested above, using *.VBS for example, will block all files with the .VBS extension.

However, as with this and other undesired file types, multiple periods (dots) in the file name could confuse the Attachment Blocking Filter.

Using *VBS, however, will then block all attachments ending with VBS.

It would, then, block filename.file.vbs as well as all files and attachments with filename.vbs.

Experiment to obtain the best results.

Wildcards

The wildcard feature is accepted for addresses blocked by the Address Blocking filter. You can, therefore, block addresses from an entire domain (e.g. *@mail.com), or sub-domains--*mail.com will effectively block all mail from mail.com as well as server.mail.com.

Note: The GroupWise system has evolved from multiple e-mail address formats. With Internet Addressing turned on, the **FROM** address should be in the same format as specified under the Internet Addressing dialogue box. Aliases do not affect this. **FROM** address comparisons are reliable. **TO** address comparisons likely require multiple entries, because these addresses are not *normalized* to one standard by GroupWise. The address of blocked **TO** addresses can vary. Send test messages to ensure the filter is functioning as expected.

Tip - Address blocking is an effective way to prevent e-mail from entering or leaving your organization with an originating or destination address of a competing organization. Beginfinite always recommends framing your address blocks with asterisks. Here are some examples:

- *user@domain.com*
- *@domain.com*
- *domain.com*
- *domain*

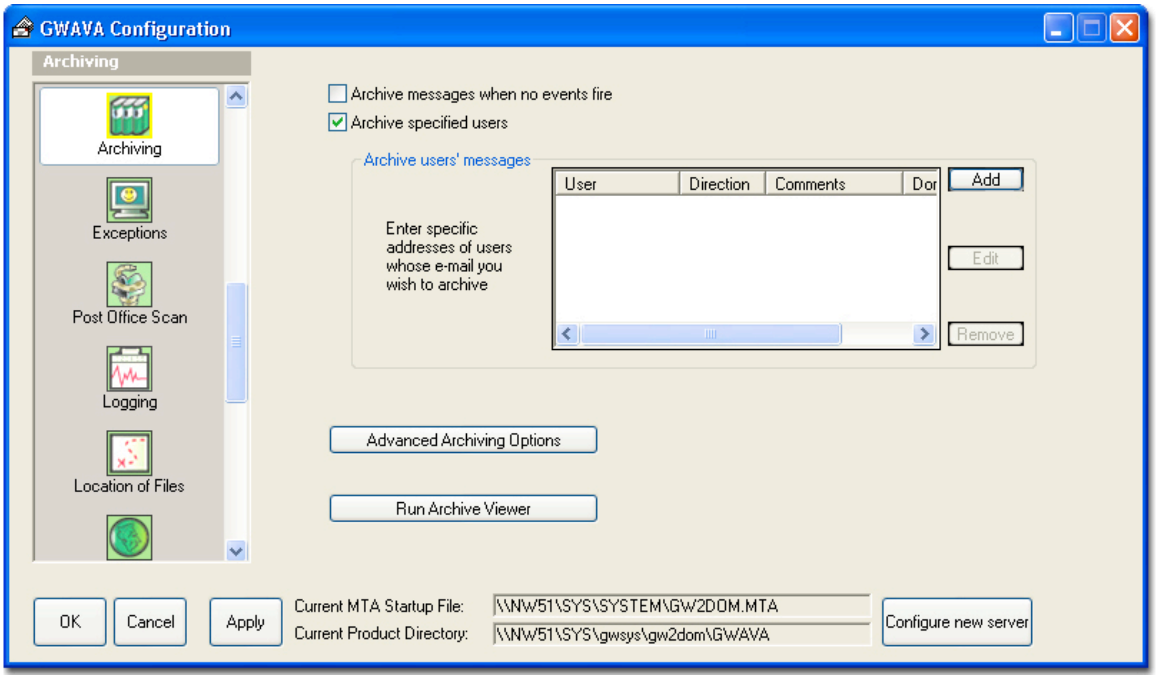
WARNING: Never, ever place a wildcard before **and** after the @ sign (*@*.domain.com). GWAVA will interpret this as *@* and block all mail. To block sub-domains, the correct syntax is *domain.com* or *.domain.com*

Notification Options

There are four notification options for Address Blocking: Archive Address Blocked Message, Notify administrator, Notify sender, and Notify recipient. The notify messages inform the recipients (administrator, sender, or intended recipient) that the message was blocked because it was from, or sent to a restricted address. Please see Notify Options for more on these messages. To exempt users from the Virus scanning rules, please use the Exceptions feature.

Archiving

The functionality here manages how and which messages processed by GWAVA are archived.



☐ Archive messages when no events fire

☑ Archive specified users

Enter specific addresses of users whose e-mail you wish to archive

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

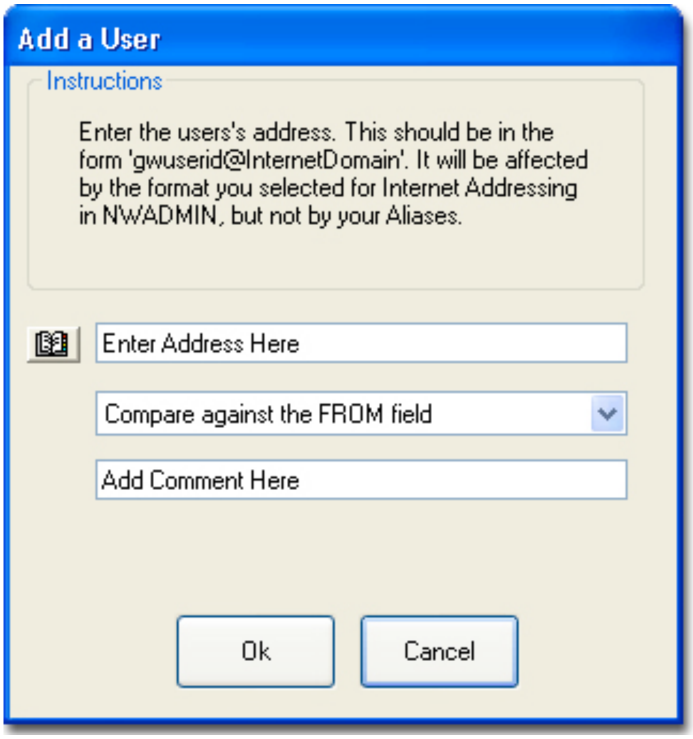
Use the features on this configuration screen to keep a record of messages triggering one of GWAVA's many message filters and blocks. The first two checkboxes allow you to **Archive messages where no events fire and Archive specific users.** They are unchecked by default.

Motivation and usage

Archive where no event fires lets administrators archive messages even if they are not blocked by GWAVA due to virus infection, content filters or other triggers. It can be an important tool for an organization that needs to archive and retain ALL e-mail messages for long term storage and/or regulatory compliance like HIPAA, Sarbanes-Oxley, SEC Rule 17a, Sunshine Laws, etc… GWAVA also works with several third party retention and retrieval packages for more robust retention solutions.

Archive Specific users lets administrators monitor messages to or from a specific e-mail address or domain. The e-mail is collected silently and without the senders' or recipients' knowledge.

This feature has many applications. Some example uses would be to silently collect copies of a particular employee's e-mail for Human Resources



Enter the users's address. This should be in the form 'gwuserid@InternetDomain'. It will be affected by the format you selected for Internet Addressing in NWADMIN, but not by your Aliases.

Enter Address Here

Compare against the FROM field

Add Comment Here

or Legal purposes. To silently collect copies of all e-mail going to or from the domain of a competitor. To gain intelligence on which employees are spending too much time purchasing and selling items on ebay.com, to name but a few applications of this feature.

Enabling **Archive specific users** activates the **Add** button in the Archive users' messages portion of the screen.

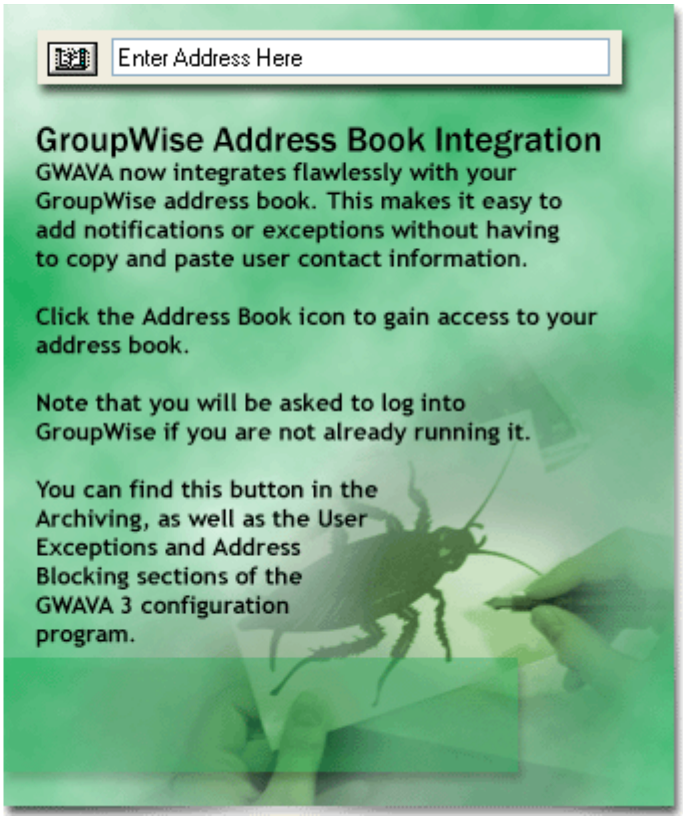
The **Add** button creates a window for adding a user to block. There are four components to this window.

Enter the address to begin. **Reminder**: For best results, use internet address format: user@domain.com and not simply the user's prefix.

There is a drop down menu:

- **Compare against the FROM** field: this will only block the address if the message is sent from, but not to that address
- **Compare against the TO** field: which will only block the address if the message is sent to, but not from that address
- **Compare against both**: which blocks mail traveling to and from the given address.
- The **Add Comment** field: an optional section where you can add a descriptive piece of text which explains why the block has been installed. This might be very useful when several administrators may be required to be alerted, or your IT staff needs to edit the block. This can be useful when making notes for archival purposes.

Note: The wildcard feature is accepted when Archiving Specified Users. You can, therefore, except addresses from an entire domain (*@domain.com).



GroupWise Address Book Integration

GWAVA now integrates flawlessly with your GroupWise address book. This makes it easy to add notifications or exceptions without having to copy and paste user contact information.

Click the Address Book icon to gain access to your address book.

Note that you will be asked to log into GroupWise if you are not already running it.

You can find this button in the Archiving, as well as the User Exceptions and Address Blocking sections of the GWAVA 3 configuration program.

The **Edit** and **Remove** buttons on the main screen of the Archiving section of the GWAVA configuration program have similar functionality to the **Add** button. To remove or edit an address, select it from the Archive user's messages list and click Remove.

Archiving – What does it create?

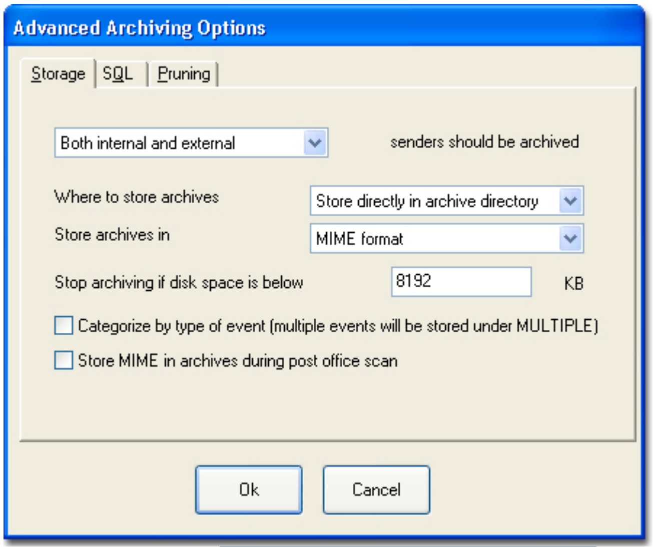
Archiving creates ZIP or MIME files (see Advanced Archiving Options to select which) in a subdirectory under the Archive subdirectory. The specific tree structure is also selectable under Advanced Archiving Options. These files are known as "container" files, and contain the attachments as well as the message text of the original file. This is the way GWAVA has always stored archived information.

In addition to container files, activating SQL storage in Advanced Archiving Options will also store additional information in a series of SQL databases. This is a major feature in GWAVA 3. It functions as a superset of the original GWAVA archival method – when SQL storage is activated, container files continue to be created exactly as before. However, many headers, a portion of the message text, and general information about the message is mirrored in the SQL database. These databases may be queried by Archive Viewer, and allow greatly increased flexibility in filtering, sorting, and searching your data warehouse.

A 3rd party SQL server is **not** required. GWAVA 3 ships with a NLM-based SQL database which is automatically installed along with the rest of GWAVA.

Advanced Archiving Options

Clicking the **Advanced Archiving Options** button presents a configuration window. The Advanced Archiving Options window has three tabs: **Storage** options (the default tab), **SQL** options and **Pruning** options.



Both internal and external senders should be archived

Where to store archives: Store directly in archive directory

Store archives in: MIME format

Stop archiving if disk space is below: 8192 KB

□ Categorize by type of event (multiple events will be stored under MULTIPLE)

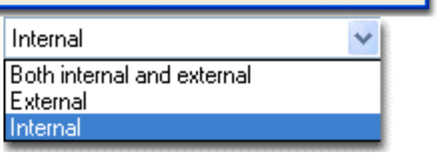
□ Store MIME in archives during post office scan

Storage

The first option in the Storage tab of the Advanced Archiving Options window is for controlling mail from which senders should be archived. There are three options:

- **Internal** – people within your domain,
- **External** –people outside your
- **Both Internal and External** – senders within and outside your domain

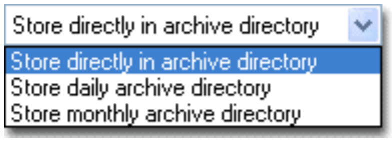
The default is Internal only.



Where to store archive

Below the Archive Senders drop down menu is another drop down menu with three options for determining where archives are stored. The three options are Store directly in the archive directory, Store daily archive directory and store monthly archive directory. Depending on what you have elected to archive, and the amounts of storage you have available, you may wish to change this setting from the default: store directly in the archive directory.

- **Store directly in the Archive directory**: This saves all messages into the same directory.
- **Store in a monthly subdirectory**: This creates a new archive directory for each month. For example: ARCHIVE\2005\FEBRUARY.
- **Store in a daily subdirectory**: This creates a new archive directory for each day. For example: ARCHIVE\2005\FEBRUARY\26.

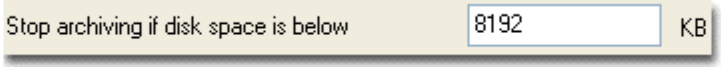

Store directly in archive directory
Store directly in archive directory
Store daily archive directory
Store monthly archive directory

MIME and ZIP format

Messages can be saved in MIME or ZIP format, and an index file is created in the ARCHIVE directory. The index is a comma delimited (CSV) text file with date, time, from, to, subject, and other information listed about archived messages. This index is appended to each time a message is saved to the archive.

- You may need to prune this file from time-to-time to prevent it from becoming too long.
- It is ***strongly*** recommended to use Zip rather than MIME format. There is a performance gain with using ZIP format, and the ZIP archives are often considerably smaller in size. MIME continues to be supported mostly for legacy purposes (GWAVA 1.x)

Stop Archiving if Disk Space is Below



Stop archiving if disk space is below: 8192 KB

This field halts archiving if storage space falls below an entered size on the chosen volume. The default value is 8,192 kilobytes. To prevent your archive from taking up all of the server's disk space, you can establish a lower limit for free disk space. Enter a value in KB in the **Stop archiving if disk space is below** field, and GWAVA will stop archiving messages when that limit is reached. If you have opted to archive many messages, you may find your archive reaches this limit quite quickly.

Categorize by type of event

With or without SQL mode, containers (zips or mime) which contain all the files are created just as they were before. They categorize by type of event is only relevant to where the container files are stored, not to the SQL database. To enable the Categorize by type of event, click the checkbox.

☑ Categorize by type of event (multiple events will be stored under MULTIPLE)

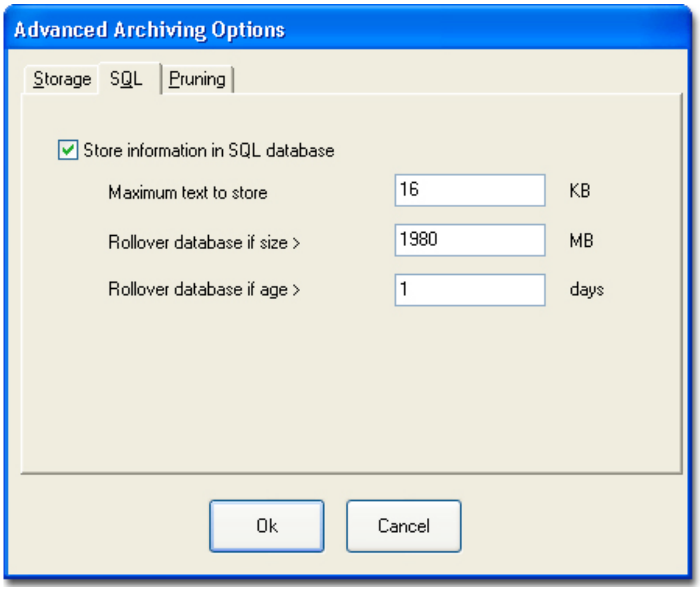
Note: Archive by type only effects the location the containers are stored in. It is most useful in non-SQL mode for that reason. It has absolutely no effect on the SQL database, which always stores the different event information.

Store MIME in archives during post office scan
The last primary option on this screen is store MIME in archives during post office scanning operations. When this checkbox is enabled, MIME header information will be included in the archiving process.

☑ Store MIME in archives during post office scan

SQL options

Enabling the **Store Information in SQL Database** checkbox will activate three data entry fields beneath it. These are: Maximum text to store (kb), Rollover database if size exceeds (mb) and Rollover database if age exceeds (days).



☑ Store information in SQL database

Maximum text to store 16 KB

Rollover database if size > 1980 MB

Rollover database if age > 1 days

- **Store information:** This creates SQL databases storing information about GWAVA archives. This is particularly useful when used with the SQL mode in the GWAVA 3 Archive Viewer.
- **Maximum text to store**: This defines just how much message text is stored in the SQL database. Which in turn tells you how much message text can be searched from that file in the SQL archive viewer. There are significant tradeoffs between speed and disk space versus scope that is controlled by this option. The default is 16 KB.

Finally, the rollover database options control how the database will be rolled over by both size and date.

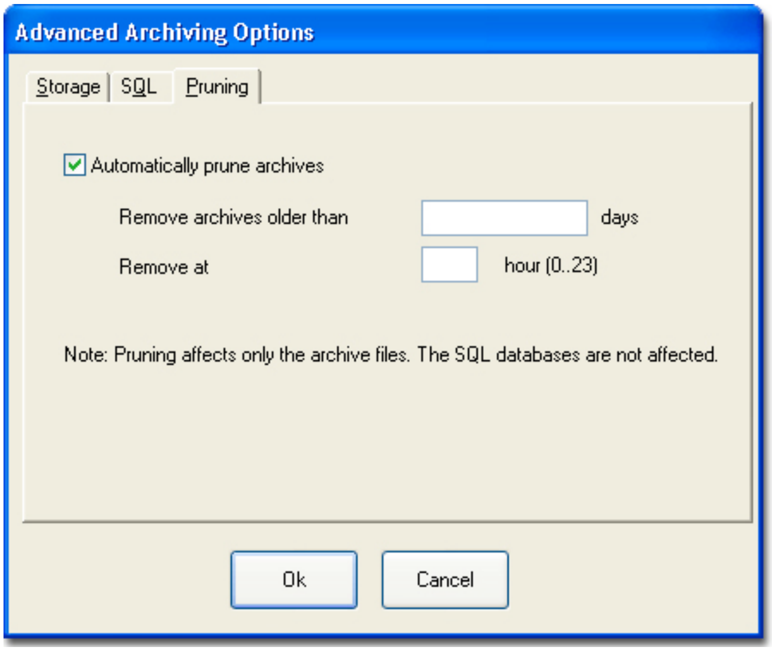
Note: These databases are always in <archivedir>\mta or <archivedir>\poa. Also, the overview.db in this directory is the metadatabase that list all the GWAVA databases.

Automatically prune archives

The final tab in the Advanced Archiving Options window controls **Pruning**. Enabling the **Automatically prune archives** checkbox activates the two data entry fields beneath it. The first controls the time in days before archive files are erased. The second is the time of day when the erasure will occur. This last field uses a 24 hour clock.

All Archived messages can be viewed using the Archive Viewer, a separate program packaged with GWAVA.

Note: Only the container files are removed, the SQL databases are not pruned. The SQL database information in general takes very little disk space overhead. You can manually remove data in Archive Viewer, or you can execute a SQL query.



☑ Automatically prune archives

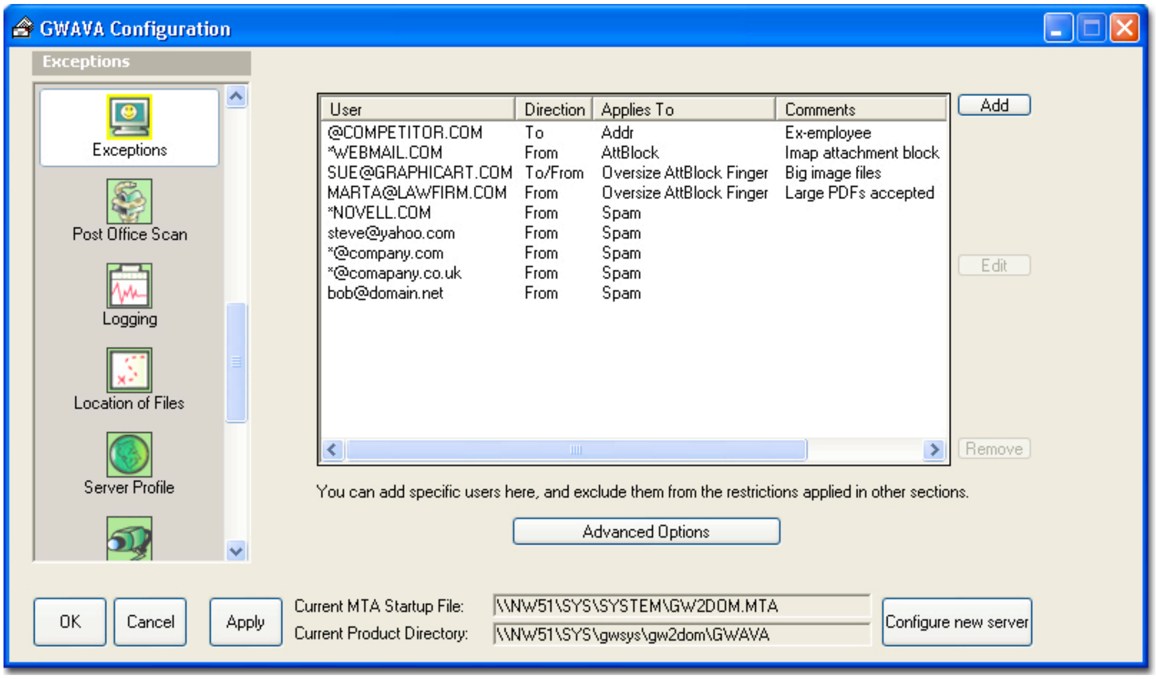
Remove archives older than ______ days

Remove at ______ hour (0..23)

Note: Pruning affects only the archive files. The SQL databases are not affected.

Exceptions

Used to set exceptions for user e-mail addresses.



User	Direction	Applies To	Comments
@COMPETITOR.COM	To	Addr	Ex-employee
*WEBMAIL.COM	From	AttBlock	Imap attachment block
SUE@GRAPHICART.COM	To/From	Oversize AttBlock Finger	Big image files
MARTA@LAWFIRM.COM	From	Oversize AttBlock Finger	Large PDFs accepted
*NOVELL.COM	From	Spam	
steve@yahoo.com	From	Spam	
*@company.com	From	Spam	
*@comapany.co.uk	From	Spam	
bob@domain.net	From	Spam	

You can add specific users here, and exclude them from the restrictions applied in other sections.

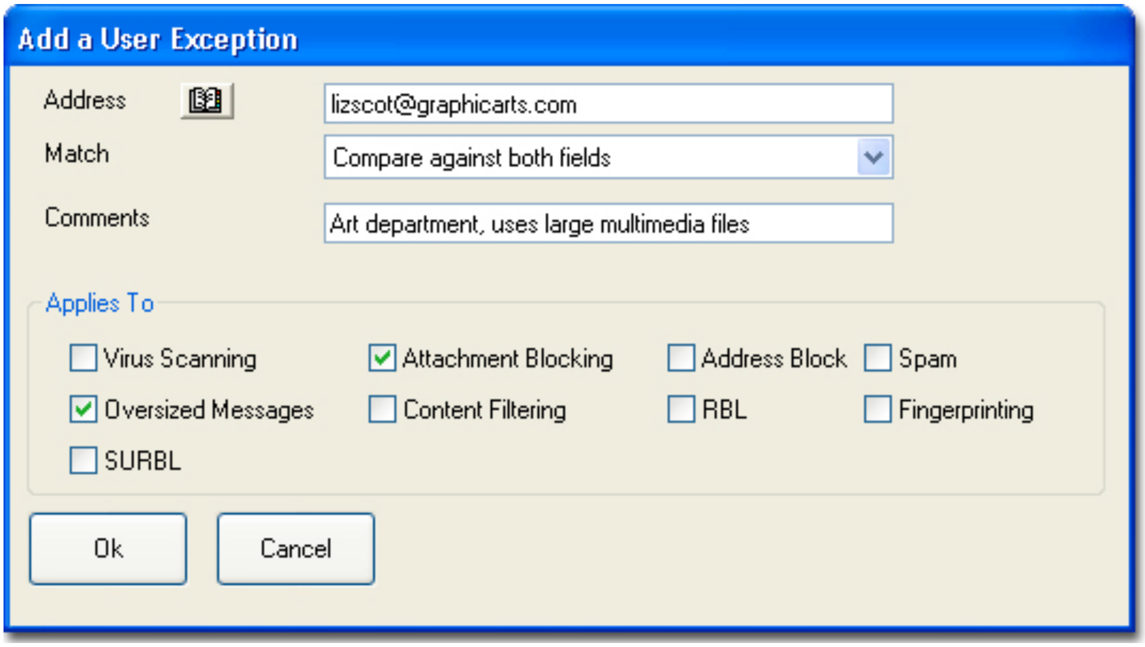
Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

To add a new exception, click **Add**, which opens the **Add a User Exception** options screen. To make changes to an existing exception, select the user in the list of excepted users, and click **Edit**. To remove a user, select the user in the list and click **Remove**.

Add User/Edit User Exception

The Edit user exceptions screen has the same functionality as the Add a User Exception screen. Note the GroupWise Address Book integration.



Address: lizscot@graphicarts.com

Match: Compare against both fields

Comments: Art department, uses large multimedia files

Applies To

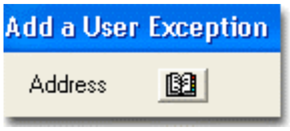
☐ Virus Scanning ☑ Attachment Blocking ☐ Address Block ☐ Spam

☑ Oversized Messages ☐ Content Filtering ☐ RBL ☐ Fingerprinting

☐ SURBL

Exempting a user

To exempt a user from one or more rules, enter the e-mail address, select a compare option—to, from, or both—choose which rules the specified e-mail address will not be affected by, and click **OK**.



Throughout GWAVA 3 is GroupWise Address Book integration. Click the Address book icon next to gain access to your current address book entries. You can also find this button in the Archive by User and Address Blocking screens. You may statically expand a distribution list, as well.

Exemptions can be applied to: Virus Scanning, Attachment Blocking, Address Blocking, Spam, Oversized Messages, Content Filtering, RBL, Fingerprinting and SuRBL.

It is best recommended you use internet e-mail formats for excepted e-mail addresses (user@domain.com). You can use wildcards to exempt entire domains (*@domain.com). Here are some examples:

- *user@domain.com*
- *@domain.com*
- *domain.com*
- *domain*

Comments

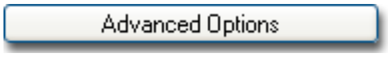
Comments may be added to the exception. The note typed into this entry field can be used to remind administrators of the purpose of the exception, or actions to take when certain events are triggered.

The GroupWise system has evolved from multiple e-mail address formats.

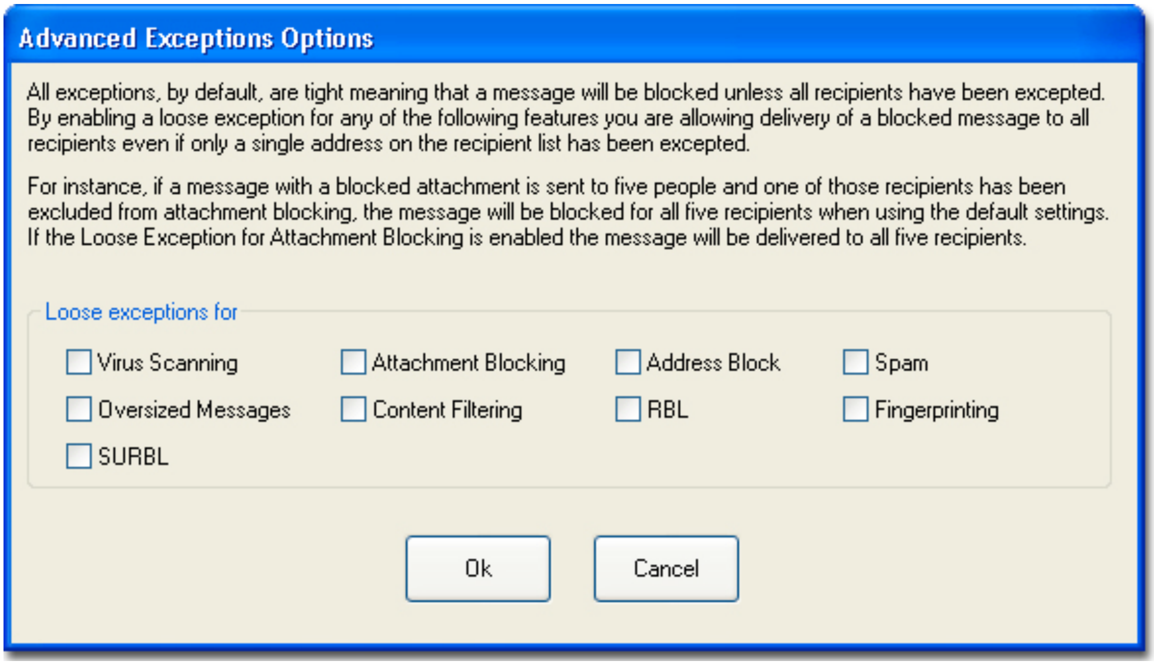
With Internet Addressing turned on, the **From** address should be in the same format as specified under the Internet Addressing dialog box.

Aliases do not affect this. **From** address comparisons are reliable. **To** address comparisons likely require multiple entries, because these addresses are not normalized to one standard by GroupWise. The address of blocked **To** addresses may vary, you may need to send test messages to ensure the filter functions as expected.

Advanced options



Advanced user exceptions determine how tightly or loosely multiple exceptions are enforced.



Advanced Exceptions Options

All exceptions, by default, are tight meaning that a message will be blocked unless all recipients have been excepted. By enabling a loose exception for any of the following features you are allowing delivery of a blocked message to all recipients even if only a single address on the recipient list has been excepted.

For instance, if a message with a blocked attachment is sent to five people and one of those recipients has been excluded from attachment blocking, the message will be blocked for all five recipients when using the default settings. If the Loose Exception for Attachment Blocking is enabled the message will be delivered to all five recipients.

Loose exceptions for

□ Virus Scanning □ Attachment Blocking □ Address Block □ Spam

□ Oversized Messages □ Content Filtering □ RBL □ Fingerprinting

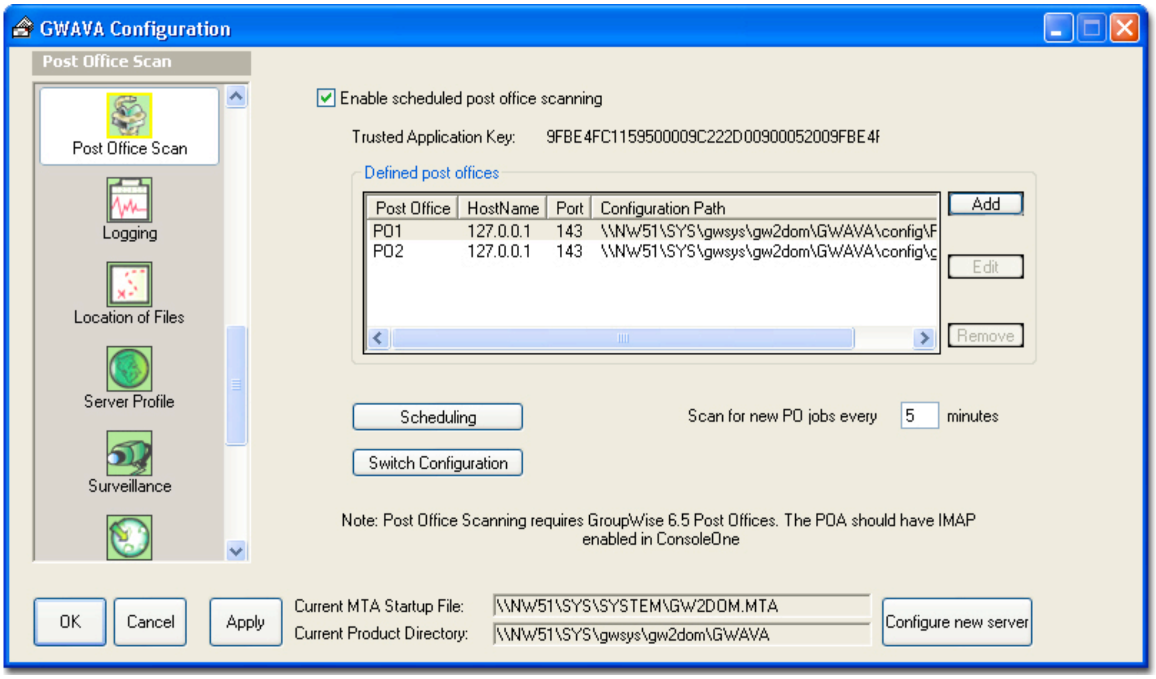
□ SURBL

This distinction is necessary when more than one recipient is specified in a message. If this is turned on and one user triggers a restriction, the message will be delivered to all recipients; if it is turned off and one user triggers a restriction, the message will not be delivered to any recipients. GWAVA is not able to selectively deliver messages.

Typically, and unless otherwise specified by tech support, this should be off. Loose exceptions can be created for **Virus Scanning, Attachment Blocking**, **Address Blocking**, **Spam**, **Oversized Messages**, **Content Filtering**, **RBL, Fingerprinting** and **SuRBL**.

Post Office Scan

Post Office Scanning examines e-mail at the Post Office level. GWAVA's ability to protect you at this level deep inside your GroupWise system means you have the best protection from internal threats.



☑ Enable scheduled post office scanning

Trusted Application Key: 9FBE4FC1159500009C222D00900052009FBE4F

Defined post offices

Post Office	HostName	Port	Configuration Path
PO1	127.0.0.1	143	\\NW51\SYS\gwsys\gw2dom\GWAVA\config\F
PO2	127.0.0.1	143	\\NW51\SYS\gwsys\gw2dom\GWAVA\config\g

Scan for new PO jobs every 5 minutes

Note: Post Office Scanning requires GroupWise 6.5 Post Offices. The POA should have IMAP enabled in ConsoleOne

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

Post Office Scanning prevents the spread of viruses and also filters messages sent within GroupWise Post Offices your network. Post office scans can both be scheduled and run independently of each other. The same technology has other business applications. See the section on Surveillance to learn more.

GroupWise 6.5

Post Office Scanning requires GroupWise 6.5 Post Offices. **The POA should have IMAP enabled in Console One**. From ConsoleOne, access your POA's (Post Office Agent) Properties. Click the GroupWise tab and select Agent Settings. Select the **Enable IMAP** checkbox. If the GWIA is running on the same server and provides IMAP services, you may need to change the POA's default IMAP port (143) so it does not collide with the GWIA (if GWIA is running on the same server as the POA).

POA scanning runs on a scheduled basis, and is triggered by the GWAVAPOA program which can be auto-loaded by the main GWAVA MTA program, or loaded independently by typing SAPO at the server console.

Scan for new PO jobs every 5 minutes

GWAVA checks for new Post Office jobs regularly. You can alter the scanning time by changing the minute value on the Post Office Scan page.

Click the **Scheduling** button to present the list of scheduled Post Office Scans on the current installation of GWAVA.

Adding, Editing and Removing Post Office Settings

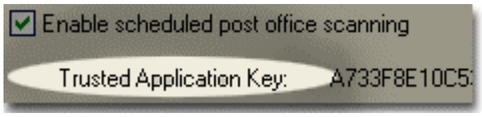
To add a Post Office to your GWAVA configuration, click the **Add** button. Using the fields provided in the **Add a Post Office** window, enter a **name**, the **IP address** or hostname of the post office in the **hostname** field, and the IMAP port used by the Post Office.

Trusted Application Key and Scheduled Post Office Scans

GroupWise 6.5 and above make use of the trusted application feature. Trusted applications can gain access to any user mailbox in the system by means of a “key” generated by GroupWise. The relevance to GWAVA is that this key is used by GWAVA for scheduled post office scans.

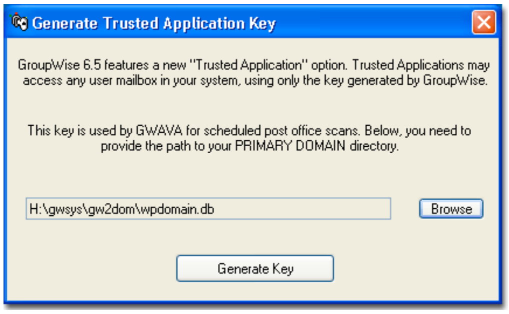
The first time GWAVA is run it will prompt users to generate a Trusted Application Key.

Without such a key, the administrator would have to provide GWAVA with a list of every user and their passwords – clearly an unmanageable proposition. It is for this reason (and the POA IMAP support)that POA scanning is supported only with GroupWise 6.5 and above.



☑ Enable scheduled post office scanning

Trusted Application Key: A733F8E10C5



Generate Trusted Application Key

GroupWise 6.5 features a new "Trusted Application" option. Trusted Applications may access any user mailbox in your system, using only the key generated by GroupWise.

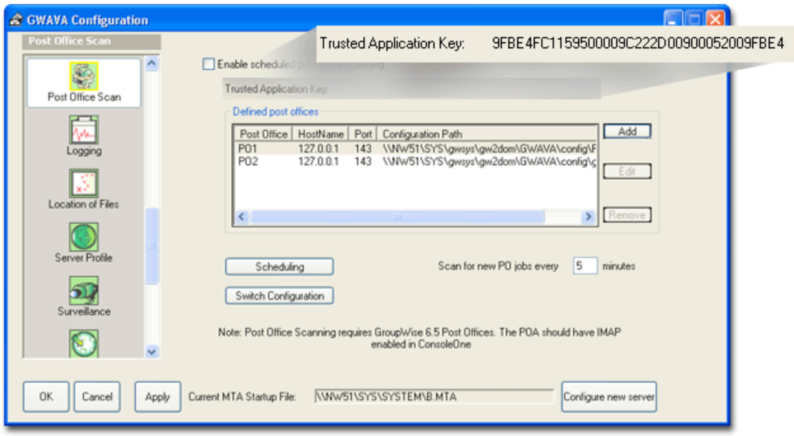
This key is used by GWAVA for scheduled post office scans. Below, you need to provide the path to your PRIMARY DOMAIN directory.

H:\gwsys\gw2dom\wpdomain.db

Generating a Trusted Application Key

To generate a Trusted Application Key, click Enable Post Office Scanning.

A screen will be presented asking you to identify the path to your primary domain directory. Click the **Browse** button and navigate to the required location. The key file is generated automatically. Click **OK** to continue. This record will be inserted into the Post Office Scan section of the GWAVA configuration screen automatically.



GWAVA Configuration

Trusted Application Key: 9FBE4FC1159500009C222D00900052009FBE4

□ Enable scheduled post office scanning

Trusted Application Key

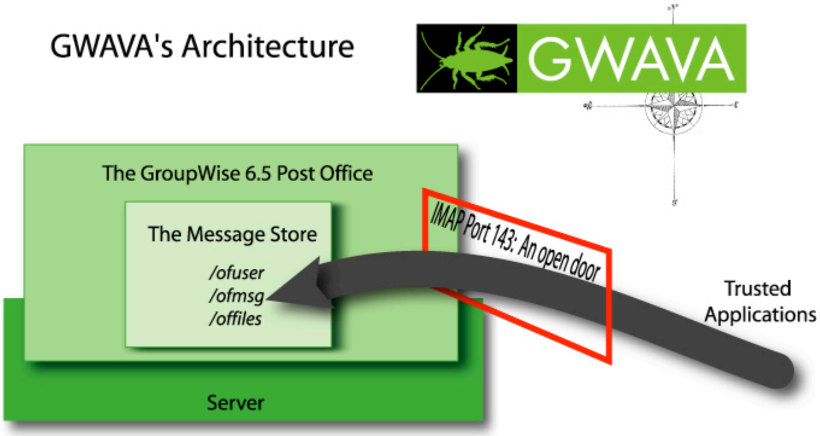
Defined post offices

Post Office	HostName	Port	Configuration Path
PO1	127.0.0.1	143	\\NW51\SYS\gwsys\gw2dom\GWAVA\config\F
PO2	127.0.0.1	143	\\NW51\SYS\gwsys\gw2dom\GWAVA\config\c

Scan for new PO jobs every 5 minutes

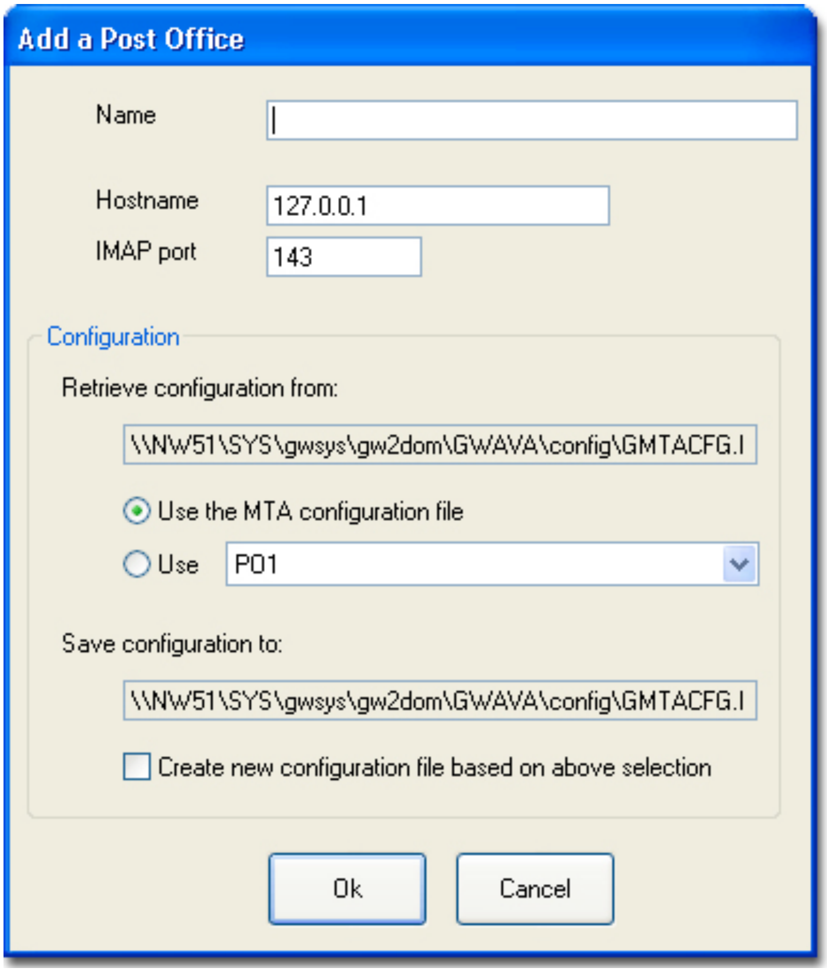
Note: Post Office Scanning requires GroupWise 6.5 Post Offices. The POA should have IMAP enabled in ConsoleOne

Current MTA Startup File: \\NW51\SYS\SYSTEM\B.MTA



Adding or Editing a Post Office

To add or edit the settings of an existing Post Office, select the desired Post Office from the listing and click either the Add or Edit buttons. The windows presented are identical apart from their title bars.


Add a Post Office

Name

Hostname 127.0.0.1

IMAP port 143

Configuration

Retrieve configuration from:

\\NW51\SYS\gwsys\gw2dom\GWAVA\config\GMTACFG.I

● Use the MTA configuration file

○ Use P01

Save configuration to:

\\NW51\SYS\gwsys\gw2dom\GWAVA\config\GMTACFG.I

□ Create new configuration file based on above selection

Post Office Already Configured

If you already have a Post Office configured with GWAVA, you can use that Post Office's settings as template for the new post office by selecting a Post Office from the **configuration file** drop-down list.

When you use the **Create new configuration file** option, you will see the base configuration file indicated in the **Retrieve configuration from** field. A file name, created from the name given to the new Post Office, will appear in the **Save configuration to** field.

Begin by supplying a **Name** in the entry field at the top of the window; underneath this field are the host and IMAP port fields, which should already be populated.

One change from previous versions of GWAVA is that the Configuration section has been re-ordered. The **Retrieve configuration from field** is presented first, then a choice between **Use the MTA Configuration File**, or a drop down menu presenting configured Post Offices. Lastly there is the Save configuration to path and a checkbox to **Create a new configuration based upon the above selection**.

Click **OK** to save your configuration or **Cancel** to leave it unedited. You will be returned to the Post Office Scan window.

Removing a Post Office

To remove a Post Office from GWAVA, select the list of defined Post Offices. Click **Remove**. This Post Office will no longer be subject to GWAVA scans.

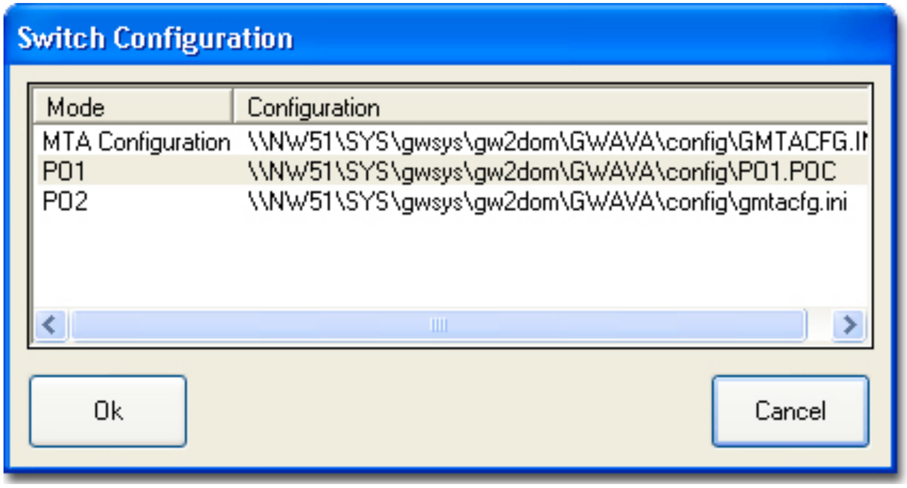
- **IMPORTANT:** You will not be asked to confirm the removal.

Switching Configurations

Once you have established which Post Offices will be scanned with the specific installation of GWAVA, you can open a separate GWAVA Manager Session for each Post Office.

Click **Switch Config** to open the **Switch Configuration** selection window.

The **MTA Configuration** entry represents the main GWAVA configuration for the present MTA. Each additional post office has its own entry. To re-launch the Post Office specific GWAVA Manager, select a configuration from the list provided. Click **Ok**.

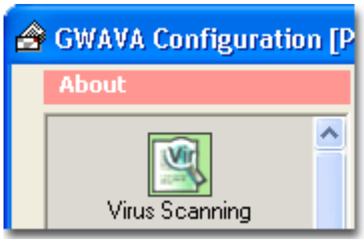


Mode	Configuration
MTA Configuration	\\NW51\SYS\gwsys\gw2dom\GWAVA\config\GMTACFG.I
PO1	\\NW51\SYS\gwsys\gw2dom\GWAVA\config\PO1.POC
PO2	\\NW51\SYS\gwsys\gw2dom\GWAVA\config\gmtacfg.ini

Color change: In the pink!

The GWAVA Manager will shut down at this point—*this is normal behavior*—and will restart with the settings for the specific post office. You will also notice the navigation button area on the left of the GWAVA Manager will use a pink bar at the top of the navigation menu to differentiate the Post Office configuration from the main MTA configuration. Before the new configuration opens, you will be prompted to save the current configuration. If you have made changes since you launched the GWAVA manager, click **Yes**.

If you have not made changes, or do not want to save, click **No**. To stop the re-launch of the GWAVA Manager, click **Cancel**.



To return to the MTA configuration, without restarting the GWAVA Manager, **select Post Office Scan** from the buttons on the left, click **Switch Config**, choose MTA Configuration from the list, then click **Ok**.

Editing Post Office Configurations

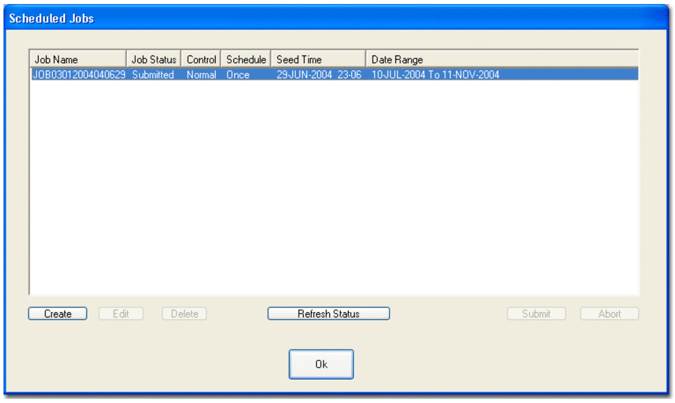
You can use the GWAVA Manager for Post Office Configurations for many of the same functions as the main MTA Configuration.

Virus Scanning: can only be turned on or off at the PO level, and notification options can be selected.

- **Choosing AV engines** can only be done at the MTA level.
- **Oversized Messages**: retains the same functionality as the MTA level.
- **Attachment Blocking**: retains the same functionality as the MTA level.
- **Content Filtering**: retains the same functionality as the MTA level.
- **Address Blocking**: retains the same functionality as the MTA level.
- **Archiving**: retains the same functionality as the MTA level.
- **User Exceptions**: retains the same functionality as the MTA level.
- **Post Office Scan**: allows access to switching configurations and to scheduling, however new Post Office profiles can only be defined at the MTA level.
- **Reports**: retains the same functionality as the MTA level.
- **Notify Options**: the address of the Administrator can be different from other Post Offices or the MTA, if you like; and options for sender and recipient notifications can be different from the MTA level. Changes cannot, however, be made to most SMTP settings. Your IDomain can be changed, and additional IDomains, however, can be added.
- **Advanced**: the Tuning features are not available at the PO level, however the Add/Edit Custom entries and Monitoring functionality is present.
- **Location of Files**, **Profile**, **Miscellaneous**, and **Licensing**: are not available at the PO level.

When you have finished editing the Post Office configuration, you have two options to save. You can select Post Office Scan, Switch Configuration and respond **Yes** to the prompt to save the configuration, or you can click **Ok** at the far left of the GWAVA Manager. In either case, GWAVA will ask whether you want to reload the configuration. Select **Yes** to have changes take effect immediately.

Scheduling Post Office Scans



Job Name	Job Status	Control	Schedule	Seed Time	Date Range
JOB03012004040629	Submitted	Normal	Once	29-JUN-2004 23-06	10-JUL-2004 To 11-NOV-2004

GWAVA Scans of Post Offices within the MTA can be forced on a schedule. To use this feature, click **Scheduling** on the main screen of **Post Office Scan**.

The Scheduled Jobs master list is presented. This list contains lists all POA scans. You can sort them by **name, status, control, schedule** or **seed time** by clicking on the column headers.

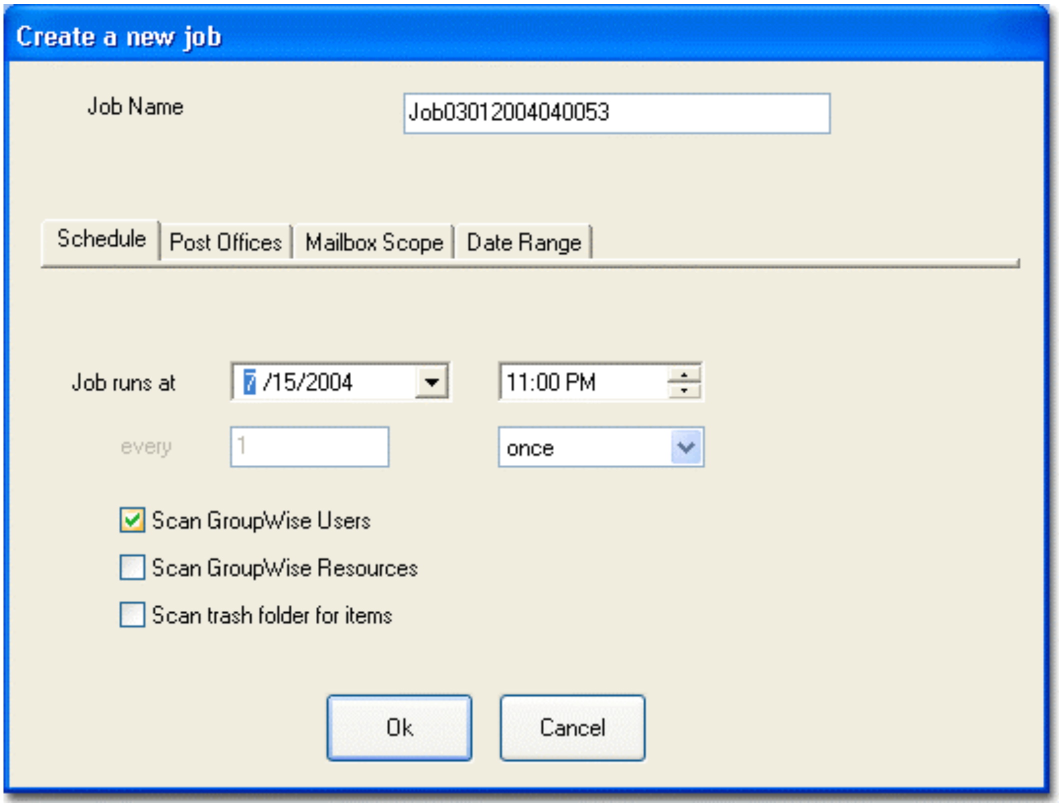
From this window, administrators can also create, edit, and remove POA scan jobs. To create a new job, click **Create**. To edit an existing job, select the job from the list and click **Edit**. To remove a job, select it from the list and click **Delete**.

Create a New Post Office Scan Job

After clicking **Create** in the **Scheduled Jobs** window, the **Create New Job** dialogue box opens. There are three tabs—Scheduling, Post Offices, and Mailbox Scope. By default, this window opens to the **Schedule** tab. The other tabs are **Post Offices** and **Mailbox Scope**.

Step 1

Name the job



Create a new job

Job Name: Job03012004040053

Job runs at: 7/15/2004 11:00 PM

every: 1 once

☑ Scan GroupWise Users

□ Scan GroupWise Resources

□ Scan trash folder for items

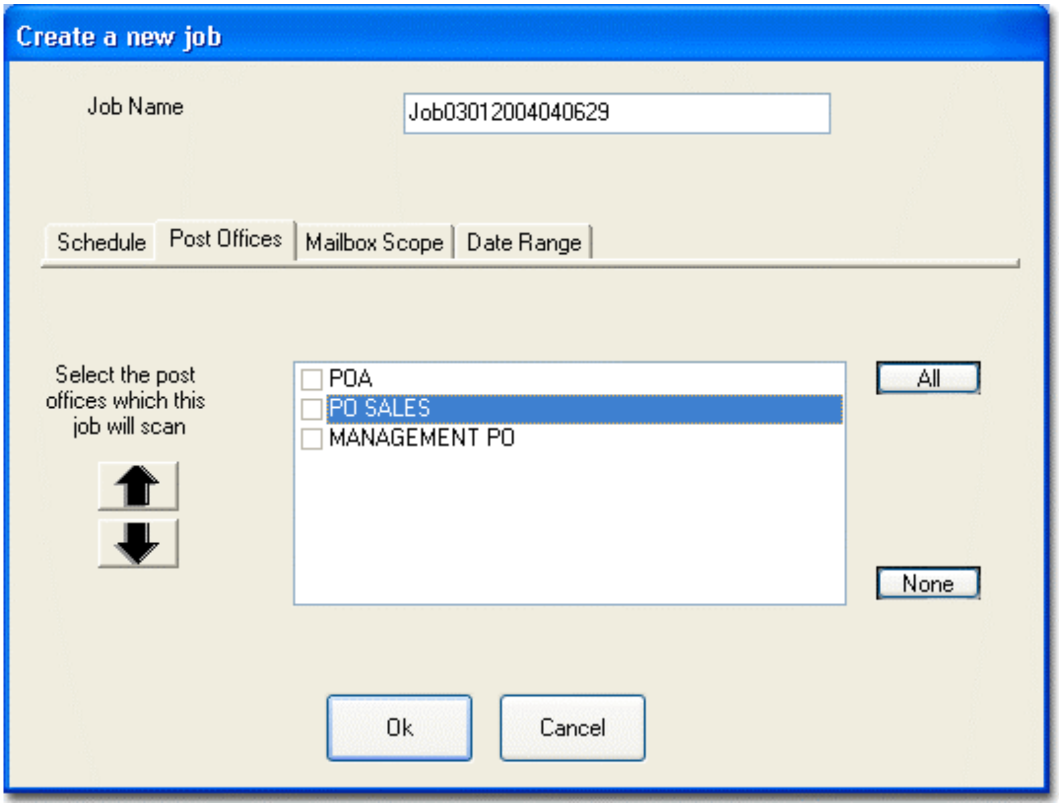
An automatically generated name, based on a time stamp, will be given to the job if you do not enter a custom name. Select the starting date and time with the date drop-down, and the time scrollable menu. When you click on the date, a calendar appears:

Click the date you wish to start the job on and the tool will close, and the date selected will appear in the job creation dialogue box. Jobs can be scheduled to occur once or repeatedly daily, weekly or monthly. Use the entry field and drop down menu to schedule the scans.

You can also decide if Users (on by default) or Resources (off by default) are scanned. Finally, to scan the trash folders of users, enable the **Scan trash folder for items**.

Step 2

Choose the post office



Create a new job

Job Name: Job03012004040629

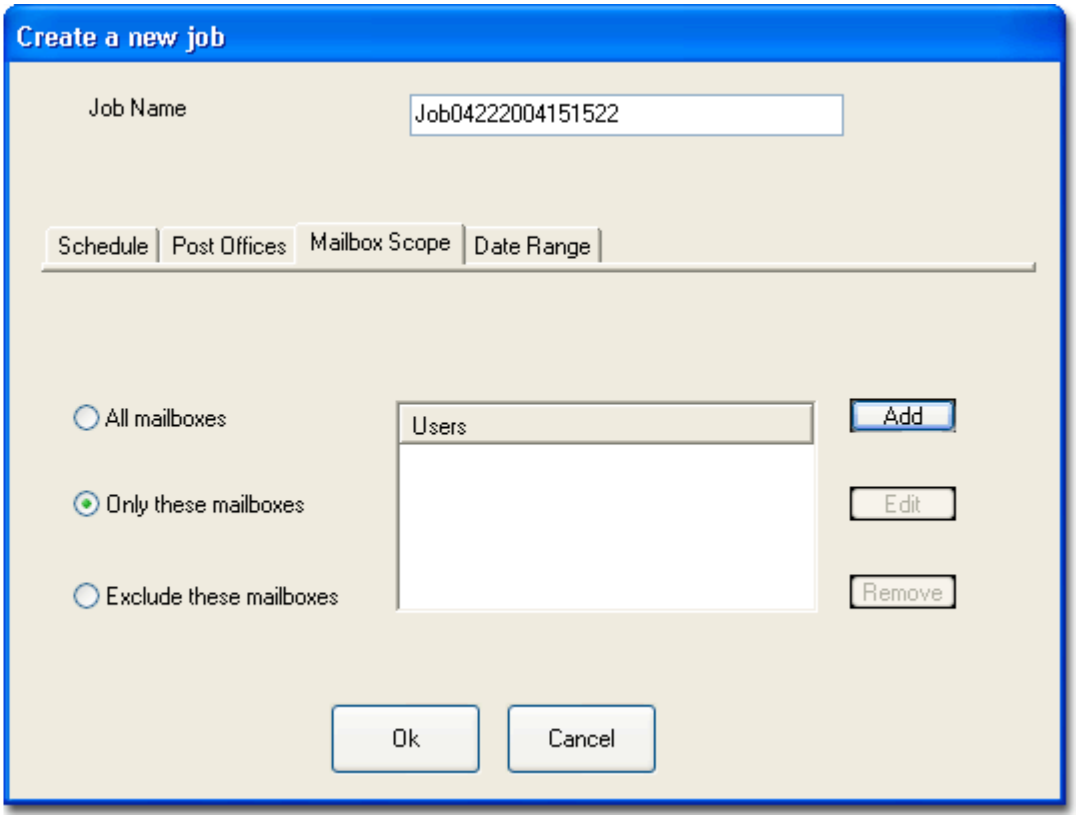
Select the post offices which this job will scan

□ POA
□ PO SALES
□ MANAGEMENT PO

To select which Post Offices will be scanned, click the **Post Offices** tab, then choose the post office needed for the job (the names will be the same as the Post Office profiles you have created). To change the order in which Post Offices are scanned, select it and click the up or down arrows on the left. To include all profiles, click **All**. To clear all selections, click **None**.

Step 3

Determine the scope



Create a new job

Job Name Job04222004151522

○ All mailboxes

● Only these mailboxes

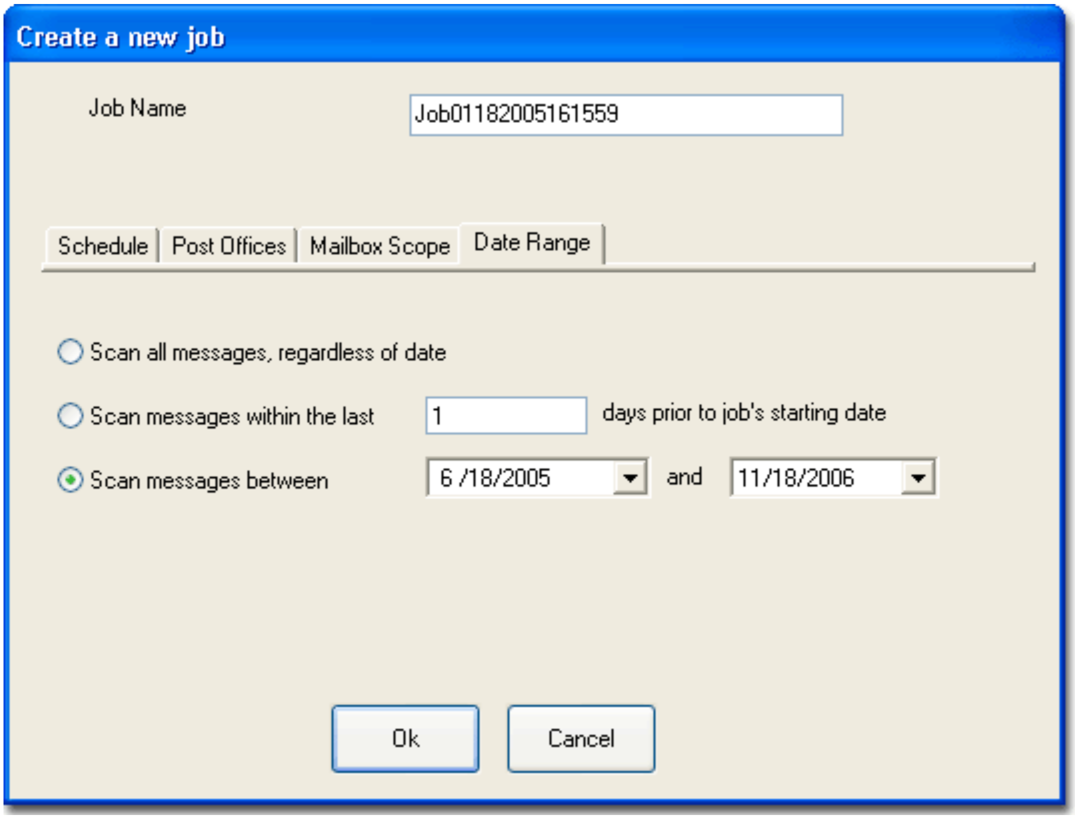
○ Exclude these mailboxes

The next tab selects the **Mailbox Scope**. Use this tool to control which user mailboxes are scanned in the current job. You have the option of scanning all user mailboxes, only selected mailboxes, or all but those to be excluded. To add a user to the “only” or “exclude” list, select the **Only these mailbox**es or **Exclude these mailboxes** option, then click **Add**.

The **Edit** and **Remove** buttons have similar functions and are used to alter this list.

Step 4

Choose the date range for your post office scan



Job Name: Job01182005161559

○ Scan all messages, regardless of date

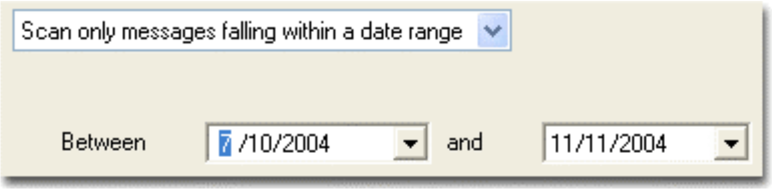
○ Scan messages within the last 1 days prior to job's starting date

● Scan messages between 6 /18/2005 and 11/18/2006

The final task in creating, or editing your post office scan is to choose the date range. There are three basic choices which you choose from the drop down menu provided in the **Date Range** tab:

- Scan all messages, regardless of date
- Scan messages within the last [INSERT VALUE] days prior to the job's starting date
- Scan only messages falling within a date range

The first, **scan all messages**, has no additional options. The second, **scan messages within the last [X] days prior to the job's starting date,** is determined by an entry field. Enter a value for the number of days going backward from the job's first day. The default value for this field is one.



Scan only messages falling within a date range

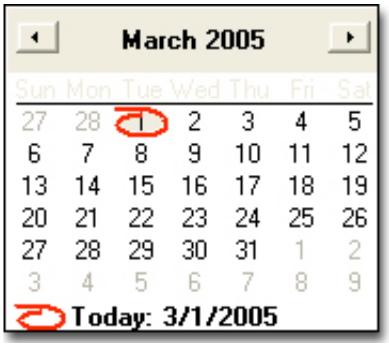
Between 7 /10/2004 and 11/11/2004

The last option, **scan messages between,** modifies the date range screen to present two date selection fields.

You must choose a **start** and **end** date. The default for both fields is the current date. Clicking and holding the date drop down menu will bring up a When you click on the date, a calendar appears. Click the date you wish to start the job on and the tool will close, and the date selected will appear in the date range field. Do the same for both dates.

When the appropriate mail boxes have been chosen, click **Ok**.

GWAVA will prompt you with the following question: Would you like to submit this job? Answer **Yes** to have the job submitted (activated) immediately, or **No** to have it saved—in an inactive state—to the list of jobs.



March 2005

Sun	Mon	Tue	Wed	Thu	Fri	Sat
27	28	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Today: 3/1/2005

Delete a job

If you want to delete a job, select the job to be eliminated then click **Delete**. GWAVA will prompt you to ensure you want to delete the job before it is removed.

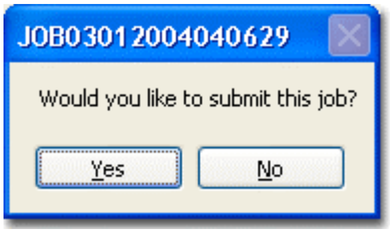
Refresh

A deleted job may not disappear from the list instantly. Look on the main first screen of the Post Office Scan configuration to see how often GWAVA has been set to check for new Post Office Scan jobs. Click the **Refresh Status** button to update the list immediately.

Edit and Submit

Edit lets administrators alter existing jobs and is similar in function to the process for creating a new post office scan job. **Note**: You cannot edit a submitted or active job.

Submit lets administrators tell GWAVAPOA to process the job. Normally one submits a job right after creating or editing, but there might, on occasions, be reasons for not doing so.



JOB03012004040629

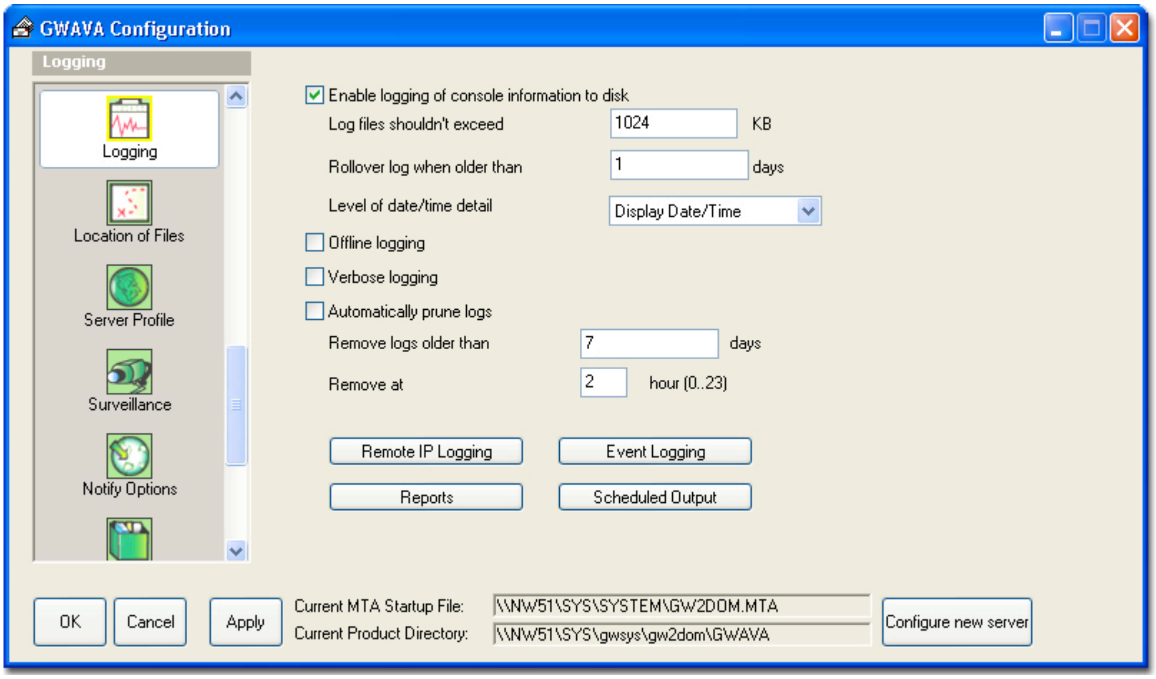
Would you like to submit this job?

Remove

To remove a Post Office Scan job, first select it from the main screen of the Post Office Scan screen of the GWAVA configuration program. Click Remove.

- **IMPORTANT**: You will not be asked to confirm this removal.

Logging



☑ Enable logging of console information to disk

Log files shouldn't exceed: 1024 KB

Rollover log when older than: 1 days

Level of date/time detail: Display Date/Time

□ Offline logging

□ Verbose logging

□ Automatically prune logs

Remove logs older than: 7 days

Remove at: 2 hour (0..23)

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

The Event Logging screen is where GWAVA 3's reporting is configured

☑ Enable logging of console information to disk

To turn on logging, click the **Enable logging of console information to disk** checkbox. When enabled, GWAVA will write activity logs in the LOG directory. To limit the size of the log files, enter a KB value in the **Log files shouldn't exceed** field.

You can also limit the length of time a log file is stored by entering a number of days in the **Roll over log when older than days** field. If you enter 7 in this field, log files will be purged after one week. Use the **Level of date/time detail** drop-down list to select how much information you would like logged. The options here are:

- No Date / Time display
- Display Date / Time
- Display Time Only

Offline Logging enables log buffer that can be examined at the server console, if you desire. At the console, pressing the **F9** key lets you browse a log as mail is still being processed. (You may note that when doing this, "F9- Browse Log" vanishes from the bottom of the console screen.)

Use the arrow keys to navigate the offline log. To return to the active console processes, press the **Escape** key.

Automatically prune logs helps you administer your log files automatically. Enabling this checkbox activates the two entry fields to the right: Remove archives older than and Remove at what time. The defaults for these are seven days and 2 a.m. respectively. **Note**: the time of day must be specified using a 24-hour clock.

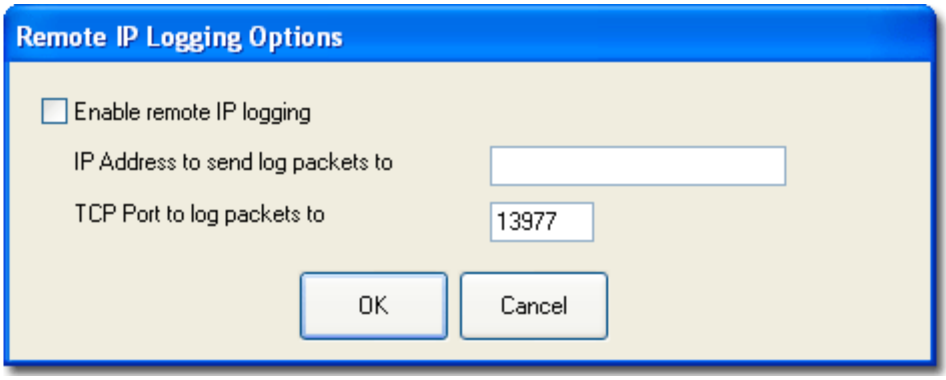
Verbose Logging

To receive GWAVA debug messages, click the **Verbose logging** checkbox.

Remote IP Logging

Click the **Remote IP Logging** button to open the Remote IP Logging screen. Remote IP Logging sends logs to a remote location.

To enable it, click **Remote IP Logging**, then click the **Enable remote IP logging** checkbox and enter the IP address in the entry field provided. Click **OK** when done. You can then run the IP Logger client included with the GWAVA front end to capture the logs. Click **Cancel** to leave your settings unchanged.


Remote IP Logging Options

□ Enable remote IP logging

IP Address to send log packets to:

TCP Port to log packets to: 13977

Reports

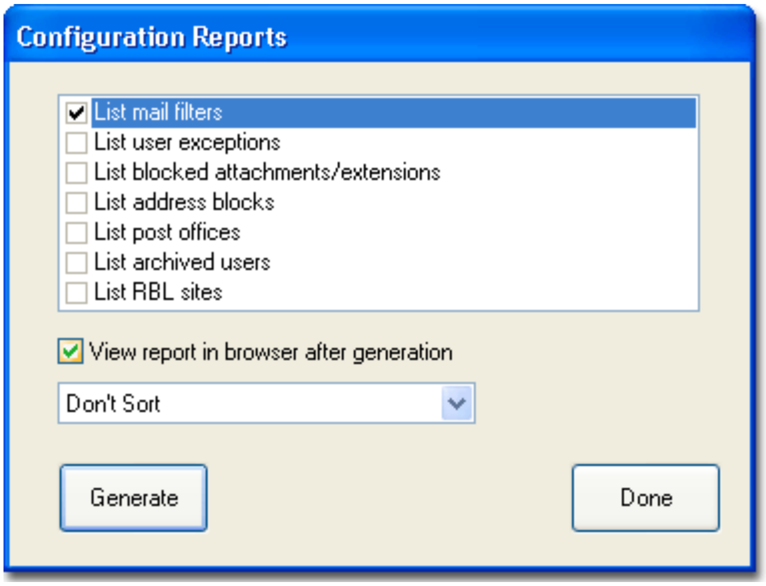
The Reports button will bring up a list of available configuration reports that GWAVA can generate. These include: list mail filters, list user exceptions, list blocked attachments and exceptions, list address blocks, list post offices, list archived users and list RBL sites

There is a checkbox to launch the configured browser to view the report after generation. Otherwise, the report will be saved but not shown.

The drop down menu has three options for report sorting: **Primary sort, Sort by domain if available, Don’t sort**, and **List SURBL sites**.

To generate one or more reports, select the needed reports using the checkboxes, then click **Generate**. Reports will be created in separate windows. Choices include:

- List mail filters
- List user exceptions
- List blocked attachments / exceptions
- List address blocks
- List post offices
- List archived users
- List RBL sites


Configuration Reports

☑ List mail filters
□ List user exceptions
□ List blocked attachments/extensions
□ List address blocks
□ List post offices
□ List archived users
□ List RBL sites

☑ View report in browser after generation

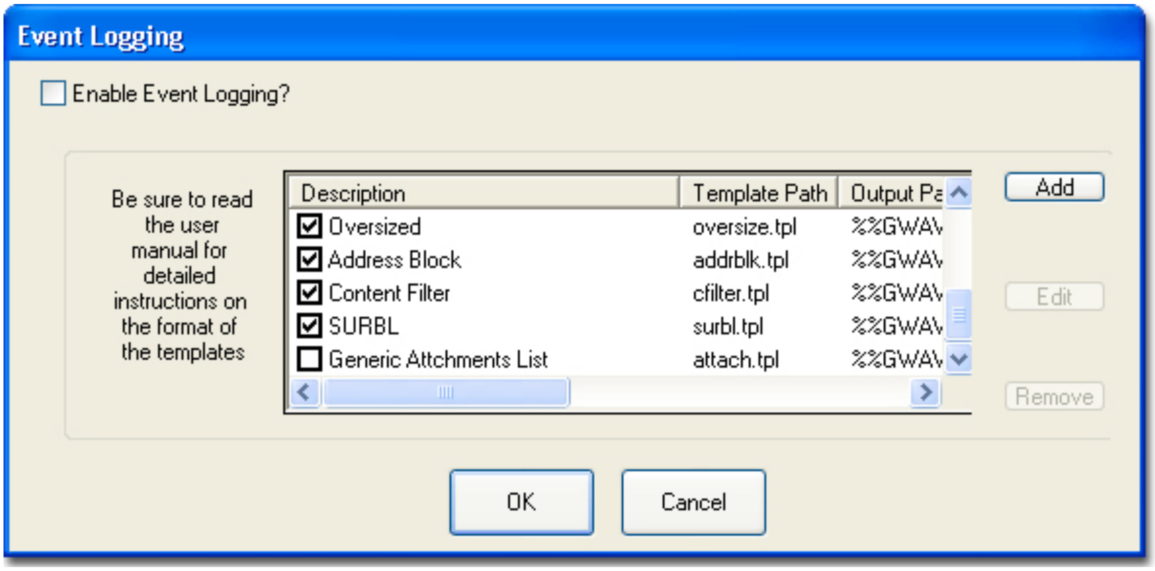
Don't Sort

Click the checkboxes to the left of the desired reports to select which will be generated. The reports are generated as HTML files for easy viewing and exporting

Event Logging

Click the Event Logging button to begin. When the Event Logging window is presented, enable the Enable Event Logging checkbox.

☑ Enable Event Logging?



Event Logging

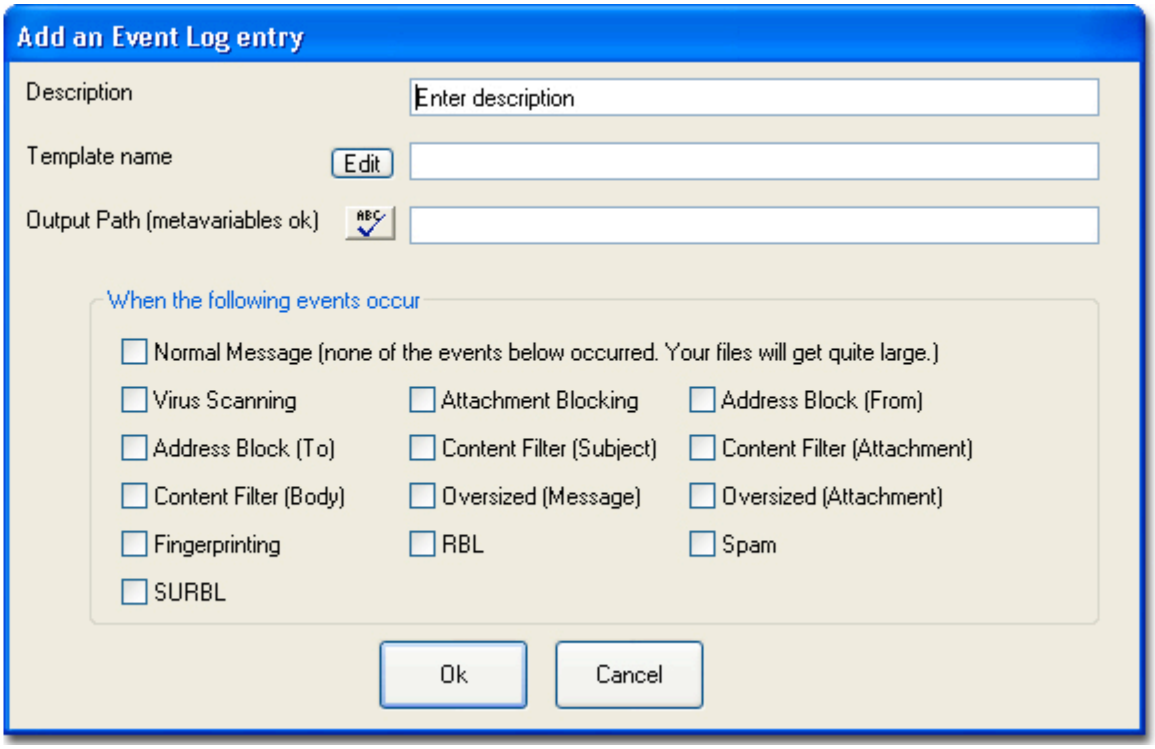
□ Enable Event Logging?

Be sure to read the user manual for detailed instructions on the format of the templates

Description	Template Path	Output Pa
☑ Oversized	oversize.tpl	%%GWAV
☑ Address Block	addrblk.tpl	%%GWAV
☑ Content Filter	cfilter.tpl	%%GWAV
☑ SURBL	surbl.tpl	%%GWAV
□ Generic Attchments List	attach.tpl	%%GWAV

You may now choose which statistical reports are chosen for generation. GWAVA 3 formats these reports using templates. From this screen you can add, edit or remove event logs or change the output paths. By default all the current templates are selected (have a checkbox next to them). You can either unselect them to temporarily disable them, or remove them entirely.

Begin by clicking **Add**.



Add an Event Log entry

Description: Enter description

Template name:

Output Path (metavariables ok):

When the following events occur

□ Normal Message (none of the events below occurred. Your files will get quite large.)

□ Virus Scanning □ Attachment Blocking □ Address Block (From)

□ Address Block (To) □ Content Filter (Subject) □ Content Filter (Attachment)

□ Content Filter (Body) □ Oversized (Message) □ Oversized (Attachment)

□ Fingerprinting □ RBL □ Spam

□ SURBL

To add a new event log, first name it in the Description field. Then choose a template using the **Edit** button, then, define the output path for the generated log.

Note: The ABC button activates the metavariable glossary. These variables allow nearly unlimited control of specific information you want outputted when events occur. This makes obsolete

GWAVA's *event.log* methodology. Note also that functionality used formerly the *archive.csv* is also now superseded by the new Event Logging system in GWAVA 3.

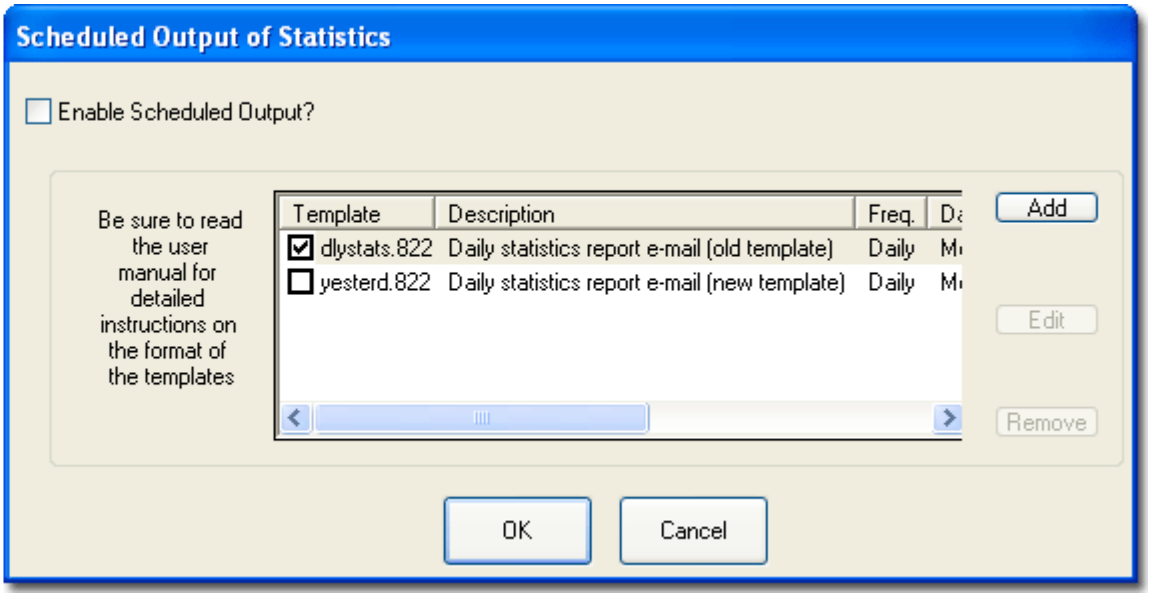
You must now choose what will be logged. Options include

- Normal messages (this can result in large logs but can be useful for testing. Remember to turn it off.)
- Virus scanning
- Attachment blocking
- From address blocking
- To address blocking
- Content filter for subject
- Content filter for attachment
- Content filter for body
- Oversized messages
- Oversized attachments
- Fingerprinting
- RBL
- Spam
- SuRBL

Click **OK** to name and save your event log report or **Cancel** to quit.

Note: For more about templates and variables, see Location of Files and the appendices for more information.

Click the **Scheduled Events** button activate the window for managing scheduled statistical logs.



Scheduled Output of Statistics

□ Enable Scheduled Output?

Be sure to read the user manual for detailed instructions on the format of the templates

Template	Description	Freq.	Da
☑ dlystats.822	Daily statistics report e-mail (old template)	Daily	M
□ yesterd.822	Daily statistics report e-mail (new template)	Daily	M

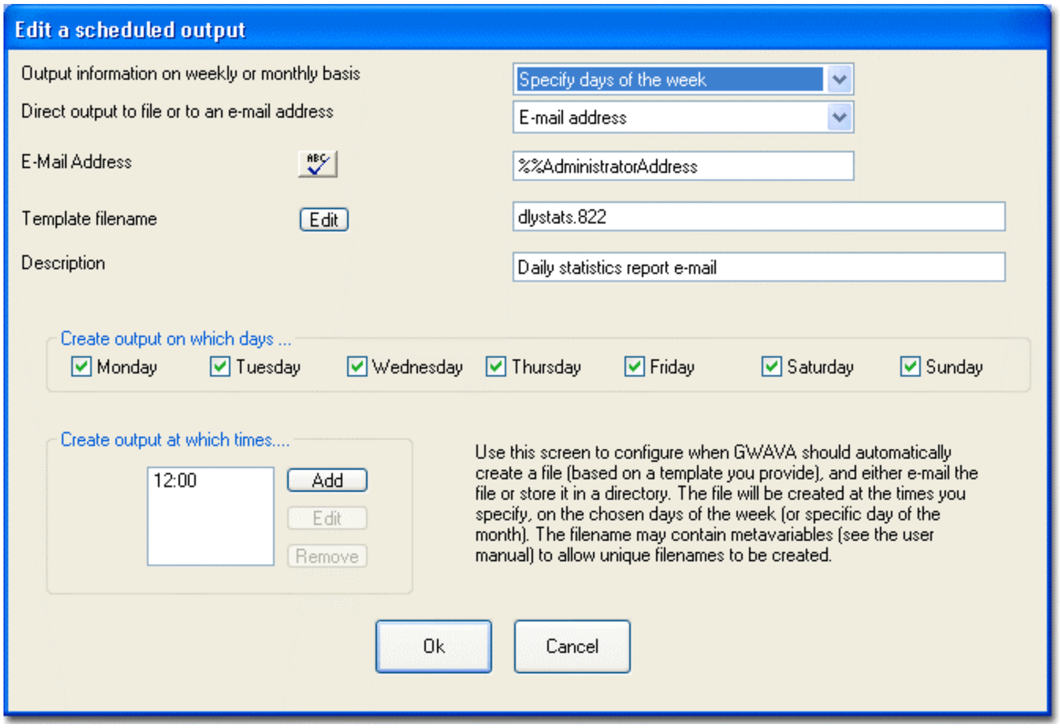
Scheduled Output allows administrators to generate outputs or e-mails of specific information at specified times. This makes obsolete the old daily reports option familiar to users of previous versions of GWAVA.

The daily statistics report has similar functionality to other configuration controls in this section. Begin by clicking the enable Scheduled Output checkbox. Ensure that the DLYTATS.822. template is enabled. The template we've provided that mimics the old daily statistics for administrators in earlier versions of GWAVA.

Note: Event logs are is an output of a template that has been parsed. Dlystats.822: This is a reduced version of the Administration.822 template. (Yesterd.822 is the same as dlystats.822, but refers to yesterday's statistics instead of today's. Imagine the report firing at midnight for example – today's stats will be more or less zero, and when in fact you may want yesterday's instead.)

For details about the template, consult the appendices. There you will find a breakdown of the contents in the TAdmin template for easy reference.

Click **Add**.



Output information on weekly or monthly basis: Specify days of the week

Direct output to file or to an e-mail address: E-mail address

E-Mail Address: %%AdministratorAddress

Template filename: dlystats.822

Description: Daily statistics report e-mail

Create output on which days ...

☑ Monday ☑ Tuesday ☑ Wednesday ☑ Thursday ☑ Friday ☑ Saturday ☑ Sunday

Create output at which times....

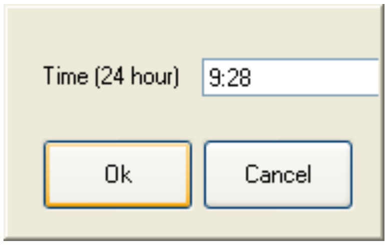
12:00

Use this screen to configure when GWAVA should automatically create a file (based on a template you provide), and either e-mail the file or store it in a directory. The file will be created at the times you specify, on the chosen days of the week (or specific day of the month). The filename may contain metavariables (see the user manual) to allow unique filenames to be created.

The Enable a scheduled output screen allows you to generate rich statistical reports regularly. The primary option, **Output information on a weekly monthly basis** is selected by a drop down menu. If monthly is chosen, then the days of the week appearing at the centre of the window change to a day of the month selector.

Direct output to a file or e-mail address is the next option. The other option is to direct the **output to a file**. Note that the e-mail address can also be controlled using metavariables.

Template filename determines which master template will be used to structure the output. Choosing the **Edit** button will allow you to edit or create a new template using the metavariables supported by GWAVA 3. Description is a plain text explanation of the purpose of the report.

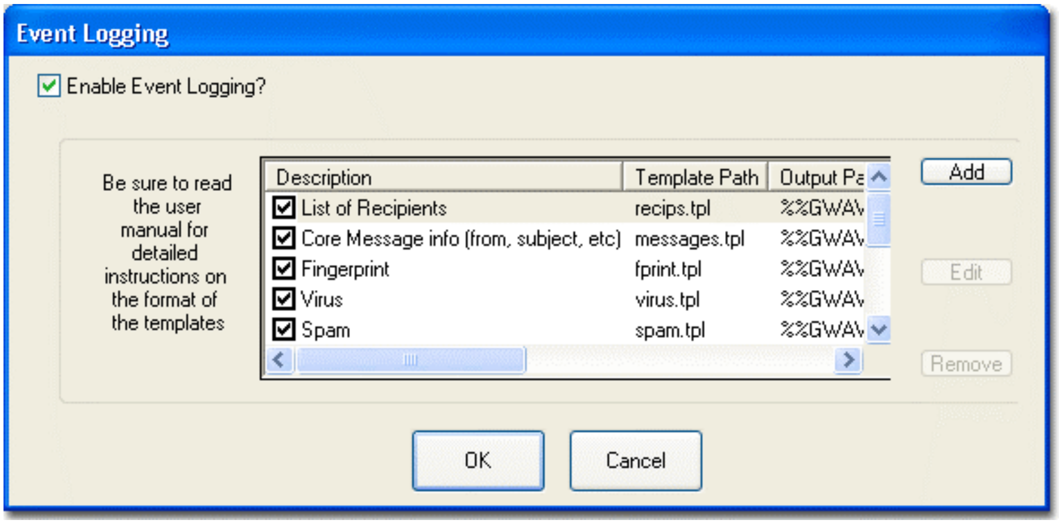


Time (24 hour): 9:28

Create output on which days allows administrators to choose which days GWAVA will generate reports. Below this is the time of day window. To alter the time that reports are generated, click the **Add** button. The Edit and Remove buttons only become highlighted when a time of day is selected.

This window uses a 24-hour clock. Enter the time of day required then click **OK** or **Cancel**.

Enable Logging



Event Logging

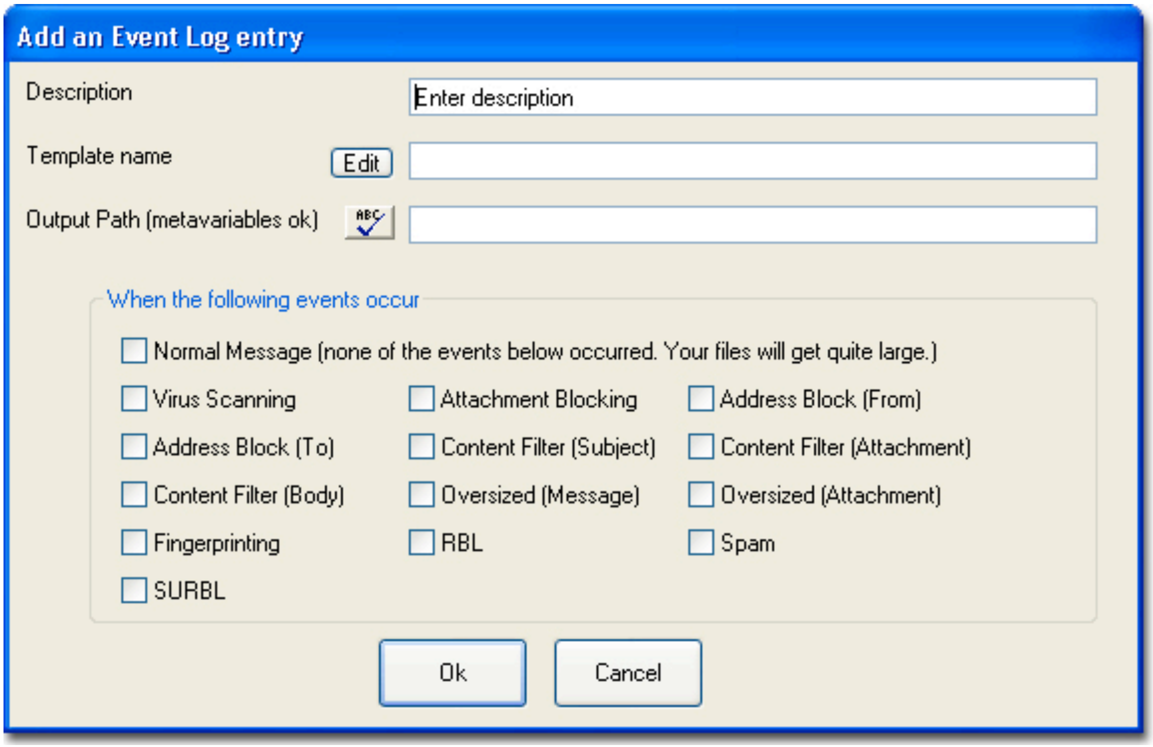
☑ Enable Event Logging?

Be sure to read the user manual for detailed instructions on the format of the templates

Description	Template Path	Output Pa
☑ List of Recipients	recips.tpl	%%GWAV
☑ Core Message info (from, subject, etc)	messages.tpl	%%GWAV
☑ Fingerprint	fprint.tpl	%%GWAV
☑ Virus	virus.tpl	%%GWAV
☑ Spam	spam.tpl	%%GWAV

You may now choose which statistical reports are chosen for generation. GWAVA 3 formats these reports using templates. From this screen you can add, edit or remove event logs or change the output paths.

Begin by clicking **Add**.



Add an Event Log entry

Description: Enter description

Template name:

Output Path (metavariables ok):

When the following events occur

□ Normal Message (none of the events below occurred. Your files will get quite large.)

□ Virus Scanning □ Attachment Blocking □ Address Block (From)

□ Address Block (To) □ Content Filter (Subject) □ Content Filter (Attachment)

□ Content Filter (Body) □ Oversized (Message) □ Oversized (Attachment)

□ Fingerprinting □ RBL □ Spam

□ SURBL

To add a new event log, first name it in the **Description** field. Then choose a template using the Edit button, then, define the output path for the generated log. Note the ABC button that will activate the metavariable glossary. These variables allow nearly unlimited control of specific information you want outputted when events occur. This makes obsolete GWAVA's *event.log* methodology. Note also that functionality used formerly the *archive.csv* is also now replaced by the Event Logging system in GWAVA 3. Refer to the appendices for more information.

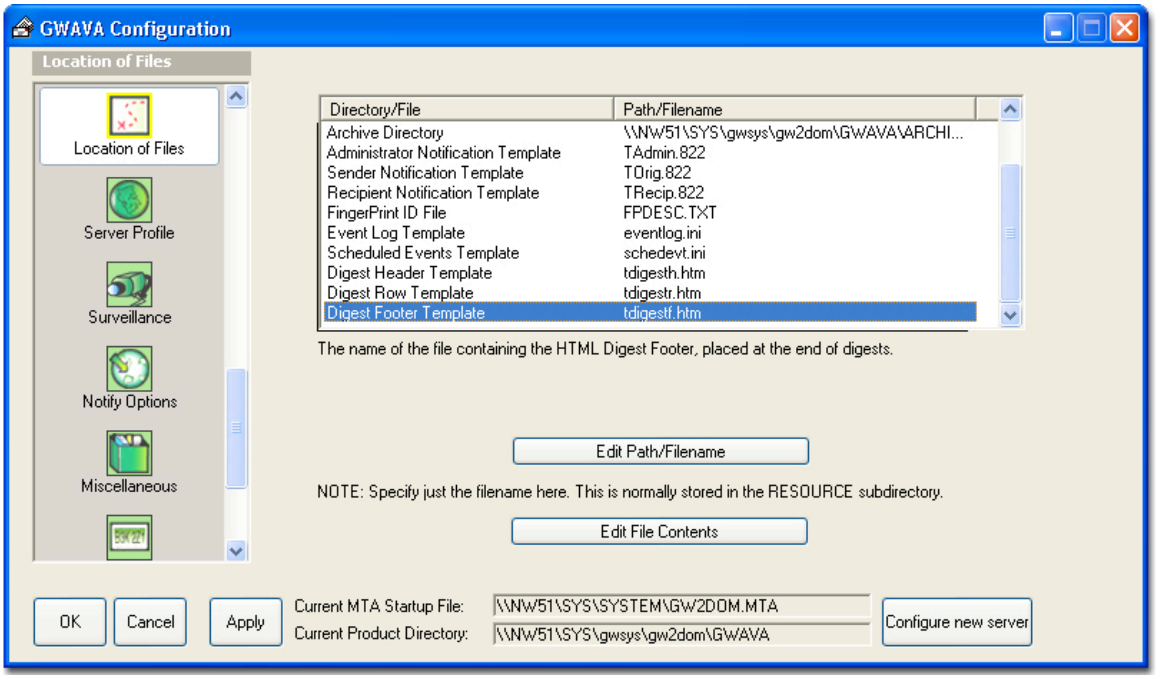
You must now choose what will be logged. Options include

- Normal messages (this can result in large logs but can be useful for testing)
- Virus scanning
- Attachment blocking
- From address blocking
- To address blocking
- Content filter for subject
- Content filter for attachment
- Content filter for body
- Oversized messages
- Oversized attachments
- Fingerprinting
- RBL
- SuRBL
- Spam

Click **OK** to name and save your event log report or **Cancel** to quit.

Location of Files

Features in this section of the configuration program are used to keep track of file locations for files important to GWAVA.



Directory/File	Path/Filename
Archive Directory	\\NW51\SYS\gwsys\gw2dom\GWAVA\ARCHI...
Administrator Notification Template	TAdmin.822
Sender Notification Template	TOrig.822
Recipient Notification Template	TRecip.822
FingerPrint ID File	FPDESC.TXT
Event Log Template	eventlog.ini
Scheduled Events Template	schedevt.ini
Digest Header Template	tdigesth.htm
Digest Row Template	tdigestr.htm
Digest Footer Template	tdigestf.htm

The name of the file containing the HTML Digest Footer, placed at the end of digests.

NOTE: Specify just the filename here. This is normally stored in the RESOURCE subdirectory.

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

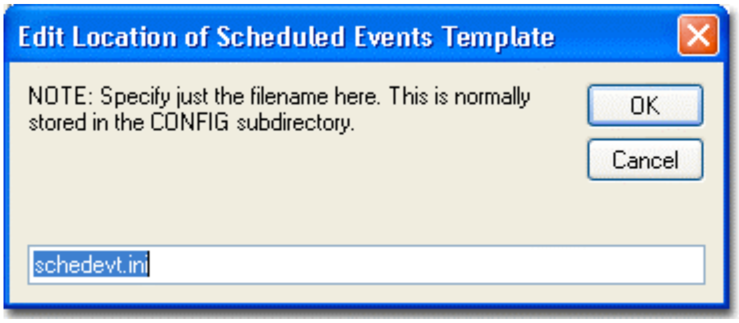
Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

Variables

The files available for modification here also include notification messages. Previous versions of GWAVA have used text files to alert users of triggering events. These have been replaced by more compact templates populated by variables.

You should not need to change any of the file locations or the messages associated with the variables themselves. If you do find you need to, or are instructed to do so by a member of the GWAVA technical support team, do so by clicking **Edit Path/Filename**, and edit the path/filename information appearing in the **Edit** window.

The title bar on the window which opens changes according to the file selected for alteration of its name or location. Here is a sample window, the Scheduled Events template:



NOTE: Specify just the filename here. This is normally stored in the CONFIG subdirectory.

schedevt.ini

When directing GWAVA to use a new file, be certain you have **already** located the file you want to use in the required directory.

The files and directories tracked here by default are the: GroupWiseDomain Directory, the GWAVA product Directory, the Archive directory, the Administrator Notification Template, the Sender Notification Template, the Recipient Notification Template, the Fingerprint ID file, the Event Log Template and the Scheduled Event template. The Resource directory, new to GWAVA 3, contains all the new templates as well as other configuration files. For more about GWAVA 3's templates and metavariables, please consult the appendices.

Note: The Scheduled Events template is the core configuration list of all the scheduled events and whether or not enabled. The Fingerprint ID template is a mapping template for fingerprint types and their text descriptions. For information about the other templates, see the appendices.

File Locations

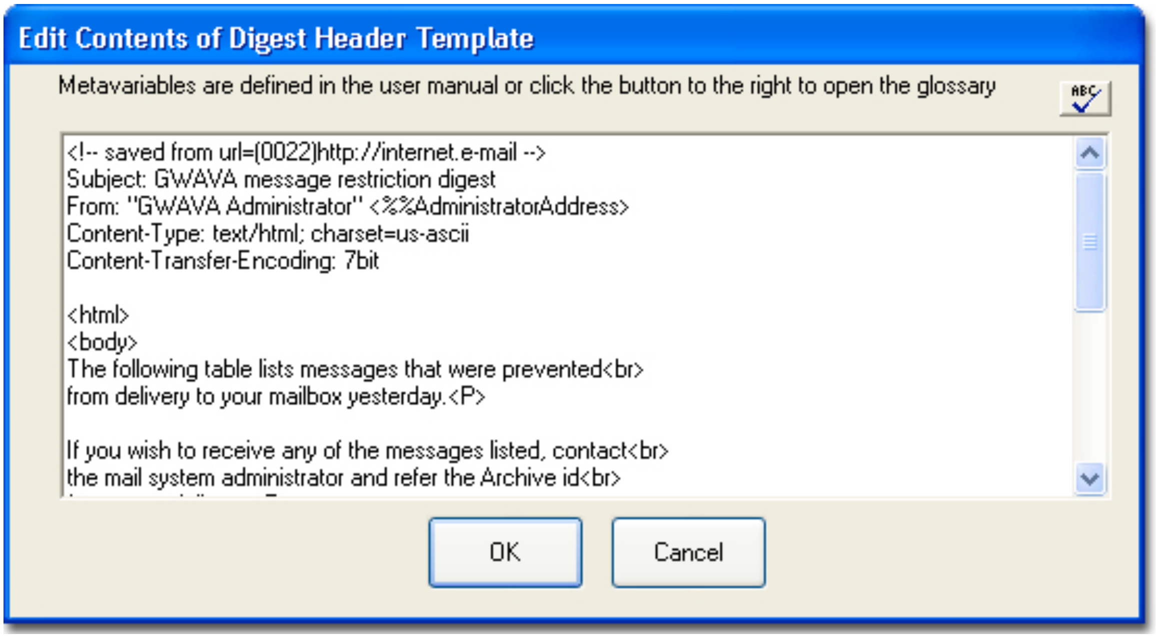
The location of all files can also be confirmed from the GWAVA program by pressing **Ctrl-E** or **F9** and scrolling through the GWAVA log file.

Directory/Filename	Default Setting	Comments
Domain Directory	Set by the /HOME switch in the MTA setup file.	This should point (in UNC format) to the directory containing WPDOMAIN.DB. It is the domain the MTA is servicing. There is no need for special file system rights at this level, but there should be an MSLOCAL subdirectory below. The GWAVA user account must have at least RF rights to the MSLOCAL subdirectory and all of its subdirectories. Note: The AV Scanner must ignore the MSLOCAL directory and all its subdirectories when scanning.
GWAVA Root Directory	The GWAVA subdirectory under the Domain Directory.	GWAVA recognizes all of the informational and working directories as subdirectories of the GWAVA Root Directory. It is best recommended to assign RWCEMF rights to this directory. VWORK – this GWAVA subdirectory is where all messages and attachments are temporarily quarantined for virus scanning. This directory is exposed to the AV Scanner, and all files placed in it will be scanned for virus infection. The user assigned for GWAVA must have RWCEMF rights to this directory, and your AV Scanner must scan this directory. The VWORK directory must be located on the same server as the domain directory. LOG – this GWAVA subdirectory is where GWAVA stores log files. If logging is disabled, this directory will remain empty. The user assigned for GWAVA must have RWCEMF rights to this directory, and the directory must be located on the same server as the domain directory. LOG/ANTISPAM – this log subdirectory is where GWAVA stores anti-spam log files. If logging is disabled, this directory will remain empty. The user assigned for GWAVA must have RWCEMF rights to this directory, and the directory must be located on the same server as the domain directory. SMTPQ – this GWAVA subdirectory is where notification messages are built and stored prior to delivery. If you experience problems delivering these messages, they will remain in this directory. The user assigned for GWAVA must have RWCEMF rights to this directory. **Note**: Some AV Scanners cannot scan MIME format messages properly. You may need to exclude this directory from AV scans. ARCHIVE – this GWAVA subdirectory contains files archived by GWAVA. CONFIG - this GWAVA subdirectory contains for GWAVA configuration file. CONFIG/SPAMCFG – this CONFIG subdirectory contains the Anti-Spam Heuristics settings files. CONFIG – This directory contains notification templates

Editing File Contents

To edit the contents of an automated notification message, select it from the list, click **Edit File Contents**, and adjust the body of the message that appears in the Edit window.

In previous versions of GWAVA, notification messages were stored in txt files. In GWAVA 3, more flexible and compact variables are used to populate templates. To edit a file, choose a file from the list then click the **Edit File Contents** button.



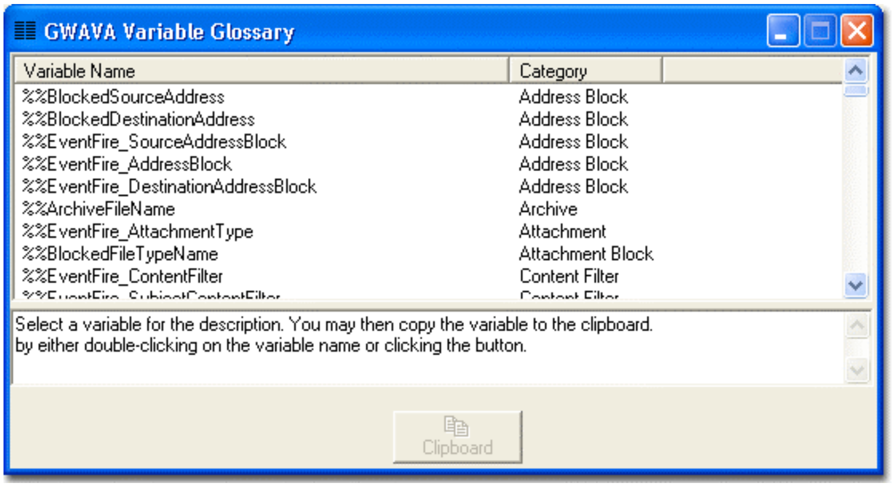
Metavariables are defined in the user manual or click the button to the right to open the glossary

```
<!-- saved from url=(0022)http://internet.e-mail -->
Subject: GWAVA message restriction digest
From: "GWAVA Administrator" <%%AdministratorAddress>
Content-Type: text/html; charset=us-ascii
Content-Transfer-Encoding: 7bit

<html>
<body>
The following table lists messages that were prevented<br>
from delivery to your mailbox yesterday.<P>

If you wish to receive any of the messages listed, contact<br>
the mail system administrator and refer the Archive id<br>
```

To see what is held in the other default templates, see the appendices: it contains the complete TAdmin.822 template with an explanatory glossary.

Tip: Click on the ABC button at the top of this window for a full list of the GWAVA 3 metavariables you can include in your notification templates.

The meta-variables can be used to indicate message related information in the GWAVA notification messages. See the appendices for a complete list. You can cop the explanatory text in the bottom window by using the copy to **Clipboard** button.

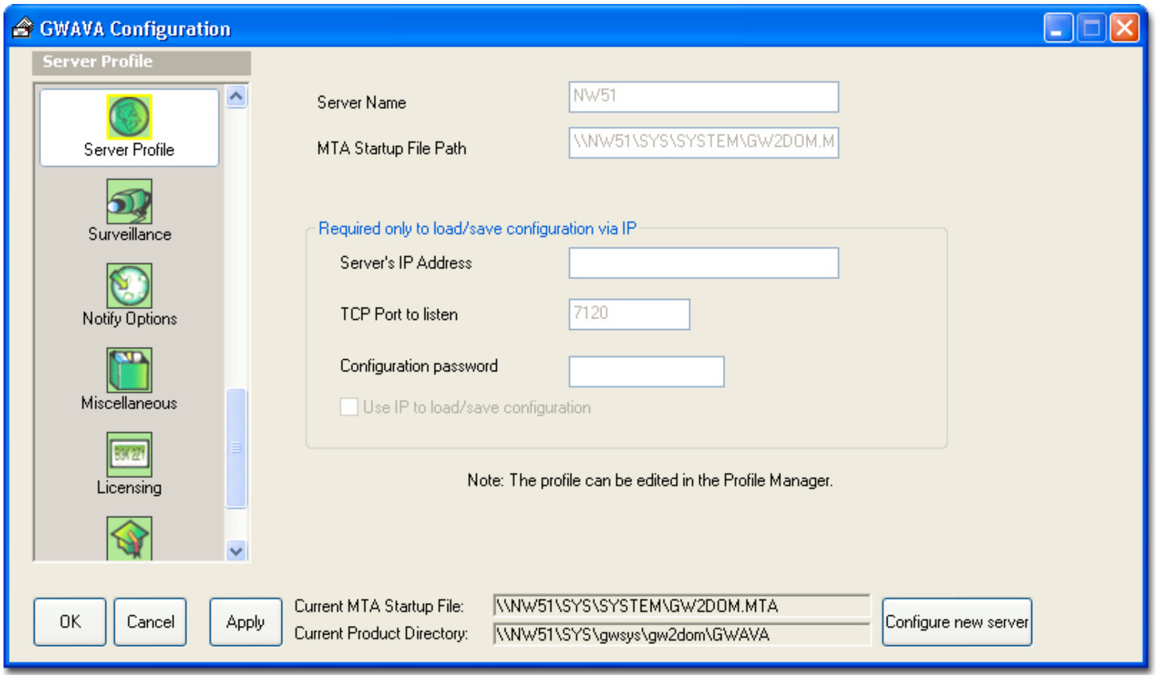


Variable Name	Category
%%BlockedSourceAddress	Address Block
%%BlockedDestinationAddress	Address Block
%%EventFire_SourceAddressBlock	Address Block
%%EventFire_AddressBlock	Address Block
%%EventFire_DestinationAddressBlock	Address Block
%%ArchiveFileName	Archive
%%EventFire_AttachmentType	Attachment
%%BlockedFileTypeName	Attachment Block
%%EventFire_ContentFilter	Content Filter
%%EventFire_SubjectContentFilter	Content Filter

Select a variable for the description. You may then copy the variable to the clipboard. by either double-clicking on the variable name or clicking the button.

Server Profile

This informational screen shows which profile is currently being viewed with the GWAVA Manager.



Server Name: NW51

MTA Startup File Path: \\NW51\SYS\SYSTEM\GW2DOM.M

Required only to load/save configuration via IP

Server's IP Address:

TCP Port to listen: 7120

Configuration password:

□ Use IP to load/save configuration

Note: The profile can be edited in the Profile Manager.

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

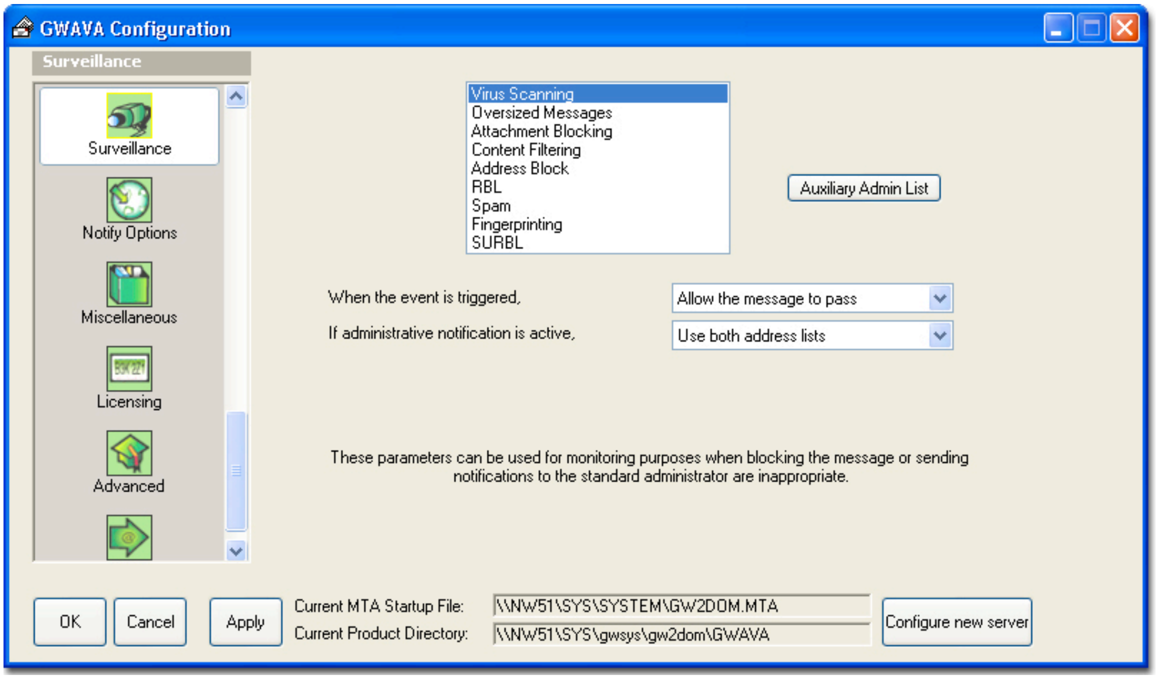
Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

Edit the server profile with the Profile Manager. Information displayed on this page includes:

- The server name
- MTA startup file path
- Server IP address
- TCP port to listen
- Configuration password entry field
- Use IP to load and save configuration

Surveillance

For inspecting and monitoring e-mail activity without the knowledge of your end users



When the event is triggered, Allow the message to pass

If administrative notification is active, Use both address lists

These parameters can be used for monitoring purposes when blocking the message or sending notifications to the standard administrator are inappropriate.

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

By default, GWAVA blocks/deletes messages that violate its rules. The Surveillance screen allows you to override GWAVA's default behavior for a variety of purposes. Surveillance mode can be enabled on a test-by-test basis (i.e. enable surveillance on content filtering and spam, but not on any other type of test).

Adjusting Surveillance settings is accomplished by highlighting the appropriate test (let's choose "Content Filtering") and changing the default behavior from "Delete" to "Allow". The result is that any time a content filter rule is violated; GWAVA will log and archive the message, but will **NOT** block it. The sender and recipient will never know that you caught them discussing an unauthorized topic. Here are some examples of how to use Surveillance mode:

- Who is sending 25 megabyte-sized e-mails?
- Who is discussing a confidential topic?
- Who is sharing MP3 files?
- Who is communicating with a competitor?
- Who is wasting time on eBay?

Now, combine Surveillance mode with GWAVA's Post Office scanner, and some even more intriguing functionality now becomes possible:

- Show me ALL e-mails that exceed 25 megabytes?
- Show me ALL e-mails discussing a secret or confidential topic?
- We have a court order to produce copies of all communications concerning "Enron".
- Show me ALL e-mails containing MP3 files?
- Show me ALL e-mails sent to or received from a competitor?
- We are having a legal or HR problem with an employee; show me ALL of that employee's e-mail.

Surveillance settings can be set for event triggers such as:

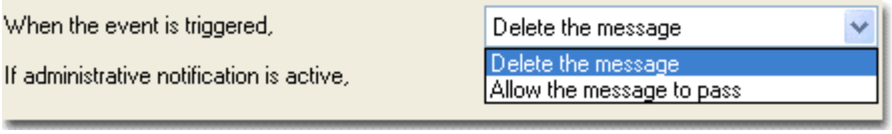
- An address block
- Attachment Blocking
- Content Filtering
- Fingerprinting
- Oversized Messages
- RBL
- SuRBL
- Spam
- Virus Scanning

Step 1

Choose an event type. For example, “Content Filtering”.

Step 2

Handling the message



When the event is triggered, Delete the message

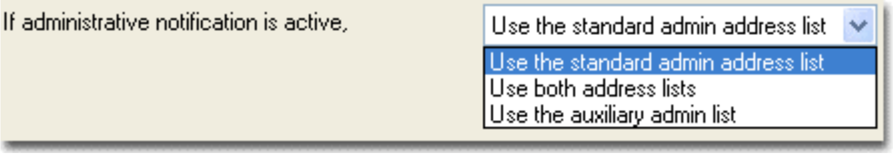
If administrative notification is active,

When the event class is triggered, there are two options:

- Delete the message, the default option
- Allow the message to pass (Surveillance mode). Make your choice with the drop-down menu

Step 3

Choose an administrator list



If administrative notification is active, Use the standard admin address list

Use the standard admin address list
Use both address lists
Use the auxiliary admin list

This is option determines who is alerted when specific events are triggered. If Administrative notification is active for a class of events, the default is for GWAVA to Use the standard admin address (set in the “Notify Options” menu).

There are two other options available. To Use the auxiliary administration list, or to Use both address lists. The choice of which of these options is best depends upon the internal structure of your organization’s e-mail system and the purpose of the surveillance. For example, a specific group of non-IT department administrators might be needed for surveillance of e-mail communications, for example human resources, the legal department or supervisors.

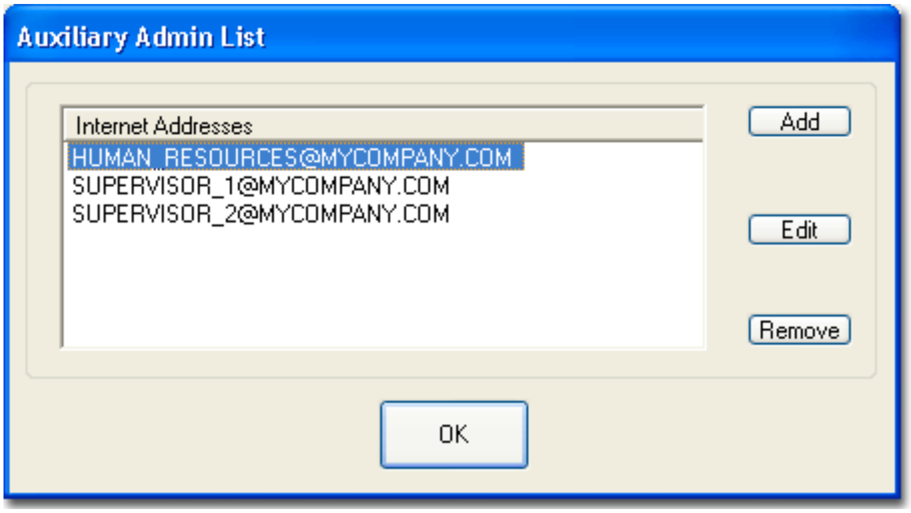
Step 4

If necessary, click the **Auxiliary Admin List** button to define your auxiliary administrators. A window listing all of the administrators with whom GWAVA trigger events are associated will be displayed.

Step 5

Click **Add**. Enter the internet e-mail address of the person, or department responsible with oversight of that particular event trigger. Clicking **OK** twice returns you to the surveillance administration list, and then to the Surveillance tools main screen.

TIP: Surveillance mode is a great way to try out new GWAVA features. For example, if you are apprehensive about using the anti-spam technology, set Spam to "Allow". That way, you can observe how GWAVA's anti-spam technology performs without worrying that legitimate messages are being blocked by mistake. You can make settings and tuning adjustments in surveillance mode, observe the results, and if you are satisfied, turn Surveillance mode off. It's like having a live, real-world simulation to try out new GWAVA features.

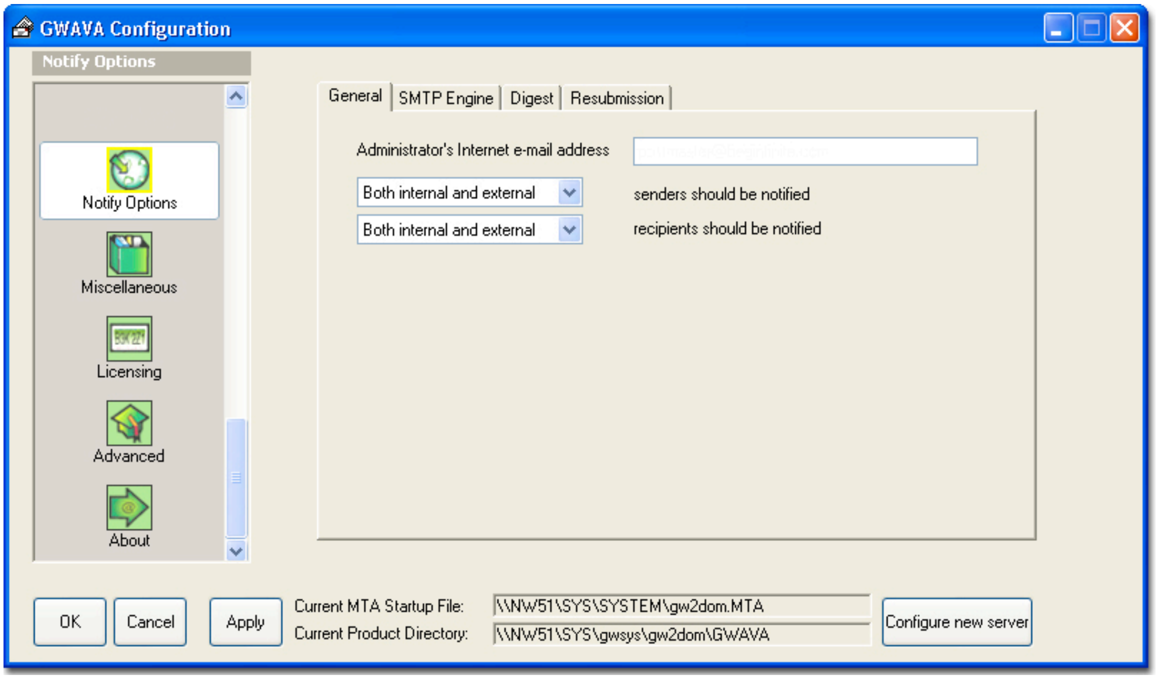


Auxiliary Admin List

Internet Addresses
HUMAN_RESOURCES@MYCOMPANY.COM
SUPERVISOR_1@MYCOMPANY.COM
SUPERVISOR_2@MYCOMPANY.COM

Notify Options

Using GWAVA to inform administrators and system users when their messages trigger GWAVA filters.



Administrator's Internet e-mail address: postmaster@beginfinite.com

Both internal and external — senders should be notified

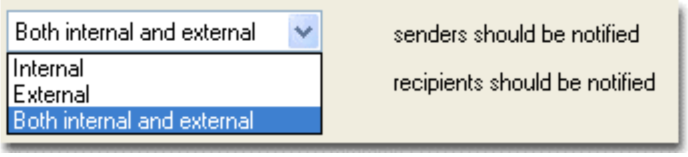
Both internal and external — recipients should be notified

Current MTA Startup File: \\NW51\SYS\SYSTEM\gw2dom.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

Global Notify Parameters

Enter the administrator's e-mail address in the **Administrator's Internet e-mail address** field. By default, this was set to *postmaster@yourdomain.com* by the configuration wizard. This address must use internet addressing.



Both internal and external — senders should be notified

recipients should be notified

When sending notifications to senders and recipients, you have the option of sending them to **Internal**—people within your domain, **External**—people outside your domain, or **Both**. Choose the preferred options from the drop-down menu provided.

SMTP Engine

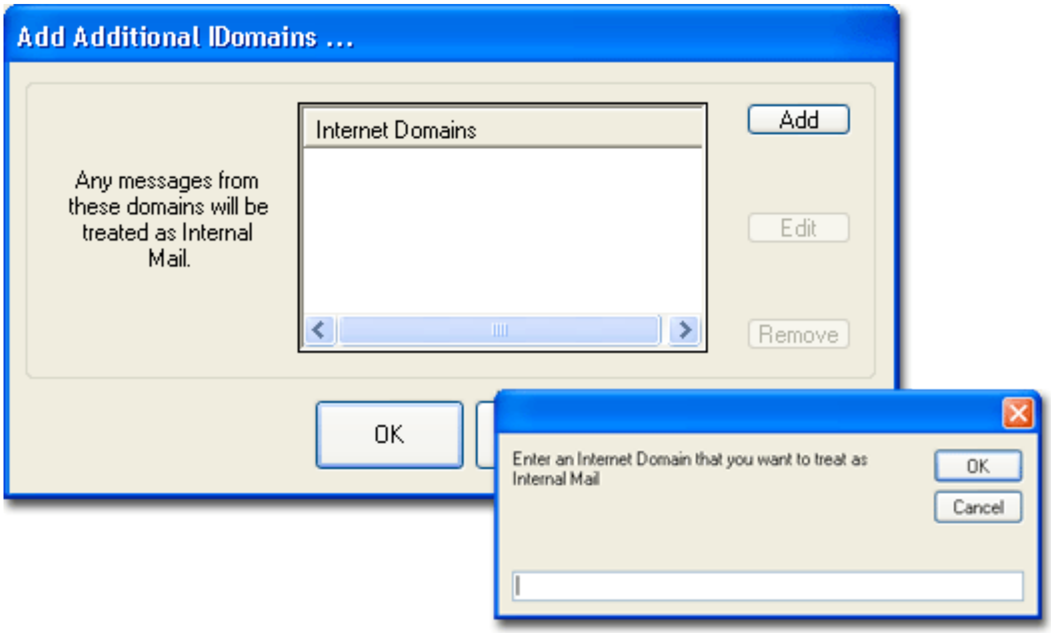
GWAVA cannot send e-mail messages directly. It relies on your SMTP engine deliver the message: GWAVA builds the message and relays it to your SMTP server.

Parameter	Comments
Host Name	This is the name GWAVA uses to identify itself to the mail server (it is what is used to negotiate the HELO transaction). Typically this is set to your domain name. You can also set it to a fully qualified host name (such as GWAVA.YOURCOMPANY.COM). By default, the Configuration wizard set this value at yourdomain.com.
Mail Host	This is the IP address of the mail server that will relay mail on behalf of GWAVA. It can be your GWIA or any SMTP server. By default, the Configuration wizard set this to the mail server IP address you entered in Step 3 of the wizard.
Mail From	This is the e-mail address that will appear in the From line of the message header. By default, the Configuration wizard set this value at postmaster@yourdomain.com.
IDomain	This is the Internet domain used by your company. By default, the Configuration wizard set this value at yourdomain.com. If your company has more than one Internet domain, click **Additional IDomains**. A small dialogue box opens where you can Add, Edit, or Delete additional IDomains from the list.
Charset	Specifies the character set GWAVA uses for composing notification messages.

Additional IDomains

Use these settings to add additional Internet domains that you wish to be treated as internal. For example, if you have *companyname.com* and *divisionofcompany name.com*, you may wish to add *divisionofcompanyname.com* as an additional IDomain. To do so, click **Additional IDomains**. This presents a dialogue box:

To add a new IDomain, click **Add** and complete the form that opens. Click **Ok** (twice) to save the addition and return to the main Notify Options screen.

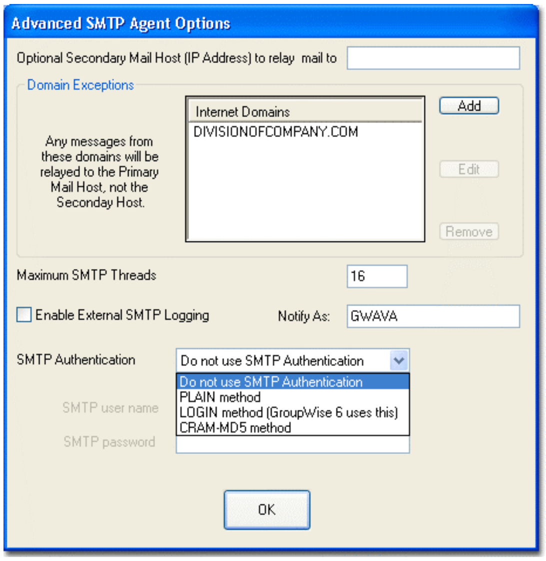


Any messages from these domains will be treated as Internal Mail.

Enter an Internet Domain that you want to treat as Internal Mail

Advanced SMTP Agent Options

GWAVA offers a number of additional SMTP options you can configure depending on the type of mail servers you are using for sending GWAVA notification messages.


Advanced SMTP Agent Options

Optional Secondary Mail Host (IP Address) to relay mail to:

Domain Exceptions

Any messages from these domains will be relayed to the Primary Mail Host, not the Seconday Host.

Internet Domains: DIVISIONOFCOMPANY.COM

Maximum SMTP Threads: 16

□ Enable External SMTP Logging

Notify As: GWAVA

SMTP Authentication: Do not use SMTP Authentication

SMTP user name

SMTP password

Add
Edit
Remove
Do not use SMTP Authentication
PLAIN method
LOGIN method (GroupWise 6 uses this)
CRAM-MD5 method
OK

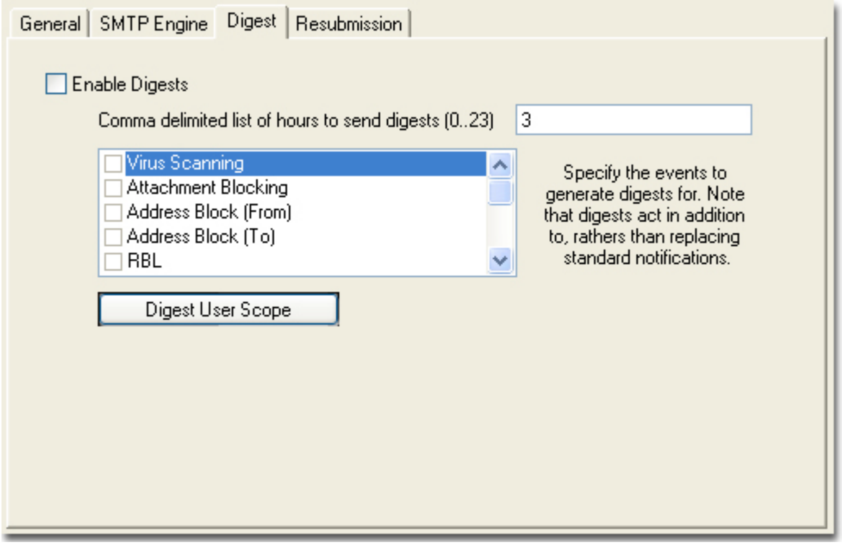
Parameter	Comment
Optional Secondary Mail Host	Enter the IP address of the secondary external SMTP agent. If this field is left blank, GWAVA will use the primary SMTP agent, defined on the main Notify Options screen.
Domain Exceptions	If a secondary mail host is defined, messages sent to domains in this list—as well as to the internal IDomain—will be sent through the primary mail host.
Maximum SMTP Threads	Set at 16 by default, this defines the maximum number of simultaneous send sessions with the SMTP engine. Acceptable settings range from 1 to 255. Additional send sessions beyond this setting will be queued to wait for an available thread. **IMPORTANT**: do not adjust by more than one or two threads at a time.
Enable External SMTP Logging	If enabled, all SMTP sessions will be saved to SMTP.LOG in the GWAVA log directory. By default this is turned off to avoid using a large amount of disk space. It can be useful, however, for diagnosing relay or communication problems.
Notify As	The name or email address you would like to see in the From header of the notification message.
SMTP Authentication	Depends on your SMTP mail server. GWAVA supports four options for SMTP Authentication—no authentication; PLAIN method; LOGIN method; and CRAM-MD5 method. If you use your ISP's SMTP server, an open relay, or have relay exceptions, use Do not use SMTP Authentication. If you are using a GWIA, select Login method, and remember to use a valid GroupWise username and password. For all other methods, please consult your mail server software documentation.

Digest

Spam Digests are a new feature in GWAVA 3.5. These produce clickable reports that are sent to users. Any may caught as spam is listed and users can click the entries to request a release.

The important thing to understand is that digests to not replace any other reports or GWAVA action as digests are only items sent to users. Think of spam digests as overlaying other GWAVA actions and notifications.

Note that digesting is separate from resubmission as not all users who are given digests may be eligible to resubmit quarantined e-mails.



□ Enable Digests

Comma delimited list of hours to send digests (0..23) 3

□ Virus Scanning
□ Attachment Blocking
□ Address Block (From)
□ Address Block (To)
□ RBL

Specify the events to generate digests for. Note that digests act in addition to, rathers than replacing standard notifications.

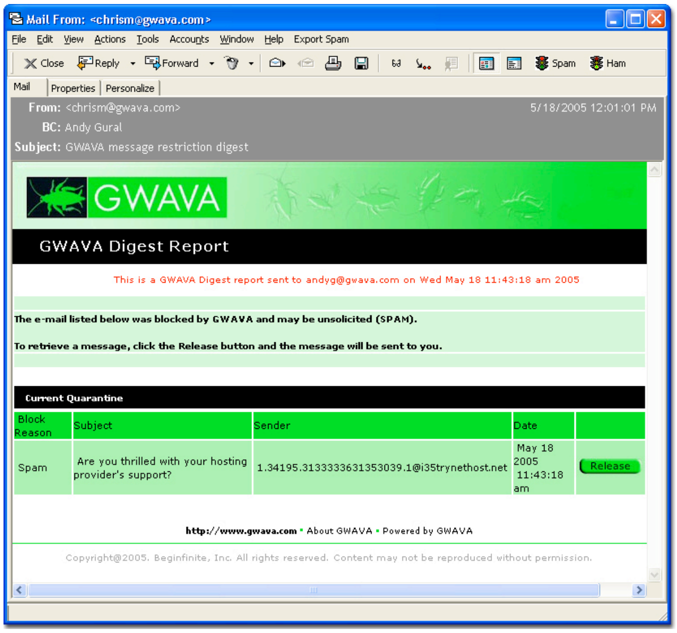
Parameter	Comment
Enable Digests	Clicking this checkbox so that it is check marked enables the GWAVA Digest Notification feature.
Comma delimited list of hours to send digests (0…23)	Using a 24 hour clock, enter the hours where you want your users to receive spam-block digests. For example, 10, 13, 16, 17, 18 will send digests listing blocked messages at ten a.m., one p.m., 4 p.m., five p.m. and six in the evening.
Specify the events to generate digests for	Enable checkboxes for the digest alerts required. Options for digest alerts include: virus scanning, attachment blocking, address blocking from, address blocking to, RBL, SuRBL, fingerprinting, oversized messages, oversized attachments, spam, content filtering of subject, content filtering of attachment and content filtering of body. **IMPORTANT**: Note that digests act in addition to, rather than as a replacement for standard notifications.
Digest User Scope	Once enabled, choose which mailboxes to have digests sent to. **All mailboxes** is the default. You can also customize which mailboxes by choosing **only these mailboxes** or **exclude these mailboxes**. Use the **Add**, **Edit** and **Remove** buttons to select which mailboxes are included in or excluded from digest alerts.

Here is a sample digest report. A list of blocked mail, starting with the **sender** is presented to the user. Additional information about the blocked e-mail included are the **subject, time, block reason** and **archive.**

By default, users clicking on the link will be presented with window already addressed with a button to “Release” intercepted mail.

The digest templates tdigesth.htm, tdigestr.htm and tdigestf.htm. can be edited.

Note that resubmission is dependent upon digesting.


Mail From: <chrism@gwava.com>
File Edit View Actions Tools Accounts Window Help Export Spam
Close Reply Forward Spam Ham
Mail Properties Personalize
GWAVA

From: <chrism@gwava.com> 5/18/2005 12:01:01 PM
BC: Andy Gural
Subject: GWAVA message restriction digest

GWAVA Digest Report

This is a GWAVA Digest report sent to andyg@gwava.com on Wed May 18 11:43:18 am 2005

The e-mail listed below was blocked by GWAVA and may be unsolicited (SPAM).

To retrieve a message, click the Release button and the message will be sent to you.

Current Quarantine

Block Reason	Subject	Sender	Date	
Spam	Are you thrilled with your hosting provider's support?	1.34195.3133333631353039.1@i35trynethost.net	May 18 2005 11:43:18 am	Release

http://www.gwava.com ▪ About GWAVA ▪ Powered by GWAVA

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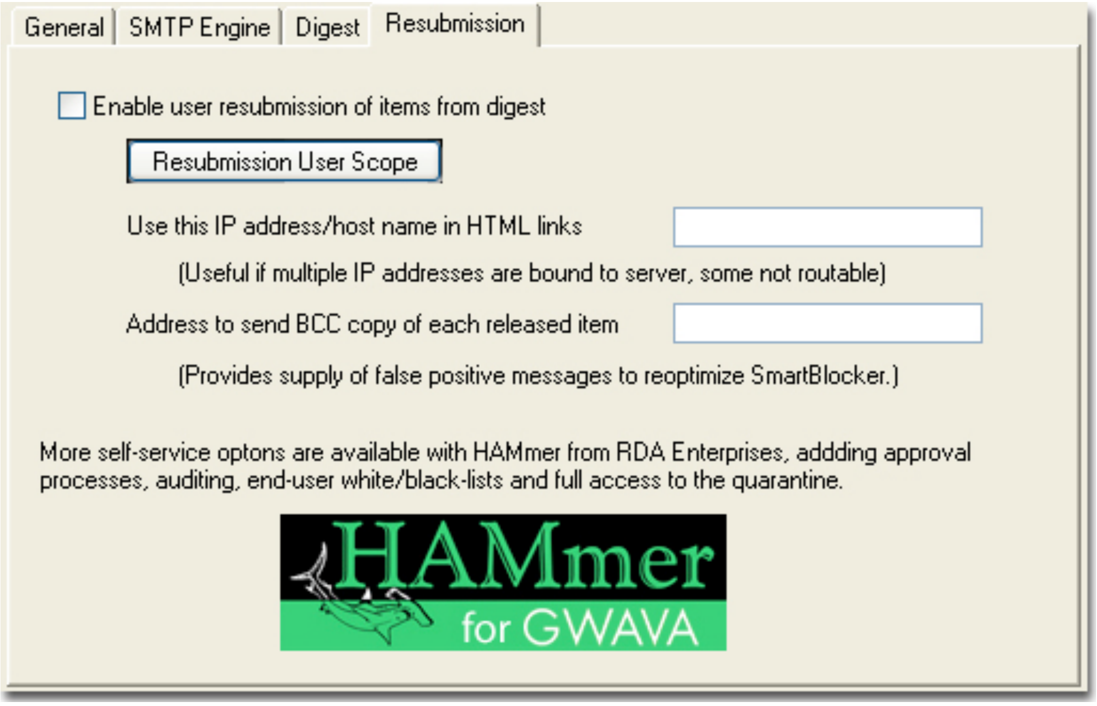
Resubmission



☐ Enable user resubmission of items from digest

Use this IP address/host name in HTML links

(Useful if multiple IP addresses are bound to server, some not routable)

Address to send BCC copy of each released item

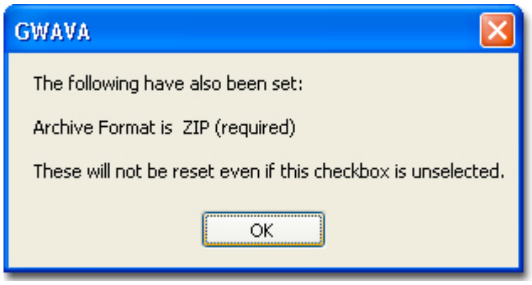
(Provides supply of false positive messages to reoptimize SmartBlocker.)

More self-service optons are available with HAMmer from RDA Enterprises, addding approval processes, auditing, end-user white/black-lists and full access to the quarantine.

New in GWAVA 3.5 is the ability for users to resubmit messages that have been intercepted as spam. This frees administrators from the task of having to release mail. Note that users cannot infect their own systems by releasing messages with infected attachments. These are quarantined by the anti-virus system.

☑ Enable user resubmission of items from digest

Begin by clicking the **Enable user resubmission of items from digest** checkbox.



GWAVA

The following have also been set:

Archive Format is ZIP (required)

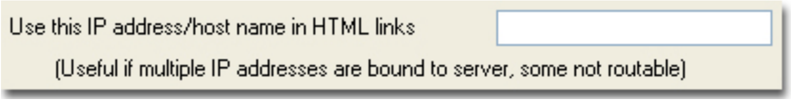
These will not be reset even if this checkbox is unselected.

An alert may appear, cautioning that the archiving format ZIP has been activated. Note that archiving must be on for digest release to function, otherwise—logically—there is nothing for users to release.

Click **OK** to acknowledge the alert.

If the **Use this IP address/host name in HTML links** data entry field is left blank, it will be the server IP address entered in step 3 of the GWAVA Configuration Wizard installation process, however, it can be your GWIA or any SMTP server.

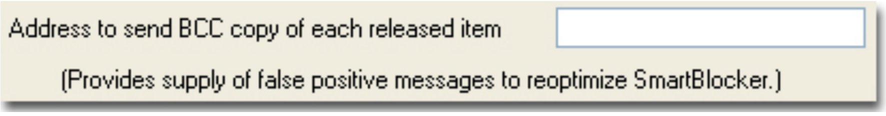
For example – For a system and users behind a corporate firewall, an IP setting such as 111.111.111.1 may be acceptable, except that employees in remote offices who are outside the firewall will not be served. Therefore, mail.mycompany.com may be preferable.



Use this IP address/host name in HTML links

(Useful if multiple IP addresses are bound to server, some not routable)

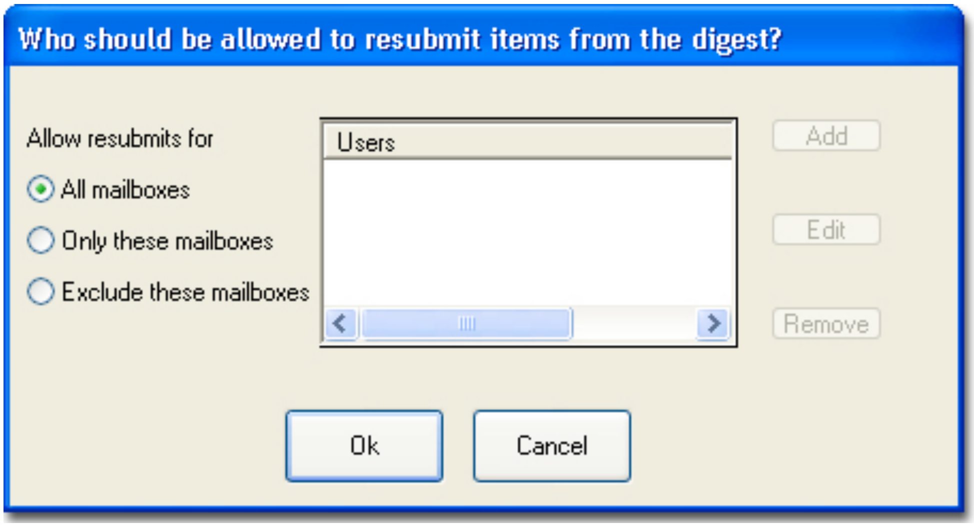
The **Address to send BCC copy of each released item** is a simple way of building a customized ham corpus.



Address to send BCC copy of each released item

(Provides supply of false positive messages to reoptimize SmartBlocker.)

Clicking the **Resubmission User Scope** button allows administrators to permit or disallow resubmissions for individual users. The default is that **All** users are allowed to demand resubmits. To add a resubmit user, click the **Add** button. Wild cards are permitted, and optional comments can be added.



Who should be allowed to resubmit items from the digest?

Allow resubmits for

● All mailboxes

○ Only these mailboxes

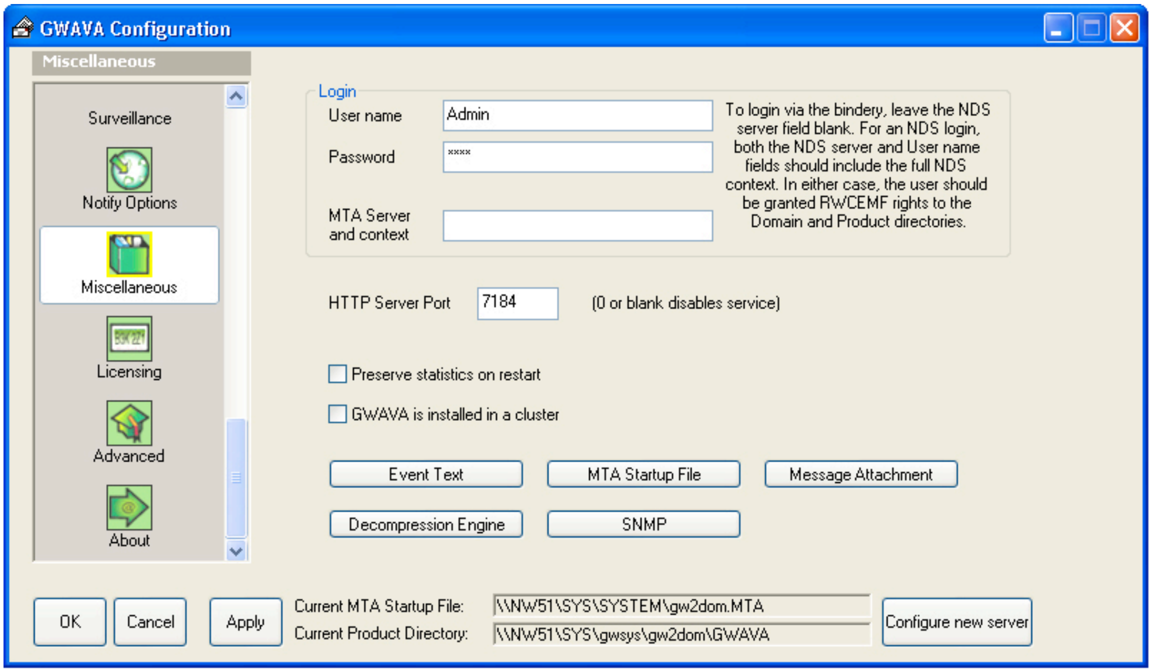
○ Exclude these mailboxes

Users

To edit a user mailbox, select the entry from the Users list and click **Edit**. To delete a user from the digesting options screen, select the entry and click **Remove**.

Miscellaneous

This section of the configuration program is used to control additional settings that can be adjusted in GWAVA 3.



Login

User name: Admin

Password: ****

MTA Server and context:

To login via the bindery, leave the NDS server field blank. For an NDS login, both the NDS server and User name fields should include the full NDS context. In either case, the user should be granted RWCEMF rights to the Domain and Product directories.

HTTP Server Port: 7184 (0 or blank disables service)

□ Preserve statistics on restart

□ GWAVA is installed in a cluster

Current MTA Startup File: \\NW51\SYS\SYSTEM\gw2dom.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

Login

The **User Name** and **Password** were established in Step 6 of the Configuration wizard. You can change this user at any time, but ensure the user has the necessary file system rights before making this change. See Location of Files for more information on file rights. **Note:** GWAVAOSA logs in if it is initialized by a GWAVA agent (MTA or POA) that is going to use file locking integration.

MConfig no longer loads and saves MTA Startup file by default. MTA Startup switches moved to Miscellaneous. This is a big architectural change as previously GWAVA routinely contacted MTA Startup files. DMAN still performs in this manner, but the rest try to avoid this method except on a new installation

Configure HTTP ServerPort and files for Redline.

By default this is disabled. If you assign a port in Miscellaneous, GWAVA will listen and serve SHTML from <gwava>\config\resource\http. If your environment is not yet using redline, administrators still might be useful to use this port, you can use any metavariables needed in the SHTML file. Note: It might be a security risk to open up an HTTP server needlessly, therefore it is off by default.

Preserve statistics on restart

This option presents the preserve statistics upon restarting of GWAVA. Enable this checkbox to ensure continuity of your installation's statistics.

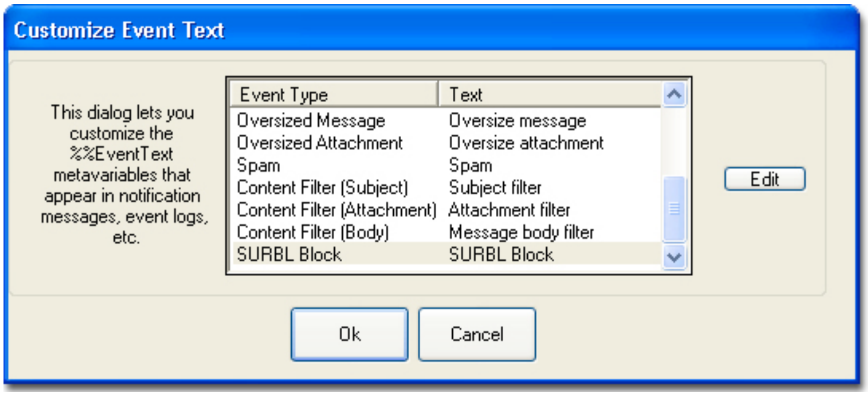
GWAVA is installed in a cluster

Prior to this version clustering required a manual editing of configuration settings. The **GWAVA is installed in a cluster** checkbox updates your configuration file automatically. Unchecking it removes these changes. **Note** - This does NOT ENSURE THAT THE PATHING Information is correct. It also will not help with the cluster and unload scripts.

Event Text

The Event Text button presents a list window for customizing the event text metavariables appearing in GWAVA notification messages, reports and logs. You can only edit this list, not add or subtract from it. The event types are

- Multiple Events
- Virus
- Attachment Block
- Source Address Block
- Destination Address Block
- RBL Block
- SuRBL Block
- Fingerprinting
- Oversized Message
- Oversized Attachment
- Spam
- Content Filter Subject
- Content Filter Attachment
- Content Filter Body



Customize Event Text

This dialog lets you customize the %%EventText metavariables that appear in notification messages, event logs, etc.

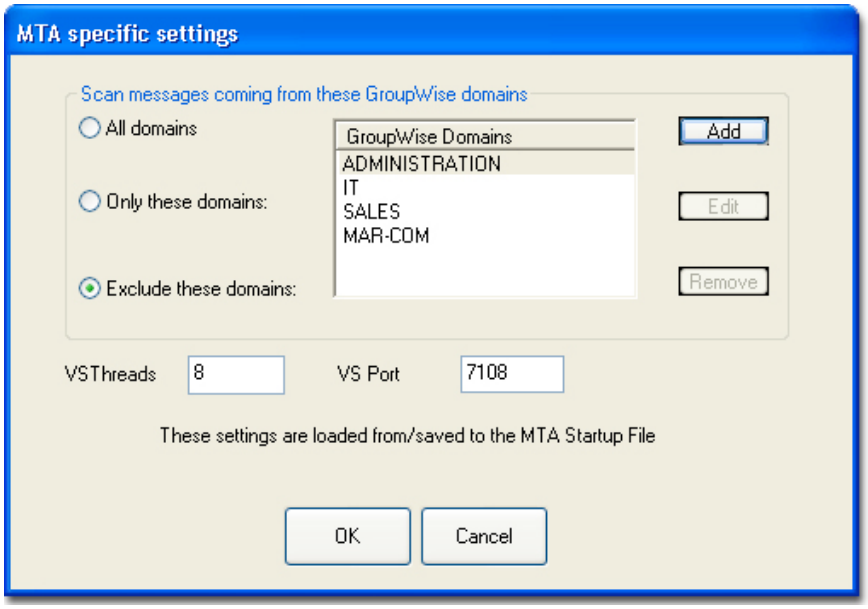
Event Type	Text
Oversized Message	Oversize message
Oversized Attachment	Oversize attachment
Spam	Spam
Content Filter (Subject)	Subject filter
Content Filter (Attachment)	Attachment filter
Content Filter (Body)	Message body filter
SURBL Block	SURBL Block

MTA Startup File

Clicking the MTA Startup file presents a dialogue box for configuring message scanning per domain.

Begin by selecting the needed domain and then choosing **All domains, Only these domains** and **Exclude these domains**. Click the **Add, Edit** or **Remove** buttons to make changes to the list of domains. Click **OK** or **Cancel** to save your changes or close this window without making any changes.

- **VS Threads** - Specifies the maximum number of scanning tasks the Novell-supplied API can handle. The default setting is 16, and the acceptable range is 1 to 100. **IMPORTANT**: do not adjust by more than one or two threads at a time—your server could crash if you adjust by more. GroupWise 5.x can handle no more than 16 threads- this is a Novell imposed limitation.
- **VSPORT** - As noted above in discussion of the Configuration Wizard, you can configure the /VSPORT switch by entering its port address in the space provided here. **Note**: avoid using this setting unless you are certain of the correct port to assign to the /VSPORT switch.



MTA specific settings

Scan messages coming from these GroupWise domains

○ All domains

○ Only these domains:

● Exclude these domains:

GroupWise Domains
ADMINISTRATION
IT
SALES
MAR-COM

VSThreads 8

VS Port 7108

These settings are loaded from/saved to the MTA Startup File

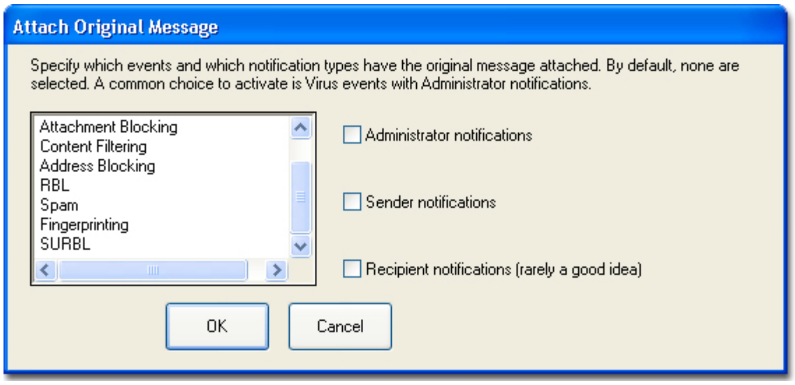
Message Attachment

Clicking this button presents a window for editing and controlling which events and types of notification (not the same thing) have the original message attached. By default, none are selected, however GWAVA advises tat Virus events should be chosen for Administrator notifications.

Event types controlled here include:

- Virus scanning
- Oversized messages
- Attachment Blocking
- Content Filtering
- Address Blocking
- RBL
- SuRBL
- Spam
- Fingerprinting

Notification types have three classes: **Administrator**, **Sender** and **Recipient.**



Attach Original Message

Specify which events and which notification types have the original message attached. By default, none are selected. A common choice to activate is Virus events with Administrator notifications.

Attachment Blocking
Content Filtering
Address Blocking
RBL
Spam
Fingerprinting
SURBL

☐ Administrator notifications

☐ Sender notifications

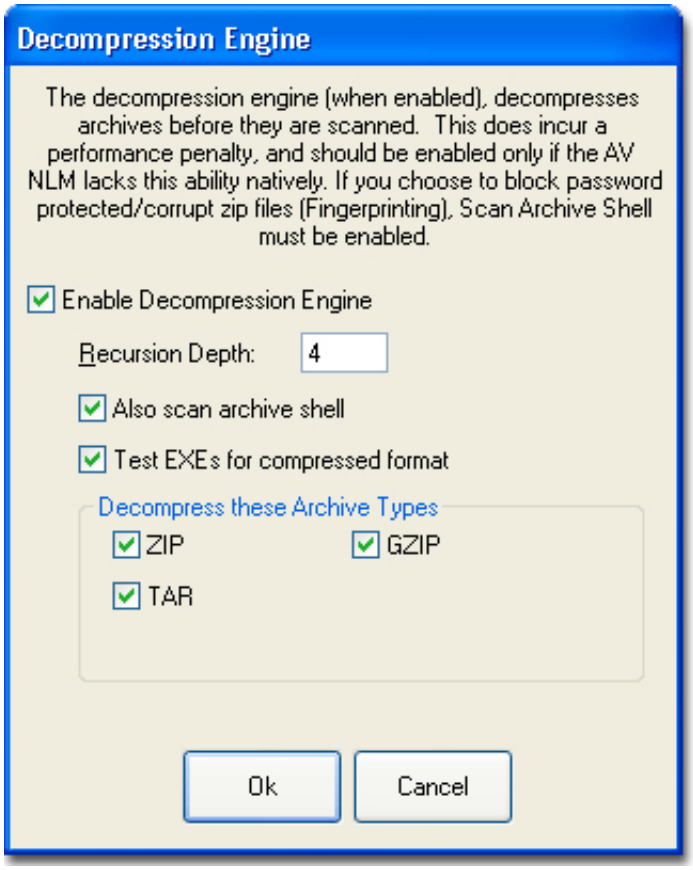
☐ Recipient notifications (rarely a good idea)

Decompression Engine
The Decompression Engine, when enabled, will decompress archive files—such as .ZIP, .TAR—for AV scanning. To enable the engine, click **Decompression Engine** and the **Enable Decompression Engine** checkbox in the window that opens.

IMPORTANT: to prevent performance lags, it is recommended you use your AV NLM's decompression engine to open and scan archive files.

Some AV engines cannot open archive files. GWAVA's decompression engine exists to cover your decompression needs if your AV NLM is not able to decompress archive files.

This screen also contains a caution: Decompressing archives before they are scanned will cause a performance drain.



Decompression Engine

The decompression engine (when enabled), decompresses archives before they are scanned. This does incur a performance penalty, and should be enabled only if the AV NLM lacks this ability natively. If you choose to block password protected/corrupt zip files (Fingerprinting), Scan Archive Shell must be enabled.

☑ Enable Decompression Engine

Recursion Depth: 4

☑ Also scan archive shell

☑ Test EXEs for compressed format

Decompress these Archive Types

☑ ZIP ☑ GZIP

☑ TAR

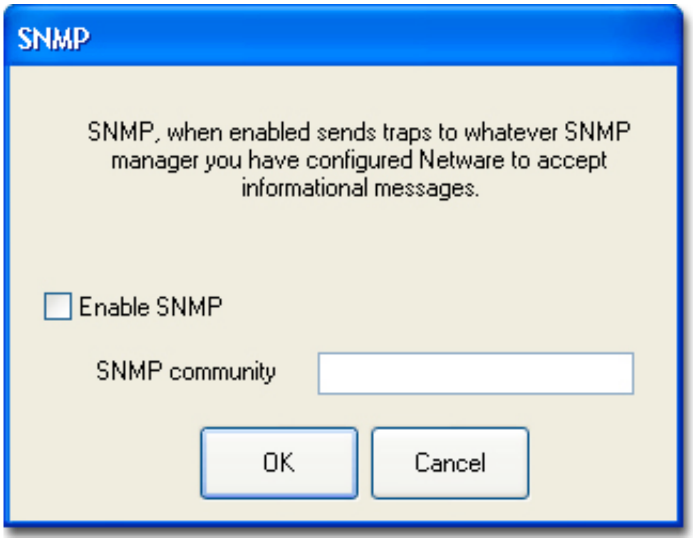
Setting	Comment
Recursion Depth	The number you enter in this field specifies how deeply within an archive file GWAVA will look for additional archives Useful for blocking zips that are nested too deep within archives
Also Scan Archive Shell	When enabled will scan the archive file itself, in addition to its contents.
Test EXEs for compressed formats	When enabled will test EXE files to determine if they are self-extracting ZIP files.
Decompress these Archive Types	Choose which archive files GWAVA will decompress. Currently GWAVA can open ZIP, GZIP, and TAR archives.

SNMP

Click the **SNMP** button to open the SNMP settings screen.

Enable SNMP traps of GWAVA via the SNMP manager you are using in conjunction with Netware. To use this feature, click **SNMP** in the main Miscellaneous screen, **then Enable SNMP** in the SNMP settings screen.

When SNMP is enabled, GWAVA will send traps (short messages) to a configured host (specified using INETCFG on the server), notifying the SNMP manager at the host of events—virus caught, error, etc. To change the target location for messages, edit SYS:ETC\TRAPTARG.CFG. You can either use the default INETCFG community or specify your own here.

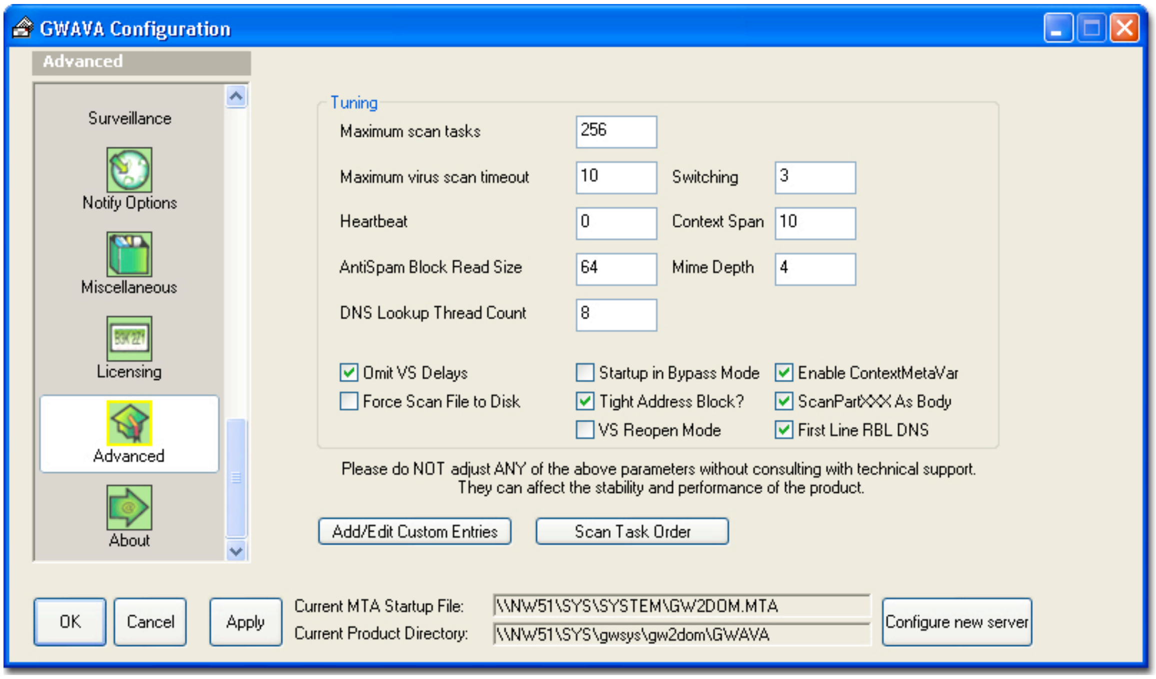


SNMP, when enabled sends traps to whatever SNMP manager you have configured Netware to accept informational messages.

□ Enable SNMP

SNMP community

Advanced



Tuning

Maximum scan tasks: 256

Maximum virus scan timeout: 10 Switching: 3

Heartbeat: 0 Context Span: 10

AntiSpam Block Read Size: 64 Mime Depth: 4

DNS Lookup Thread Count: 8

☑ Omit VS Delays ☐ Startup in Bypass Mode ☑ Enable ContextMetaVar

☐ Force Scan File to Disk ☑ Tight Address Block? ☑ ScanPartXXX As Body

☐ VS Reopen Mode ☑ First Line RBL DNS

Please do NOT adjust ANY of the above parameters without consulting with technical support.
They can affect the stability and performance of the product.

Current MTA Startup File: \\NW51\SYS\SYSTEM\GW2DOM.MTA

Current Product Directory: \\NW51\SYS\gwsys\gw2dom\GWAVA

This section of the GWAVA configuration program is for adjusting advanced settings. Please avoid making any changes to these settings unless you are doing so with the guidance of GWAVA technical support.

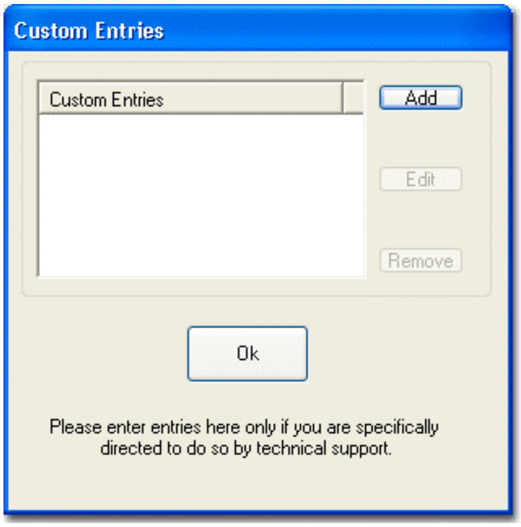
Setting	Comment
Maximum scan tasks	Specifies the maximum number of concurrent tasks GWAVA can handle. The default setting is 256, and the acceptable range is 1 to 65535.
Maximum virus scan timeout	Specifies how long before a virus scan is timed out. The default setting is 10 minutes.
Switching	Controls the amount of context switching the NLM performs. The default value is 3, and the acceptable range is 1 to 5.
Heartbeat	The GWAVA NLM will create a file called ~HrtBeat.tmp in the <DOMAIN>\GWAVA directory at a set interval (in minutes).
Context Span	The lines around triggering items.
Antispam Block Read Size	This is the how much memory is allocated for running a spam scan. For example, it this value is set to 4Kb and the file is smaller, it will read in and scan the message with no further disk reads. An 8Kb file would be read in two chunks. The bigger the number, the less likely a file will need to be split up during processing. This feature offers a very minimal performance feature but can be turned up on servers with large amounts of RAM. However, each simultaneous thread takes this memory, so a server running 256 threads and a read buffer of 100kb will need 25 megabytes.

Enable Context Metavariable	This enables the %%FilterContext variable, which does degrade performance somewhat.
Omit VS delays, Force Scan File to Disk	These are performance related. If you have difficulty catching viruses, it may be necessary to change the defaults. Remember to consult GWAVA Technical Support before changing these settings.
Tight Address Block?	Tight Address Block? is enabled by default. **Note**: the Exceptions screens has a button called **Advanced Options** for giving administrators precise control over looseness and tightness of exceptions; however by default none are selected.
Startup in bypass mode	Used for diagnostic purposes. Only follow this course of action on the advice of GWAVA Technical Support.
VS Reopen Mode	Enabling this checkbox activates Virus Scanner Reopen mode.
ScanPartXXX	This is on by default, and with GroupWise 5.x, scans the PartXXX attachment that is incorrectly created by the GWIA.
First Line RBL DNS	This is a workaround for GroupWise 6.01 and newer releases. In these releases of GroupWise, if the “hello” matches the IP address of the sending server, only the hostname is sent in the header. With First Line RBL DNS enabled, a DNS lookup will be performed to determine the server’s IP address.

Custom Entries

These should NOT be adjusted unless you are instructed to do so by GWAVA support. This section is informational so that in the event you are ever instructed to adjust these settings you will be familiar with the interface. Click the **Add/Edit Custom Entries** button to begin.

To open the Custom Entries dialogue box, click **Add** or **Edit** Custom Entries when you are instructed to add an entry by our support team. In the space provided, enter the custom field as explained by GWAVA support. Click **Ok** twice to return to the Advanced settings screen.

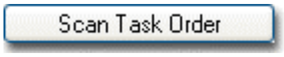


Please enter entries here only if you are specifically directed to do so by technical support.

Scan Task Order

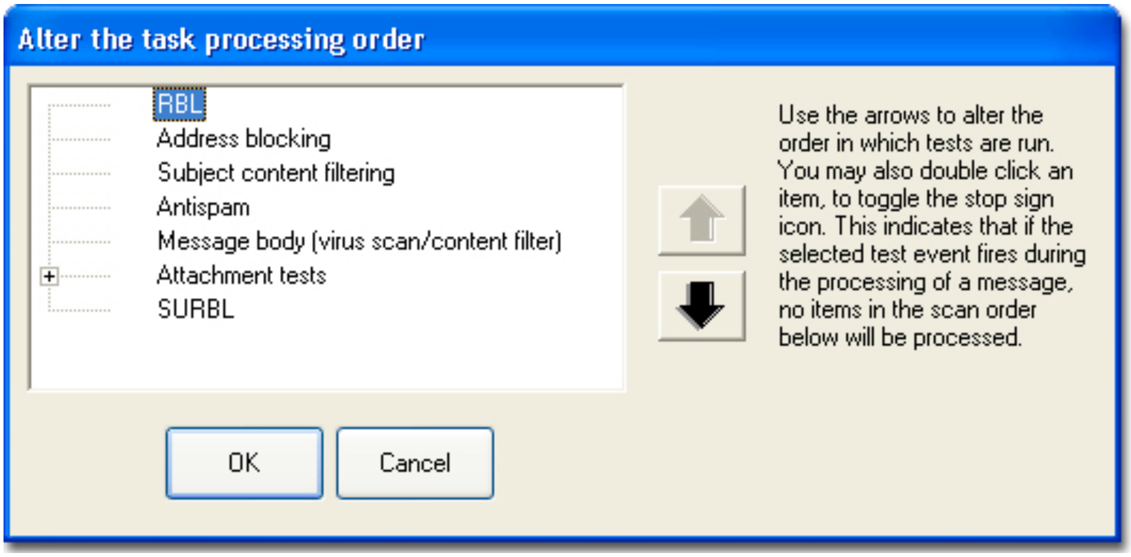
You can alter the order in which GWAVA scans mail.

This innovation means you can customize GWAVA's analysis of mail by determining which tasks are completed first, and ending the analysis process in special circumstances. For example, depending where this particular installation of GWAVA is in your GroupWise environment, you may wish to place virus scanning first and halting all analysis after the successful detection of a virus in an e-mail.



Default Order

The default order is from lowest processor use to highest. Do not alter this list without the guidance of GWAVA technical support.

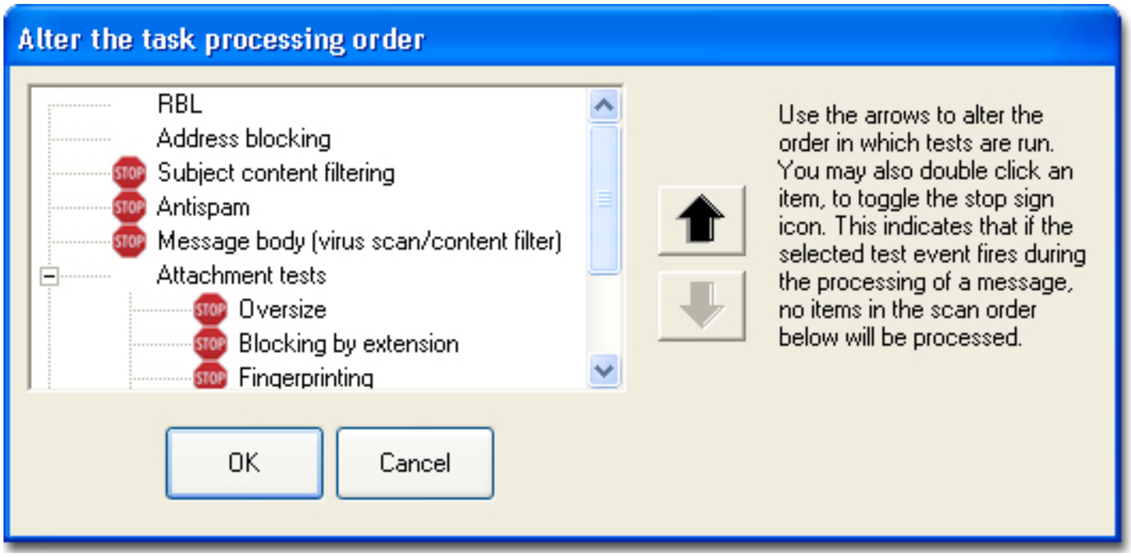


RBL
Address blocking
Subject content filtering
Antispam
Message body (virus scan/content filter)
Attachment tests
SURBL

Use the arrows to alter the order in which tests are run. You may also double click an item, to toggle the stop sign icon. This indicates that if the selected test event fires during the processing of a message, no items in the scan order below will be processed.

Begin by clicking the **Scan Task Order** button. This will bring to the fore the Scan Task Order window. In it is a flow chart listing all the test types GWAVA employs. Selecting a test type from the list at the left will activate one or both of the arrows at the right. An arrow will dim when the chosen item is at the end of the list and no further movement higher or lower in priority is possible.

Stopping analysis



Alter the task processing order

RBL
Address blocking
STOP Subject content filtering
STOP Antispam
STOP Message body (virus scan/content filter)
Attachment tests
STOP Oversize
STOP Blocking by extension
STOP Fingerprinting

Use the arrows to alter the order in which tests are run. You may also double click an item, to toggle the stop sign icon. This indicates that if the selected test event fires during the processing of a message, no items in the scan order below will be processed.

There may be times when, depending upon your configuration, you wish to halt GWAVA's analysis. For example, during a virus outbreak, an administrator may wish to save system resources by simply halting GWAVA's analysis of mail once an infection is detected so that it is deleted without any more time or system resources taken up. Also, the notifications and statistics will only reflect the events up to that point.

This is sometimes called 'break on event.'

Adding or Removing an Event or Analysis Break

To do this, choose the test desired in the Alter the Task Processing Order screen and click it twice. A stop sign will appear to the left of the test. To remove it, double click it again. Note that clicking the root of a test tree halts the operations inside that tree.

Configuring Your AV Scanner

Virtually any server based AV program can be used with GWAVA. The following requirements must be met for your AV program to work with GWAVA:

- The AV program should be responsible for decompressing archive file attachments. While GWAVA does have a decompression engine (see Miscellaneous) the AV NLM’s engine is less likely to cause performance issues.
- The AV program must be configured to exclude (from its scans) the MSLOCAL subdirectory, and any of its subdirectories, in the GroupWise domain directory.
- The AV program must scan the WorkFile directory, and if viruses are found, they must be deleted from that directory. Do not set your AV program to clean viruses from this directory.
- The AV program must be loaded and ready before GWAVA is running or files will not be scanned.

Directories to Exclude from AV Scanning

It is very important that you configure your AV Scanner to exclude certain directories when scanning.

All AV NLM programs, with the exception of Sophos, CA eTrust InoculateIT, and Command Interceptor must be configured to exclude some specific directories and their subdirectories and files.

This prevents the AV Scanner from interfering with GWAVA and GroupWise. The only directory that must be scanned is the VWORK directory.

Directory	Reason for Excluding
Any Post Office directories and their subdirectories; Any Document Management storage areas	There is no valid reason for scanning these; they are stored in encrypted format. In addition, Novell recommends that these directories are always excluded from scanning.
<DOMAIN>\GWAVA\SMTPQ	This is where GWAVA stores notification messages as they queue up. Since the administrator's e-mail may include an infected attachment, scanning this directory could impede GWAVA functions.
<DOMAIN>\GWAVA\ZWORK, <DOMAIN>\GWAVA\WORK	If the decompression engine is enabled (check to see whether or not your AV scanner can do this on its own), this is where GWAVA does its decompression work.
<DOMAIN>\GWAVA\ARCHIVE (and subdirectories)	This is where GWAVA archives messages. Since messages may include an infected attachment, scanning this directory could impede GWAVA functions.
<DOMAIN>\WPCSOUT, <DOMAIN>\WPCSIN, <DOMAIN>\MSLOCAL	There is no valid reason for scanning these; they are stored in encrypted format. In addition, Novell recommends these always directories are always excluded from scanning. GWAVA also uses the MSLOCAL\GWVSCAN directory, and interference from the AV Scanner here will cause serious problems.
<DOMAIN>\WPDOMAIN.DB	This is the master domain database and should never be scanned. It can cause serious problems to do so.
<DOMAIN>\WPGATE	The gateways are normally installed under this directory. GWIA does briefly create the files in a format that can be scanned; however, interfering with its proper function with an AV Scanner has been documented to cause serious issues.

Specific AV NLM configuration instructions

GWAVA supports all of the AV Scanners discussed below, and any future/newer releases of these AV solutions. Earlier versions may work, but were not tested by Beginfinite labs.

CA eTrust Antivirus (Formerly InoculateIT) 4.5 or higher

- Install InoculateIT, and run it (ISTART4.NCF).
- In the Configuration, and Real-Time Monitor menu, set Direction to Disabled. Save your changes.
- In the GWAVA Configuration Manager, click on the AV vendor integrations button, and select eTrust InoculateIT from the pull-down menu. Click **OK**.

Note: If the virus scanner engine is not loaded when GWAVA starts, it will not use the integration. You cannot enable this after the fact, so the AVENGINE program must be loaded prior to GWAVA. In GWAVA, ensure Decompression Engine is enabled, as eTrust InoculateIT does not scan compressed files.

CA eTrust 7.x (GWAVA 3.x Only)

- Install eTrust Antivrus , and run it (AVLAUNCH INOSTART at the server console).
- In the GWAVA Configuration Manager, click on the AV vendor integrations button, and select eTrust 7.0 from the pull-down menu. Save your changes by clicking OK.
- Configure your exclusions via the eTrust Antivirus Realtime settings (using the Exclusions section of the Filters tab on the Realtime Monitor Options dialog)
- Note: If the virus scanner engine is not loaded when GWAVA starts, it will not use the integration. You cannot enable this after the fact, so the AVENGINE.NLM must be loaded prior to GWAVA.
- In GWAVA, ensure Decompression Engine is enabled, as eTrust InoculateIT does not scan compressed files.

NAI Netshield 4.11/4.5/4.6 (or higher)

- Install Netshield, and load the server-based NLM (NETSHLD.NCF). Then run the Netshield Console.
- Right-Click the NetShield On-Access Monitor and select Properties.
- In Scan, files written to and from the server should be scanned.
- In What To Scan, All Files should be scanned.
- In Actions, either Move Infected files to a folder or Delete Infected Files Automatically can be selected.
- Under Exclusions, add the excluded directories.
- In GWAVA, ensure the Decompression Engine is enabled; NetShield does not scan compressed files.

Symantec Antivirus Corporate Edition 7 (or higher)

Options for the server-based scanner are configured in the Symantec System Console (SSC), which requires an NT workstation or server machine.

- After you install the SSC and the server-based scanner, load the server based scanner as instructed. (LOAD VPSTART /INSTALL the first time, and VPSTART afterwards).
- Run the SSC.
- Select the Server, unlock it, and Choose the Server RealTime Protection Options
  The Enable file system realtime protection checkbox should be checked.
- Set File Types to All Types.
- In Macro Virus options, set the primary action to Quarantine, and the secondary action to Delete. Repeat for Non-Macro viruses.
- The Exclude selected files and folders checkbox should be checked.
- Click Exclusions and Add the excluded directories (see Directories to Exclude from Scanning).
- You may wish to enable/disable Display Message on infected computer.

GWAVA does not need the Decompression Engine enabled, SAV can scan compressed files (must be enabled in SAV console). However, it is strongly recommended that decompression remains enabled in GWAVA. This will provide optimal protection against all threats.)

NAV 7 Note: To work properly with compressed files, the primary action must be set to Quarantine or GWAVA will fail to detect the virus.

Command Interceptor for GWAVA

Interceptor is not the same as Command Antivirus. If you do not have Command Interceptor, please follow the Command Antivirus configuration or contact Command Software for information regarding Interceptor.

- Install the NLM, run it (LOAD CSSCAN).
- If you also have Command Antivirus running on your GWAVA server, disable real time scanning or exclude the ENTIRE Domain and Post Office directories (Ignore the directory exclusion instructions earlier.
- In the GWAVA Configuration Manager, click on the AV vendor integrations button, and select Command Interceptor from the pull-down menu. Save changes by clicking OK.

Note: If the virus scanner engine is not loaded when GWAVA starts, it will not use the integration. You cannot enable this after the fact, so the CSSCAN.NLM must be loaded prior to GWAVA. In GWAVA, ensure Decompression Engine is enabled, as Command Interceptor does not scan compressed files.

Command AntiVirus for NetWare 4.58 (or higher)

Options for the server-based scanner are configured in a Windows based program (Command AntiVirus for Netware Administration).

- Install the program, run it (LOAD F-PROT), and run the Command AntiVirus for NetWare Administration.
- Select the Server, and under the Task Menu, choose Real-Time Scans
- In Settings, set Action on Infection to Quarantine or Delete.
- In Settings, select both Scans On Opens and Scans on Closes.
- In Exclude, add the excluded directories (see Directories to Exclude from Scanning). All subdirectories will automatically be added, although the interface does not make this obvious.

In GWAVA, ensure Decompression Engine is enabled, as Command AntiVirus does not scan compressed files.

Trend Micro's ServerProtect for NetWare 3.71/5.0/5.1

Options for the server-based NLM are configured in a Windows based program (Supervisor Configuration Utility).

- Install the program files. Make sure they are running (SPNW.NCF), then run the Supervisor Configuration Utility.
- Double-click the server, and unlock it. Then choose File Checking from the Configure Menu.
- In the RealTime tab, make sure ALL Files are selected for DOS.
- In the RealTime tab, enable all the Incoming/Outgoing File Checking options—all 5 checkboxes should be checked.
- In the Exception Tab, add the excluded directories (see Directories to Exclude from Scanning).
- In the Action Tab, set Action on Virus Identification to Wipe Out or Move.
- Trend users should use
- Bindery with Omit VS Scan Delays checked.
- Or use NDS, with Omit VS Scan Delays unchecked.

You may wish to disable the Broadcast message for Configure Actions. GWAVA does not need the Decompression Engine enabled; ServerProtect can scan compressed files. (This is true of ServerProtect 5.0/5.1. However, ServerProtect 3.71 does require the Decompression Engine.)

Panda Antivirus 2.5 (or higher)

Options for the server-based scanner are configured in a Windows based program (Panda Administrator)

- Install Panda Enterprise Manage
- Deploy your Distribution Agent to the Novell Server
- Install Panda Antivirus to Netware
- Right click on server and choose Edit Settings. Under Antivirus make sure
- All files will be scanned instead of selected items
- Deletion will be performed on viruses instead of cleaning

The directories below MUST be excluded in order for Panda to work. If this step is not completed fully, false positives will result. Panda is VERY particular here. You must exclude:

- Work
- Archive
- MSLocal

GWAVA does not need the Decompression Engine enabled; Panda can scan compressed files.

Sophos Antivirus 3.32 (or higher)

In the Real-Time Configuration screen

- Status = active
- Volumes = the volume with GWAVA's directories should be write only
- Workstations: all (or whatever is required)
- Server Processes: Do not monitor for file access
- Scanning options: Scanning Level (full), Compressed Files: Yes, Intercheck: any setting
- Removal options: purge infected files
- Notify group: any setting

In the Administration screen

- Executables - make certain BIN has been added so that the virus scanner validation test passes.

In GWAVA Configuration

- Create a user. Log in.
- Enable both file locking and virus scanning.

Note: Ensure Omit VS Scan Delay checkbox in advanced is off. This significantly degrades performance but is needed due to a Sophos-specific issue, which can be eliminated by using SAVI.

Sophos SAVI (GWAVA 3.x Only)

Sophos SAVI is not the same as Sophos Sweep. If you do not have Sophos SAVI, please follow the Sophos Sweep configuration or contact Sophos for information regarding SAVI.

- Install the program files. Typically the virus definitions go into SYS:\SOPHOS\SAVI and the NLMS (SAVI and VEEX) got into SYS:\SYSTEM
- If you also have Sophos Sweep running on your GWAVA server, disable real time scanning or exclude the ENTIRE Domain and Post Office directories (Ignore the directory exclusion instructions earlier.
- In the GWAVA Configuration Manager, click on the AV vendor integrations button, and select Sophos SAVI from the pull-down menu. Save changes by clicking OK.

Note: SAVI may be safely loaded before GWAVA starts. Alternatively GWAVA will automatically load it when needed.

Kaspersky AntiVirus (Non-Integrated)

GWAVA now includes an integrated version Kaspersky. See the anti-virus configuration screen of the GWAVA configuration program for details. However, if you already own Kaspersky, install it by:

- Unzip the encrypted KAV.ZIP (stored in <app>\v3\kav) to <productDir>\KAV
- The flag NeedToActivateKAV is set. Otherwise a pop up listing the Error Code is provided.
- Mconfig's NeedToActivateKAV is examined. If is KAV not activated, it activates, providing the following notice:

The routine InstallKAV launches every time MConfig is launched. InstallKAV checks to see if any files exist in <productDir>\KAV. If so, it exits.

Kaspersky AntiVirus (Integrated)

When GWAVA is installed, a KAV subdirectory is installed under the GWAVA product directory. If the KAV integration is enabled, and you have a valid license for Kaspersky (separate from your GWAVA license), KAV is automatically loaded into memory as well as an auto-updating program. The auto-updater creates a new console screen for you to observe its progress.

Norman

- Display messages on the system console – Select Yes for diagnostic purposes. You can always turn this option off later.
- Display monitor screen upon load: Select Yes. This option is very useful for watching scanning
- Common Scanning Options
- GWAVA suggests leaving all at the default settings except for the usual files included in Exclude category
  - RealTime Scanning Options
  - Scan Incoming, Outgoing, Outgoing with Write -- all yes
  - Add to the Include List for ServerBased Processes - the VWORK directory
- Sever Scanning Options:
  - Leave at the default settings.
  - Virus Detected options
  - Cleaning turned off
  - Purging turned on.

Notes on the Switches Placed in the MTA Startup File

The following switches are placed in the MTA Startup File.

Switch	Comments
/vscan	(values are include or exclude) include/exclude the domains listed in /vsdomain
/vsdomain	space delimited list of all GroupWise domains to include/exclude in the scan
/vsnamevalue	GWAVA
/vstype	message
/vsport	only added for specific versions of GroupWise (see Configuration Wizard).
/vsthreads	Controls how many simultaneous messages the MTA can transmit into GWAVA. Depending on the version of GroupWise, this can be as low as 100 or as high as 255.

To uninstall GWAVA, remove all of these switches from the MTA startup file and restart the MTA server. The MTA API is fairly limited. There is no wildcarding permitted, so to allow the Scan All Domains option, the switches are set to:

Switch	comment
/vscan	exclude
/vsdomain	DUMMY

Since there is no DUMMY domain, this fools the API into scanning all domains.

The GWAVA Program Interface

Additional GWAVA screen captures

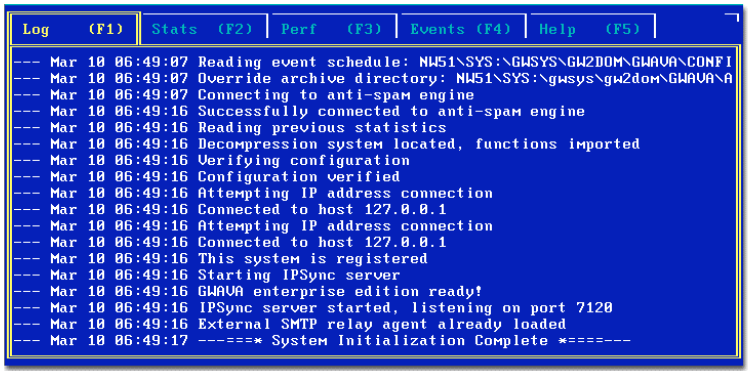
This appendix includes several screen captures to demonstrate GWAVA and GWAVA related events on your system. The NLM portion of GWAVA (VS.NLM) should be loaded automatically whenever the MTA is loaded. (If not, check Switches Placed in the MTA Startup File).

You should never manually shut down the VS.NLM; it is dependent on GWMTAVS.NLM and upon the MTA (GWMTA.NLM). In normal operation, shutting down the MTA will shut down the GWMTAVS.NLM and VS.NLM.

After unloading the MTA, GWMTAVS, and VS, go to the console and type NOGWAVA to unload all ancillary GWAVA program files.

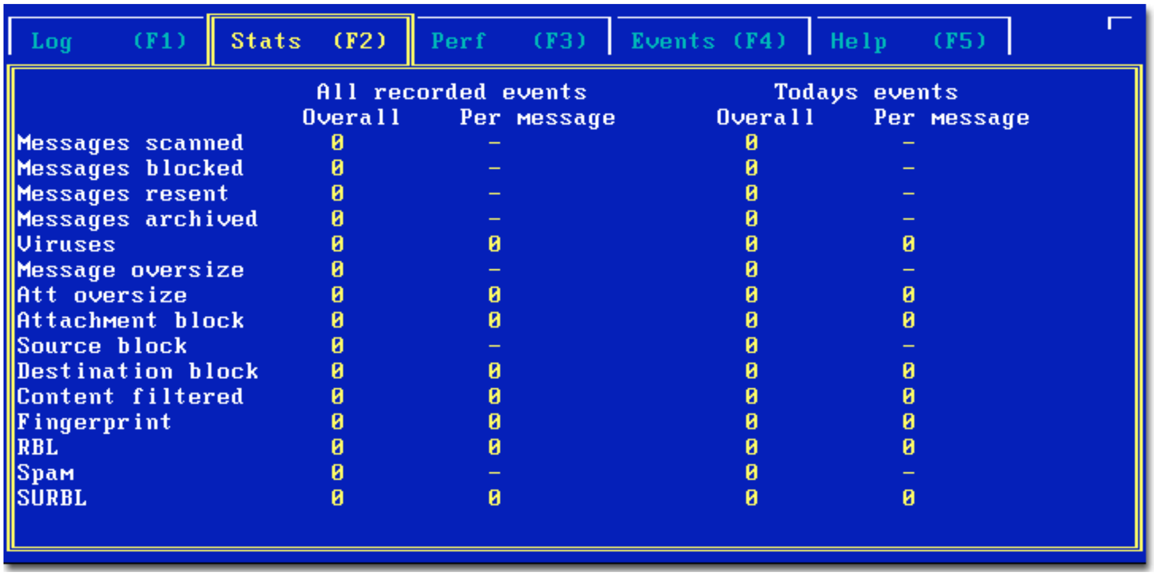
The Log Screen

The default screen is the Log screen. It is available by pressing **F1**. It summarizes ongoing operations of GWAVA in your installation.



```
--- Mar 10 06:49:07 Reading event schedule: NW51\SYS:\GWSYS\GW2DOM\GWAVA\CONFI
--- Mar 10 06:49:07 Override archive directory: NW51\SYS:\gwsys\gw2dom\GWAVA\A
--- Mar 10 06:49:07 Connecting to anti-spam engine
--- Mar 10 06:49:16 Successfully connected to anti-spam engine
--- Mar 10 06:49:16 Reading previous statistics
--- Mar 10 06:49:16 Decompression system located, functions imported
--- Mar 10 06:49:16 Verifying configuration
--- Mar 10 06:49:16 Configuration verified
--- Mar 10 06:49:16 Attempting IP address connection
--- Mar 10 06:49:16 Connected to host 127.0.0.1
--- Mar 10 06:49:16 Attempting IP address connection
--- Mar 10 06:49:16 Connected to host 127.0.0.1
--- Mar 10 06:49:16 This system is registered
--- Mar 10 06:49:16 Starting IPSync server
--- Mar 10 06:49:16 GWAVA enterprise edition ready!
--- Mar 10 06:49:16 IPSync server started, listening on port 7120
--- Mar 10 06:49:16 External SMTP relay agent already loaded
--- Mar 10 06:49:17 ---===* System Initialization Complete *====---
```

Statistics



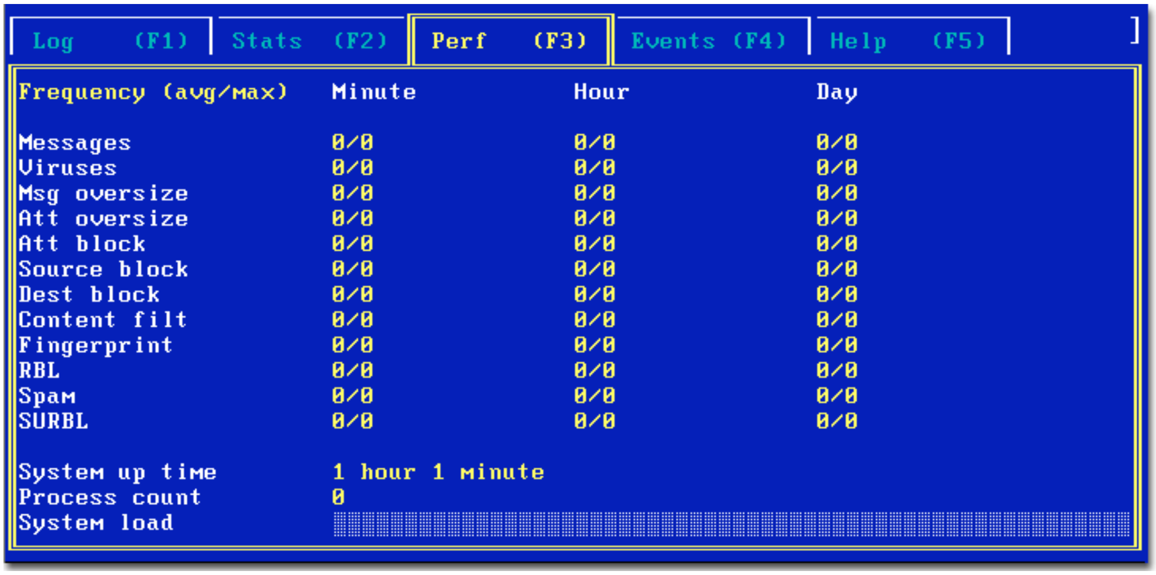
```
                        All recorded events            Todays events
                       Overall      Per message     Overall      Per message
Messages scanned        0            -               0            -
Messages blocked        0            -               0            -
Messages resent         0            -               0            -
Messages archived       0            -               0            -
Viruses                 0            0               0            0
Message oversize        0            -               0            -
Att oversize            0            0               0            0
Attachment block        0            0               0            0
Source block            0            -               0            -
Destination block       0            0               0            0
Content filtered        0            0               0            0
Fingerprint             0            0               0            0
RBL                     0            0               0            0
Spam                    0            -               0            -
SURBL                   0            0               0            0
```

The Statistics screen reports the cumulative ongoing operations of GWAVA. Statistics available include:

- Messages Scanned
- Messages Blocked
- Messages Resent
- Messages Archived
- Viruses
- Oversized Messages
- Oversized Attachments
- Attachment Blocks
- Source Address Blocks
- Destination Address Blocks
- Content Filters
- Fingerprinting
- RBL
- Spam
- SURBL (New in GWAVA 3.5)

These are broken down further into all recorded events overall and per message as well as overall today and per message today. This screen is presented by pressing **F2**.

Performance

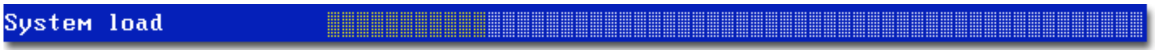


```
Frequency (avg/max)    Minute           Hour             Day

Messages               0/0              0/0              0/0
Viruses                0/0              0/0              0/0
Msg oversize           0/0              0/0              0/0
Att oversize           0/0              0/0              0/0
Att block              0/0              0/0              0/0
Source block           0/0              0/0              0/0
Dest block             0/0              0/0              0/0
Content filt           0/0              0/0              0/0
Fingerprint            0/0              0/0              0/0
RBL                    0/0              0/0              0/0
Spam                   0/0              0/0              0/0
SURBL                  0/0              0/0              0/0

System up time         1 hour 1 minute
Process count          0
System load
```

The Performance screen reveals how often events occur. It is useful when identifying spikes in viruses or spam. Statistics available include:

- Messages
- Viruses
- Messages Oversized
- Attachment Oversized
- Attachment Block
- Source Block
- Destination Block
- Content Filter
- Fingerprint
- RBL
- Spam
- SURBL (New in GWAVA 3.5)
- System Uptime
- Process Count

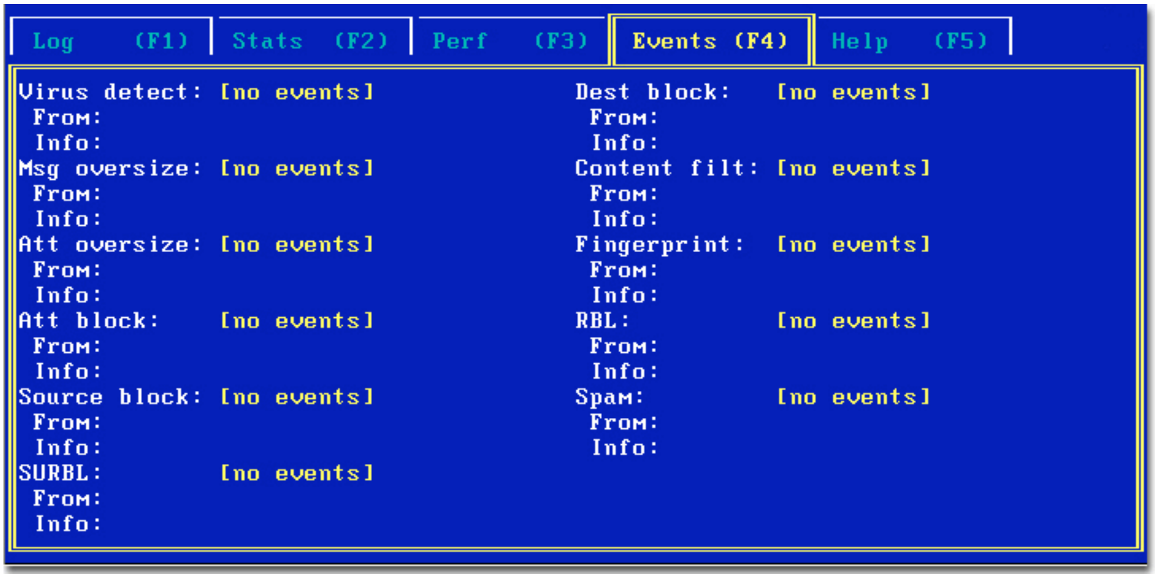
These are broken down further into the frequency of recorded events per minute, per hour and per day.



There is also a System Load bar graph at the bottom of the screen which reads from left to right.

The Performance screen is presented by pressing **F3**.

Events



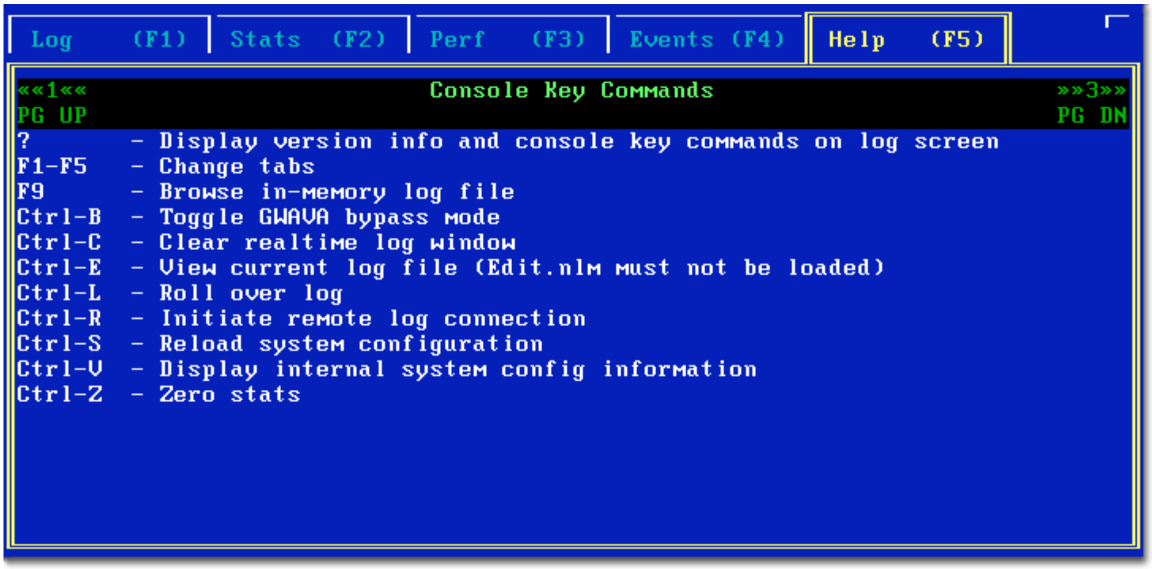
```
Virus detect: [no events]                Dest block:   [no events]
 From:                                    From:
 Info:                                    Info:
Msg oversize: [no events]                Content filt: [no events]
 From:                                    From:
 Info:                                    Info:
Att oversize: [no events]                Fingerprint:  [no events]
 From:                                    From:
 Info:                                    Info:
Att block:    [no events]                RBL:          [no events]
 From:                                    From:
 Info:                                    Info:
Source block: [no events]                Spam:         [no events]
 From:                                    From:
 Info:                                    Info:
SURBL:        [no events]
 From:
 Info:
```

The Events screen reports GWAVA events including:

- Virus Detections
- Messages Oversize
- Attachments Oversize
- Attachment Blocks
- Source Blocks
- SURBL (New in GWAVA 3.5)
- Destination Blocks
- Content Filters
- Fingerprints
- RBL
- Spam
- Scan event
- Process
- Scan Item

Details from the From header and other information are also included for each category. This screen is presented by pressing **F4**.

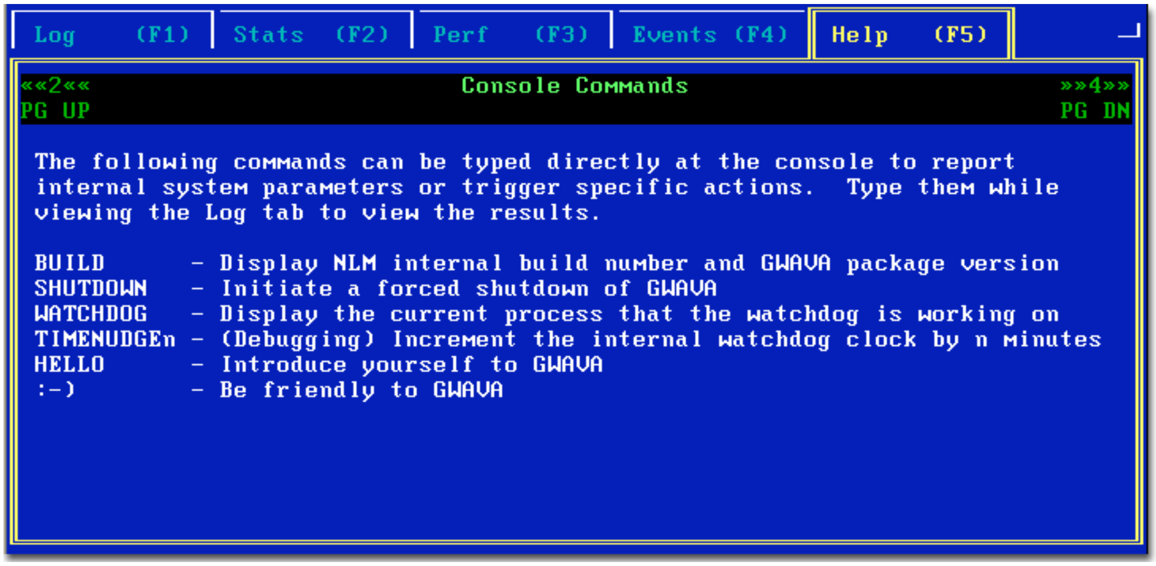
Help



```
««1««                    Console Key Commands                    »»3»»
PG UP                                                            PG DN
?        - Display version info and console key commands on log screen
F1-F5    - Change tabs
F9       - Browse in-memory log file
Ctrl-B   - Toggle GWAVA bypass mode
Ctrl-C   - Clear realtime log window
Ctrl-E   - View current log file (Edit.nlm must not be loaded)
Ctrl-L   - Roll over log
Ctrl-R   - Initiate remote log connection
Ctrl-S   - Reload system configuration
Ctrl-V   - Display internal system config information
Ctrl-Z   - Zero stats
```

The GWAVA Program also has a help file which lists key commands for the GWAVA NLM. Pressing **F5** presents the list. This spans several pages. Use the **Page Down** and **Page Up** keys to navigate through these screens. GWAVA supports the following keyboard commands:

- **?** - Display Version Information
- **F1** - Log Screen
- **F2** - Statistics Screen
- **F3** - Performance Screen
- **F4** - Events Screen
- **F5** - Help Screens
- **F9** - Activates the offline log browser. This is a buffer of recent "history" in the log. The default buffer size is 10KB.
- **CTRL+B** - Toggle GWAVA Bypass mode. Useful for diagnostics.
- **CTRL+C** - Clear the realtime log window
- **CTRL+E** - View the current log file (Edit.nlm must not be loaded)
- **CTRL+L** - Roll over the log
- **CTRL+R** - Initiate remote log connection
- **CTRL+S** - Dynamically reloads the configuration file; the MTA does not need a restart.
- **CTRL+V** - Display internal system configuration information
- **CTRL+Z** - Reset the statistics to zero

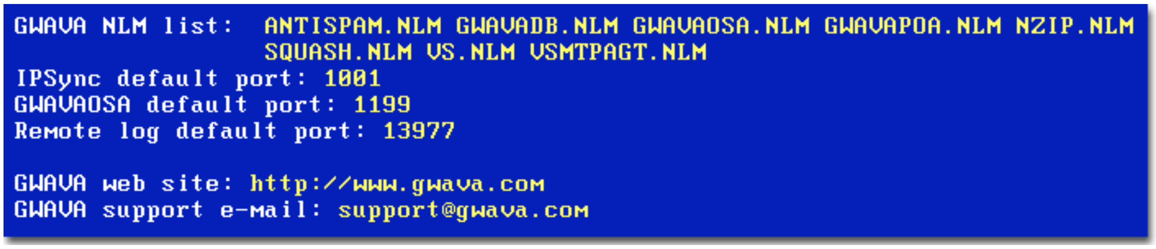


```
Console Commands

The following commands can be typed directly at the console to report
internal system parameters or trigger specific actions.  Type them while
viewing the Log tab to view the results.

BUILD       - Display NLM internal build number and GWAVA package version
SHUTDOWN    - Initiate a forced shutdown of GWAVA
WATCHDOG    - Display the current process that the watchdog is working on
TIMENUDGEn  - (Debugging) Increment the internal watchdog clock by n minutes
HELLO       - Introduce yourself to GWAVA
:-)         - Be friendly to GWAVA
```

The following commands can be typed directly at the console to report internal system parameters or trigger specific actions. Type them while viewing the Log tab (**F1**) to view the results.

- **Build** - Display both the NLM internal build number and GWAVA package version
- **Shutdown** - This initiates a forced shutdown of GWAVA
- **Watchdog** - This command shows the status of the watchdog/dispatcher process. This switch is for trouble shooting and should only be used on the advice of GWAVA technical support.
- **TIMENUDGEn** - Increment the internal watchdog clock by n minutes

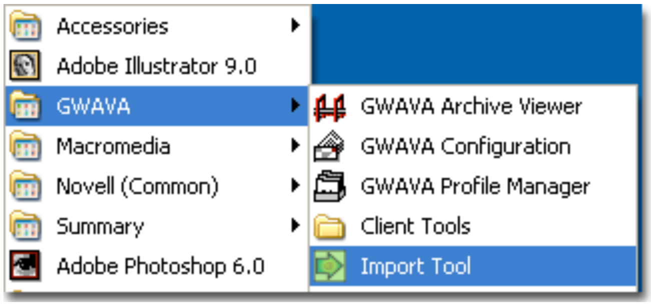
Finally, the Help section of the GWAVA NLM also includes information about your installation.



```
GWAVA NLM list:  ANTISPAM.NLM GWAVADB.NLM GWAVAOSA.NLM GWAVAPOA.NLM NZIP.NLM
                 SQUASH.NLM VS.NLM VSMTPAGT.NLM
IPSync default port: 1001
GWAVAOSA default port: 1199
Remote log default port: 13977

GWAVA web site: http://www.gwava.com
GWAVA support e-mail: support@gwava.com
```

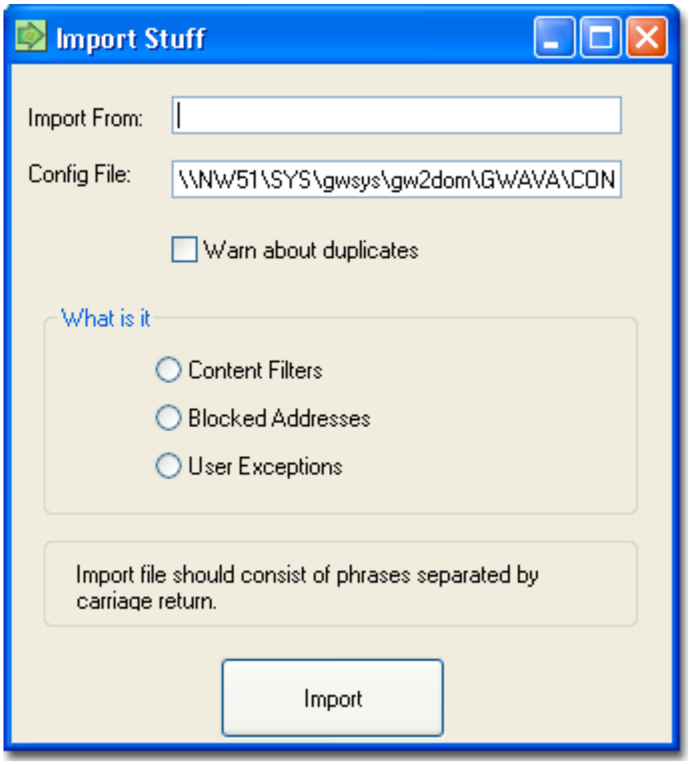
The Import Tool

This handy utility allows you to import lists of pre-existing words for Content Filtering, lists of e-mail addresses or domains for Address Blocking, or lists of the addresses/domains of friends, suppliers and customers for exceptions.



Begin by launching the Import Tool from the Start Menu. By default, the program is installed in C:/Program Files/Beginfinite/GWAVA/import.exe.

This will present you with the Import Tool main screen.



Import From:

Config File: \\NW51\SYS\gwsys\gw2dom\GWAVA\CON

□ Warn about duplicates

What is it

○ Content Filters

○ Blocked Addresses

○ User Exceptions

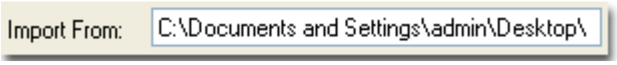
Import file should consist of phrases separated by carriage return.

The Import Tool allows you to insert into your GWAVA installation customizations for content filters, address blocks and user exceptions. The data for importing must be:

- In the format of a .txt file
- Delimited by carriage returns
- With ONLY ONE ITEM PER LINE
- Different files must be used for content, address blocks and user exceptions.

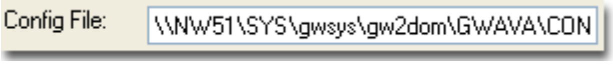
The import tool will allow you to import improperly formatted data, causing odd GWAVA filtration behaviors.

Begin by filling out the **Import From** field. Type the path to the .txt file with your customizations.



Import From: C:\Documents and Settings\admin\Desktop\

Ensure the needed configuration file has been selected: by default, the Import Tool chooses your current gmtacfg.ini file; however, this can be edited if you have multiple GWAVA installations.



Config File: \\NW51\SYS\gwsys\gw2dom\GWAVA\CON

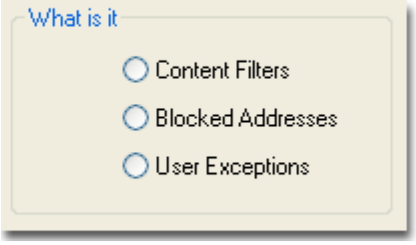
Warn about duplicates

This checkbox compares the file being imported to data already in your configuration. It will merely warn that a duplicate has been found, it will not permit administrators to edit the duplicates. This must be done from within GWAVA.

Choose type

There are three basic types of customization:

- Content Filters
- Blocked Addresses
- User exceptions



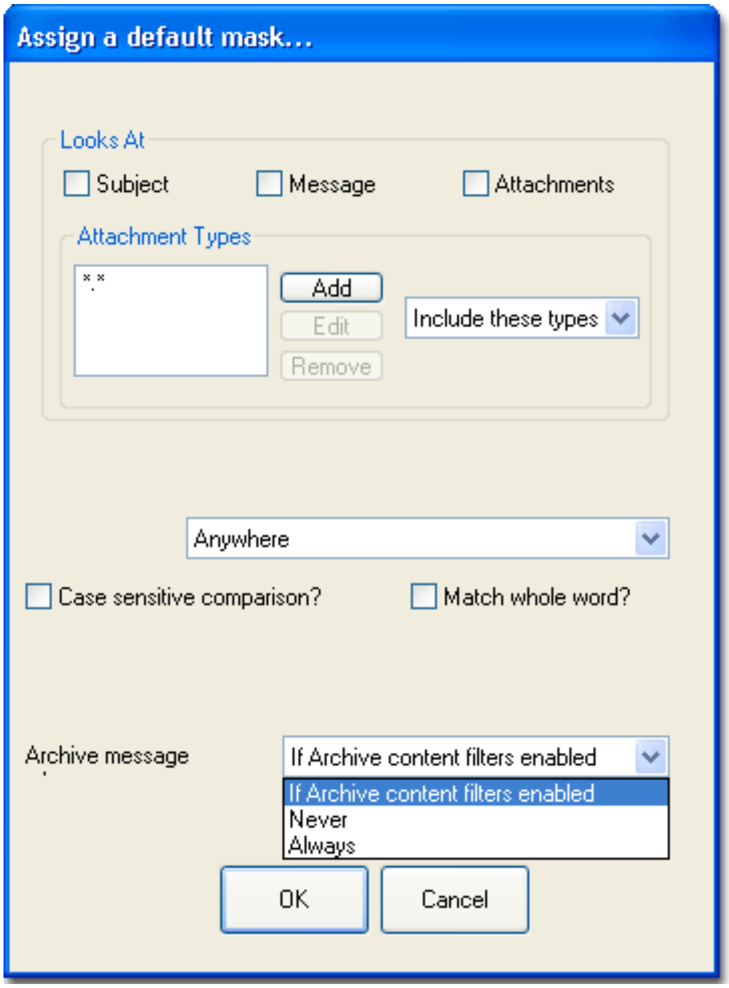
Choose the type that best matches the data in your selected file by clicking the radio button next to either Content Filters, Blocked Addresses or User Exceptions.

Then, click the **Import** button.

Default Mask

Baselines must be determined for the data being imported. (For example, if these are address blocks, are they **From** address blocks or **To** address blocks?) There are different mask options available depending upon whether the operation is for importing content filters, blocked addresses or user exceptions.

Content Filter Mask



Assign a default mask...

Looks At

□ Subject □ Message □ Attachments

Attachment Types

.

Include these types

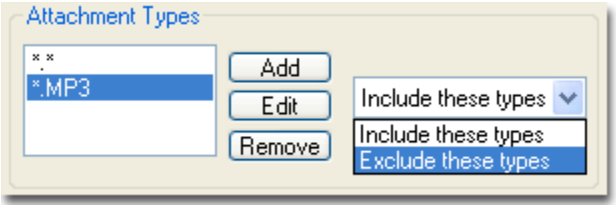
Anywhere

□ Case sensitive comparison? □ Match whole word?

Archive message: If Archive content filters enabled

The first options on the Content Filter default mask determine if the customizations will be applied to

- Subjects
- Messages
- Attachments



Attachment Types

.
*.MP3

Include these types

If the latter is chosen, attachment name and extensions can be added to the filter. Wild cards are supported for both the name and extensions. Enter an extension or name, for example, .AVI, then, from the drop down menu to the right, choose whether the named attachment type must be included or excluded.

To add attachments, click the **Add** button. To change an attachment, select the attachment entry from the list and click **Edit** or **Remove**.

Additional Options

There is a two-item drop-down menu allowing administrators to determine if the filters will be applied

- To the start of messages
- Anywhere in the message

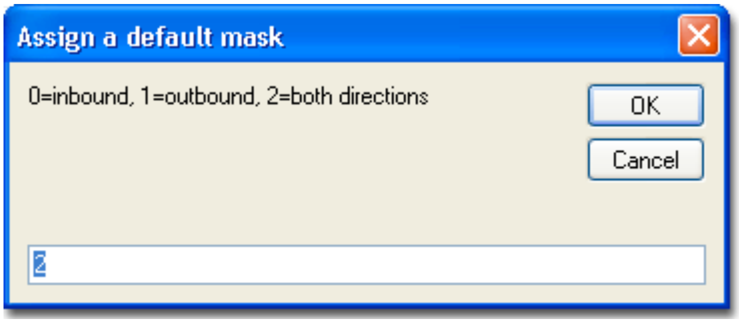
Additionally, two check boxes are used to configure the Content Filter Mask: **Case Sensitive Comparison** and **Match Whole Word**. These can be enabled by clicking their checkboxes. Lastly, there is a drop down menu for archiving settings. The options are:

- If Archive content filters enabled
- Never
- Always

Click **OK** begin importing or **Cancel** halt this process and return to the previous screen.

Blocked Addresses Filter Mask

The filter mask for blocked addresses is the simplest of the three filter masks in the Import Tool. Enter the number 0 to apply the filters you are importing to inbound mail. Enter 1 to apply the filters being imported exclusively to outbound mail. Enter the digit 2 to apply the filters to both inbound and outbound mail.


Assign a default mask

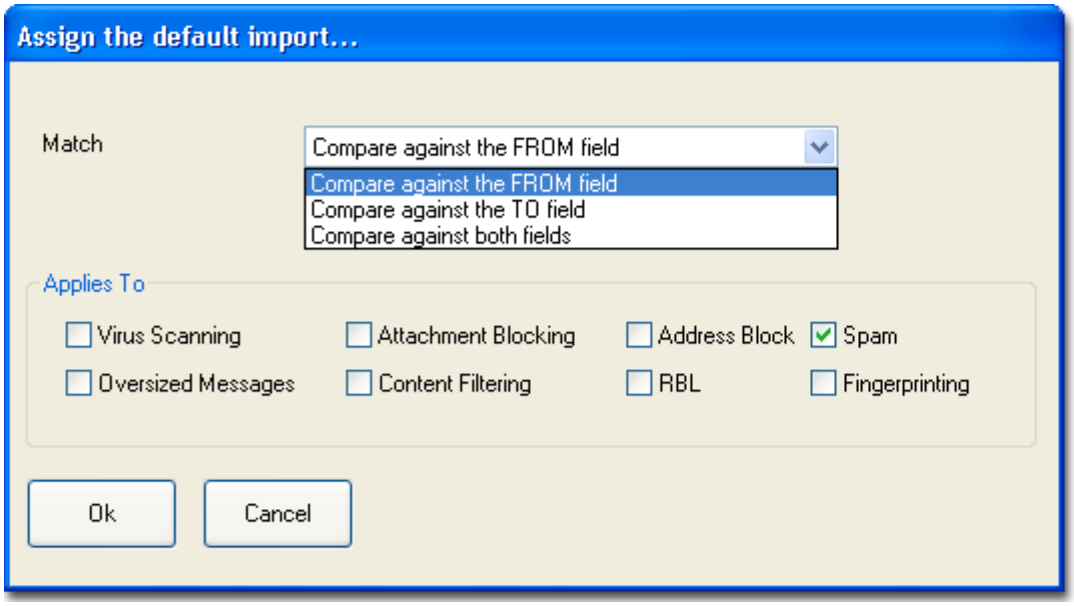
0=inbound, 1=outbound, 2=both directions

2

Click **OK** to apply the directional settings to the data being imported, or **Cancel** to return to the previous screen.

User Exceptions Filter Mask

Selecting User Exceptions from the main screen of the Import Tool presents the following screen.



Assign the default import...

Match: Compare against the FROM field

Compare against the FROM field
Compare against the TO field
Compare against both fields

Applies To

□ Virus Scanning □ Attachment Blocking □ Address Block ☑ Spam

□ Oversized Messages □ Content Filtering □ RBL □ Fingerprinting

First, choose the direction of the filter by using the drop down menu at the top of the screen:

- Compare against the **From** field
- Compare against the **To** field
- Compare against **Both** Fields

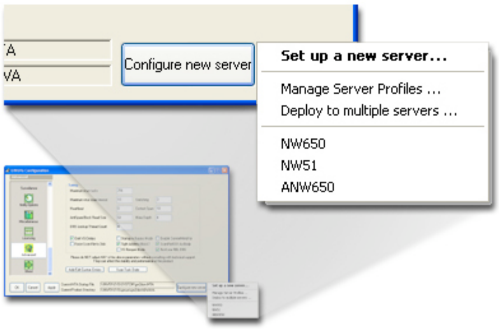
Exemptions can be applied to: Virus Scanning, Attachment Blocking, Address Blocking, Spam, Oversized Messages, Content Filtering, RBL, and Fingerprinting.

Click **OK** to apply the chosen filtrations to the data file selected for import, or **Cancel** to return to the previous screen

Remember to Restart

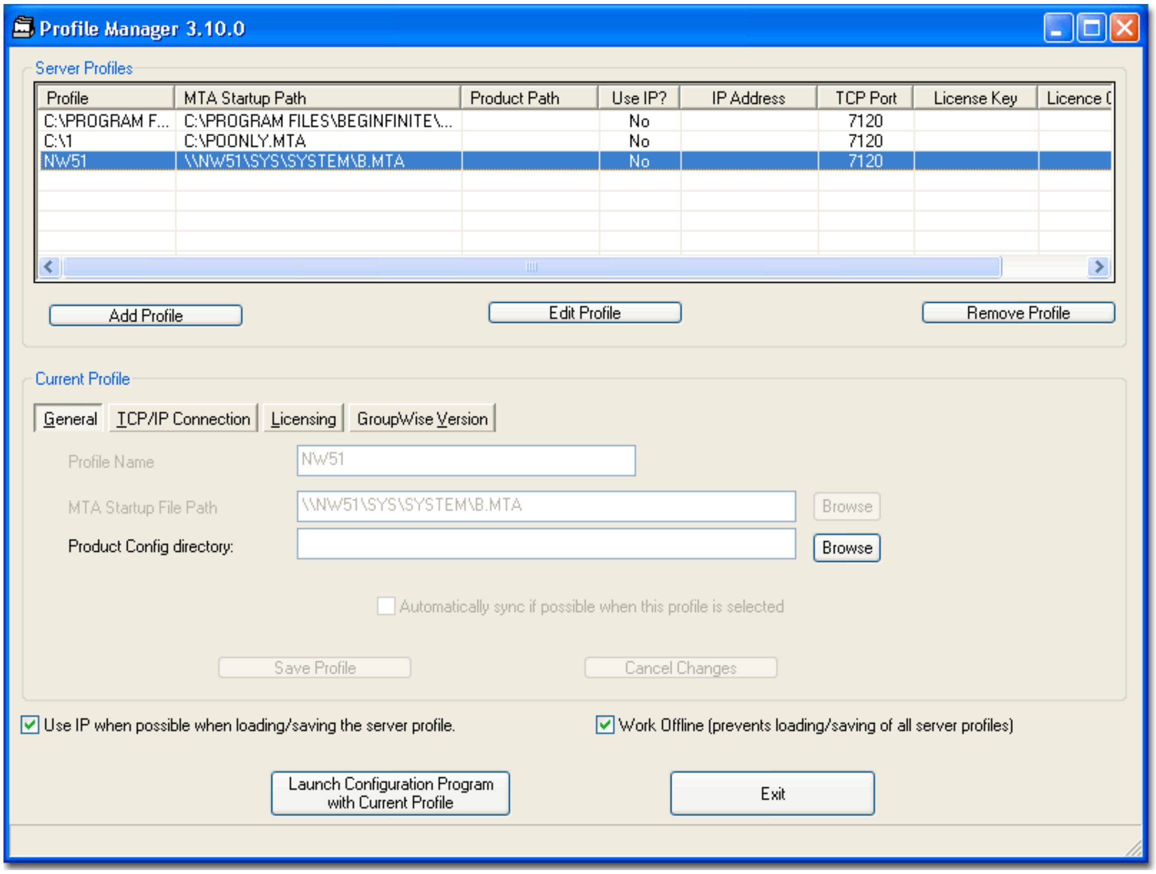
If GWAVA has been running during the importation process, you must restart it for the imported files to be included in GWAVA’s operations

Using the Profile Manager



The Profile Manager is only necessary if you are managing more then one GWAVA server. If you only have a single GWAVA server, just launch the GWAVA Configuration Program. The Profile Manager is not necessary.

Starting with GWAVA 3.5, administrators need not go to the start menu to launch the profile manager as the **Configure Server** button in Mconfig can launch the Profile Manager. Click **Configure New Server**. Then, select **Manage Server Profiles**. Similarly, administrators can switch between defined server profiles quickly by selecting the server profile name from this menu.



Profile	MTA Startup Path	Product Path	Use IP?	IP Address	TCP Port	License Key	Licence (
C:\PROGRAM F...	C:\PROGRAM FILES\BEGINFINITE\...		No		7120		
C:\1	C:\POONLY.MTA		No		7120		
NW51	\\NW51\SYS\SYSTEM\B.MTA		No		7120		

Profile Name: NW51

MTA Startup File Path: \\NW51\SYS\SYSTEM\B.MTA

Product Config directory:

□ Automatically sync if possible when this profile is selected

☑ Use IP when possible when loading/saving the server profile.

☑ Work Offline (prevents loading/saving of all server profiles)

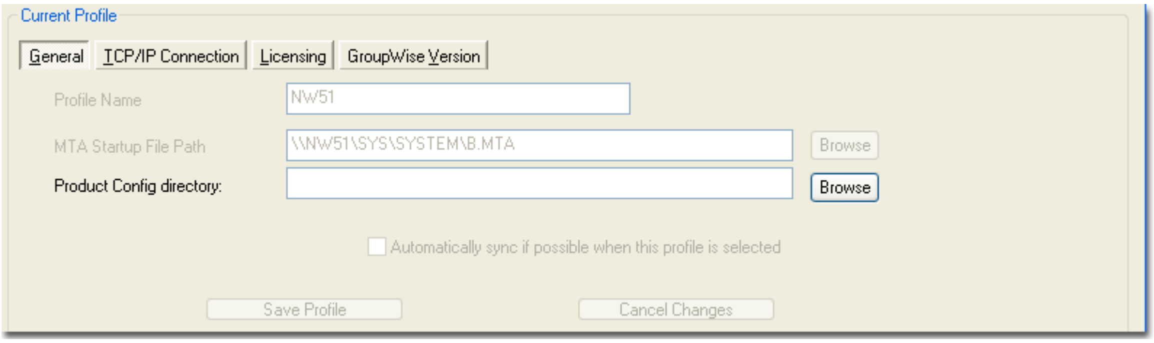
To launch the Profile Manager from Console One, select **Tools** > **GWAVA** > **Profile Manager**. You can also start the Profile Manager by running \Program Files\BeginFinite\GWAVA\pman.exe. When you launch the Profile manager, the following screen is presented. (**Note**: If you have yet to run this feature, there will not be any Server Profiles listed.)

Changes in GWAVA 3.1 and Higher

The Don't synch Server and Local checkbox used for preventing the loading and saving of server profiles has been renamed to a much clearer Work Offline. The old **Check Server Profile** button is renamed to a much clearer Manually Sync with Server Profile. In both cases functionality remains the same

Adding a Profile

To add a new GWAVA Server Profile, click the **Add Profile** button. This will make the **Current Profile** area of the Profile Manager screen active.



Profile Name: NW51

MTA Startup File Path: \\NW51\SYS\SYSTEM\B.MTA

Product Config directory:

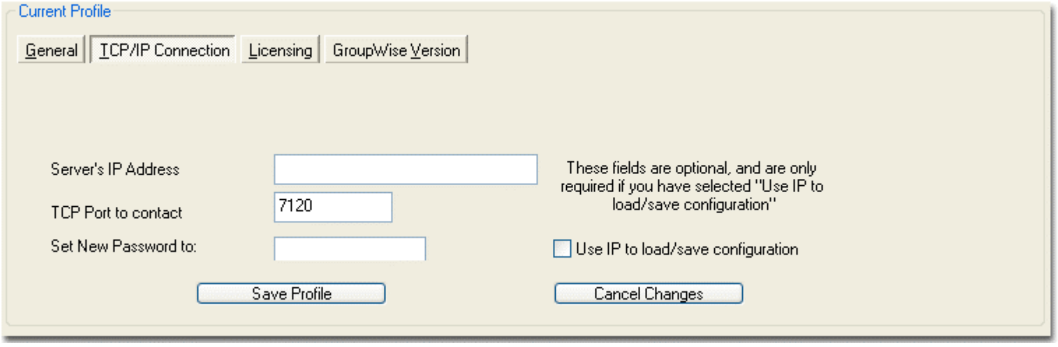
□ Automatically sync if possible when this profile is selected

Under the General tab (which is selected by default), enter a **Profile Name** in the field provided. Then click **Browse** to navigate to the location of the new server's MTA Startup file. See the Product Config Directory. Click the browse button next to this entry field to select the needed file.

☑ Automatically sync if possible when this profile is selected

A new Automatically sync if possible checkbox next to is added to the Profile Manager and is saved per local profile. Effectively this auto-clicks button for the user when the item is selected in the Server Profiles List. So for profiles that the Admin is confident will generally sync (eg IP config is working or UNC config is working), they can, if desired have this happen as they select a profile.

TCP/IP



Server's IP Address:

TCP Port to contact: 7120

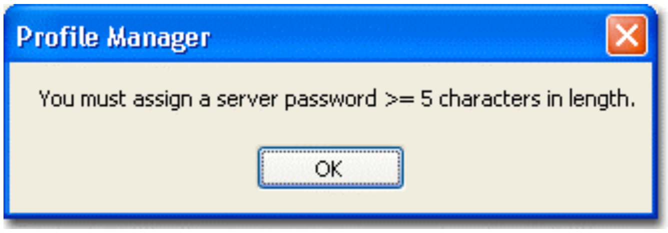
Set New Password to:

These fields are optional, and are only required if you have selected "Use IP to load/save configuration"

□ Use IP to load/save configuration

Under the TCP/IP Connection, tab, enter the IP address of the new server in the **Server's IP Address** field. If the TCP Port for the server is different than 7120, which is the default setting, enter the correct Port address in the **TCP Port to contact** field.

Enter a password for this server in the **Set New Password** to field. (Note that passwords must be greater than five characters.) Leave this blank if locally cached passwords are disabled. To disable locally cached passwords, check the **Don't cache password locally when saving profile** checkbox. In this case you will be prompted for a password each time you edit this profile with the GWAVA Manager.



You must assign a server password >= 5 characters in length.

- **Note**: The TCP/IP Connection settings, as noted on the Profile Manager screen, are optional, and are only required if you check the **Use IP to load/save configuration** checkbox.

IP versus UNC

The Profile Manager contains a speed enhancement that has resulted in a change to the GUI.

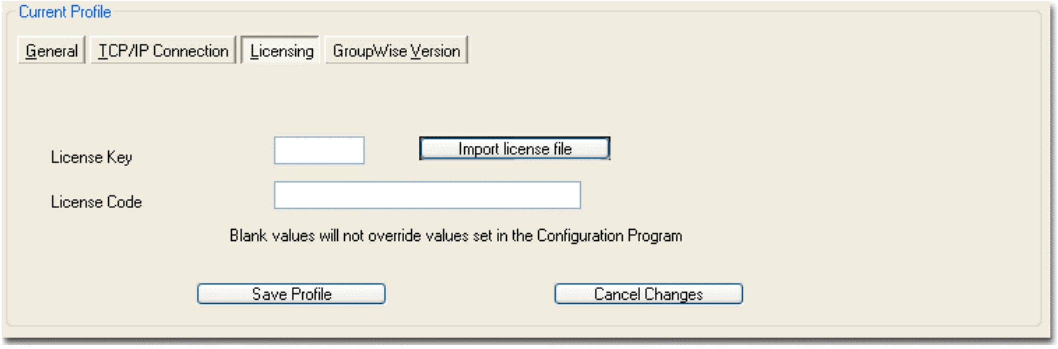
Previously, Profile Manager synchronized servers using UNC only. Over LANs this occasionally proved slow. The Profile Manager included in GWAVA 3 now first attempts to synchronize using IP. Failing to do so will automatically begin a UNC sync with no further input needed from the administrator.

The Profile Manager needs several conditions to be met in order for the IP synchronization to occur. These are spread over two tabs in the Profile Manager: the **TCP/IP Connection** tab and the **General** tab.

- Click the TCP/IP Connection tab.
- Click the **Add Profile** or, alternatively, select an existing profile from the list then click the **Edit Profile** button.
- The lower half of the TCP/IP window now becomes active. Edit as needed (see below), then enable **the Use IP to when possible to load/save configuration** checkbox.

Note: The TCI/IP configuration—server's IP address, TCP port to contact and password—must be properly configured in order for the IP synchronization to be successful. Then Click the General tab and click the **Manually Sync with Server Profile** button. Click **Save Profile** to continue or **Cancel** to stop without saving changes.

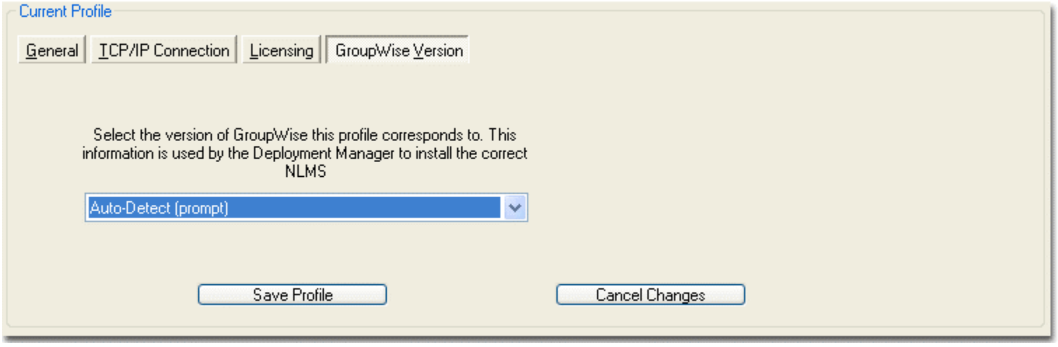
Licensing



Blank values will not override values set in the Configuration Program

Under the Licensing tab, enter your GWAVA **License Key** and **License Code**. You can leave these blank if you like. Leaving them blank will not override the values set with the GWAVA Manager.

GroupWise Version



Select the version of GroupWise this profile corresponds to. This information is used by the Deployment Manager to install the correct NLMS

Auto-Detect (prompt)

The GroupWise Version tab is where you identify the version of GroupWise in use. By default, **AutoDetect** is selected. However, a drop-down menu listing recent versions of GroupWise is provided in case another selection needs to be made.

When you are done entering the settings for the new server, click Save Profile. To undo any changes and cancel the creation of the new profile, click **Cancel Changes** at any time through the process of creating the profile.

The drop down menu presents the following options:

- Auto detect (with prompt)
- Auto detect (no prompt)
- GroupWise 5.5 (non EP)
- GroupWise 5.5 (EP)
- GroupWise 5.5 (EP post SP5)
- GroupWise 6.0
- GroupWise 6.0 (Post SP2)
- GroupWise 6.5

Editing a Profile

To edit an existing profile, select the profile from the list of **Sever Profiles**, and click **Edit Profile**. As with creating a new profile (above), this will activate the Current Profile area so changes can be made. Please refer to the descriptions of each profile feature above in Adding a Profile. Remember: click **Save Profile** to save any changes you have made when editing a profile; click **Cancel Changes** to undo any changes and revert to the previous settings.*

When adding a new profile, administrators will be asked if they want to check for a preexisting server profile. If so, the sync is performed (it could well fail if a bad IP config or UNC config are specified), and if it succeeds, the server profile is loaded. This allows recovery of local profile info from the server profile. (The reverse is easy - simply choose each local profile, click edit, and then click save....the local profile will then sync upon exiting).

Removing a Profile

To remove a GWAVA profile, select the profile from the list of **Server Profiles,** and click **Remove Profile**. This will completely remove the profile—it will no longer be available for use with the GWAVA Manager, and it will no longer be listed under **Tools > GWAVA > Configure Profile** in Console One.

Additional Profile Manager Features

When a profile is selected in the list of Server Profiles, you can launch the GWAVA Manager using that profile by clicking **Launch Configuration Program with Current Profile** at the bottom left of the Profile Manager screen.

Use IP when possible when loading/Saving is a global setting similar to the Use IP to load/save configuration visible in the TCP/IP tab of the Profile Manager. The latter, however, is for specific configurations.

☑ Use IP when possible when loading/saving

* Cannot be reverted if **Save Profile** has been clicked.

☑ Don't synchronize local and server profiles

Profile Manager can manage the synchronization between local and server profiles. To date, profiles are stored locally and on the server. When synchronized, the recent-most profile was chosen automatically. The choice to do so is done by enabling either the **Don’t Synchronize the Local and Server Profiles,** the default, or the Don’t Synchronize Local and Server Profiles checkbox.

☑ Don't cache password locally when saving profile

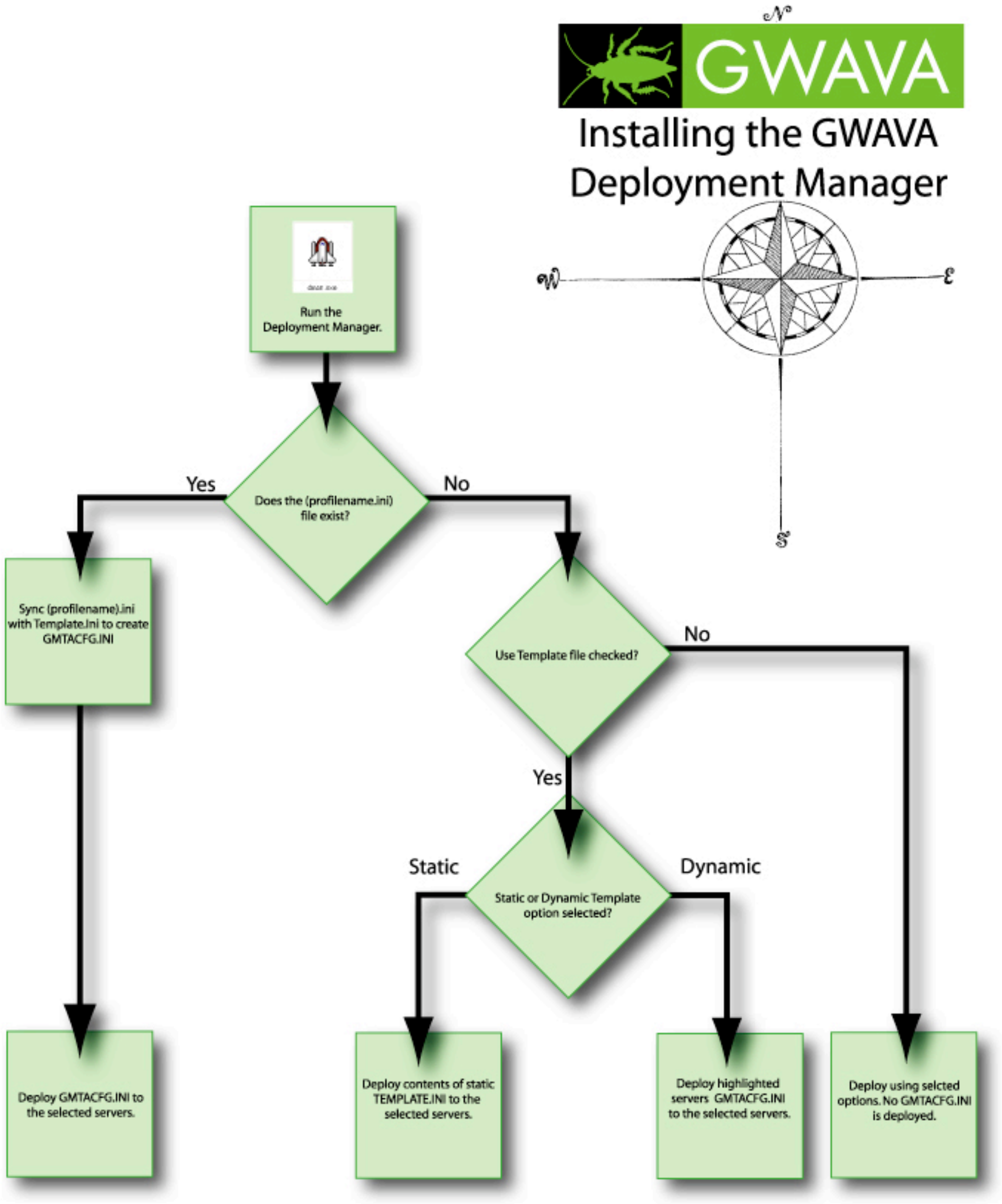
Check the **Don’t cache password locally when saving profile** checkbox to prevent saving the server password with the profile. As noted above, enabling this will require entering a password each time you edit this profile with the GWAVA Manager.

Using the Deployment Manager

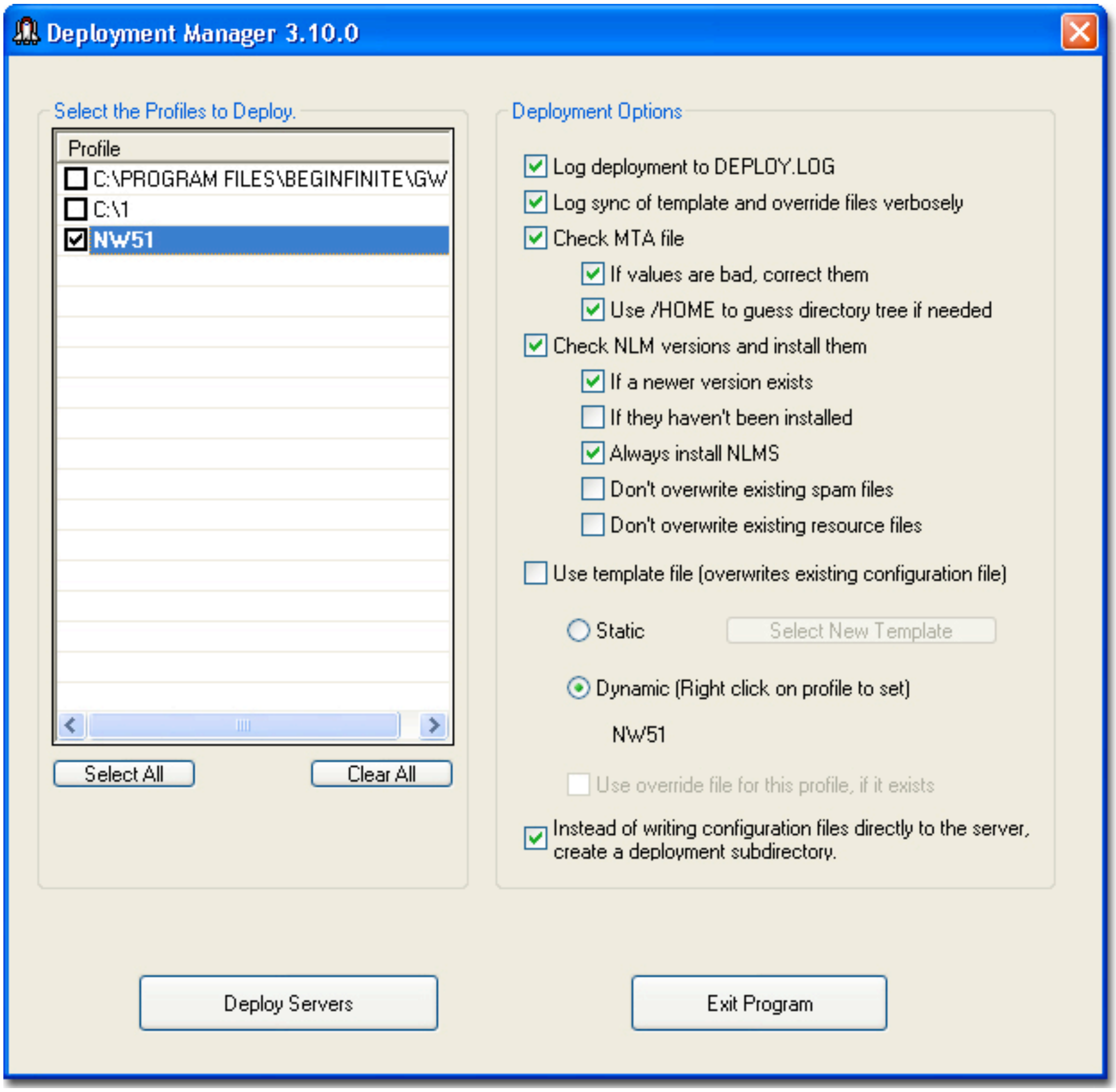
The Deployment Manager is only necessary if you are managing more then one GWAVA server. If you only have a single GWAVA server, just launch the GWAVA Configuration Program.

Start by defining the server profile in the Profile Manager. Once the server profiles are created with the Profile Manager, administrators can direct the deployment of these profiles using the Deployment Manager.

From Console One, click **Tools** > **GWAVA** > **Deployment Manager**. Alternatively, in GWAVA 3.5 or above, click the **Configure New Server** button and select Deploy to Multiple Servers.


N
GWAVA
Installing the GWAVA
Deployment Manager
W
E
S
Run the
Deployment Manager.
Does the (profilename.ini) file exist?
Yes
No
Sync (profilename).ini with Template.Ini to create GMTACFG.INI
Use Template file checked?
No
Yes
Static
Dynamic
Static or Dynamic Template option selected?
Deploy GMTACFG.INI to the selected servers.
Deploy contents of static TEMPLATE.INI to the selected servers.
Deploy highlighted servers GMTACFG.INI to the selected servers.
Deploy using selcted options. No GMTACFG.INI is deployed.

The Deployment Manager

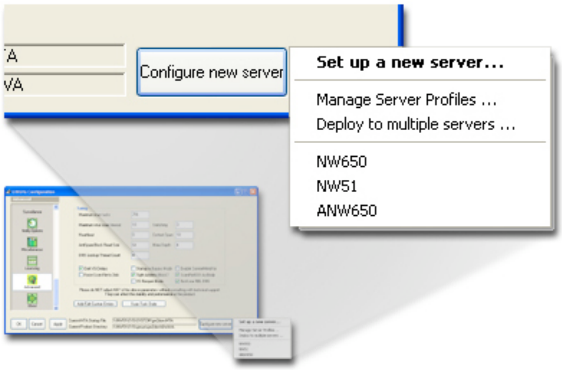


□ C:\PROGRAM FILES\BEGINFINITE\GW
□ C:\1
☑ NW51

☑ Log deployment to DEPLOY.LOG
☑ Log sync of template and override files verbosely
☑ Check MTA file
☑ If values are bad, correct them
☑ Use /HOME to guess directory tree if needed
☑ Check NLM versions and install them
☑ If a newer version exists
□ If they haven't been installed
☑ Always install NLMS
□ Don't overwrite existing spam files
□ Don't overwrite existing resource files
□ Use template file (overwrites existing configuration file)
○ Static
● Dynamic (Right click on profile to set)
NW51
□ Use override file for this profile, if it exists
☑ Instead of writing configuration files directly to the server, create a deployment subdirectory.

The **Deployment Options** available are:

- Log deployment to DEPLOY.LOG
- Log sync of template and override files verbosely
- Check MTA file
- If values are bad, correct them
- Use /HOME to guess directory tree if needed
- Check NLM versions and install them
- If a newer version exists
- If they haven’t been installed
- Always install NLMS
- Don’t overwrite existing spam rules
- Don’t overwrite existing resource files
- Use template file
- Select New Template
- Choose between static and dynamic source servers
- Use override file for this profile, if it exists
- Instead of writing configuration files directly to the server, create a deployment subdirectory

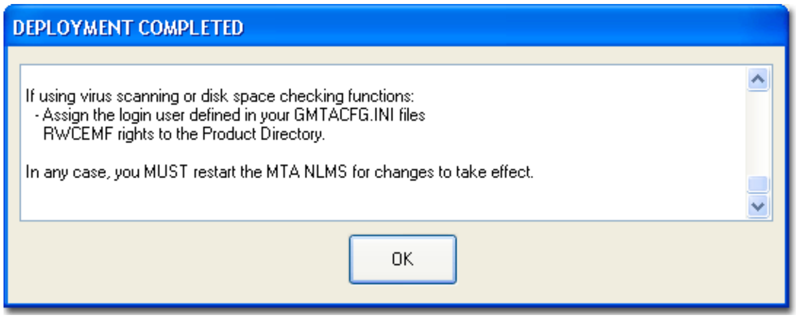


Note that administrators need not go to the start menu to launch Dman as the Configure Server button in Mconfig can now start the Deployment Manager.

Log deployment to DEPLOY.LOG saves the output of the deployment in a text file in the \Program Files\BeginFinite\GWAVA\DEPLOY folder.

Log sync of template and override files verbosely logs changes to the TEMPLATE.INI and override files verbosely.

Check MTA File first checks to ensure the MTA file exists for the given profile and verifies the startup path. If the MTA file does not have correct RWCEMF rights, or does not have a /HOME switch, deployment of the profile will be aborted and the Deployment Manager will advance to the next profile**. If values are bad, correct** them checks the MTA's /vs switches for validity and if necessary corrects them. **Use /HOME to guess directory tree if needed** helps in verifying the startup path.


DEPLOYMENT COMPLETED

If using virus scanning or disk space checking functions:
- Assign the login user defined in your GMTACFG.INI files RWCEMF rights to the Product Directory.

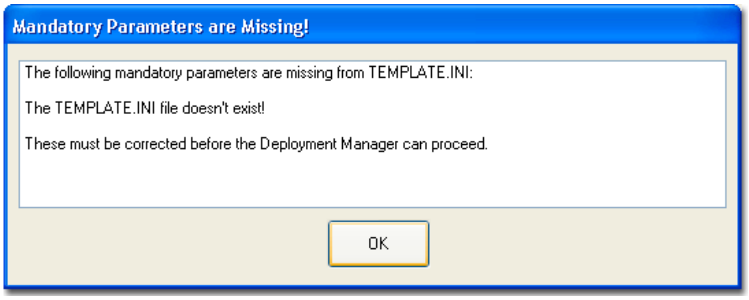
In any case, you MUST restart the MTA NLMS for changes to take effect.

Check NLM versions and install them will compare the already installed NLMs (if installed) with those associated with the profile.

- If a newer version exists is checked, the NLMs will be updated to the newest version
- If they haven't been installed is checked, the NLMs will be installed
- When Always install NLMS is checked, the NLMs will be updated regardless of the version found

Use template file deploys GWAVA using a selected GMTACFG.INI as a template for all servers. This overwrites the existing configuration file.

To select a GMTACFG.INI as template, click **Select New Template**. The **Select new template** button opens a dialogue box for locating a GMTACFG.INI file to use as template for deployment of GWAVA on your servers. This file is typically located in \\SERVER\SYS\SYSTEM, and will be checked by the Deployment Manager for correct parameters. If any are incorrect or missing, your will be notified as follows:


Mandatory Parameters are Missing!

The following mandatory parameters are missing from TEMPLATE.INI:

The TEMPLATE.INI file doesn't exist!

These must be corrected before the Deployment Manager can proceed.

If there are no problems with the GMTACFG.INI, you will be returned to the Deployment Manager without a notification message (assume, then, that the GMTACFG.INI has been accepted by the Deployment Manager as the new template).

- **Use override file for this profile, if it exists**, looks for OVERRIDE.INI, and replaces or adds key values or sections of the INI file as needed.
- **Instead of writing configuration files directly to server,** create deployment subdirectory when checked saves files into a separate deployment directory so they can be copied manually if necessary.

Selecting Profiles for Deployment

To select one or more profiles for deployment by the Deployment Manager, click the checkbox next to the **Profile Name** in the **Select the Profiles to Deploy** list. To select all profiles at once, click the Select All button; and to clear all selections, click the Clear All button.

Deploying Profiles

Once you have selected the profiles and the **Deployment Options** for the selected profiles, click the **Deploy Servers** button. As the profiles are deployed, a dialogue box appears. You do not need to worry about trying to read this as it passes, all text presented here is saved in DEPLOY.LOG (see above, Log deployment to DEPLOY.LOG).

GWAVA Quick Reference Sheet

This sheet contains quick, step-by-step guides to the following: Opening a Server Profile, Making Changes, Saving Changes, Launching Deployment Manager, Choosing Options or Template(s) with Deployment Manager, Duplicating Changes to Other Servers.

Open a Profile

- Start ConsoleOne
- Start the Profile Manager
  Tools > GWAVA > Profile Manager
- Select a Server Profile

An Alternative

As an alternative to using ConsoleOne, You can also click **Start > Programs > GWAVA > Profile Manager** from the Windows start menu.

Make and Save Changes to a Profile

- Continue from Step 3 of Open a Profile (above)
- Make Changes in Current Profile area
- Click Save Profile to save any changes
- To make changes to this Profile with the GWAVA manager, click Launch Configuration Program with Current Profile

Note: Launching a profile with Profile Manager allows you to update rules and settings for pushing to other servers.

Launch Deployment Manager

- Start ConsoleOne
- Start the Deployment Manager
  Tools > GWAVA > Deployment Manager

Note: As an alternative to using ConsoleOne, run **dman.exe** in D:\Program Files\BeginFinite\GWAVA (where D represents the drive letter of the drive you run GWAVA from on your workstation). You can also click **Start > Programs > GWAVA > Deployment Mana**ger from the Windows start menu.

Choose Deployment Options or Template

- Continue from Step 2 of Launch Deployment Manager (above)
- Select a Profile from the Select the Profiles to Deploy list
- Toggle options on or off with **Deployment Options** checkboxes
- To select a new template, click Select New Template

Locate new template on network by navigating to <DOMAIN/SERVER>\GWAVA\CONFIG and selecting the GMTACFG.INI

file (where DOMAIN/SERVER is the MTA for which changes were made via the Profile Manager).

Reminder: The Deployment Manager is used to push new rules or updates to server settings made with the Profile Manager.

Duplicate Changes to Other Servers

Continue from Step 5 of Choose Deployment Options or Template

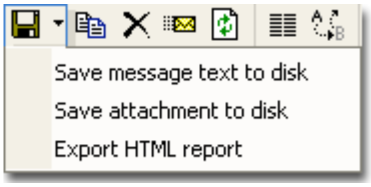
Select **Profiles** from the Select the Profiles to Deploy list (select those MTA's in need of update, you can omit the MTA for which you made changes through the Profile Manager, as they are already in place)

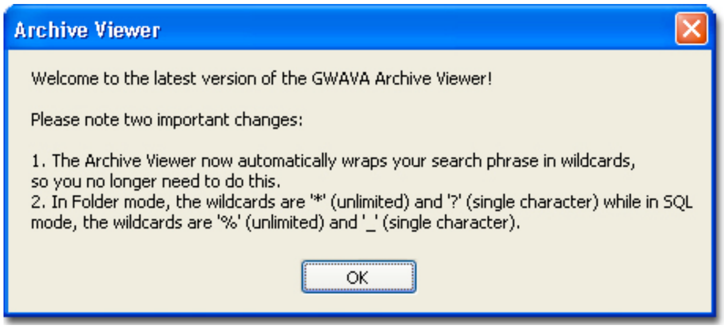
Click **Deploy Servers** (this may take a while).

The Archive Viewer

The GWAVA Archive Viewer is a stand-alone application for viewing e-mails intercepted by GWAVA. Users of previous versions may note that the Archive Viewer included in GWAVA 3 includes many new features including:

- Archives can now be opened from within the main Archive Viewer
- SQL Integration permits fast and flexible searching, filtering and sorting.
- Web Browse html, jpeg, gif files in a safe browser interface
- View Zip attachments and extract the contents.
- Open SpamID files directly.
- WhiteList/BlackList
- Export to HTML
- Submit as Spam/Ham to the GWAVA 3 SmartBlocker Manager
- Search for text in columns




Archive Viewer

Welcome to the latest version of the GWAVA Archive Viewer!

Please note two important changes:

1. The Archive Viewer now automatically wraps your search phrase in wildcards, so you no longer need to do this.
2. In Folder mode, the wildcards are '*' (unlimited) and '?' (single character) while in SQL mode, the wildcards are '%' (unlimited) and '_' (single character).

OK

The GWAVA Archive Viewer does more than provide access to stored messages. The Archive Viewer can also be used to submit mail items to the HAM or SPAM lists as well as the Allow or Block Address list.

The Archive Viewer can view the archives in SQL or Folder modes. SQL mode is the recommended mode to view the archives as is provides a much faster and scalable architecture to viewing large GWAVA archives. Folder mode is supported for legacy purposes only, and only critical bug fixes will be made to its operation. You can convert your Folder mode database structure to SQL databases using the Import option in the Tools section of the Archive viewer.

Archive Database Organization

Before using Archive Viewer, it's important to review and expand upon some concepts from previous chapters – location, format, and disposition of archive files.

The "root" archive directory (henceforth referred to as <RootArchiveDirectory> – all archive-related files are stored under this directory tree. The default location is <ProductDirectory>\Archive. <ProductDirectory> itself usually defaults to <GWDomain>\GWAVA. You may change these values in the Location of files section in the Configuration Program.

Under the "root" archive directory, each agent creates a subdirectory for itself. Hence the MTA agent creates <RootArchiveDirectory>\MTA and the POA agent creates <RootArchiveDirectory>\POA.

Under both folder mode and SQL mode, Container Files are created, one for each archived message. These are either in MIME (.822 extension) or ZIP format (.ZIP extension). The format is controlled in the Configuration program and defaults to ZIP. The filename is uniquely generated. These files contain all of the following:

- Text (plain text and HTML) parts of the message
- Attachments
- MIME version of the messages (Internet or GWAVAPOA messages only, optional for the latter)
- ARCHIVE.INF – A text file containing basic header information, and GWAVA unique information (such as the reason for archiving). A copy of this is also made external to the container file with the same filename as the container file but an INF extension. This slightly speeds folder mode searches – it is not used at all in SQL mode. Pre-2.1 versions of GWAVA did not generate the INF file automatically, hence there is a Build INF File utility under TOOLS in Archive Viewer.

Where the container files are stored depends upon your settings in Configuration. It may be stored directly in <RootAgentArchiveDirectory> (this is not recommended) or subdirectories corresponding to the day or the month). Also it may further be categorized by event if **Archive by Type** is selected in the Configuration Program. If storage by day and by event is selected possible example is

- <RootAgentArchiveDirectory>\2005\12\3\Virus\containerfilename.zip

Container files are used in both SQL mode and Folder mode. Folder mode relies on these files exclusively. Hence, Folder mode is slow on a large archive directory, as each file has to individually be opened, unzipped and analyzed. SQL mode needs to open these files only when a specific item in the Archive Viewer is selected.

To do this, SQL mode stores databases. The databases typically have filenames similar to YYYYMMDD.DB. These files are always stored in the <RootAgentArchiveDirectory>. They contain all of the MIME header information as well as basic information such as From, To, Subject, Attachment Names, Event types, etc.

Hence the Archive Viewer in SQL mode can get all information from the SQL database and does not need the container files at all – with a few exceptions. These exceptions exist because otherwise the database would become unnecessarily bloated in size and slow in function. The exceptions are:

- Attachments (including MIME.822 if extant) are not stored in the SQL DB and are accessed from the container file when needed.
- The Text pieces are also not stored in the SQL DB, with the exception of a small subsegment. The default is 16k, configurable in the Configuration Program. This allows full text searching.
- Container Files can be deleted manually but also automatically. The automatic mechanism is available in the Archive Viewer. The manual mechanism is in the Archive Viewer - when you delete an entry, the associated container file is also deleted
- Database entries and database files are never pruned automatically.

One other database exists: The Metadatabase. This is always stored in <RootAgentArchiveDirectory> and always named overview.db and created automatically by GWAVA. It is nothing more than a list of all the data databases, their locations, and the dates information was stored in them.

Launching the GWAVA 3 Archive Viewer

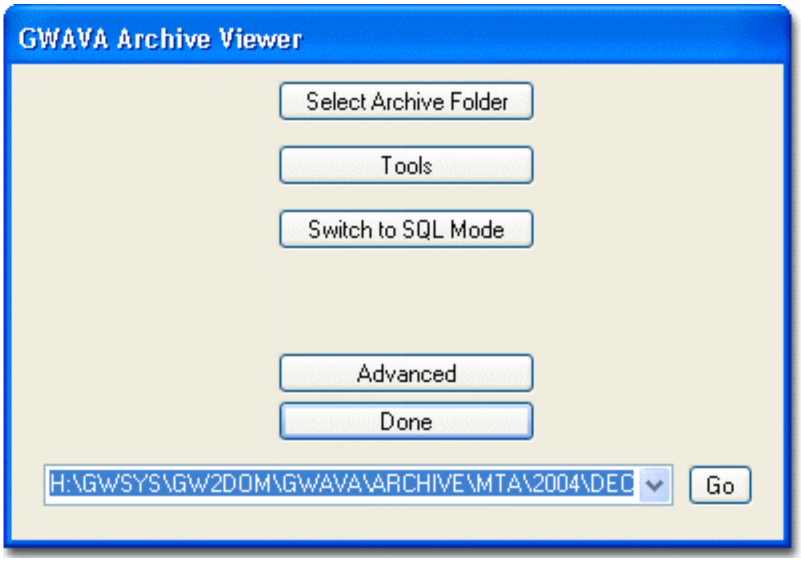
There are two ways of launching the Archive Viewer. It can be launched from inside the GWAVA Manager. See the Archiving section for more information. Or you can run the Archive viewer from the GWAVA menu, located under the Programs menu.

Starting the Archive Viewer

Begin by selecting your archive for viewing.

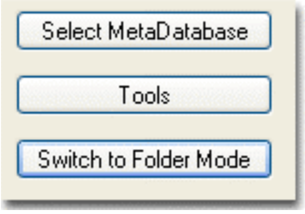
Archive Viewer opens with a screen presenting the user with several buttons: **Select Archive Folder**, **Tools, Switch to SQL Mode**, **Advanced** and finally **Done**, which quits the Archive Viewer.

Note: With Switch to SQL mode clicked, the button toggles to read **Switch to Folder Mode**. Above, the Select Archive Folder will now read **Select MetaDatabase. Tip**: See the Archiving section of the GWAVA Configuration Program.



H:\GWSYS\GW2DOM\GWAVA\ARCHIVE\MTA\2004\DEC

Select Archive Folder



Locate the directory where the archives are stored. Select the archive folder and click **OK**. The archive viewer will open with the oldest archived message selected.

Typically, the archives are in the active MTAs; however, should you wish to examine mail now moved to other volumes, the click **Open Unlisted Database** button. This is available in the SQL mode.

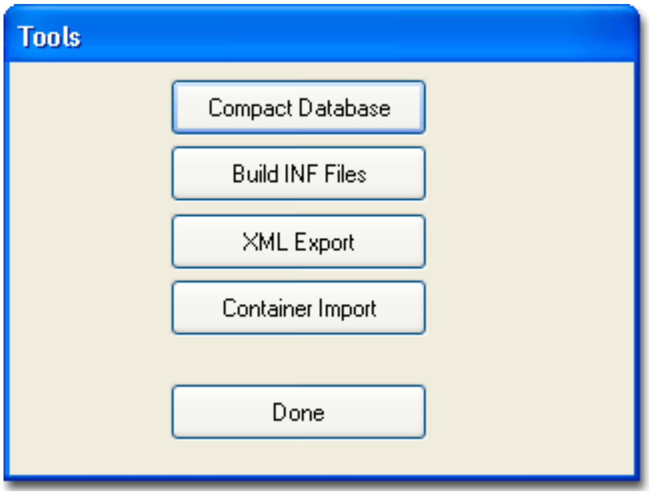
Note: GWAVA 3's Archive Viewer supports full support for legacy archives; however a few changes have been implemented:

- Each new archive item (text and attachments) contains a number followed by a pound symbol or hash mark (#). This is needed for supporting SQL mode. It is hidden in SQL mode, but unfortunately must be displayed in folder mode
- The Archive by Type option now stores some items in a "multiple" directory. GWAVA 3 supports multiple event fires, and it seemed more efficient not to make multiple copies in these cases.

Wildcards and searches

GWAVA can make use of wildcards in searches. The Archive Viewer now automatically wraps search phrases in wild cards; moreover, there are changes in how they operate in Folder versus SQL mode

- **Unlimited** in Folder mode is *, while in SQL mode this value is represented by %
- **Single character** in Folder mode is ? while in SQL mode this value is represented by _
- Tools



Compact database: Marking records as deleted does not regain any disk space unless you compact them. Doing so is an intensive operation that absolutely requires exclusive access to the database.

Build INF Files: Used in Folder Mode: This creates information files from the archived messages. Each file, saved as an .INF, contains text information about the archived message.

XML Export: Export messages into an XML format, for moving to another system.

This tool lets you export messages into an XML UTF8 encoded format, for moving to another system. You will be prompted for an existing directory to export the archives too, and you will be asked if you want to export the attachments as well (which will take considerably longer). This is a fairly intensive process.

To be XML and UTF8 compliant, some bytes are modified. Use these transformations to recover original pieces exactly-as-they-are:

- &quot; ---> "
- &amp; ---> &
- &lt; ---> <
- &gt; ---> >
- <BR/> --> <CR><LF>

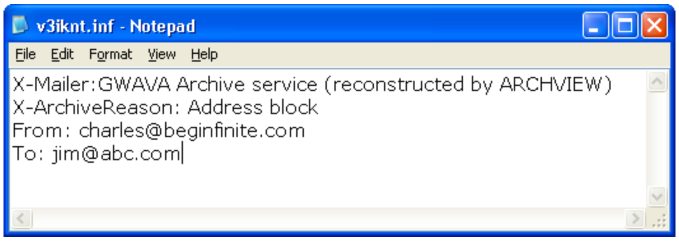
XML export notes

All text is UTF8 encoded per XML standard. Hence, all 8-bit text will appear in multiple bytes. However most browsers and parsers handle UTF8, and it is required in XML. The use of UTF8 may cause a problem with embedded html pieces that were already UTF8 encoded. Effectively the message has been double UTF8 encoded. Arcview tries to recognize UTF8 encoded HTML, and not double encode it. This is only about 95% accurate though.

The exporter attempts to mark text parts as either text or html. This is a best guess scenario, which can be fooled.

Container Import: This powerful addition to GWAVA 3 offers tremendous functionality, but it should be used with caution. The primary use of this tool is for GWAVA 2 Archive Viewer users to import folder data into GWAVA 3's SQL format.

It can also be used for recovery of damaged data. For example, it can be used to recreate metadata when corruption has left only container files. However this tool cannot recognize previously imported data, making it easy to import the same information multiple times.



X-Mailer:GWAVA Archive service (reconstructed by ARCHVIEW)
X-ArchiveReason: Address block
From: charles@beginfinite.com
To: jim@abc.com

Begin by clicking the **Container Import** button from the Archive Viewer's Tools screen. A caution dialogue box will be presented. Click the **agree** button to continue. The process has two steps:

- Choose a directory for establishing where the new SQL database will reside
- Choose and import the required files

Depending on the size of the files, the time needed to import the files can be lengthy. After the warning, navigate to a target directory for the storing of your SQL database. Typically this will be in <domain\gwava\archive>. Click **OK** to continue or **Cancel** to stop this process without any effect on your data or installation of GWAVA.

Create new database or import

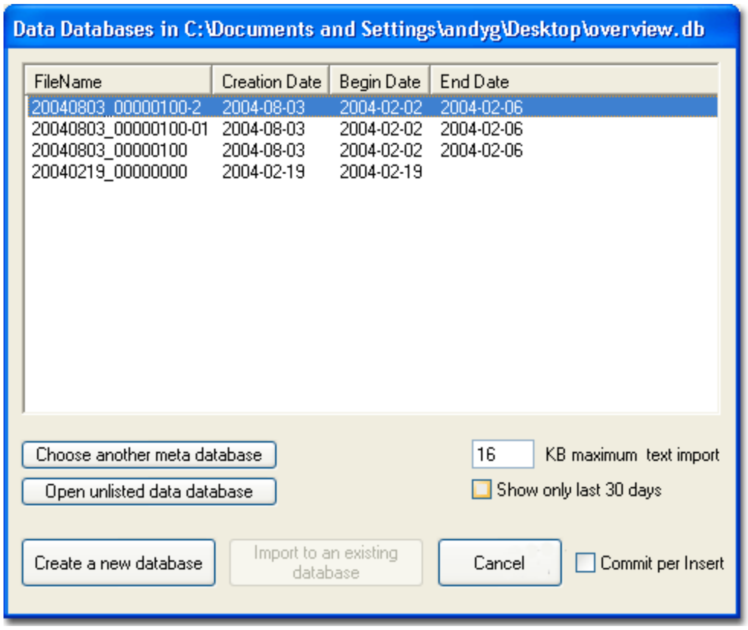
Any existing databases at this location will be shown. Click **Select Metadatabase**. Next, choose a source directory that contains the .zip and .ini files required for importation. A window will be presented for you to navigate to the source files that will be copied.

Note: The importation tool does *not* screen for duplicate data.

The **KB maximum text import** data entry field for text input determines the size of the chunk to be read into the database. The default value for this field is 16kb.

Lastly, there is the **Commit per insert** checkbox. Off by default, enabling this slows down the importing operation but makes permanent all importations immediately.

Select the needed files and click **OK** to continue.

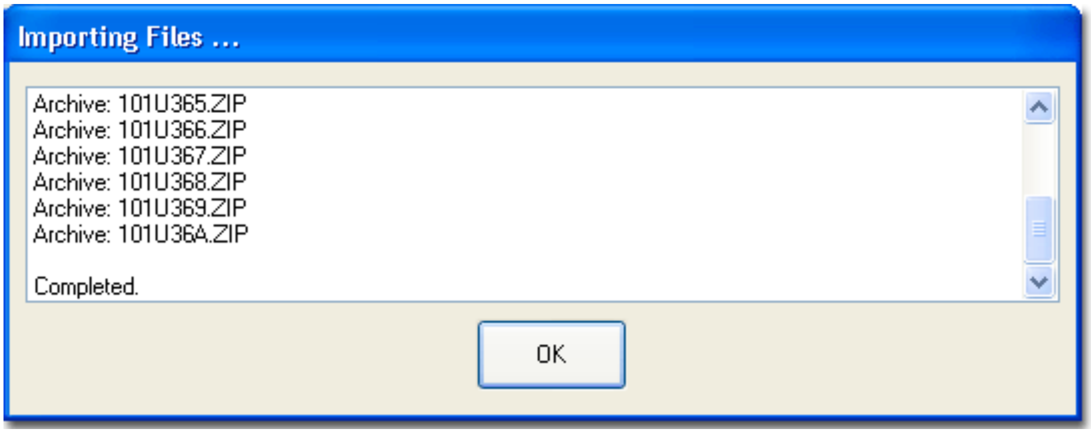

Data Databases in C:\Documents and Settings\andyg\Desktop\overview.db
Choose another meta database
Open unlisted data database
Create a new database
Import to an existing database
Cancel

FileName	Creation Date	Begin Date	End Date
20040803_00000100-2	2004-08-03	2004-02-02	2004-02-06
20040803_00000100-01	2004-08-03	2004-02-02	2004-02-06
20040803_00000100	2004-08-03	2004-02-02	2004-02-06
20040219_00000000	2004-02-19	2004-02-19	

16 KB maximum text import

□ Show only last 30 days

□ Commit per Insert



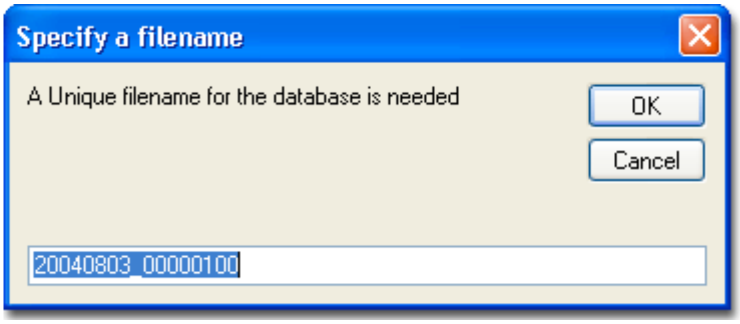
Importing Files ...

Archive: 101U365.ZIP
Archive: 101U366.ZIP
Archive: 101U367.ZIP
Archive: 101U368.ZIP
Archive: 101U369.ZIP
Archive: 101U36A.ZIP

Completed.

The importation process will begin and a reporting screen will be presented. Click **OK** once it is complete.

Unique name



Specify a filename

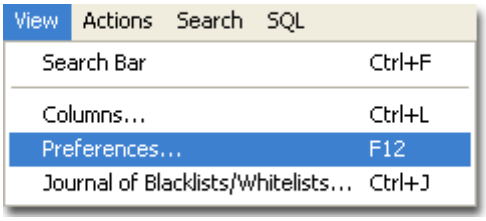
A Unique filename for the database is needed

20040803_00000100

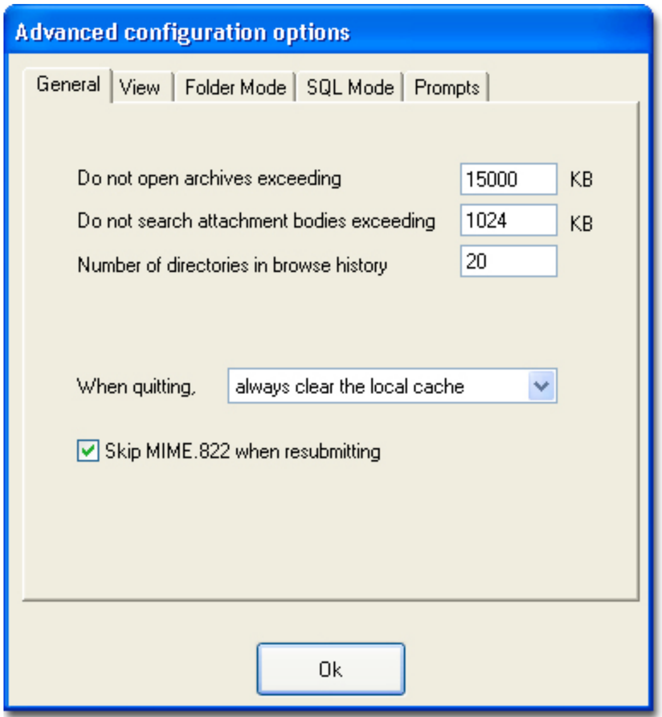
Provide a unique name for the database. A name based upon the import processing date will be provided. You may re-name it as needed. If you make an error in the re-naming, click **Cancel** and the field will return to the originally generated name.

Click **OK** to complete the process and return to the Tools screen.

Advanced



This screen is obtained by pressing the **Advanced** button at the introductory screen of the GWAVA 3 Archive Viewer, by pressing **F - 12,** or by selecting **Preferences** from the **View Menu**. It permits administrators to configure the GWAVA Archive Viewer's operations. There are four tabs: **General, View, Folder Mode** and **SQL Mode**. The default first tab is General.



Do not open archives exceeding 15000 KB

Do not search attachment bodies exceeding 1024 KB

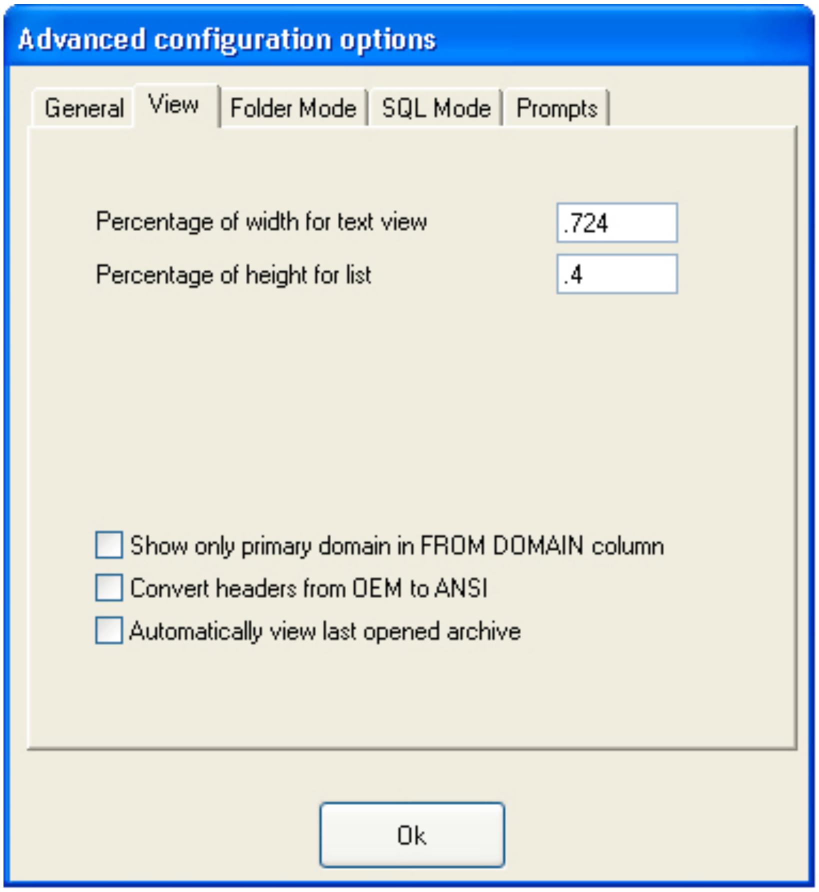
Number of directories in browse history 20

When quitting, always clear the local cache

☑ Skip MIME.822 when resubmitting

Setting	Comment
Do not open archives exceeding	This sets the upper limit of the size of archive that may be opened. The default is 15,000 kb.
Do not search attachment bodies exceeding	This value restricts the size of the attachment that will be searched. The default value is 1024 kb.
Number of directories n history	The default number of directories in the archive history is 20.
When quitting	The options available in this drop-down menu option allow you to automatically **always clear the local cache,** never clear the local cache or **prompt to clear the local cache.**
Skip MIME.822 when resubmitting	Enabling this checkbox speeds resubmit operations.

View



Percentage of width for text view .724

Percentage of height for list .4

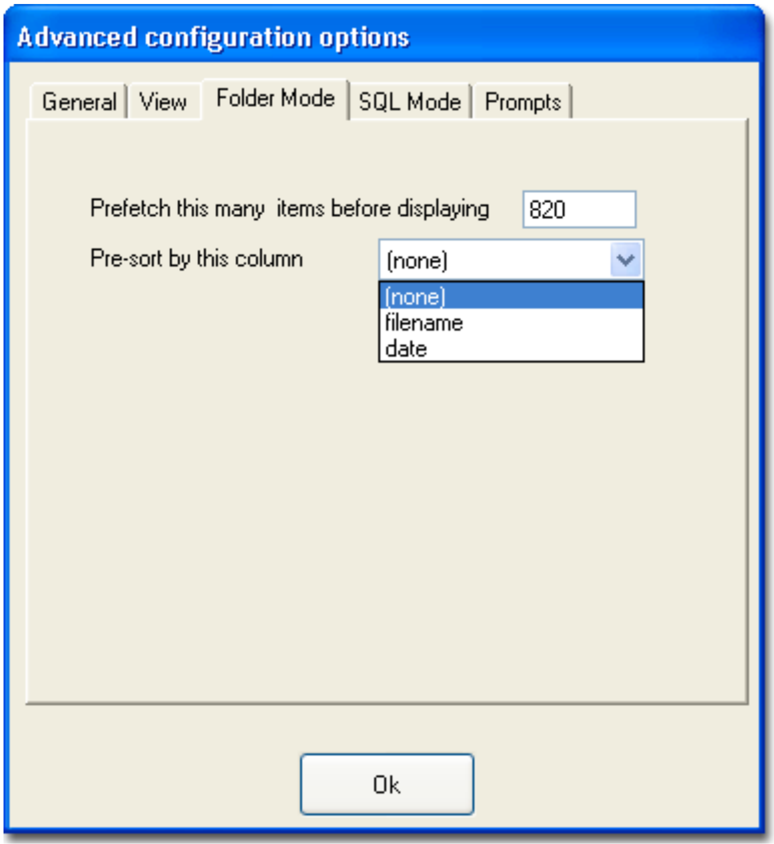
□ Show only primary domain in FROM DOMAIN column

□ Convert headers from OEM to ANSI

□ Automatically view last opened archive

Setting	Comment
Percentage of width for text view	This setting customizes the width allocated for text in the Archive Viewer.
Percentage of height for list	This setting customizes the amount of space allocated for lists in the Archive Viewer.
Show only primary domain in FROM DOMAIN column	This restricts the data in the From column to the primary domain. For example: *mail.anothercompany.com* you want to show *anothercompany.com*.
Convert headers from OEM to ANSI	Enabling this option translates headers into ANSI. The MTA often stores subjects and other headers in DOS code that may be problematic to understand and diagnose.
Automatically view last opened archive	Activating this option will automatically open the last viewed archive.

Folder Mode



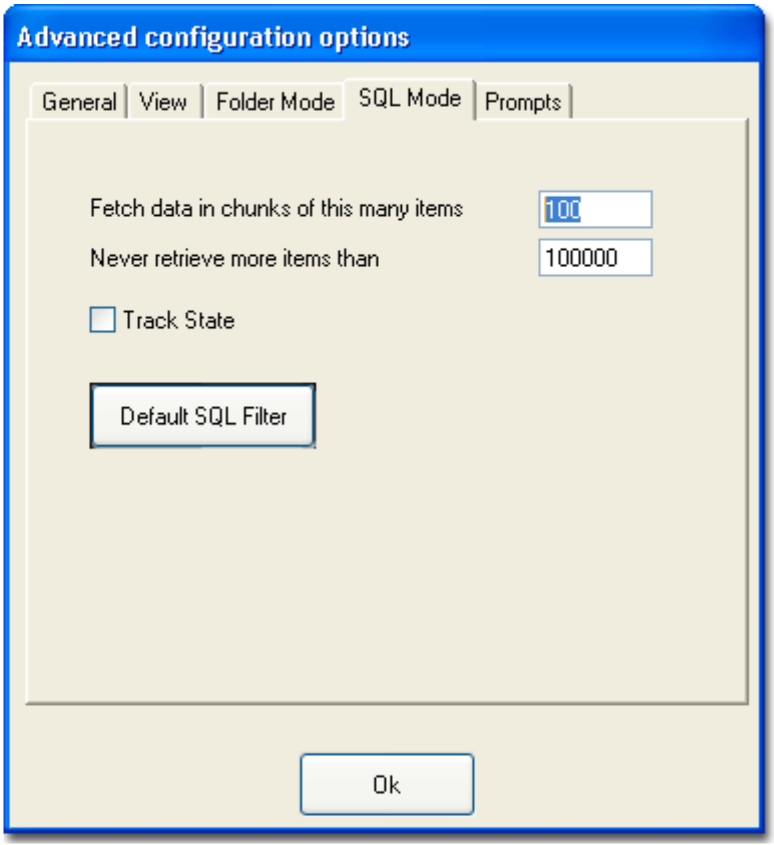
Prefetch this many items before displaying 820

Pre-sort by this column (none)

(none)
filename
date

Setting	Comment
Pre-Fetch this many items before displaying	Administrators can also set the Archive Viewer to pre-fetch items for speedier browsing.
Pre-sort by this column	This drop-down menu allows administrators to pre-sort archives by date or filename. The default is none.

SQL mode



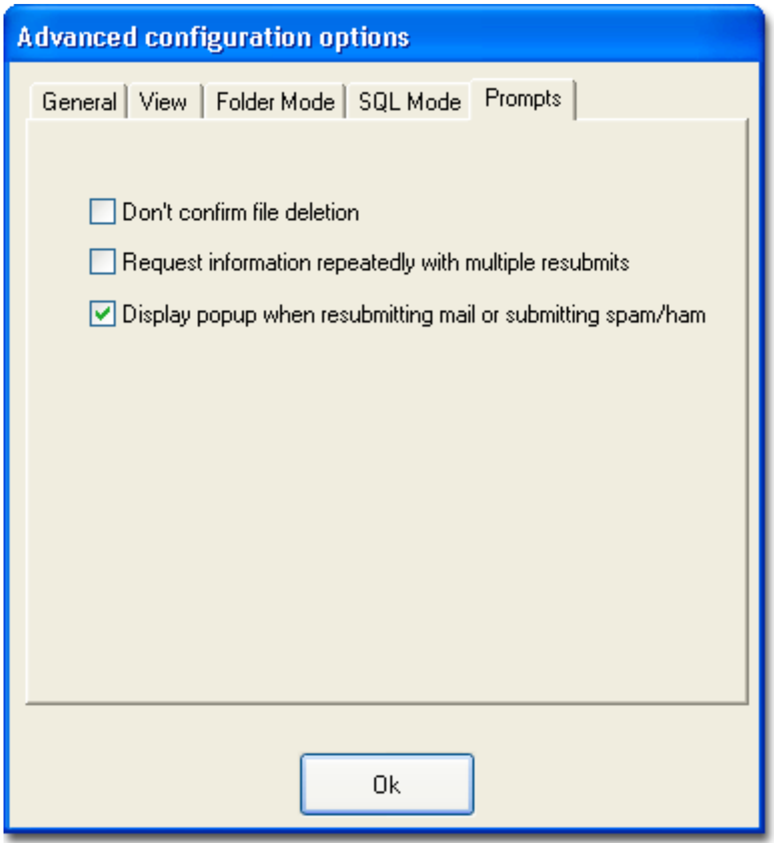
Fetch data in chunks of this many items 100

Never retrieve more items than 100000

☐ Track State

Setting	Comment
Prefetch this many items	Prefetch this many items (often called “Chunks”) entry field. The default for this value is 100. **Note**: You can navigate the pre-fetched items directly when in the Archive Viewer’s SQL mode by using the Chunk Navigator. While it may seem tempting to increase the number of pre-fetched chunks, doing so increases the memory requirements and display time dramatically.
Never retrieve more items than	The Maximum Number in Database. The default for this value is 100,000.
Default SQL Filter	This permits you to define the main screen’s default SQL filter.
Track State	On by default, enabling this checkbox allows messages that have been repeatedly processed to maintain their chosen black and white listed status.

Prompts



□ Don't confirm file deletion

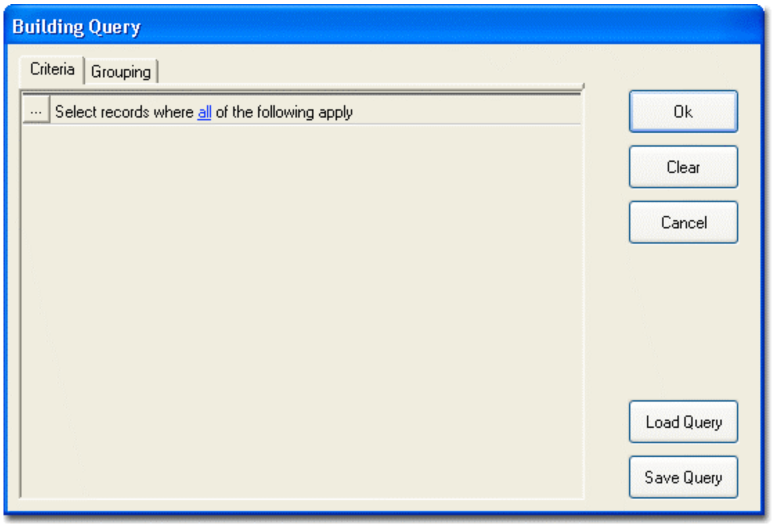
□ Request information repeatedly with multiple resubmits

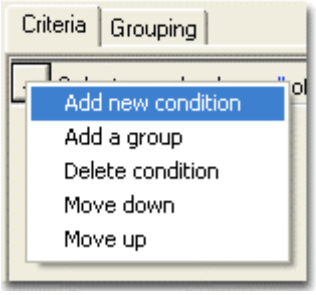
☑ Display popup when resubmitting mail or submitting spam/ham

Setting	Comment
Don't confirm the file deletion	Enabling this checkbox allows administrators to delete items without an additional confirmation prompt.
Request information repeatedly with multiple resubmits	This option separates information requests per item during bulk resubmit.
Display pop-up when resubmitting mail or resubmitting spam and ham	Enabling this checkbox will prompt the administrator with a pop-up when resubmitting. You will be prompted if there is an issue connecting or logging into the mail server. It has a similar function in the case of multiple items selected for resubmit.

The Building Query window

Clicking the **Default SQL Filter** button in the Advanced window presents the Building Query window.





There are two tabs: **Criteria** and **Grouping**. Criteria builds the elements of the SQL request while Grouping defines the priority of their processing.

Click the … button under Criteria to begin constructing your query.

The options are **Add a new condition, add a new group, delete a condition, move up** and move **down**. Click and release the mouse on the needed options.

In our example, we will choose **Add** a new condition. This adds a line to the Criteria tab window.

Building your Query

The phrases Records where * is equal to * will appear. Each of the underlined portions is a customizable portion of the request. The second * changes depending upon what criterion was selected first; moreover, the middle portion of the equation is also variable.

From	Equal
Subject	Greater
Recipient	Less
Recipient Type	Greater or Equal
Archive Path	Less or Equal
Event	Not Equal
GWAVA Date	Is Empty
GWAVA Time	Is not empty
Mime Date	Contains
Mime Time	Starts with
Attachment Count	
GWAVA Message ID	
Spam Score	
Spam ID Path	
Mime Header	
Mime Header Field	

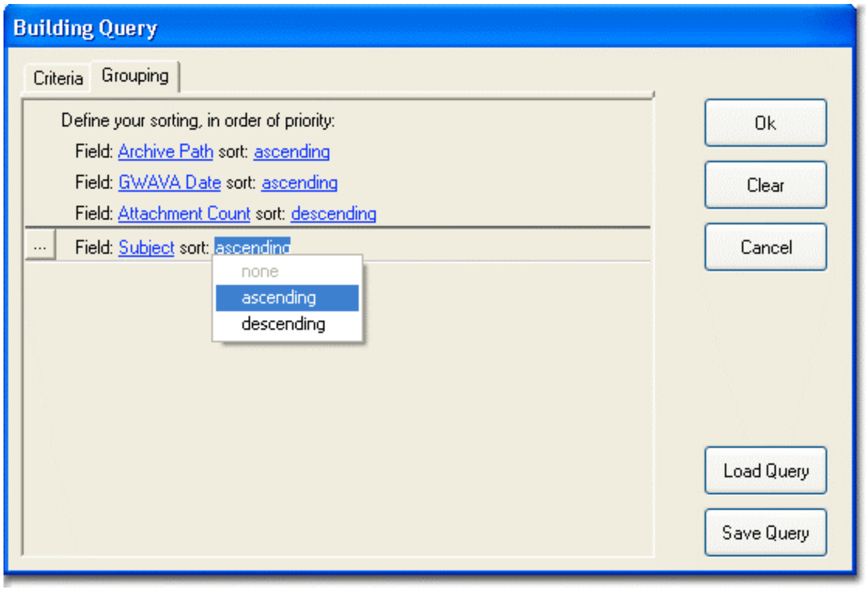
To store your built query, click the **Save** button, or **Clear** to begin again. The **Load** button is used to edit existing queries. To leave the Building Query window without saving, you may also click **Cancel**.

Grouping

The grouping tab allows you to order the construction of your Query. Again, begin by clicking the ellipses (…) button

The first field mirrors that in the Criteria tab:

- Subject
- Recipient
- Recipient Type
- Archive Path
- Event
- GWAVA Date
- GWAVA Time
- Mime Date
- Mime Time
- Attachment Count
- GWAVA Message ID
- Spam Score
- Spam ID Path
- Mime Header
- Mime Header field



Define your sorting, in order of priority:

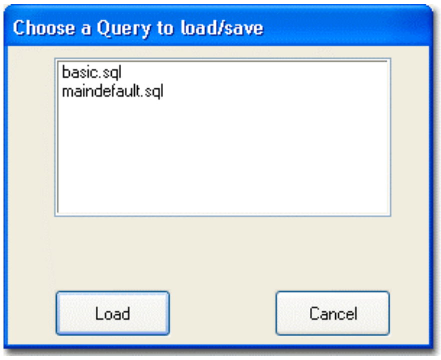
Field: Archive Path sort: ascending

Field: GWAVA Date sort: ascending

Field: Attachment Count sort: descending

Field: Subject sort: ascending

The Sort component of the equation has two options, Ascending and Descending. You may define more than one sort order, and the order of prioritization.



basic.sql
maindefault.sql

Another way of starting the Query Builder

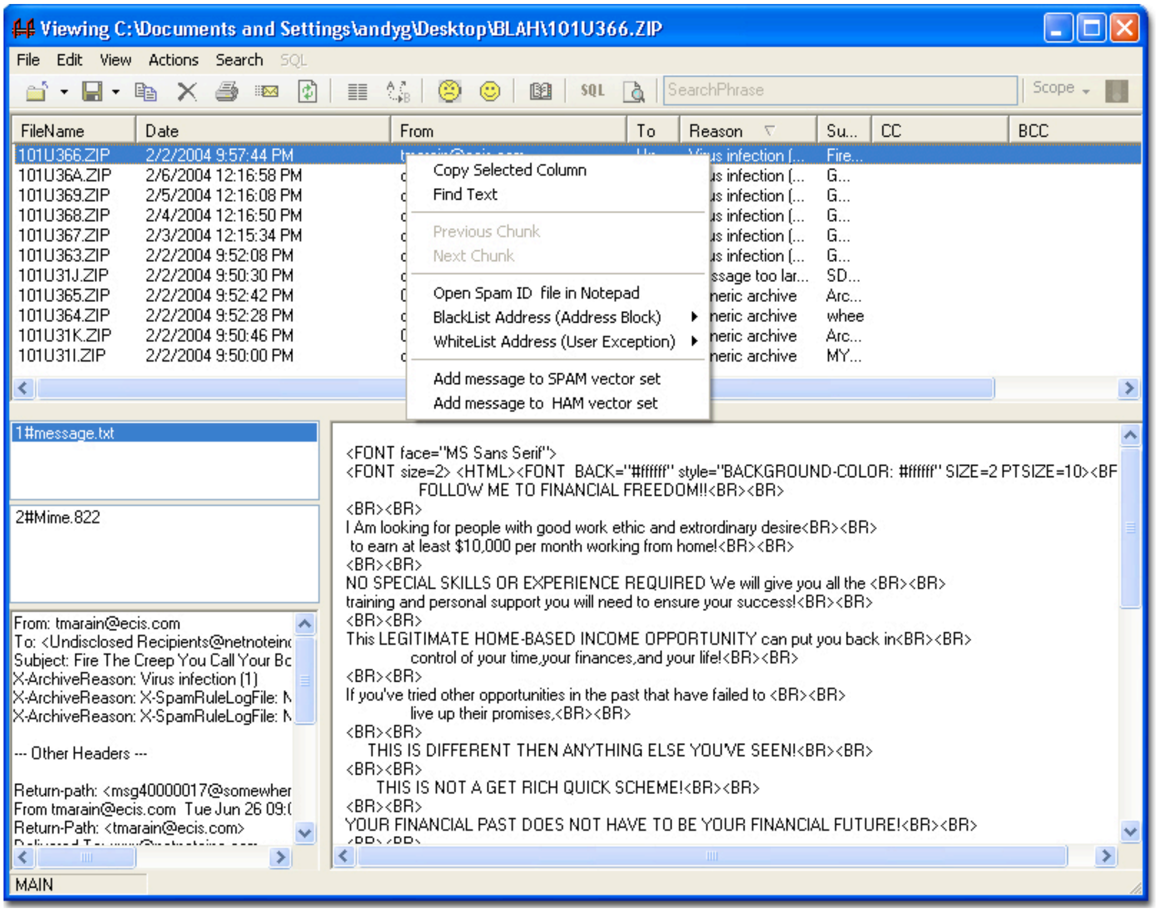
It is not necessary to restart the Archive Viewer to gain access to the Query Builder. To gain access to the Query Builder from within the program, press the SQL button in the toolbar.

Load and save

Once the query has been generated, click the **Save** button. Enter a name in the entry field in the window that appears and click **OK** or **Cancel**. When saving, you will be asked whether or not you wish to apply the new filter. The **Load** button above the save button is used to edit an existing Query.

Using the Archive Viewer

Once you have located the archive folder you wish to view, a list of messages archived in that folder is presented in the Archive Viewer window.



Viewing C:\Documents and Settings\andyg\Desktop\BLAH\101U366.ZIP
File
Edit
View
Actions
Search
SQL
SQL
SearchPhrase
Scope
Copy Selected Column
Find Text
Previous Chunk
Next Chunk
Open Spam ID file in Notepad
BlackList Address (Address Block)
WhiteList Address (User Exception)
Add message to SPAM vector set
Add message to HAM vector set
MAIN

FileName	Date	From	To	Reason	Su...	CC	BCC
101U366.ZIP	2/2/2004 9:57:44 PM			Virus infection (...	Fire...		
101U36A.ZIP	2/6/2004 12:16:58 PM			us infection (...	G...		
101U369.ZIP	2/5/2004 12:16:08 PM			us infection (...	G...		
101U368.ZIP	2/4/2004 12:16:50 PM			us infection (...	G...		
101U367.ZIP	2/3/2004 12:15:34 PM			us infection (...	G...		
101U363.ZIP	2/2/2004 9:52:08 PM			us infection (...	G...		
101U31J.ZIP	2/2/2004 9:50:30 PM			ssage too lar...	SD...		
101U365.ZIP	2/2/2004 9:52:42 PM			neric archive	Arc...		
101U364.ZIP	2/2/2004 9:52:28 PM			neric archive	whee		
101U31K.ZIP	2/2/2004 9:50:46 PM			neric archive	Arc...		
101U31I.ZIP	2/2/2004 9:50:00 PM			neric archive	MY...		

1#message.txt

2#Mime.822

```
From: tmarain@ecis.com
To: <Undisclosed Recipients@netnoteinc
Subject: Fire The Creep You Call Your Bc
X-ArchiveReason: Virus infection (1)
X-ArchiveReason: X-SpamRuleLogFile: N
X-ArchiveReason: X-SpamRuleLogFile: N

--- Other Headers ---

Return-path: <msg40000017@somewher
From tmarain@ecis.com  Tue Jun 26 09:(
Return-Path: <tmarain@ecis.com>
```

```
<FONT face="MS Sans Serif">
<FONT size=2> <HTML><FONT  BACK="#ffffff" style="BACKGROUND-COLOR: #ffffff" SIZE=2 PTSIZE=10><BF
             FOLLOW ME TO FINANCIAL FREEDOM!!<BR><BR>
<BR><BR>
I Am looking for people with good work ethic and extrordinary desire<BR><BR>
 to earn at least $10,000 per month working from home!<BR><BR>
<BR><BR>
NO SPECIAL SKILLS OR EXPERIENCE REQUIRED We will give you all the <BR><BR>
training and personal support you will need to ensure your success!<BR><BR>
<BR><BR>
This LEGITIMATE HOME-BASED INCOME OPPORTUNITY can put you back in<BR><BR>
            control of your time,your finances,and your life!<BR><BR>
<BR><BR>
If you've tried other opportunities in the past that have failed to <BR><BR>
            live up their promises,<BR><BR>
<BR><BR>
    THIS IS DIFFERENT THEN ANYTHING ELSE YOU'VE SEEN!<BR><BR>
<BR><BR>
     THIS IS NOT A GET RICH QUICK SCHEME!<BR><BR>
<BR><BR>
YOUR FINANCIAL PAST DOES NOT HAVE TO BE YOUR FINANCIAL FUTURE!<BR><BR>
```

The GWAVA Archive viewer

The main archive viewer screen has several regions: the button bar is on top, the message list is below it; underneath that are areas for displaying the selected message's triggering events and other information as well as headers and text.

- **Headers**: displays the MIME header of the message and information about the archive.
- **Text**: displays a list of text files associated with the message (after it is broken into its component parts).
- **Attachments**: displays a list of attachments (if any) associated with the message.
- **Text Body**: displays the text content of the file selected in the Text area.
- **Other Archives**: lists all the messages, and the date they were saved, in the current archive folder including the .CSV list of archived files. Note: the archive viewer cannot open the .CSV file.
- New in the Archive Viewer: search by archive file name.

Buttons

Save the text or attachment from the currently opened message archive. This button also allows you to save HTML reports. **(Control+S)**

Copy the text currently displayed in the text body to the clipboard so you can paste it into another application or into an e-mail message. **(Control+C)**

Delete the selected message from the archive.

Resend the selected message—allows the message to be resent independent of GWAVA's filters and rules. **(Control+R)**

Refresh the archive list. **(F5)**

This button displays column display options for the Archive Viewer. Options include sorting the list view by **File Name**, **Date**, **Subject**, **From**, **To**, **CC**, **BCC**, **Reason**, **SpamID**, **From Domain**, **InfStatus**, **Size**, **Cache Status** for **Text Headers**, **ATT** list, **TextList**, and **Real Date**. Enable these by clicking on their respective checkboxes.

Display **Advanced** options for customizing the Archive Viewer. **(F12)**

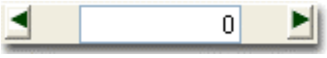
Add to **Spam Vector** Set. (Turns the entry red)

Add to **Ham Vector** Set. (Turns the entry green)

BWJournal This is your list of black and white lists. **(Control+B)**

Define **SQL Query** presents the Query Builder window. **(Control+Q)**

Toggle the Search Bar the archived messages. (Control+F)



The **Chunk Navigator:** Use the left and right arrows to navigate through the current SQL database. The value reported between them indicates which "chunk" is being viewed. The size of the chunks, or pre-fetched items in your SQL query session, can be changed in the advanced configuration settings. Increasing the value from its default of 100 will increase memory requirements.

Note: The Chunk Navigator is only visible when in SQL mode.

Exit the Archive Viewer or Select another archive.

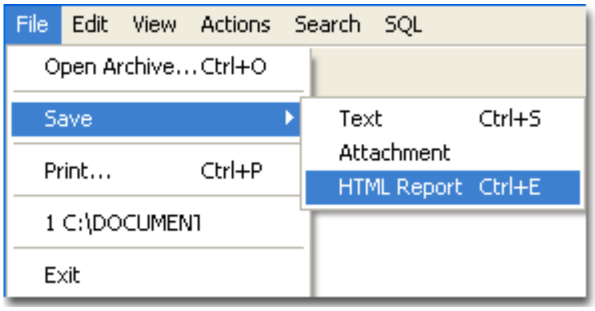
Print

Menus

New in the GWAVA 3 Archive Viewer are menus with keyboard shortcuts.

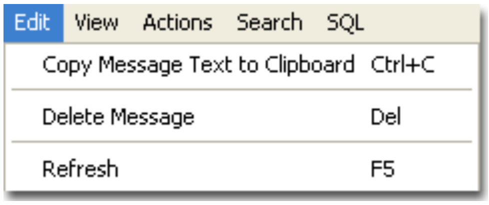
File

- Open Archive **Ctrl - O**
- Save
- Text **Ctrl - S**
- Attachment
- HTML Report **Ctrl - E**
- Print **Ctrl - P**
- Window 1…
- Window 2…
- Window 3…
- Exit



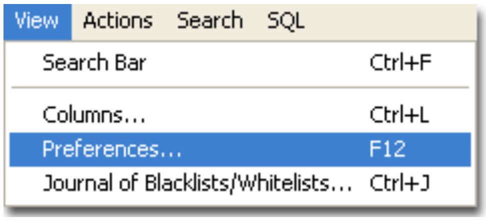
Edit

- Copy Message Text to the Clipboard **Ctrl - C**
- Delete Message **Del**
- Refresh **F5**



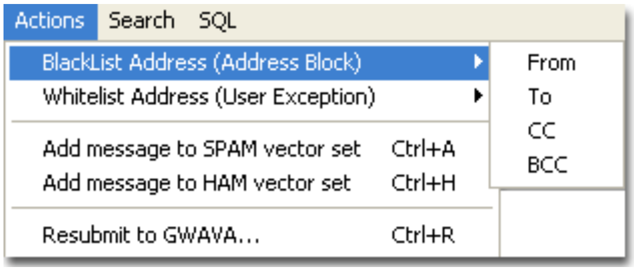
View

- Search Bar **Ctrl - F**
- Columns **Ctrl - L**
- Preferences **F12**
- Journal of Blacklists and Whitelists **Ctrl - J**



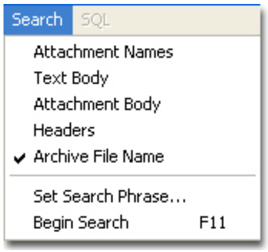
Actions

- Blacklists (Address blocks: From, To, CC & BCC)
- Whitelists (User Exceptions: From, To, CC & BCC)
- Add message to spam vector set **Ctrl - A**
- Add message to ham vector set **Ctrl - H**
- Resubmit to GWAVA **Ctrl - R**


Actions
Search
SQL
BlackList Address (Address Block)
Whitelist Address (User Exception)
Add message to SPAM vector set Ctrl+A
Add message to HAM vector set Ctrl+H
Resubmit to GWAVA… Ctrl+R
From
To
CC
BCC

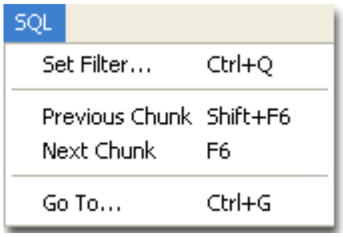
Search

- Attachment Names
- Text Body
- Attachment Body
- Header
- Archive File Name
- Search **F - 11**



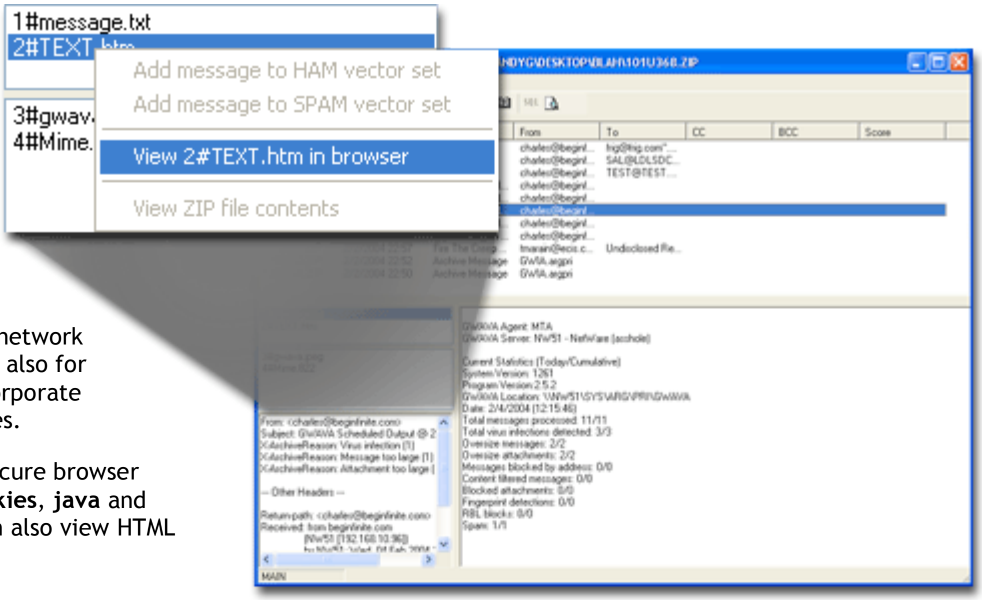
SQL

- Set Filters **Ctrl - Q**
- Previous Chunk **Shift - F6**
- Next Chunk **F6**
- Go To **Ctrl - G**



View attachments

Archive Viewer allows users to right click attachments so that the contents can be examined. For example, you can right click in the Attachments section of the Archive Viewer to see attachments in the secure browser.


1#message.txt
2#TEXT.htm
3#gwav
4#Mime.
Add message to HAM vector set
Add message to SPAM vector set
View 2#TEXT.htm in browser
View ZIP file contents
From
To
CC
BCC
Score
MAIN

This addition to the GWAVA Archive Viewer feature set allows administrators to examine many attachments, including zip archives. This allows for fast analysis of attachments for both network security purposes, but also for the enforcement of corporate communication policies.

The Archive Viewer secure browser disables **ActiveX**, **cookies**, **java** and **javascript** but you can also view HTML and graphics.

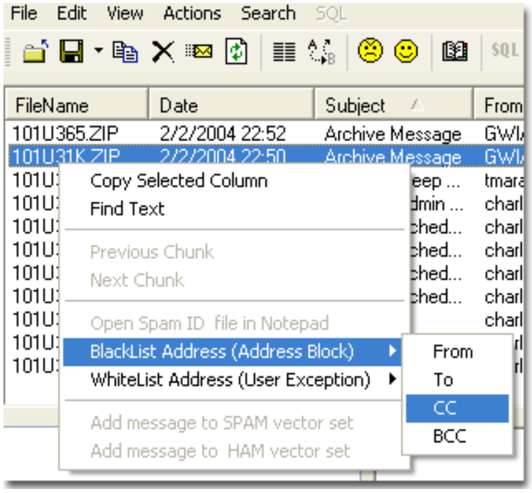
Security precaution

For security, image loading is off by default in the Archive Viewer's embedded secure browser. It can be switched if needed. The reason disabling this is because of exploits that use image formats that can take control of computers.

Right clicking

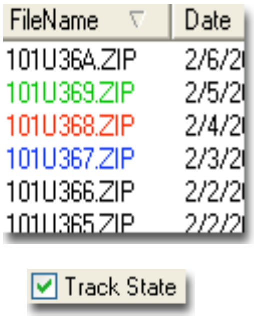
The GWAVA 3 Archive viewer also introduces context sensitive right clicking. The mail elements in the rows and columns have meta attributes. These alter the way right clicking behaves. Depending upon what is being selected, context sensitive options available include:

- Copy selected column
- Find Text
- Previous Chunk
- Next Chunk
- Open Spam ID file in Notepad
- Blacklist address (From, To, CC BCC)
- Whitelist address (From, To, CC, BCC)
- Add the message to the SmartBlocker Manager spam vector set
- Add the message to the SmartBlocker Manager ham vector set



The options available change depending upon the column. All options remain visible, but some may be greyed-out. Finally, the right click options available are the same in both Folder and SQL mode. Note that you can select multiple items in the overview.

Red, Green and Blue



FileName ▽	Date
101U36A.ZIP	2/6/2
101U369.ZIP	2/5/2
101U368.ZIP	2/4/2
101U367.ZIP	2/3/2
101U366.ZIP	2/2/2
101U365.ZIP	2/2/2

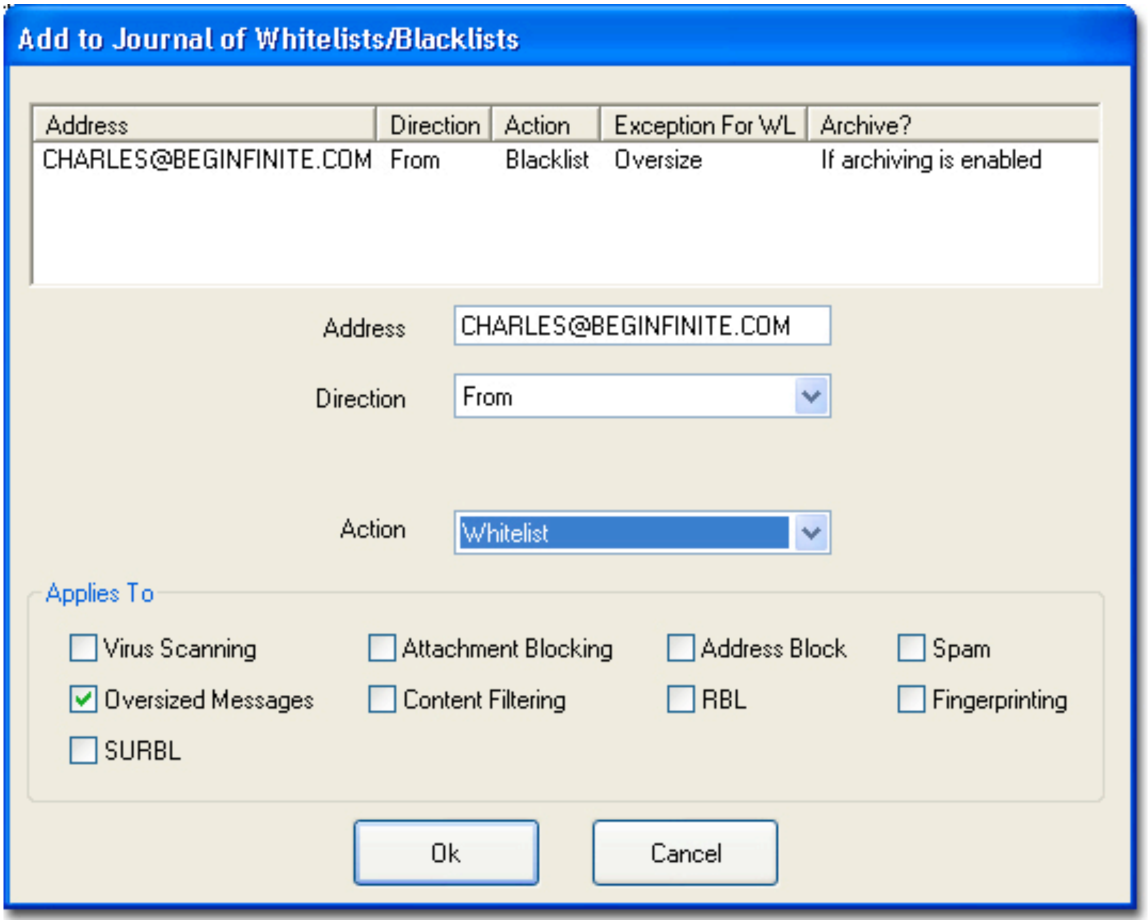
☑ Track State

Message IDs change can change colour when marked as Ham, Spam, and Resubmitted: Red for mail that was marked as spam and green for mail which marked as spam and Blue for resubmitted messages. Note that messages may also be marked grey when inaccessible**.**

Track state is an option found in the Archive Viewer's **Advanced** settings screen.

Enabled by default, it allows messages to retain its status as a message is re-submitted to GWAVA. Messages may only have one state. When a message may be eligible for two states, the recent-most state will be the colour chosen. States will only be saved when operating in SQL mode.

White and Black List



Add to Journal of Whitelists/Blacklists

Address	Direction	Action	Exception For WL	Archive?
CHARLES@BEGINFINITE.COM	From	Blacklist	Oversize	If archiving is enabled

Address: CHARLES@BEGINFINITE.COM

Direction: From

Action: Whitelist

Applies To

☐ Virus Scanning ☐ Attachment Blocking ☐ Address Block ☐ Spam

☑ Oversized Messages ☐ Content Filtering ☐ RBL ☐ Fingerprinting

☐ SURBL

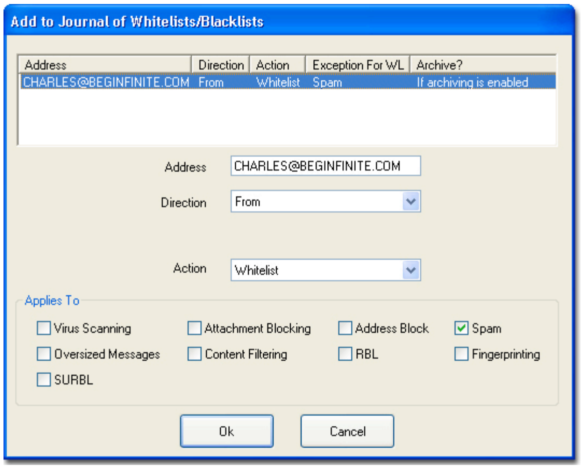
Adding a message to your "book" of white or black lists is accomplished by first selecting the message, then selecting White List or Black List by right clicking.

Note: The Happy or Unhappy Face buttons in the toolbar are **NOT** for black or whitelisting. They are for adding archived mail to SPAM and HAM vectors for spam optimization by the GWAVA SmartBlocker Manager. ☺ ☹

There are more options available to whitelisted addresses than there are for blacklisted ones. Both White and Blacklists can be applied directionally (**To**, **From** or **Both**). However, whitelisting can be more customized to permit specific forms of white listing.

For example, messages from a graphic arts firm may be exempted from oversized attachment blocks.

- Options include:
- Virus Scanning
- Attachment Blocking
- Address Blocking
- Spam
- Oversized Messages
- Content Filtering
- RBL
- SuRBL
- Fingerprinting



Add to Journal of Whitelists/Blacklists

Address	Direction	Action	Exception For WL	Archive?
CHARLES@BEGINFINITE.COM	From	Whitelist	Spam	If archiving is enabled

Address: CHARLES@BEGINFINITE.COM

Direction: From

Action: Whitelist

Applies To

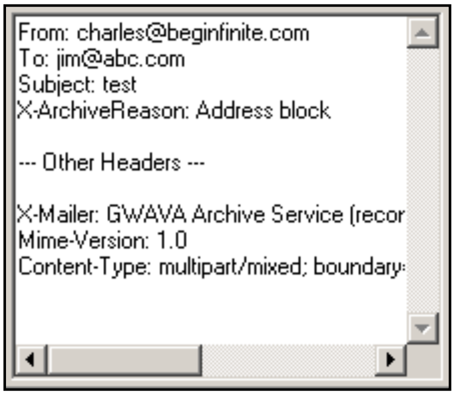
□ Virus Scanning □ Attachment Blocking □ Address Block ☑ Spam
□ Oversized Messages □ Content Filtering □ RBL □ Fingerprinting
□ SURBL

Headers

The message headers displayed in the Archive Viewer also contain information about why the message was blocked by GWAVA and stored in the archive. **Remember** that you must manually set GWAVA to archive a specific type of message or it will not appear in the Archive.

GWAVA now inserts two X-headers when applicable:

- **X-ArchiveReason**: shows which GWAVA filter caused the message to be archived (an Address Block in the example above).
- **X-IDFileName**: shows the file attachment—either virus or blocked file—that caused the message to be archived.

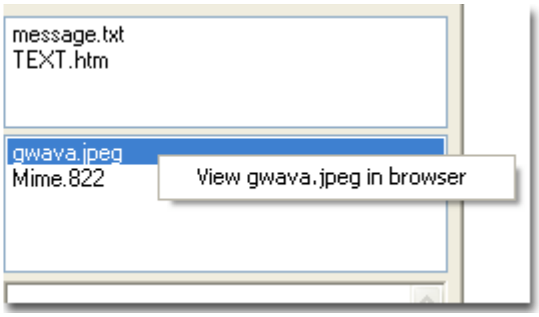


```
From: charles@beginfinite.com
To: jim@abc.com
Subject: test
X-ArchiveReason: Address block

--- Other Headers ---

X-Mailer: GWAVA Archive Service (recor
Mime-Version: 1.0
Content-Type: multipart/mixed; boundary=
```

Additional Message Information

The text and file attachments are also shown in the main viewer area when a message is selected.

And, of course, the elements in these windows can be right clicked according to their attributes, as can much of the other archive entries in the viewer.



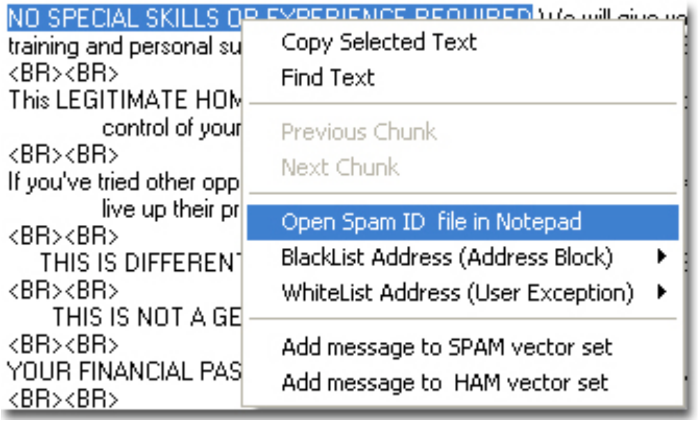
message.txt
TEXT.htm

gwava.jpeg
Mime.822

Text Body section

The bottom right corner of the GWAVA 3 Archive Viewer reveals the actual content of the message. You can see all the formatting information in plain code. It is of more use than reference as the right clicking options now allow you to inspect a message and take action regarding it in one step.

Highlight a phrase using the mouse. Right clicking allows you to copy the text, open SpamID in Notepad, or add it directly to the spam or ham vector set in your GWAVA configuration. Moreover, black and white list information can also be added from here.



```
NO SPECIAL SKILLS OR EXPERIENCE REQUIRED We will give us
training and personal su
<BR><BR>
This LEGITIMATE HOM
        control of your
<BR><BR>
If you've tried other opp
        live up their pr
<BR><BR>
   THIS IS DIFFERENT
<BR><BR>
    THIS IS NOT A GE
<BR><BR>
YOUR FINANCIAL PAS
<BR><BR>
```

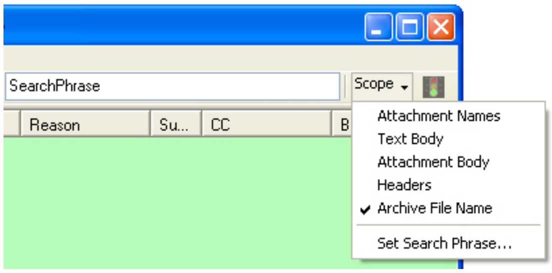
Copy Selected Text
Find Text
Previous Chunk
Next Chunk
Open Spam ID file in Notepad
BlackList Address (Address Block)
WhiteList Address (User Exception)
Add message to SPAM vector set
Add message to HAM vector set

Multiple Archive Selection

GWAVA allows you to select and apply actions to more than one archive at a time from the list of **Other Archives**. Using traditional multiple file selection methods—holding the **Shift** or **Control** keys while selecting messages—you can print, delete, or resend messages saved in the GWAVA Archive.

Searching an Archive

To search through the messages contained in an archive, select the first message listed in the archive and click **Search** in the archive viewer window. In the field that opens in the toolbar, enter your search string. Then select a **Scope**—Attachment Name, Text body, Attachment body, Headers and Archive Name—for the search.



Once you've entered your search phrase, click the traffic light button. The light will become green as the active records are searched. In folder mode, * and? are used to match multiple and single character wildcards. In SQL mode, % and _ are used. This simply reflects the difference between standard SQL and Microsoft's string comparisons.

- **Note:** You can search more than one scope at once; ie. headers and text body.

Search for Archive Name

Searching for Archive Name is very useful in conjunction with spam digest. Administrators who are alerted that an e-mail must be released are given an archive name. Copy and paste the associated archive name into the Archive Viewer and set the search scope for Archive File Name.

Selecting a scope

You must select a scope when searching. If not, a dialogue box with an instruction to do so will appear asking you to choose at least one scope for your search, be it header, attachment names or text body.

- **Note**: You cannot search attachment bodies in SQL mode.

Once the list of files containing the search string has populated, click a FileName and that file will be opened in the main Archive Viewer screen. You can leave the search screen open to browse the search results list. Click **Done** to close the search/results screen.

Best Results

IMPORTANT: While the Archive Viewer is searching for files in the Archive, you may receive notices from your AV software that a virus was found. The reason is that the viewer is opening the files—which may have been archived because they contained a virus—to search for the string you entered in the **Search** text box.

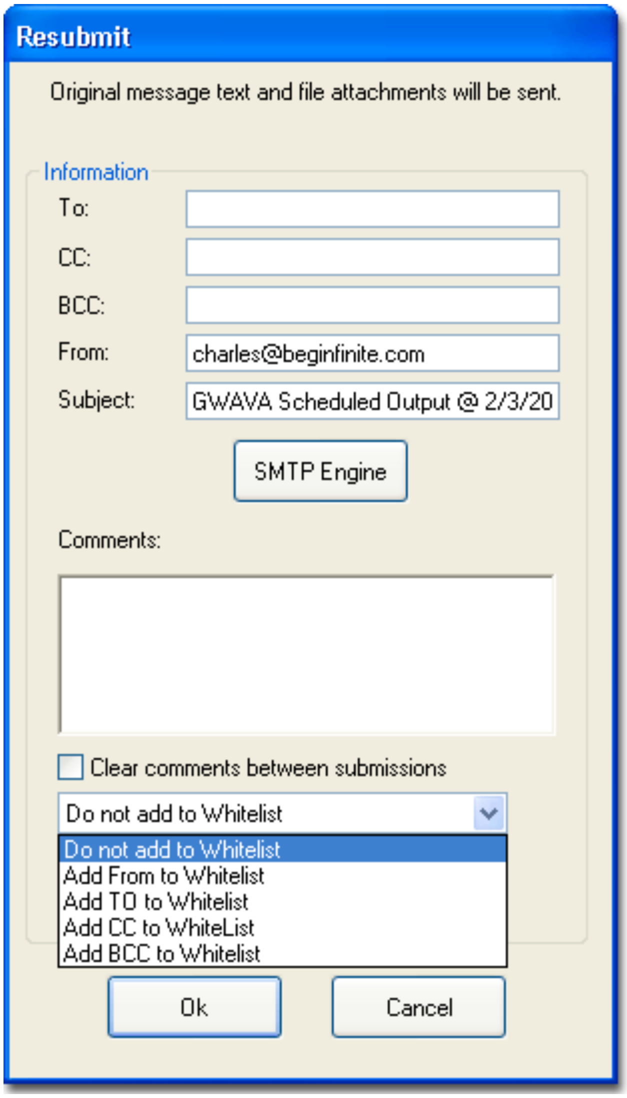
Resubmitting Messages

When resubmitting a message, it is tagged so that GWAVA will not run it through the GWAVA policies a second time. To resend a message, click the **Resubmit** button on the toolbar.

To resend a message, click the **Resubmit** button. In the **Resubmit Options** window that opens, the **To**, **From**, and **Subject** information should already be in place. You can enter additional information to be delivered with the redirected message in the **Notice** text box.

Note the check box to **Clear comments between submissions**. When enabled, the **Comments** field will be blank. When it is unchecked, the **Comments** field will contain what was typed previously. This allows you, if desired, to send out a consistent comment.

Note: the message may also be blind carbon copied from this screen.



Resubmit

Original message text and file attachments will be sent.

Information

To:

CC:

BCC:

From: charles@beginfinite.com

Subject: GWAVA Scheduled Output @ 2/3/20

Comments:

☐ Clear comments between submissions

Do not add to Whitelist

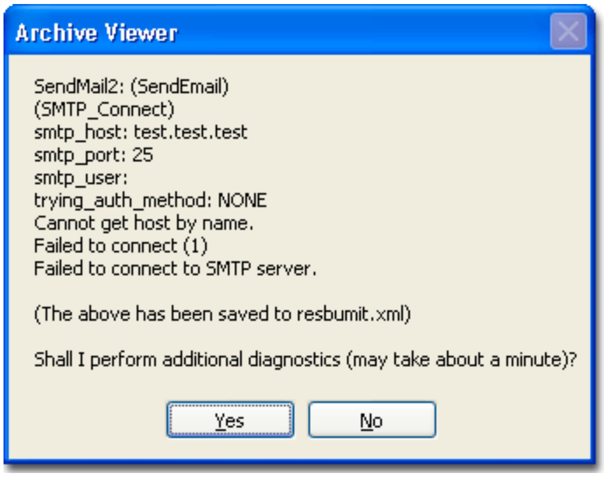
Whitelisting

A whitelisting component is included in the resubmit screen. The functionality is similar to ArcView's whitelisting generally; however it is included in the Resubmit screen to speed user operations. Options include **Do not add to Whitelist, Add from Whitelist, Add to Whitelist, Add CC to Whitelist** and **add BCC to Whitelist.**

Diagnostic of Resubmit

If there is a problem with the resubmission, a diagnostic screen appears presenting the errors returned and an option to perform further diagnostics.

Click **Yes** to continue or **No** to cancel.



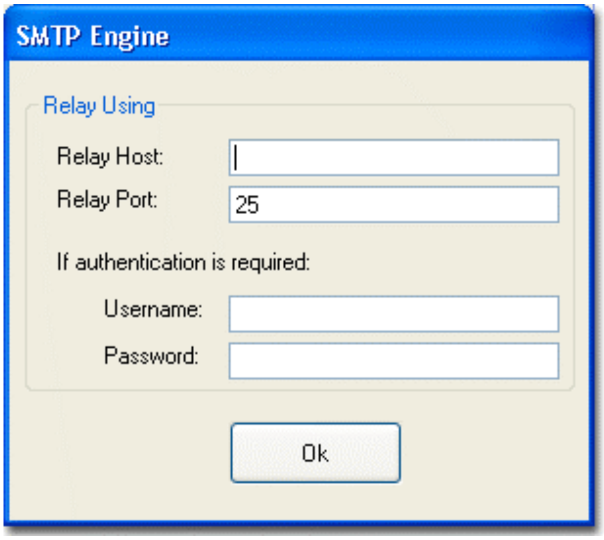
```
SendMail2: (SendEmail)
(SMTP_Connect)
smtp_host: test.test.test
smtp_port: 25
smtp_user:
trying_auth_method: NONE
Cannot get host by name.
Failed to connect (1)
Failed to connect to SMTP server.

(The above has been saved to resbumit.xml)

Shall I perform additional diagnostics (may take about a minute)?
```

SMTP Engine

To ensure the message will be delivered, click **SMTP Engine** and enter your SMTP server information, then click **OK**.

This returns you to the Resubmit window. Clicking **OK** here now sends the message as originally intended. A confirmation notice will also require you to click **OK**.

- **Relay host**: Enter the IP address (not the host name) of your GWIA server.
- **Relay Port**: Should normally be left to 25, unless your GWIA uses an alternate port.
- **User Name**: A valid GroupWise (not NDS) UserID. This is necessary in order to authenticate to GWIA.
- **Password**: The GroupWise password that matches the UserID

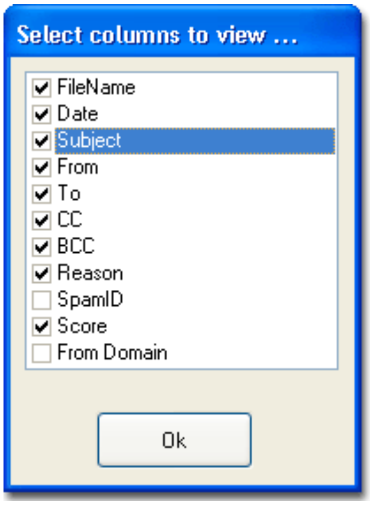


Relay Host:
Relay Port: 25
If authentication is required:
Username:
Password:

View Columns

The Archive Viewer lets administrators customize which columns are shown for sorting. Select the Columns from the View Menu or press **Control+L**.

A window listing the sorting columns available in the Archive Viewer will be presented. Enable the checkboxes needed to present the columns required.



☑ FileName
☑ Date
☑ Subject
☑ From
☑ To
☑ CC
☑ BCC
☑ Reason
□ SpamID
☑ Score
□ From Domain

Smart Blocker

SmartBlocker Manager^{TM} is a helper application for GWAVA's anti-spam functions. It simplifies the maintenance and customization of rules your installation of GWAVA uses to block spam. Without SmartBlocker Manager this task must be done by hand editing configuration files. Given that there are nearly a thousand rules built into GWAVA, and users may add as many as they like, SmartBlocker Manager greatly reduces the chore of supervising and the anti-spam rule set up on your GWAVA 3 installation.

SmartBlocker Manager has three main areas of functionality:

- Optimization
- Rule Maintenance
- Spam Vector Maintenance

In fact, the Helper Screen, which is presented the first time SmartBlocker Manager is run, outlines the tasks needed for the successful operation of SmartBlocker Manager.

New in SmartBlocker 3.5

Find Mistakes – This handy feature provides instant analysis of entries by sender, or which may have been included in both your ham and spam corpus directories.

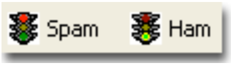
Get as large a sample of ham and spam as possible.

The more ham and spam in your statistical sample, the better SmartBlocker Manager can be optimized.

Each industry has its own technical terminology. Regularly including legitimate mail to your ham ruleset will help reduce false positives. Ideally, administrators should keep submitting new ham as well as spam mails for analysis. This will allow SmartBlocker Manager to create more accurate rules.

Recommendation: Begin by adding at least 1,000 ham mails to SmartBlocker Manager to build your optimization rules. There is no limit to the number or mails that can be added to SmartBlocker Manager. GWAVA gives you all the tools to do this, but they are in several locations.

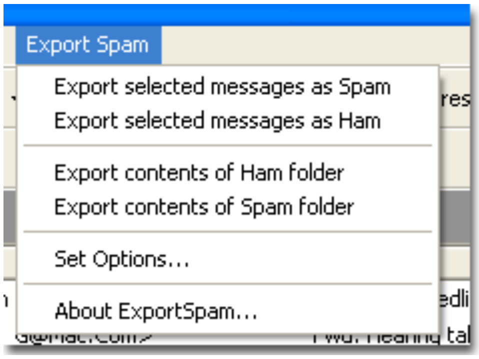
Tip – Use the new digesting settings in GWAVA 3.5 to create a ham corpus each time users release blocked mail.

Archive Viewer	Use the ☹ and ☺ buttons to add spam and false positives. Note that the archive Viewer is not the best way to sample Ham.
GroupWise ExportSpam	 GWAVA3 includes a new customization called **ExportSpam** that allows users to add Spam and Ham buttons. The GroupWise inbox is the best place to sample ham and borderline spam (See below).

Installing GroupWise Client Export Spam module

GWAVA 3 has the SmartBlocker Manager customization for GroupWise. Run the ExportSpam.Exe (typically in \Program Files\BeginFinite\GWAVA\Tools\ spamexp.exe) to add this functionality to your GroupWise client. This addition to the GroupWise client allows users to export ham and spam samples. Now when you run the client, a submenu is created under the Tools menu, containing the options.

- Export selected messages as SPAM
- Export selected messages as HAM
- Set output path
- Set subject match


Export Spam
Export selected messages as Spam
Export selected messages as Ham
Export contents of Ham folder
Export contents of Spam folder
Set Options...
About ExportSpam...

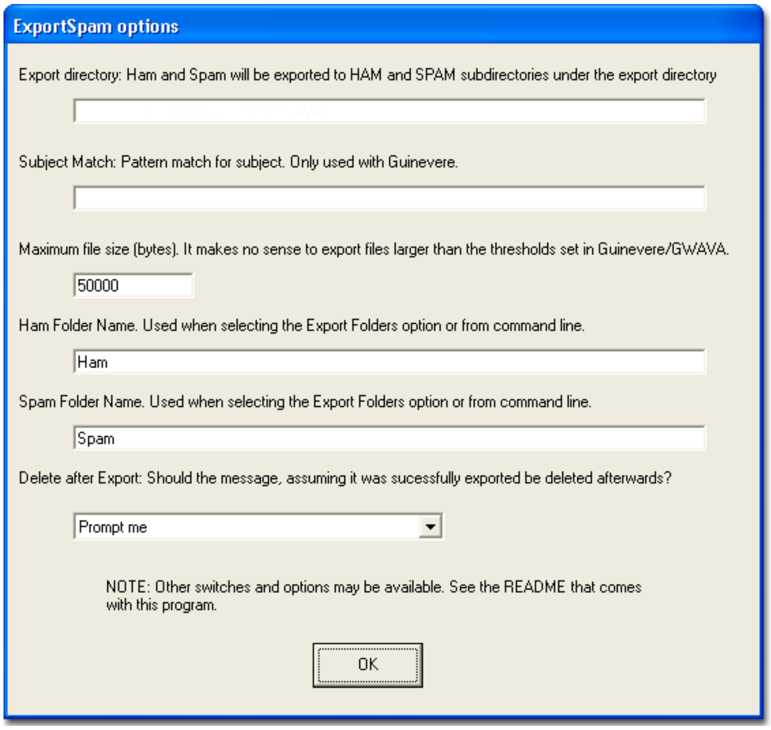
Setting Export Spam Preferences

Once the ExportSpam module has been installed in your GroupWise client, it can be customized. Select the Set Options item from the Export Spam menu which should now appear in your client.

Options for customization include:

- **Export Directory** - Ham and spam will be exported to separate subdirectories in this directory
- **Subject Match** - Pattern Matching for subjects, used only by Guinevere
- **Maximum file size in bytes** - Note that it is best to coordinate this field with the values set in GWAVA and Guinevere
- **Ham Folder** - Directory name for ham. See the first item in this list
- **Spam Folder** - Directory name for spam. See the first item in this list
- **Delete after export** - Once processed, should the chosen item be deleted? Options from this drop down menu include **Prompt Me**, **Always** and **Never**

Click **OK** to save your changes.



ExportSpam options

Export directory: Ham and Spam will be exported to HAM and SPAM subdirectories under the export directory

Subject Match: Pattern match for subject. Only used with Guinevere.

Maximum file size (bytes). It makes no sense to export files larger than the thresholds set in Guinevere/GWAVA.

50000

Ham Folder Name. Used when selecting the Export Folders option or from command line.

Ham

Spam Folder Name. Used when selecting the Export Folders option or from command line.

Spam

Delete after Export: Should the message, assuming it was sucessfully exported be deleted afterwards?

Prompt me

NOTE: Other switches and options may be available. See the README that comes with this program.

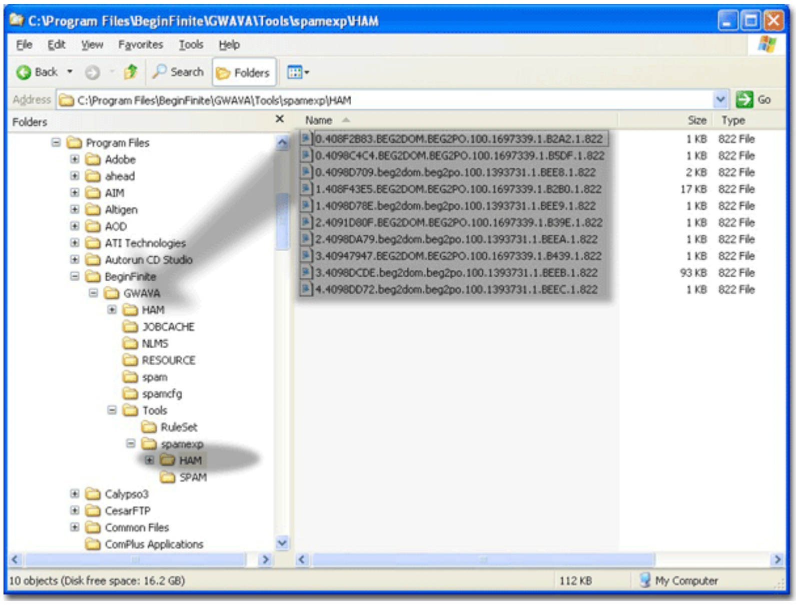
Move the samples

Once a sample of ham has been built, you can move them from the temporary directories, typically:

- \Program Files\BeginFinite\GWAVA\Tools\ham
- \Program Files\BeginFinite\GWAVA\Tools\spam

…to the SmartBlocker Manager directories for access by SmartBlocker Manager for optimization. These are typically in:

- \Program Files\BeginFinite\GWAVA\ham
- \Program Files\BeginFinite\GWAVA\spam



C:\Program Files\BeginFinite\GWAVA\Tools\spamexp\HAM

Address C:\Program Files\BeginFinite\GWAVA\Tools\spamexp\HAM

Name	Size	Type
0.408F2B83.BEG2DOM.BEG2PO.100.1697339.1.B2A2.1.822	1 KB	822 File
0.4098C4C4.BEG2DOM.BEG2PO.100.1697339.1.B5DF.1.822	1 KB	822 File
0.4098D709.beg2dom.beg2po.100.1393731.1.BEE8.1.822	2 KB	822 File
1.408F43E5.BEG2DOM.BEG2PO.100.1697339.1.B2B0.1.822	17 KB	822 File
1.4098D78E.beg2dom.beg2po.100.1393731.1.BEE9.1.822	1 KB	822 File
2.4091D80F.BEG2DOM.BEG2PO.100.1697339.1.B39E.1.822	1 KB	822 File
2.4098DA79.beg2dom.beg2po.100.1393731.1.BEEA.1.822	1 KB	822 File
3.40947947.BEG2DOM.BEG2PO.100.1697339.1.B439.1.822	1 KB	822 File
3.4098DCDE.beg2dom.beg2po.100.1393731.1.BEEB.1.822	93 KB	822 File
4.4098DD72.beg2dom.beg2po.100.1393731.1.BEEC.1.822	1 KB	822 File

10 objects (Disk free space: 16.2 GB) 112 KB

What's next?

Optimize. Optimize. Optimize.

SmartBlocker Manager needs to process your data—your real world ham and spam—in order to create custom rules that benefit you, your users and your institution best.

You might select users with good judgment from different departments within your firm or institution to submit ham and spam for you to use for rules optimization. Asking them to do so regularly will help tweak your spam and ham rules to ensure that false positives are kept to a minimum real spam is blocked.

Selecting users with different needs and responsibilities will be useful for generating your spam/ham samples as they may encounter different types of spam as well as newsletters and mailings which may be borderline spam.

Spam and ham selections from a trusted group of users will help build a strong set of “antibodies” to “immunize” your GroupWise system. On-going rules optimization is the best way to protect your organization from the protean threat of spam and viruses. Don't just delete—mark mail as ham or spam in order to fine-tune your system.

Auto optimize

Use the BCC function in GWAVA 3.5's spam digest release settings to submit released mail into a ham directory of your creating. This will help fine tune SmartBlocker to meet the needs of your users.

Scores and Rules

Optimization in SmartBlocker Manager means the process of assigning *scores* to *rules*.

Scores affect how “strong” a rule is. If this is done incorrectly (or to be more precise, sub optimally), then too much non-spam (known as ham) could be blocked while more spam could get through. Given the sheer number of rules, and the complexity of their interaction, it can be preferable to let a program assign scores. Doing it by hand is a daunting task for more than a handful of rules.

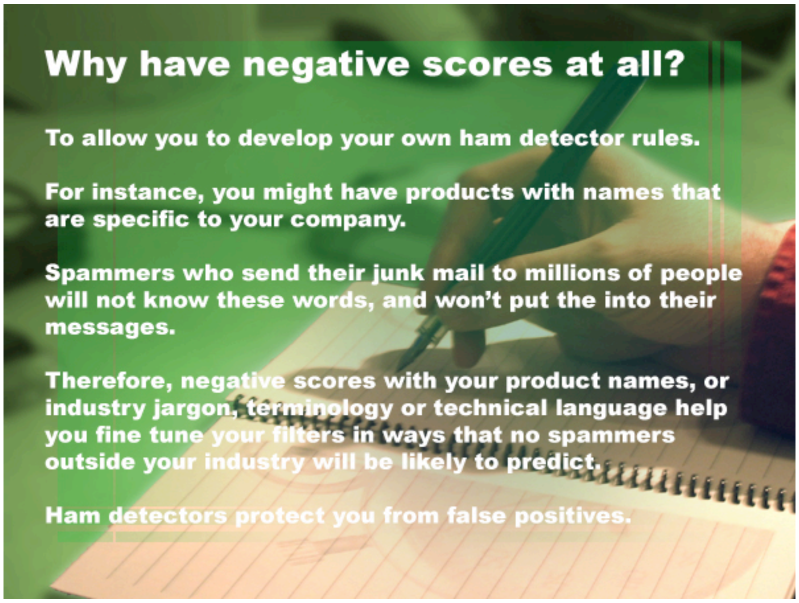
Rule Maintenance refers to the functions allowing you to view, search and test rules in the rule set. Users can:

- View all rules as a list
- Search or limit the list
- View and edit individual rules
- Test changes to the rules against the spam database or text that they enter.
- See how the rules interact with one another, and exactly which spam they catch.
- SmartBlocker Manager alters the configuration files directly to reflect any changes you make.

Vector maintenance refers to functions for maintaining a database of user-supplied spam and non-spam for testing and optimizing your rules. SmartBlocker Manager is a remarkable tool for configuring ham and spam rules easily.

While it has immense capabilities, the down side to its immensely powerful customization abilities is rules for processing mail and junk mail can be misconfigured as well as properly configured.

The single most important factor in understanding how to properly configure SmartBlocker Manager is to understand how to properly assemble its statistical samples. It cannot be said often enough: the more samples of ham and spam submitted, the more accurately SmartBlocker Manager will be able to defend your inbox against junk mail.



Why have negative scores at all?

To allow you to develop your own ham detector rules.

For instance, you might have products with names that are specific to your company.

Spammers who send their junk mail to millions of people will not know these words, and won’t put the into their messages.

Therefore, negative scores with your product names, or industry jargon, terminology or technical language help you fine tune your filters in ways that no spammers outside your industry will be likely to predict.

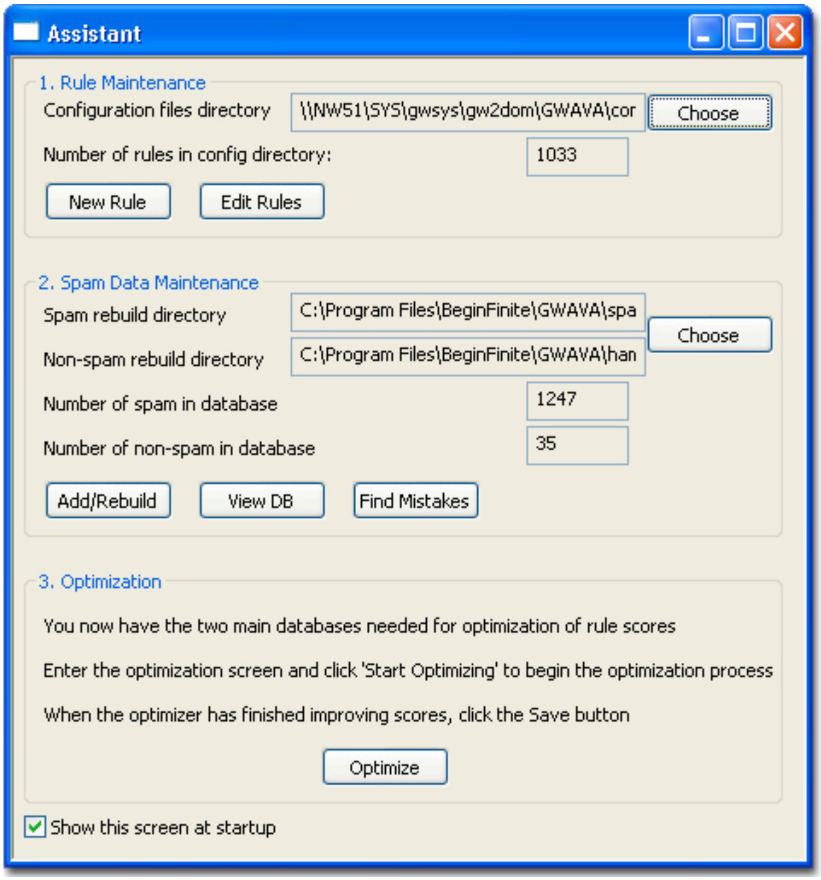
Ham detectors protect you from false positives.

Getting Started with the Assistant

When you first run SmartBlocker Manager, the Assistant screen is presented. It is an organizer for getting to the exact functions you need for quick fine tuning: **Rule Maintenance**, **Spam Vector Maintenance** and **Optimization**. If nothing else, these three steps is the SmartBlocker Manager process in one easy list.

The first time SmartBlocker Manager runs, the last component will have a small warning message cautioning that there are no rules of any type in your database.

This screen is presented by default and will be shown each time SmartBlocker Manager is run. This can be switched off by means of the checkbox at the bottom of the screen.



Assistant

1. Rule Maintenance

Configuration files directory: \\NW51\SYS\gwsys\gw2dom\GWAVA\cor

Number of rules in config directory: 1033

2. Spam Data Maintenance

Spam rebuild directory: C:\Program Files\BeginFinite\GWAVA\spa

Non-spam rebuild directory: C:\Program Files\BeginFinite\GWAVA\han

Number of spam in database: 1247

Number of non-spam in database: 35

3. Optimization

You now have the two main databases needed for optimization of rule scores

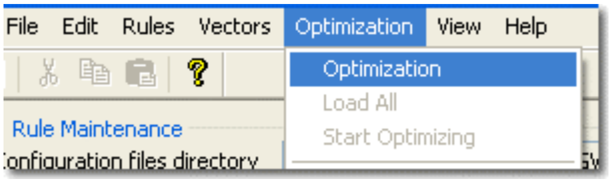
Enter the optimization screen and click 'Start Optimizing' to begin the optimization process

When the optimizer has finished improving scores, click the Save button

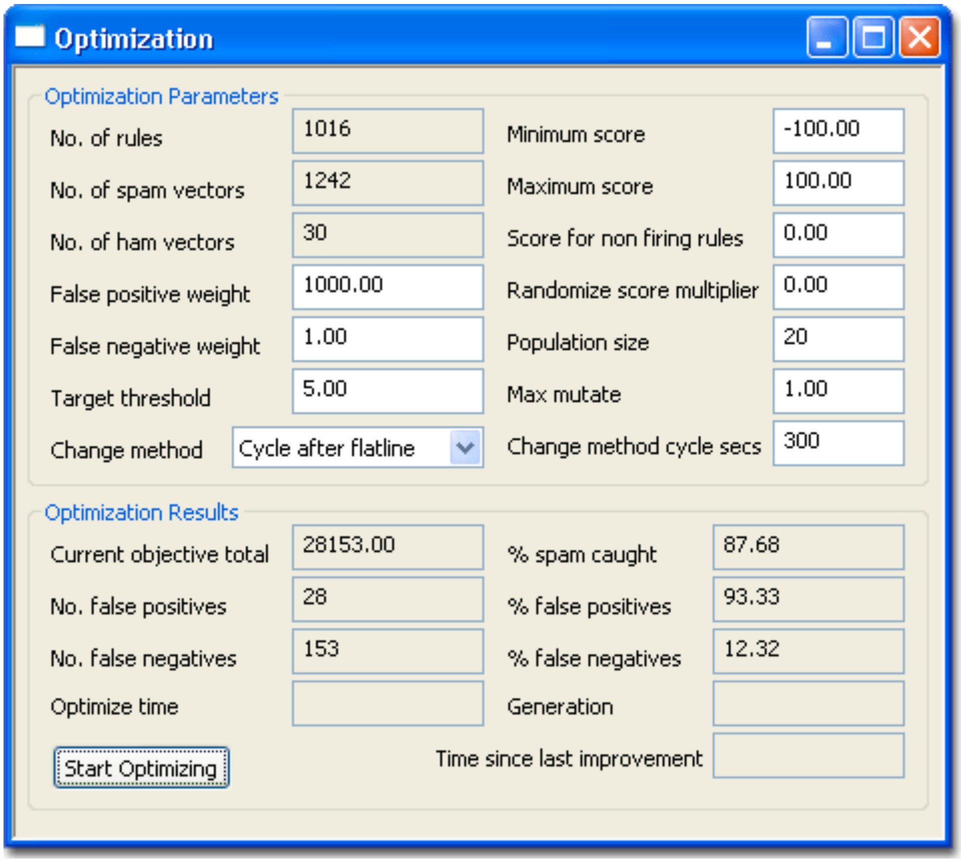
☑ Show this screen at startup

First Action

If this is the first time you are running SmartBlocker Manager, choose **Optimization** from the **Optimization** menu.



The Optimization Screen



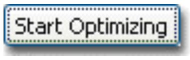
Optimization Parameters

No. of rules	1016	Minimum score	-100.00
No. of spam vectors	1242	Maximum score	100.00
No. of ham vectors	30	Score for non firing rules	0.00
False positive weight	1000.00	Randomize score multiplier	0.00
False negative weight	1.00	Population size	20
Target threshold	5.00	Max mutate	1.00
Change method	Cycle after flatline	Change method cycle secs	300

Optimization Results

Current objective total	28153.00	% spam caught	87.68
No. false positives	28	% false positives	93.33
No. false negatives	153	% false negatives	12.32
Optimize time		Generation	
		Time since last improvement	

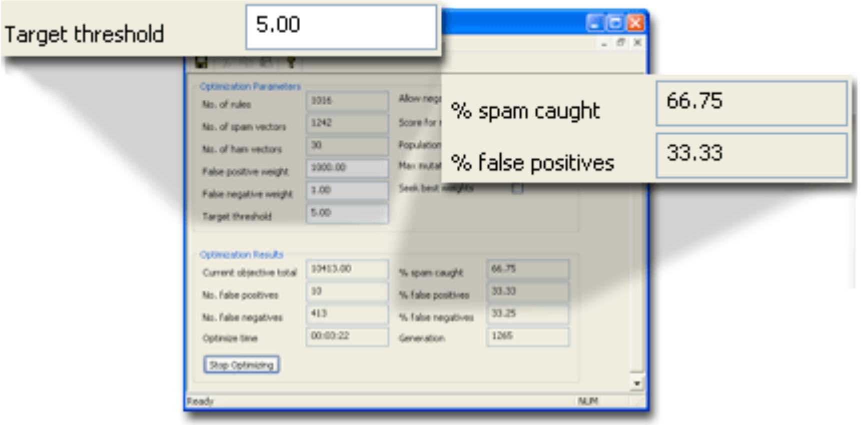
While there are many options on this screen, new users to SmartBlocker Manager can start using it quickly and without customization. Click the **Start Optimizing** button.



When *% spam caught* and *% false positives* have stopped changing (and are at a satisfactory level), then click **Stop Optimizing** and then click the **Save** button.

The target threshold value should ideally match your GWAVA settings. However, experienced users may experiment with threshold settings to obtain the optimum balance between caught spam and false positives.

Remember: The wider your samples of both ham and spam the better.



Target threshold 5.00

% spam caught 66.75

% false positives 33.33

Optimization Parameters

No. of rules	1016	Allow nega	
No. of spam vectors	1242	Score for r	
No. of ham vectors	30	Population	
False positive weight	1000.00	Max mutat	
False negative weight	1.00	Seek best weights	□
Target threshold	5.00		

Optimization Results

Current objective total	10413.00	% spam caught	66.75
No. false positives	10	% false positives	33.33
No. false negatives	413	% false negatives	33.25
Optimize time	00:03:22	Generation	1265

Optimization Parameters

No. of rules	The number of rules in your configuration files. Both user defined, and those shipped with GWAVA are counted.
No. of spam vectors	A count of the number of spam messages in your database.
No. of ham vectors	A count of the number of "ham" samples in your database.
False positive weight & False negative weight	Values that represents the relative "badness" of false positives and false negatives. A false positive is a ham that has been classed as spam. A false negative is a spam that has been classed as ham. It is suggested that false positives (which are real messages being missed) are much worse than receiving a few spam messages. In the example screen shot, false positives have been weighted at 1000 while false negatives weigh only 1.00.
Target threshold	The value that we are optimizing towards. The ideal optimized scenario will be such that all spam will be scored above or equal to this threshold and all hams below it. This value is quite arbitrary. It could be 10 or 1000, or any positive value. 5 is the default value for GWAVA.
Minimum score	The minimum value in your configuration.
Maximum score	The maximum value in your configuration.
Score for non firing rules	What score should the program give to rules that never fire in your sample database of ham and spam? The default value is 1. This value is needed otherwise the optimization process has no information to work with.
Randomize score multipliers	This option is useful for starting off an optimization by providing a multiplier for rules; or it can be used to re-zero a system by multiplying rules by 0.
Population size	This value refers directly to how the optimization algorithm works. It is currently a Genetic Algorithm which tries many different score sets as individuals then "breeds" the best individuals together. It is modeled around the concept of evolution and survival of the fittest. Population size simply reflects many how individuals there are. Larger populations will have more "genetic diversity" but unfortunately take the algorithm longer to calculate, in direct proportion to population size. The default value of 5 has been shown to be effective, but users are free to experiment with values as low as 2 or as high as 1000.
Max Mutate	Interbreeding is not the only way that scores are altered. There is also a very small random mutation of scores, to introduce more "genetic diversity."

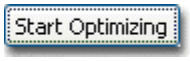
	This value can be altered, but the default of 1 has been shown to be effective. This means that the maximum amount an individual score could mutate in any generation is 1.0.
Change Method	There are eight methods for changing the way in which SmartBlocker Manager changes its optimization methods from random to systematic searches: ■ **Random Mutation -** Each generation selects randomly ■ **N-Section Search** - Seeks best weights ■ **Solve to Lower Limit** - Searches for the highest ham score and lowest spam score above it. Changes weight to put spam on the threshold. ■ **Solve to Upper Limit** - Searches for the highest ham score and lowest spam score above it. Changes weight to put ham just below the threshold. ■ **Flip-Flop Between Limits** - Reversal between upper and lower limits ■ **Cycle Methods Periodically** - The cycle secs box sets the amount of time before cycling to the next method ■ **Cycle After Flatline** - The cycle secs box sets the amount of time a method must produce no improvements before changing to another method. ■ **Randomly Choose Method** - Any of the above Feel free to experiment to obtain the best results for your population sample.
Change method cycle seconds	This data entry field is used to control how often methods change. This field only applies to "cycle after flatline" and "cycle periodically".

Optimization Results

Current objective total	The objective total is a summary of how far the algorithm thinks it has got. It is the number of false positives multiplied by the false positive weight, plus the number of false negatives times the false negative weight. The lower this total, the better the scores are at classifying ham and spam. The lowest possible score is zero, which would mean that there are no false positives or negatives. This is very difficult to achieve in practice.
No. false positives & No. false negatives	The total number of misclassified messages of each type at this point in time.
Optimize time	Amount of time the algorithm has been optimizing.
% spam caught	The number of spam messages that have been correctly classified divided by the number of spam e-mails in the database, expressed as a percentage. The range will be somewhere between zero and 100%. Naturally, we aim for 100%, but in practice will fall short of it, depending on the quality of our rules, and the amount of tricky spam and the samples of ham messages in your database.
% false positives	The number of falsely classified hams divided by the number of hams in the database, expressed as a percentage. SmartBlocker Manager aims for zero per cent. This is often achievable,

	depending on the rules and the database. Since false positives are far worse than false negatives, it is suggested that if the optimization is not quite reaching 0% after a long time, that users look consult the Spam Vector Maintenance screens to find the last few messages that are being incorrectly classified. This may show why the algorithm is having trouble – perhaps the last few messages are so similar to spam that it is actually impossible to differentiate them using the current rule set. In that case, alterations to the rules are needed, or you could choose to white list the senders in GWAVA, thus excluding these messages from being sent to the heuristic anti-spam engine. This is often needed for newsletters, which contain similar marketing messages and mailing lists to spam.
% false negatives	The number of falsely classified spam divided by the number of spam messages in the database, expressed as a percentage. This number should be equal to 1 – (% spam caught). It may also be thought of as OR “% spam not caught”.
Generation	The genetic algorithm used to select the scores goes through a steadily increasing number of generations. It will get through these generations faster or slower, depending on the population size, the number of ham and spam messages, and which change method is selected"
Time since last improvement	This reports the length of time since a change was recorded.

Start Optimizing



This button starts the optimization process. When you click it, the title of the button changes to **Stop Optimizing**. Click it again to stop the optimization process. Optimization will continue until you click Stop Optimizing or close the window.

- **Note**: When SmartBlocker Manager compiles rules, it creates a COMPILED.PCR file in SPAMCFG directory on front end If this file is deployed to a live SPAMCFG, it has these effects:
- Other .CF,.CFG is ignored
- Faster loading (precompiled)

Save Changes

When you have finished optimizing, or have decided that further rule changes are necessary, you have the option to save any changes, by clicking the **Save** button. Regardless, upon quitting the Optimization window you will be asked whether you wish to save your changes or not.

Clicking **Save** will store any changes entered to the parameters in the optimization screen, and will save the latest “Population” of scores. It also separately saves a scores.cf file that contains the very best individual’s scores. GWAVA uses this file directly.

Producing the scores.cf file could be considered almost the entire purpose of using the optimization screen.

What is the difference between optimization and rule maintenance?

As the spam filtering rules work intimately with one another, so do the functions and features of SmartBlocker Manager. Optimization tests the rule set against your ham/spam database (a.k.a. the vector set), adjusting the scores for each rule to maximize the spam blocked whilst minimizing the ham blocked to zero (if possible).

You will encounter the need for Rule Maintenance functions when

- Spam is especially tricky and beats rules that should have caught it
- Or when ham is being blocked as spam by rules

Spam vector maintenance is necessary so that the optimizer works with real data representing the kind of ham and spam you get. Without good spam and ham data, the optimizer can only guess at appropriate weightings for rules. Because spam changes as time passes (so that it can beat anti-spam systems, mainly), this data set must be kept up to date.

What is Optimization in GWAVA Anti-spam?

Optimization is the process of assigning scores to rules. This maximizes the spam caught and minimizes the ham falsely blocked.

Scores govern how strongly rules affect the decision about whether messages are classified as spam or ham. This is needed because there can be any number of rules. One thousand rules ship with GWAVA 3, and any number can be added.

- **Note:** Optimization compares samples of Spam and Ham (provided by you) and adjusts the scores based on the user-supplied sample. If the samples are not representative of the kind of e-mail your organization receives, you may experience negative results. That means that you need a big and diverse vector set (that means samples). That means a minimum of 500 spam and a500 ham samples. Or 20 samples (10 ham & 10 spam) per GroupWise user.

  For example, if you have 100 users, you will need at least 2000 samples. If you have 1,000 users, you need a minimum of 20,000samples for the vectors to be statistically relevant. There is no limit. The bigger the sample, the better.

Choosing scores by hand for every rule would be almost impossible for most users. Even choosing scores for their own rules may be difficult, as it is not always clear what the effect will be when tens of thousands of messages interact with the rule.

When a message is passed to GWAVA’s anti-spam system, it is scanned against every anti-spam rule, both created by us, and created by you. The number of times every rule “fires” is counted.

Every rule that fires at least once has its score added to a total. If this total exceeds a user defined threshold, then the message is deemed to be spam.

An example

We have rule in GWAVA detects the word Viagra in message subject lines. It has a score of 3.0. Another rule detects the existence of three consecutive exclamation marks in subject lines (!!!). This rule has a score of 2.5. The threshold for spam is set to 5.0. So a message that contains only Viagra in the subject would fire once, adding 3.0 to the total score for the message. This would not be sufficient to classify it as spam (in this example). If it also had “!!!” then it would have a further 2.5 added, bringing the total to 5.5 which would be enough to classify it as spam.

Some rules can be set to “multifire” which means that the score will be counted multiple times – one for each fire of the rule. So a subject line containing “Viagra Viagra Viagra” would score 9 if the rule described above were set to multifire.

It is also possible to put a lower bound for the number of fires on a rule. This would mean a rule fires at least that number of times before it starts affecting the total score for a message.

What's the score?

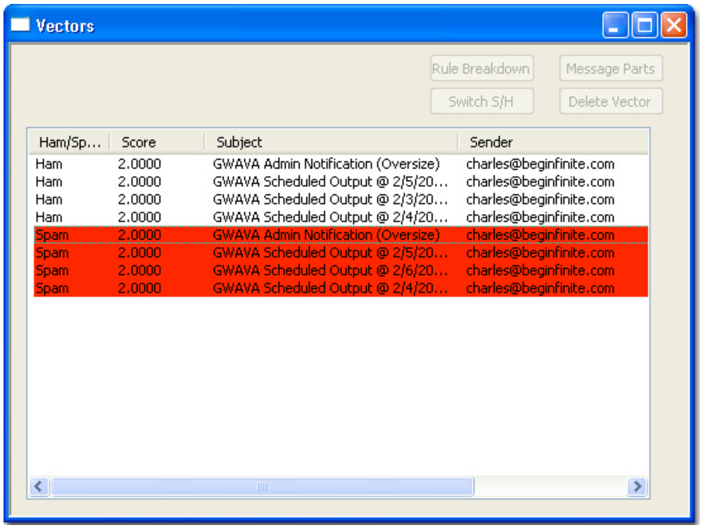
So how does one choose scores for rules? There is no simple answer to this question. Essentially, one wants a set of scores that will

- Work in combination without causing side effects
- Block spam, and let real mail through

In some cases it is easy to see that a rule should be set so that it will push a message over the threshold on its own – for example anything referring directly to a known spam product. But other spam indicators are subtler and only in combination will they detect spam with high probability.

In most cases it is preferable to have a computer program decide these weights against a good sample of spam and ham. That is the purpose of the Optimization screen. It may take a few minutes to open, as it has to load the entire current rule set and all of the ham and spam in your corpus.

Not working? Find Mistakes!



Ham/Sp...	Score	Subject	Sender
Ham	2.0000	GWAVA Admin Notification (Oversize)	charles@beginfinite.com
Ham	2.0000	GWAVA Scheduled Output @ 2/5/20...	charles@beginfinite.com
Ham	2.0000	GWAVA Scheduled Output @ 2/3/20...	charles@beginfinite.com
Ham	2.0000	GWAVA Scheduled Output @ 2/4/20...	charles@beginfinite.com
Spam	2.0000	GWAVA Admin Notification (Oversize)	charles@beginfinite.com
Spam	2.0000	GWAVA Scheduled Output @ 2/5/20...	charles@beginfinite.com
Spam	2.0000	GWAVA Scheduled Output @ 2/6/20...	charles@beginfinite.com
Spam	2.0000	GWAVA Scheduled Output @ 2/4/20...	charles@beginfinite.com

New in SmartBlocker is the Find Mistakes button on the Helper screen. Clicking this button analyzes your spam and ham corpus sort by sender then ham/spam status, looking for mail that may have been submitted to both directories, or may be have contradictory conditions.

If GWAVA appears to be not blocking e-mail the Find Mistakes process may reveal why. In the example screen, mail from the same address is marked as both ham and span. In this case, the reason why is that spoofed headers from the sender are marked as spam, but properly formed mail from is marked as spam.

This is causing confusion.

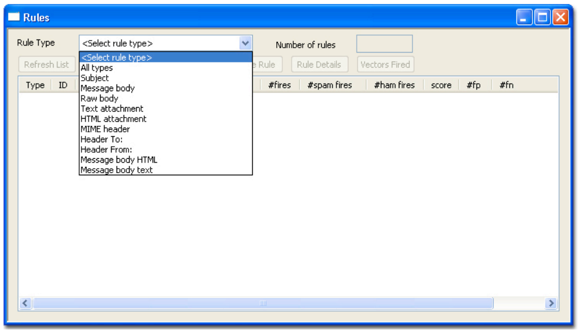
Select a rule from the results window and choose **Rule Breakdown, Message Parts, Switch to Ham/Spam** or **Delete Vector** to correct your filtration rules.

Rule Maintenance

Rule maintenance in this manual refers to the functions provided for making sure your SmartBlocker Manager rule set is up-to-date, and catching spam. These can be viewed, edited and tested. There are two main screens – the Rules screen that shows lists of rules, and Rule Detail screens, which break rules down into component parts, and allow you to test them.

To enter the Rules screen, select from the Rules menu View Current Rule.

- **Note**: Opening may take a minute as rules may not yet be parsed.



View rules by selecting a rule type from the drop down list.

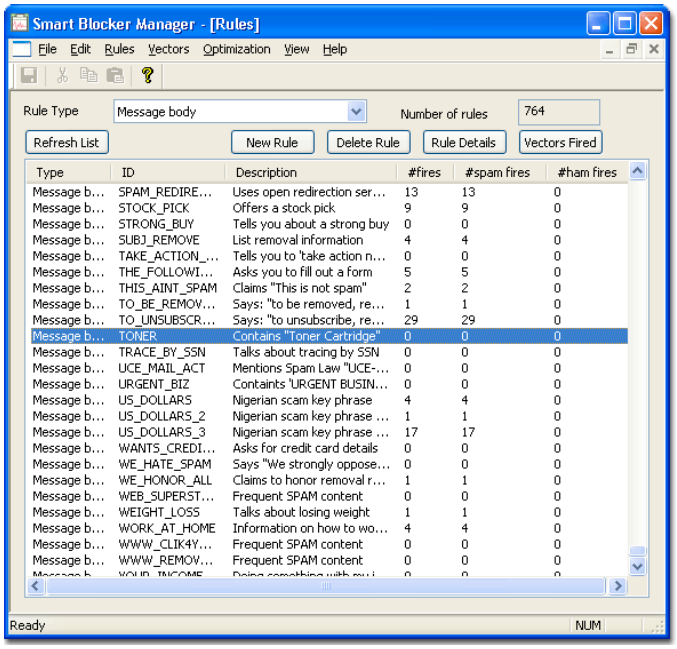
- Subject
- Message body
- Raw body
- Text attachment
- HTML attachment
- MIME header
- Header to
- Header from
- Message body HTML
- Message body text

An example

This is a scrollable list of every rule of type "Message body." The columns shown are described as follows:

- **Type**: The type of rule
- **ID**: The ID of the rule in the .cf files. These IDs are unique – no two rules may have the same ID.
- **Description**: The description of the rule in English. This is also contained in the .cf files.
- **#fires**: How many times this rule fires on the current ham/spam database.
- **#spam fires**: How many times this rule fires in spam in the database.
- **#ham fires**: How many times this rule fires in ham in the database.
- **Number of False Positives**
- **Number of False Negatives**

Sort the columns by clicking on the titles.



Rule Type: Message body

Number of rules: 764

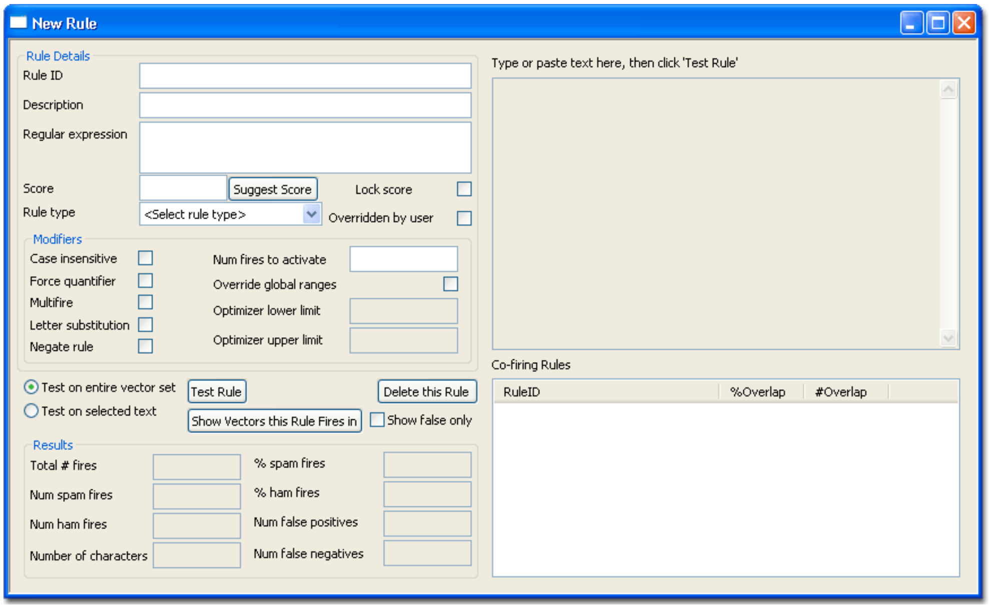
Type	ID	Description	#fires	#spam fires	#ham fires
Message b…	SPAM_REDIRE…	Uses open redirection ser…	13	13	0
Message b…	STOCK_PICK	Offers a stock pick	9	9	0
Message b…	STRONG_BUY	Tells you about a strong buy	0	0	0
Message b…	SUBJ_REMOVE	List removal information	4	4	0
Message b…	TAKE_ACTION_…	Tells you to 'take action n…	0	0	0
Message b…	THE_FOLLOWI…	Asks you to fill out a form	5	5	0
Message b…	THIS_AINT_SPAM	Claims "This is not spam"	2	2	0
Message b…	TO_BE_REMOV…	Says: "to be removed, re…	1	1	0
Message b…	TO_UNSUBSCR…	Says: "to unsubscribe, re…	29	29	0
Message b…	TONER	Contains "Toner Cartridge"	0	0	0
Message b…	TRACE_BY_SSN	Talks about tracing by SSN	0	0	0
Message b…	UCE_MAIL_ACT	Mentions Spam Law "UCE-…	0	0	0
Message b…	URGENT_BIZ	Containts 'URGENT BUSIN…	0	0	0
Message b…	US_DOLLARS	Nigerian scam key phrase	4	4	0
Message b…	US_DOLLARS_2	Nigerian scam key phrase …	1	1	0
Message b…	US_DOLLARS_3	Nigerian scam key phrase …	17	17	0
Message b…	WANTS_CREDI…	Asks for credit card details	0	0	0
Message b…	WE_HATE_SPAM	Says "We strongly oppose…	0	0	0
Message b…	WE_HONOR_ALL	Claims to honor removal r…	1	1	0
Message b…	WEB_SUPERST…	Frequent SPAM content	0	0	0
Message b…	WEIGHT_LOSS	Talks about losing weight	1	1	0
Message b…	WORK_AT_HOME	Information on how to wo…	4	4	0
Message b…	WWW_CLIK4Y…	Frequent SPAM content	0	0	0
Message b…	WWW_REMOV…	Frequent SPAM content	0	0	0
Message b…	YOUR_INCOME	Doing something with mu i…	0	0	0

If you click with the left mouse button on any line in this list, the buttons **Rule Details** and **Vectors Fired** become active. Clicking those buttons will then apply that function to the selected rule. You can also get the same effect with double-clicks. Double clicking a line with the left button has the same effect as clicking the rule and selecting **Rule Detail**. Double clicking a line with the right mouse button has the same effect as clicking the rule and selecting **Vectors Fired**.

New Rule

Selecting the **New Rule** button presents the Rule Details screen, allowing you to edit and save a new rule.

All of the elements to generate a rule, no matter how simple or complex, can be found on this screen. The many components of this screen are detailed throughout this section of the GWAVA manual.



Rule Details

Selecting the **Rule Details** button for any selected line in the rule list opens a Rule Details screen for that rule.

Vectors Fired

Selecting the **Vectors Fired** button for any selected line in the rule list takes you to a screen summarizing which ham/spam messages (if any) for which this rule fires. This screen is described in more detail under Spam Vector Maintenance.

Rule Details

This screen can be entered in a number of ways – from the Rules Screen, or from a ham/spam message analysis screen, or even from another Rule Details Screen. It will either be a new rule, and every field will be empty and waiting to be filled out, or it will show details of an existing rule.

Specific details on the Rule Details of controls

Rule ID	Each rule has a unique identifier in the GWAVA configuration files. Once set, this can't be altered for a rule. If you are creating a new rule, you can enter this value once. Consistency with the other rules will be checked, and from then the ID will be locked in.
Description	A text description of the purpose of a rule.
Regular Expression	The actual "Regular Expression" used in the GWAVA configuration files. This expression is run over the particular part of a message defined in "rule type." For example if the words "mailing list" appear in the body of a message, then this rule will fire.
Rule Type	The part of the message this rule is to be run over to test for fires. There are currently 10 defined rule types, corresponding to 10 different pieces of a raw MIME message
Score	The current score for this rule. This may have been user defined, or it may have been automatically generated by the Optimization Screen.
Suggest Score	If you cannot judge what a score should best be, click this button, and SmartBlocker Manager will suggest a score based on a narrowing search. This is not guaranteed to be the best possible score, but it will never make the total performance on the ham/spam database worse. Suggest score mirrors Solve to Lower Limit. If the rule is bad, a score of zero will be suggested. This button can be reclicked so you can edit rule quickly.
Lock Score	If you are sure what the score should be then you can lock a score by ticking this box. The optimizer will not alter this score. For example, if the rule is a company specific name and you know it should therefore be a strong "ham detector," you might want to give it a large negative score and lock it. Locking a score reduces work on the optimizer too. But it is only recommended if you are sure.
Overridden by user	Any rule shipped with GWAVA may be overridden by the administrator. This is the exception to the uniqueness of ID criterion. If a rule exists with the same ID in a user configuration file, or has been entered using this screen, then it overrides the preexisting GWAVA rule. This may be needed if a GWAVA rule is almost but not quite right, in an important way for some organization. Future revisions of GWAVA shipped rules will not then destroy this rule. (Deleted shipped riles go into deleted.cfg, and are kept in this file even if GWAVA distributes updated rules.) Another way to achieve the same effect would be to create a rule with a different name, and set the score in the preexisting rule to be zero, thus disabling it.

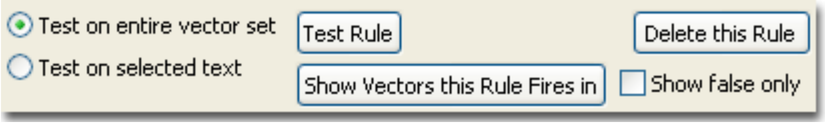
Modifiers

Within the Rule Details group of controls there is a subgroup of Modifiers. These correspond to the modifier switches that are in the GWAVA configuration files, which occur after the definition of a regular expression. They are:

Case insensitive	Makes a rule insensitive to capitalization. Conversely, the absence of a tick here means that the rule is sensitive to case. In the screen depicted, the text "Mailing List" would also fire. If this box were not ticked, then the capital M and L would cause this text to not fire.
Force quantifier	Makes any numerical quantifiers for a rule work correctly. To leave this unticked changes any {m,n} quantifier to act as a "*". An unfortunate consequence of the speed at which GWAVA's anti-spam rule checker works is that for some kinds of expressions it can take a lot of memory. {m,n} quantifiers with large "n" values are particularly bad for this, and can often take too much memory. So proper quantification is off by default. But setting this modifier can turn it on, if it is needed. "*" on the other hand, takes very little memory. Other implementations of regular expressions struggle badly if "*" is included a lot, particularly at the end of an expression.
Multifire	A multifire rule will score multiple times if it fires multiple times in a message. If we set the depicted rule to multifire then every time a specific element occurred in the message body, it would add to the total.
Letter substitution	Gets around the various ways of "munging" a word to make it harder to detect. It is common to write Viagra as v1@gr@, for instance. Turning on this modifier will allow a rule to fire on any substitutions that may have been made.
Negate rule	Enabling this means it "fires if it doesn't fire". Eg if it fired once in a message, then negate rule means that it would not add to the score. If it didn't fire on a message, negate rule would mean it DID add to the score. It is used to search for the *absence* of message elements and strings.
Num fires to activate	Sets a threshold for the minimum number of fires for a rule to fire. If you set the depicted rule to have a "num fires to activate" value of 5 then on the 5th occurrence of the offending word, this rule would fire. Any less than five and it will not fire. Setting this value to zero means that a rule will fire on its first occurrence.
Override global ranges	This setting permits this rule to trump the global ham and spam value settings.
Optimize lower limit	This data entry field is used to set the lower limit for optimizing this rule.
Optimize upper limit	This data entry field is used to set the lower limit for optimizing this rule.

Other Functions of the Rule Details Screen

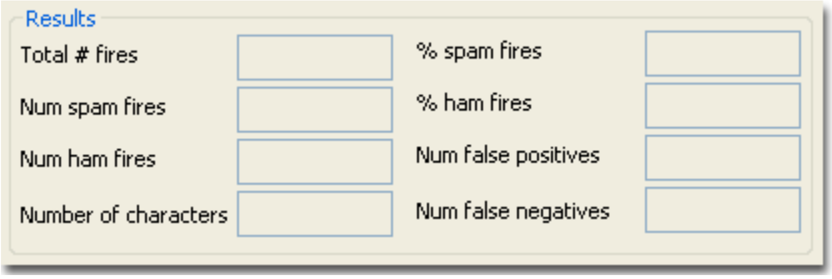
The remaining functions on this screen are for information and testing alterations to a rule.



Testing a Rule
Using the **Test Rule** button will show you the effect of a rule change or how a rule is doing without changes,
This will run the rule over either the ham/spam database, or a piece of text you have entered. The radio button in this diagram selects between the two different kinds of tests. Enabling the **Show false only** checkbox will show only false positives and false negatives.

Show Vectors This Rule Fires

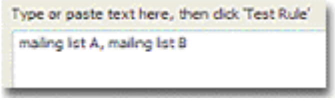
Clicking this button will take you to a ham/spam database screen, which shows exactly which messages this rule is currently firing in. More detail on the ham/spam database screen is given below (Spam Vector Maintenance).



In our example, **Test on entire vector set** is selected. If you click **Test Rule** in the Results group, the performance of this rule is shown.

The **Total number of fires** shows how many times this rule activates in the current ham/spam database. **Num spam fires** shows only the fires in spam, likewise the **Num ham fires** shows only the fires in ham with corresponding **Percentage of spam** and **Percentage of ham** firings. (Num spam fires + Num ham fires should be equal to Total # fires.) Also listed are the **Number of false positives** and **Number of false negatives**.

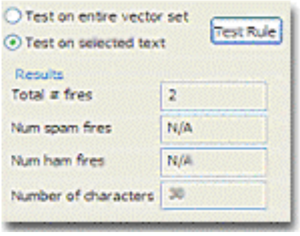
The Number of characters box is left blank because this is of little interest when testing against the ham/spam database.


Type or paste text here, then click 'Test Rule'

mailing list A, mailing list B

If you select **Test** on selected text then the box on the top right of the screen entitled **Type or paste text here, then click Test Rule**, becomes active.

We have typed “mailing list A, mailing list B” into the box, and then clicked **Test Rule**. The Results group now shows only results for running this rule over that text.



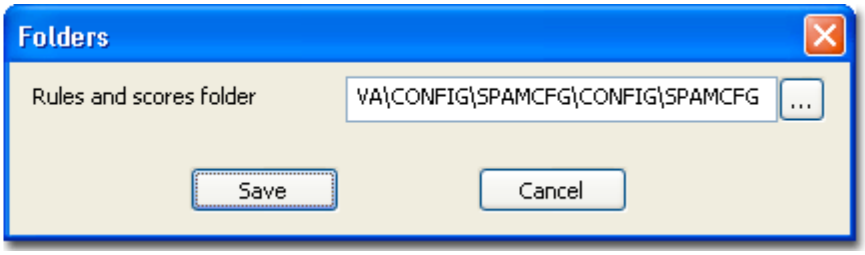
Total # fires: 2
Num spam fires: N/A
Num ham fires: N/A
Number of characters: 30

Notice that Num spam fires and Num ham fires now show N/A. This is because SmartBlocker Manager does not yet know whether the text is ham or spam. Nor does it matter for the purposes of testing the rule’s functioning. The Total # Fires shows a total of two. This is because the phrase “mailing list” occurs twice.

Character Count

Notice that he number of characters shows 30. This can be useful if you pasted text that contained non-visible characters.

Folders



Folders

Rules and scores folder: VA\CONFIG\SPAMCFG\CONFIG\SPAMCFG

The Edit menu also contains an entry for Folders. Selecting this will present a dialogue box for choosing where rules and scores will be stored. To change the location from the default, click the … button and navigate to your preferred location.

Delete This Rule

Clicking this button shall present two dialogue boxes in succession. The first asks you to confirm the deletion. Click **OK** to delete or **Cancel**. If you click **OK**, another screen will present asking if you wish to save changes now. Click **OK** to save or **Cancel** to stop without saving any alterations.

Co-firing Rules

This list shows what rules are currently also firing in a message when this rule fires. It is used to detect when a rule is overlapping with another rule. In some cases, two rules may have very similar functions and purposes. If so, it is often preferable to have only one more powerful rule, or to exclude the overlap by altering both rules.

#Overlap

The RuleID column identifies what rule is co-firing. The #Overlap column shows how many messages in which both rules fire. The **%Overlap** field divide the **#Overlap** by the greatest number of fires between the two rules.

In the example depicted earlier, the rule NO_REAL_NAME fires in 1488 messages that PHRASE_MAILING_LIST also fires in. And the %Overlap of 5.24 means that these 1488 fires are %5.24 of the total num of times “NO_REAL_NAME” fires.

Tip: Double-clicking the line in the list presents a Rule Detail screen for that rule.

Spam Vector Maintenance

Spam Vector Maintenance refers to functions for maintaining a database of spam and non-spam (a.k.a. ham) to test your rules against, and for the optimization function to optimize against. Users can add spam or ham to the database from their own store, or publicly available stores.

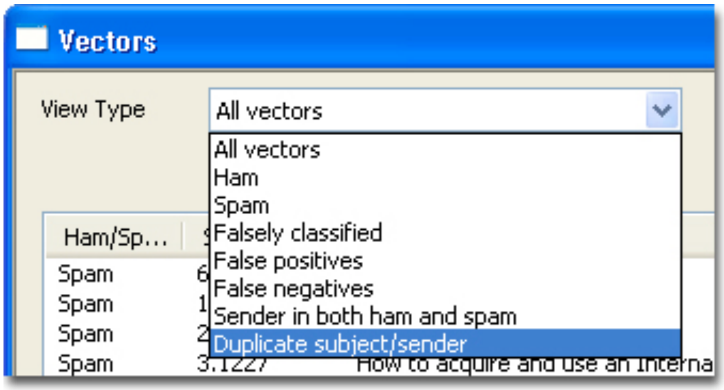
There are four main screens in Spam Vector Maintenance:

- **Vectors**: Presents an overall list of messages in your database. This list can be limited to those firing certain rules. It can be sorted. And from it you can access Rule Breakdown and Message Parts for any selected message.
- **Rule Breakdown**: A view of what rules are firing in any particular message and what the rule-score total breakdown is. It also gives you access to the Message Parts screen for the message, or the Rule Detail, for any rule that is firing.
- **Message Parts**: Presents a detailed breakdown of what GWAVA sees are the various parts of this message. Headers, bodies, HTML raw, etc are all accessible.
- **Add Vectors**: To alter the spam/ham database. You can add individual messages, or a whole search pattern. You can also delete the database, and rebuild it from scratch here.

Tip: Archive Viewer: The GWAVA Archive Viewer allows users to add processed messages to the SmartBlocker Manager ham and spam ruleset.

Vectors

The Vectors menu has two options: Add New Spam/Ham and View Current Vectors. Selecting View Current Vectors presents a vectors management screen. To get a list of ham/spam messages select a view type.

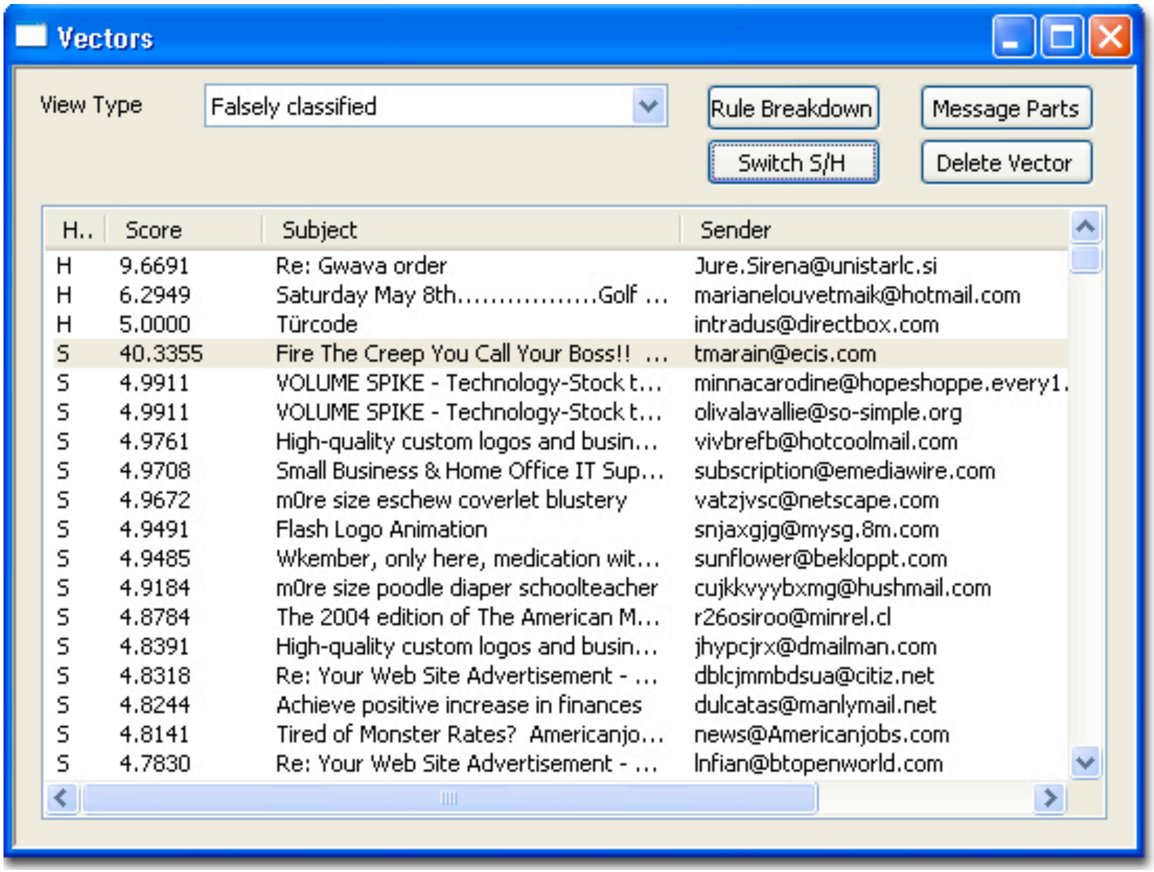


View Type: All vectors

- **All vectors:** presents the complete spam/ham database.
- **Ham:** shows only ham.
- **Spam:** shows only spam.
- **Falsely classified:** presents every message that the current rule and score set classifies incorrectly.
- **False positives:** shows ham that the rule and score set thinks are spam.
- **False negatives:** shows spam that the rule and score set thinks are ham.
- **Sender in Both Ham and Spam** - This identifies corpus database elements which have senders reported in both as ham and spam
- **Duplicate Subject/Sender** - This identifies subjects and senders appearing twice in your corpus.

There are also two buttons: **Rule Breakdown** and **Message Parts**. These allow you to view which rules fired and header information about selected messages.

Selecting All Vectors generates an example similar to:



View Type: Falsely classified

H..	Score	Subject	Sender
H	9.6691	Re: Gwava order	Jure.Sirena@unistarlc.si
H	6.2949	Saturday May 8th.................Golf ...	marianelouvetmaik@hotmail.com
H	5.0000	Türcode	intradus@directbox.com
S	40.3355	Fire The Creep You Call Your Boss!! ...	tmarain@ecis.com
S	4.9911	VOLUME SPIKE - Technology-Stock t...	minnacarodine@hopeshoppe.every1.
S	4.9911	VOLUME SPIKE - Technology-Stock t...	olivalavallie@so-simple.org
S	4.9761	High-quality custom logos and busin...	vivbrefb@hotcoolmail.com
S	4.9708	Small Business & Home Office IT Sup...	subscription@emediawire.com
S	4.9672	m0re size eschew coverlet blustery	vatzjvsc@netscape.com
S	4.9491	Flash Logo Animation	snjaxgjg@mysg.8m.com
S	4.9485	Wkember, only here, medication wit...	sunflower@bekloppt.com
S	4.9184	m0re size poodle diaper schoolteacher	cujkkvyybxmg@hushmail.com
S	4.8784	The 2004 edition of The American M...	r26osiroo@minrel.cl
S	4.8391	High-quality custom logos and busin...	jhypcjrx@dmailman.com
S	4.8318	Re: Your Web Site Advertisement - ...	dblcjmmbdsua@citiz.net
S	4.8244	Achieve positive increase in finances	dulcatas@manlymail.net
S	4.8141	Tired of Monster Rates? Americanjo...	news@Americanjobs.com
S	4.7830	Re: Your Web Site Advertisement - ...	lnfian@btopenworld.com

The columns in this list are:

- **H/S**: **H** indicates a ham message, **S** indicates a spam message
- **Score**: The total score a message has received from the rule/score set.
- **Subject**: The subject line of the message
- **Sender**: The sender line of the message

These may be sorted by any column, in either ascending or descending order by clicking the column title.

If you click on a particular line in this list, then the **Rule Breakdown** and **Message Parts** buttons will become active. Clicking on either of them will take you to the respective screens for the highlighted message. The same effect can be achieved by double-clicking the line with the left mouse button for Rule Breakdown and the right mouse button for Message Parts.

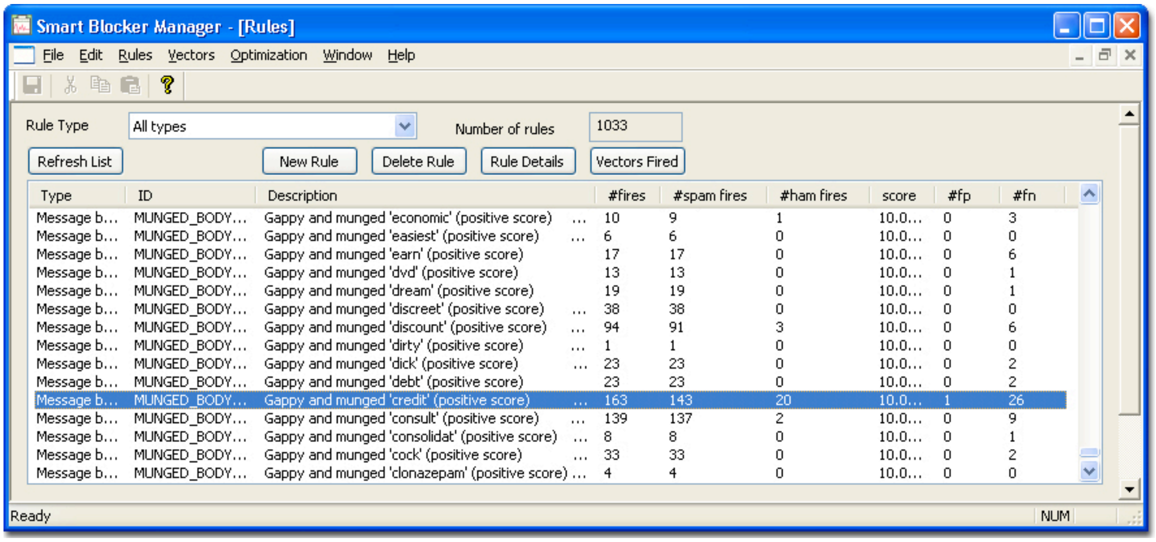
This screen can also be entered from other screens, in which case it will be automatically narrowed down, depending on the screen you came from. For instance, you may click **Show Vectors This Rule Fires In** button when in the Rule Breakdown screen. You will be brought to Vectors with only the vectors showing that caused that rule to fire.

Buttons

The Vectors screen also has four buttons: **Rule Breakdown, Message Parts, Switch selection to Ham/Spam** and **Delete Vector**. Rule breakdown shows which rules have been triggered while message parts presents a screen showing what parts of a message were rule triggering for GWAVA. Switch S/H changes the classification from spam to ham or vice versa. Lastly, delete vector removes a selected vector from the database. **Important**: You will NOT be asked to confirm the deletion.

The Rules Breakdown Screen

When you select a message in the Vectors screen, and then click Rule Breakdown (or double-click the message with the left mouse button), SmartBlocker Manager presents a screen listing what rules fired in a particular ham/spam message, and it also shows why the total score came out the way it did. (The Score box should present the sum of all values in the Total column.) The subject line of the message is shown for reference.


Smart Blocker Manager - [Rules]
File Edit Rules Vectors Optimization Window Help
Refresh List
New Rule
Delete Rule
Rule Details
Vectors Fired
Ready
NUM

Rule Type: All types

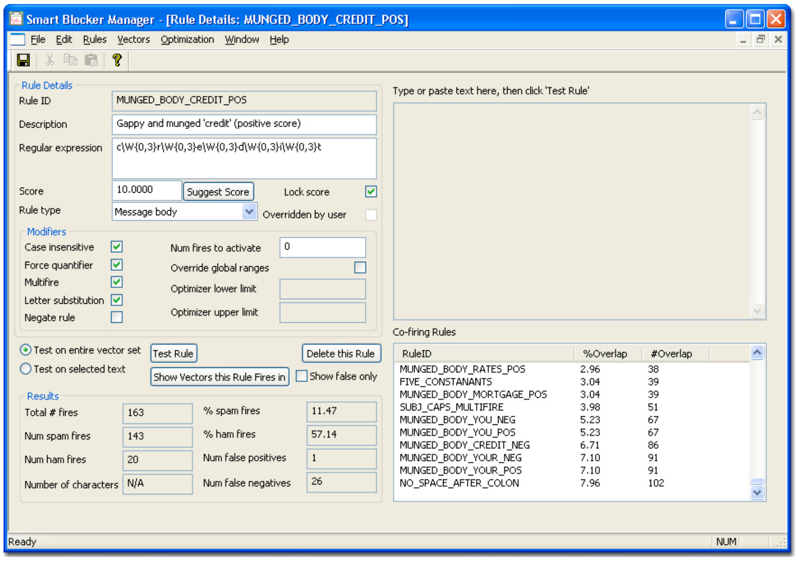
Number of rules: 1033

Type	ID	Description	#fires	#spam fires	#ham fires	score	#fp	#fn
Message b…	MUNGED_BODY…	Gappy and munged 'economic' (positive score) …	10	9	1	10.0…	0	3
Message b…	MUNGED_BODY…	Gappy and munged 'easiest' (positive score) …	6	6	0	10.0…	0	0
Message b…	MUNGED_BODY…	Gappy and munged 'earn' (positive score)	17	17	0	10.0…	0	6
Message b…	MUNGED_BODY…	Gappy and munged 'dvd' (positive score)	13	13	0	10.0…	0	1
Message b…	MUNGED_BODY…	Gappy and munged 'dream' (positive score)	19	19	0	10.0…	0	1
Message b…	MUNGED_BODY…	Gappy and munged 'discreet' (positive score) …	38	38	0	10.0…	0	0
Message b…	MUNGED_BODY…	Gappy and munged 'discount' (positive score) …	94	91	3	10.0…	0	6
Message b…	MUNGED_BODY…	Gappy and munged 'dirty' (positive score) …	1	1	0	10.0…	0	0
Message b…	MUNGED_BODY…	Gappy and munged 'dick' (positive score) …	23	23	0	10.0…	0	2
Message b…	MUNGED_BODY…	Gappy and munged 'debt' (positive score)	23	23	0	10.0…	0	2
Message b…	MUNGED_BODY…	Gappy and munged 'credit' (positive score) …	163	143	20	10.0…	1	26
Message b…	MUNGED_BODY…	Gappy and munged 'consult' (positive score) …	139	137	2	10.0…	0	9
Message b…	MUNGED_BODY…	Gappy and munged 'consolidat' (positive score) …	8	8	0	10.0…	0	1
Message b…	MUNGED_BODY…	Gappy and munged 'cock' (positive score) …	33	33	0	10.0…	0	2
Message b…	MUNGED_BODY…	Gappy and munged 'clonazepam' (positive score) …	4	4	0	10.0…	0	0

The columns in this list are:

- **Rule**: The ID of a rule that fires in this message
- **Multi**: Whether this rule is multifire (meaning it can score more than once if it occurs more than once).
- **#Fires**: how many times this rule fires. Regardless of whether the rule is multifire
- **Score**: This rule's score
- **Total**: What score this rule contributes. Will only differ from the Score column if the rule is multifire. A multifire rule will usually have a total of the #Fires value times the Score value.

Double-clicking a rule will take you to the "Rule Detail" screen for this rule, where you can find out more about it, or test it. Clicking the **Message Parts** button will take you to a Message Parts screen which gives a breakdown of the pieces of this message as GWAVA sees it.


Smart Blocker Manager - [Rule Details: MUNGED_BODY_CREDIT_POS]
File Edit Rules Vectors Optimization Window Help
Rule Details
Modifiers
Results
Suggest Score
Test Rule
Delete this Rule
Show Vectors this Rule Fires in
Type or paste text here, then click 'Test Rule'
Co-firing Rules
Ready
NUM

Rule ID: MUNGED_BODY_CREDIT_POS

Description: Gappy and munged 'credit' (positive score)

Regular expression: c\W{0,3}r\W{0,3}e\W{0,3}d\W{0,3}i\W{0,3}t

Score: 10.0000

Lock score ☑

Rule type: Message body

Overridden by user □

Case insensitive ☑

Force quantifier ☑

Multifire ☑

Letter substitution ☑

Negate rule □

Num fires to activate: 0

Override global ranges □

Optimizer lower limit:

Optimizer upper limit:

● Test on entire vector set

○ Test on selected text

□ Show false only

Total # fires: 163

Num spam fires: 143

Num ham fires: 20

Number of characters: N/A

% spam fires: 11.47

% ham fires: 57.14

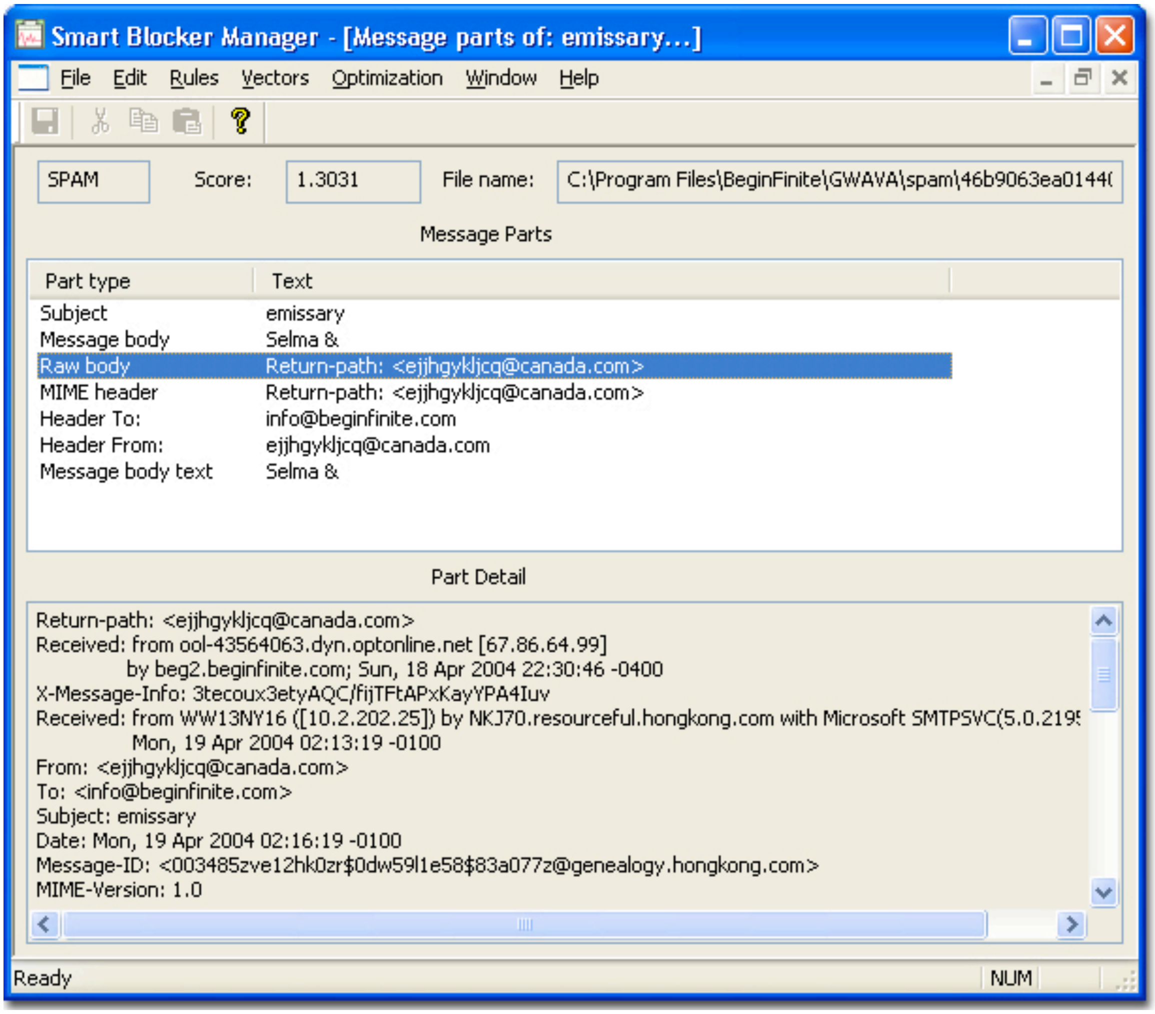
Num false positives: 1

Num false negatives: 26

RuleID	%Overlap	#Overlap
MUNGED_BODY_RATES_POS	2.96	38
FIVE_CONSTANANTS	3.04	39
MUNGED_BODY_MORTGAGE_POS	3.04	39
SUBJ_CAPS_MULTIFIRE	3.98	51
MUNGED_BODY_YOU_NEG	5.23	67
MUNGED_BODY_YOU_POS	5.23	67
MUNGED_BODY_CREDIT_NEG	6.71	86
MUNGED_BODY_YOUR_NEG	7.10	91
MUNGED_BODY_YOUR_POS	7.10	91
NO_SPACE_AFTER_COLON	7.96	102

The Message Parts Screen

The Message Parts screen can be entered in two main ways. Either from the Vectors screen, by selecting a message and clicking the **Message Parts** button, or from the Rule Breakdown screen, by simply clicking the **Message Parts** button. Doing either of these will present a screen similar to this:


Smart Blocker Manager - [Message parts of: emissary...]
File Edit Rules Vectors Optimization Window Help
Ready
NUM

SPAM Score: 1.3031 File name: C:\Program Files\BeginFinite\GWAVA\spam\46b9063ea0144(

Message Parts

Part type	Text
Subject	emissary
Message body	Selma &
Raw body	Return-path: <ejjhgykljcq@canada.com>
MIME header	Return-path: <ejjhgykljcq@canada.com>
Header To:	info@beginfinite.com
Header From:	ejjhgykljcq@canada.com
Message body text	Selma &

Part Detail

```
Return-path: <ejjhgykljcq@canada.com>
Received: from ool-43564063.dyn.optonline.net [67.86.64.99]
            by beg2.beginfinite.com; Sun, 18 Apr 2004 22:30:46 -0400
X-Message-Info: 3tecoux3etyAQC/fijTFtAPxKayYPA4Iuv
Received: from WW13NY16 ([10.2.202.25]) by NKJ70.resourceful.hongkong.com with Microsoft SMTPSVC(5.0.219
             Mon, 19 Apr 2004 02:13:19 -0100
From: <ejjhgykljcq@canada.com>
To: <info@beginfinite.com>
Subject: emissary
Date: Mon, 19 Apr 2004 02:16:19 -0100
Message-ID: <003485zve12hk0zr$0dw59l1e58$83a077z@genealogy.hongkong.com>
MIME-Version: 1.0
```

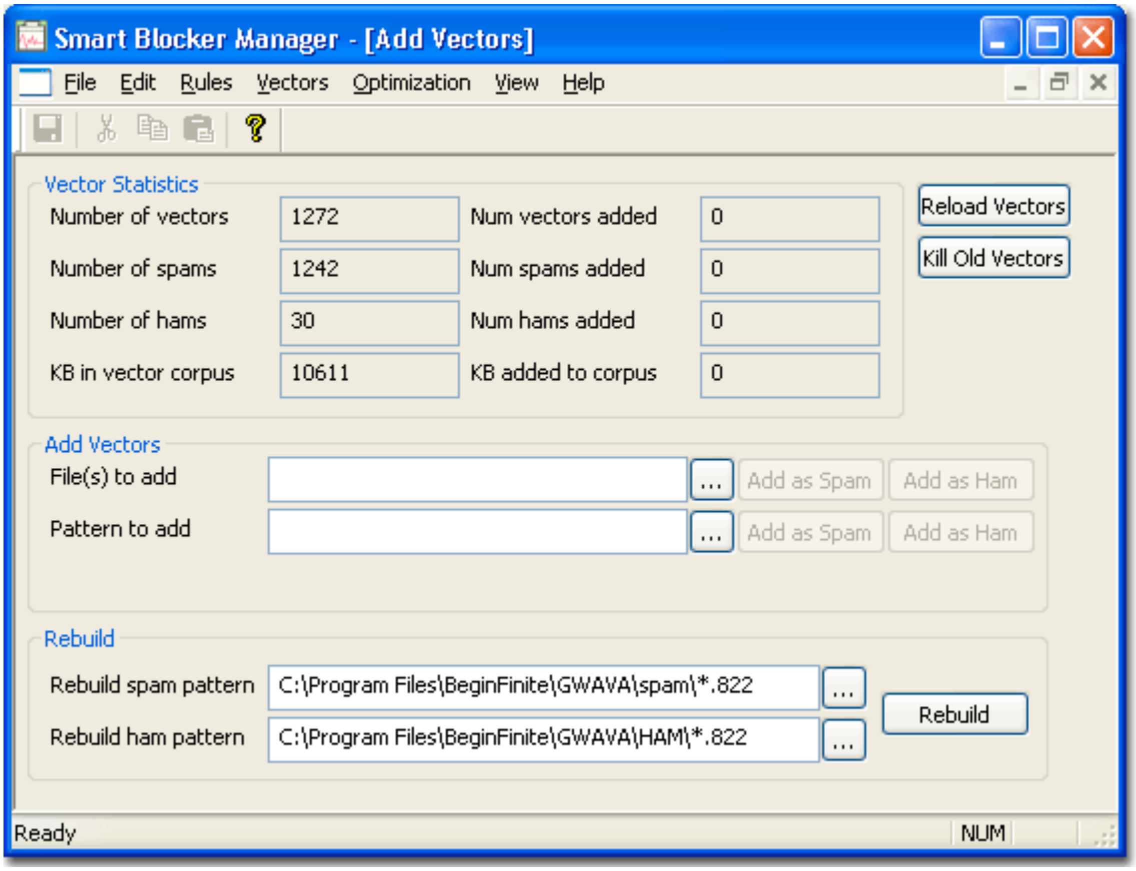
As each rule can only fire on one message part, this screen reveals each portion of the selected message. Often it is not immediately clear from a message which part is which.

The score and whether the message is ham or spam are shown for reference.

The Message Parts list shows the various MIME pieces that GWAVA has extracted from this message. The Part Type is shown, and the first line of text in that part. Initially the Part Detail section will be empty. Clicking on a line in the Message Parts list will show more detail on the selected part. In the example above, **Raw Body** has been clicked, and this part of the message is now showing in the Part Detail box.

The Add Vectors Screen

To alter the ham/spam database, enter the Add Vectors screen by choosing Add Spam/Ham from the Vectors menu:



Number of vectors	1272	Num vectors added	0
Number of spams	1242	Num spams added	0
Number of hams	30	Num hams added	0
KB in vector corpus	10611	KB added to corpus	0

Rebuild spam pattern C:\Program Files\BeginFinite\GWAVA\spam\*.822

Rebuild ham pattern C:\Program Files\BeginFinite\GWAVA\HAM\*.822

This screen is for making alterations to the ham/spam database.

The Vector Statistics group

Reveals basic information on the messages currently loaded – how many total, and of each type, and how much total disk space the database takes. It also keeps track of changes to these values from this screen.

- The **Reload Vectors button** deletes vectors from memory, and reloads the saved message database from disk.
- The **Kill Old Vectors** button deletes the saved message database from disk, if you need to start afresh. Note that this does not delete the actual .822 files.

The Add Vectors group of functions

Provides various means to get messages into the database:

The **File(s) to add** field allows administrators to choose one or more .822 files to add. Click on the … button to select files to add, then click Add as Spam or Add as Ham depending on the nature of the **messages.**

Pattern to add allows you to choose whole patterns of files. This will be useful when there thousands of files to select. Enter a DOS-style file pattern, and then click **Add as Spam** or **Add as Ham** depending on the nature of the messages.

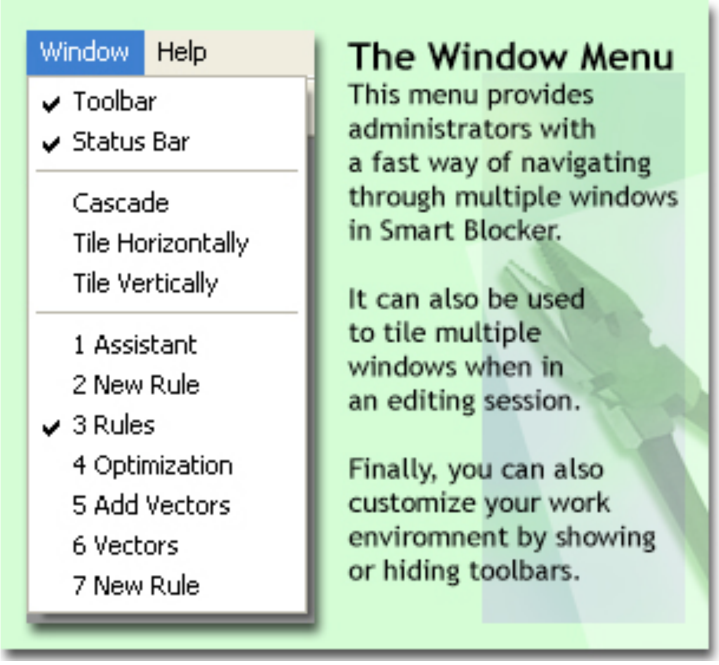
Rebuild functions

The Vector Rebuild option allows you to generate a new *vectors.dat* database file based on the vectors located in the defined spam and ham pattern directories. Clicking **Rebuild**:

- Deletes the entire current vector database from disk
- Clears the database from memory
- Adds the Rebuild spam pattern as spam
- Adds the Rebuild ham pattern as ham
- Loads the new database of messages into memory
- This allows you to generate the vector database that is used to help adjust the scores of your rules through the optimizer

Remember that adding vectors does not automatically add them to the vectors.dat database. You must issue a rebuild in order to apply a new vector to the vectors.dat database. This is what the spam engine reads.

Tip: Begin by adding at least 1,000 ham mails to SpamTools to build your optimization rules. There is no limit to the number of mails that can be added to SpamTools.



The Window Menu

This menu provides administrators with a fast way of navigating through multiple windows in Smart Blocker.

It can also be used to tile multiple windows when in an editing session.

Finally, you can also customize your work enviromnent by showing or hiding toolbars.

Files Used

- .CF and .CFG files
- SpamTools.ini
- Vectors.dat
- GAParams.dat
- Scores.cf

Files Produced (for information only)

- Falseneg.dat
- Falsepos.dat
- Errorlog.dat
- Redundant.dat
- Rulefires.dat

Upgrading and Backrevving SmartBlocker to pre-3.1

SPAMCFG upgrade: As part of the upgrade to 3.10, several files were fundamentally changed. If you must backrev, make sure that you a) backrev SpamTools.EXE on the front end, b) restore the backed up files from the SPAMCFG\CFBAK3.10 directory on the backend to SPAMCFG. (Before you do so, delete all files currently extant in SPAMCFG directory, including the PCR file). Running SmartBlocker will recreate the PCR file.

Appendices

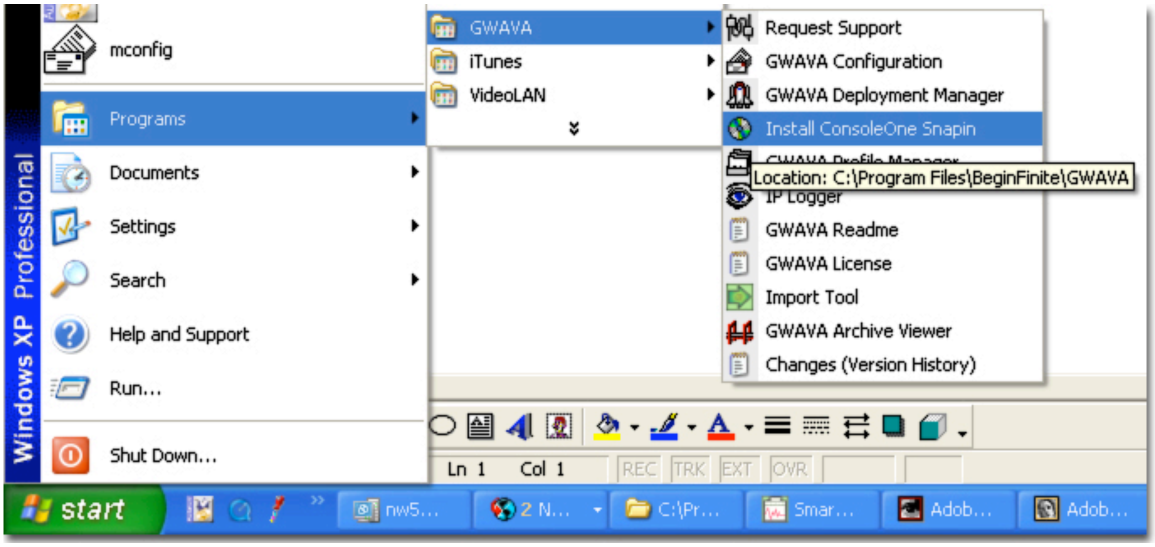
ConsoleOne

This appendix outlines how to run the GWAVA Manager through Novell ConsoleOne, using the GWAVA Profile Manager and Deployment Manager.

Installing the GWAVA Snap-In for ConsoleOne

Once GWAVA is installed, you can install the GWAVA Snap-In for use with Novell ConsoleOne.

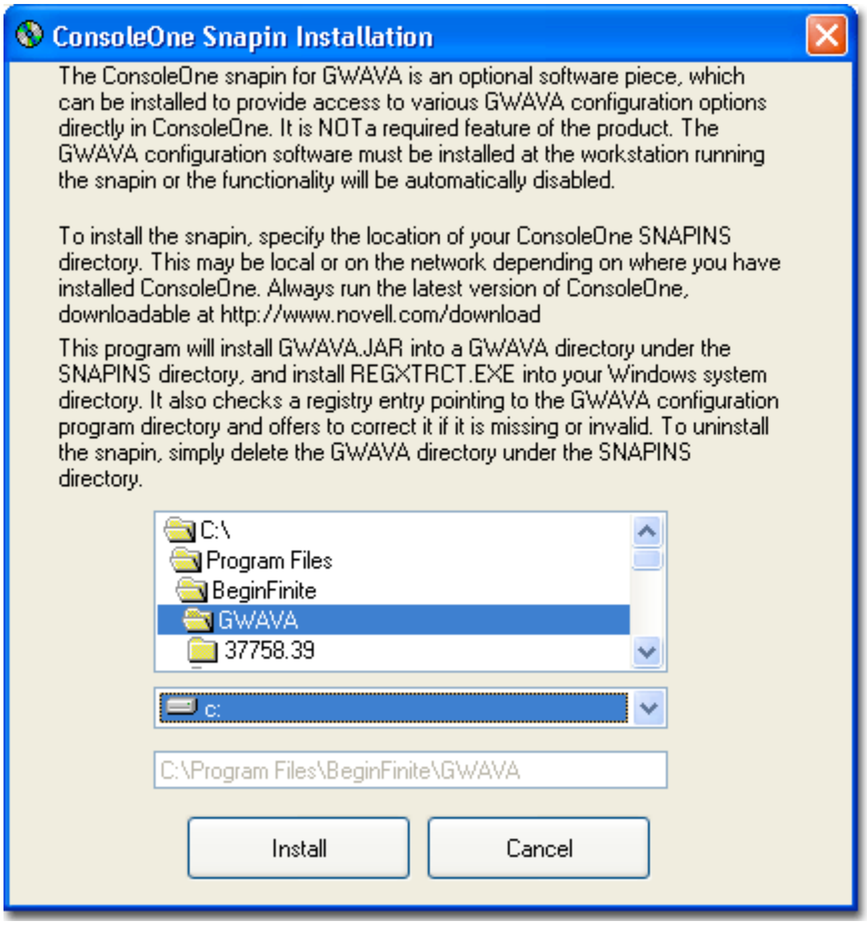
To install the Snap In, click **Start** > **Programs** > **GWAVA** > **Install ConsoleOne Snap-In**. The installation will proceed automatically, and GWAVA will appear in the Tools menu of ConsoleOne the next time you start ConsoleOne.



Note: As an alternative to using the **Start** menu, you can run the executable file snap.exe located in C:\Program Files\BeginFinite\GWAVA (where C represents the drive letter of the drive you run GWAVA from on your workstation).

The SnapOne installer window opens.

The ConsoleOne Snapin installation window



ConsoleOne Snapin Installation

The ConsoleOne snapin for GWAVA is an optional software piece, which can be installed to provide access to various GWAVA configuration options directly in ConsoleOne. It is NOT a required feature of the product. The GWAVA configuration software must be installed at the workstation running the snapin or the functionality will be automatically disabled.

To install the snapin, specify the location of your ConsoleOne SNAPINS directory. This may be local or on the network depending on where you have installed ConsoleOne. Always run the latest version of ConsoleOne, downloadable at http://www.novell.com/download

This program will install GWAVA.JAR into a GWAVA directory under the SNAPINS directory, and install REGXTRCT.EXE into your Windows system directory. It also checks a registry entry pointing to the GWAVA configuration program directory and offers to correct it if it is missing or invalid. To uninstall the snapin, simply delete the GWAVA directory under the SNAPINS directory.

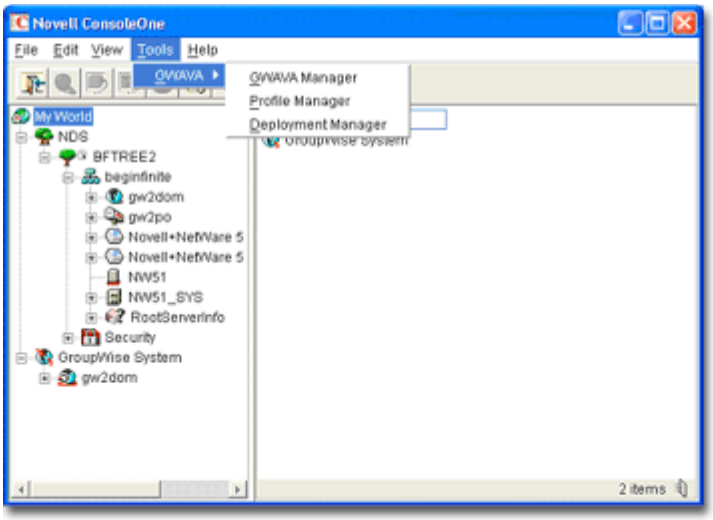
C:\
Program Files
BeginFinite
GWAVA
37758.39

c:

C:\Program Files\BeginFinite\GWAVA

The screen is an informational one, informing users that the ConsoleOne snapin is optional for GWAVA. It is not required for satisfactory operation of GWAVA.

Use the browsing function of the window to choose where the ConsoleOne snapin is to be installed. Click **Install** to continue or **Cancel** to quit.



Starting GWAVA Tools with Novell ConsoleOne

When your ConsoleOne session is active, and GWAVA is installed on your network, you can start the GWAVA manager through the **Tools** menu.

You have three options in the **Tools > GWAVA** menu: GWAVA Manager, Profile Manager, Deployment Manager, and Configure Profile.

- GWAVA Manager launches the GWAVA Manager.
- Profile Manager launches the Profile Manager (see below, this appendix),
- Deployment Manager launches the Deployment Manager (see below, this appendix)

Configuring GWAVA 3 in a Clustered Environment (Updated)

This appendix outlines how to install GWAVA in a NetWare clustered environment. Any version of NetWare clustering is sufficient. GWAVA 3 should now install seamlessly in a cluster and support protected memory. It is important to note that most Anti-Virus NLMs do NOT support protected memory so check your AV NLM for protected memory support.

Step 1

Run the install and update your workstation.

If you are updating an existing installation of GWAVA 3 do NOT run the GWAVA Config program as you must edit the GMTACFG.INI file manually. If the GWAVA configuration program is running, it may overwrite your changes.

Edit your MTA start up File. Make certain your MTA switch is using a true UNC path. (\\ServerName\Volume\Directories) to the GroupWise server directory using the virtual server name. Netware will accept paths that are not true UNC. This may cause directory locations to be incorrect.

Diagnostic note - If anything goes wrong, it will be with the MTA home switch. Files may end up everywhere.

Step 2

Run the install and update your workstation.

Step 3

Load the GWAVA configuration program.

Go to the Miscellaneous screen and enable the **GWAVA is installed in a cluster** checkbox updates your configuration file automatically. Unchecking it removes these changes. **Note** - This does NOT ENSURE THAT THE PATHING Information is correct.

☑ GWAVA is installed in a cluster

Step 4

Add the cluster load script. Be certain to use the full path to the MTA startup file. Here's an example:

```
-- Load Script --
nss /poolactivate=DOM
mount DOM VOLID=251
CLUSTER CVSBIND ADD vDom 1.2.3.4
NUDP ADD vSERVER 1.2.3.4
Add Secondary IPAddress 1.2.3.4

Search Add DOM:\System
Load Address Space=GWMTA DOM:\System\gwmta @DOM:\System\gwmta\dom1.mta
-- End Load Script --
```

Step 5

Modify the cluster unload script. Note that the MTA must be shut down before unloading the address space. Without the following commands the resource will not unload or go offline properly.

```
UnLoad Address Space=GWMTA gwmta
UnLoad Address Space=GWMTA
UnLoad GWAVAOSA
```

Once again a sample script:

```
-- Unload Script --
UnLoad Address Space=GWMTA gwmta
UnLoad Address Space=GWMTA
UnLoad GWAVAOSA

Del Secondary IPAddress 1.2.3.4
CLUSTER CVSBIND DEL vSERVER 1.2.3.4
NUDP DEL vSERVER 1.2.3.4
nss /pooldeactivate=MAIL /overridetype=question
-- End UnLoad Script --
```

Note: If GWAVA, GWAVAPOA, WASP, or more than one instance of any of these programs will ever be loaded simultaneously on the same node the UnLoad GWAVAOSA command should be removed from all cluster unload scripts. This is because GWAVAOSA is shared by all of these products and can only be loaded once per server. Inadvertently unloading GWAVAOSA while still in use by another process will cause the server to hang.

Step 6

If the MTA is already running you should now be able to unload the MTA. Run the NOGWAVA.ncf script to make sure no GWAVA modules are left in memory. Finally, offline and then online the resource to get the MTA started correctly.

You are now configured to run GWAVA in a clustered environment.

Templates and Variables

GWAVA 3 has been restructured internally to use new notification templates, supporting tremendously increased functionality via a metalanguage, and supporting HTML and text, customizable subjects and per event information. All of this is fully customizable. There are two types of notification templates included in GWAVA 3: the default 11 Notification and Report templates and the 822 Notification templates. They are similar in that they are all populated using metavariables and organized into sections.

The primary 822 notification template is the TAdmin.822. The others contain, within varying degrees, the contents of this notification template, along with explanatory text detailing in English what the metavariables mean.

An important variable to understand is SubstituteVarChar. Event Log templates are wrapped in substitutevar (",'), which effectively changes " chars in variables in these to ' chars. This avoids breaking comma-delimited fields such as "field1","field2","field3". For example, if one of the fields contained " it may break some importing methods.

Format

%%SubstituteVarChar([character to replace],[character(s) to write])

The source and replacement characters can be in plain text, or hex values, but a mix of both while it could be used, is not advised.

Examples

- %%SubstituteVarChar(",')
- %%SubstituteVarChar(@,.at.)
- %%SubstituteVarChar(',\')
- %%SubstituteVarChar(0x27,0x5c0x27)
- %%SubstituteVarChar(0x27,\')
- %%SubstituteVarChar(',0x5c0x27)

To disable a substitution rule, simply apply the rule for a character to itself:
%%SubstituteVarChar(0x27,0x27)

Complex, Customizable and Capable reporting

Some of GWAVA 3's variables can represent more than one value when used in an output report. For example, more than one attachment might be blocked for more than a single reason. Or, there might be a message with perhaps several attachments, some of which are infected with different viruses.

The "delimit as a comma or carriage return" is good for single collection in outputs, but is limited when dealing with more complex tables. As delimit would generate one set of results, and then another. Cross correlating information becomes difficult.

Hence: %%SubstituteVarChar(",')%%ForEach

In our example using multiple variables to report multiple infections in several attachments, GWAVA will go through the infected file for each unique instance of the infected file, fire the %%Item metavariable.

This collection reports the instance of infection in this file for this message:

(%%InfectedFileName,SetCounter=%%Item)"%%UniqueIDString_Message","%%InfectedFileName[%%Item]" "%%VirusName[%%Item]"%%EOL%%EndFor%%SubstituteVarChar(",")

Changing the location of the Archive Directory

If you intend to use the location of files feature to relocate the Archive directory somewhere other than GWAVA/Archive, you must ensure two things:

That the new directory is on the same server as GWAVA (does not have to be the same volume) as GWAVA does not perform remote logins to other servers for archiving.

Secondly, that the new directory has already been created. GWAVA does not auto create directories other than those established at installation.

Three fields followed by the name, infected file and infected file name. %%EOL forces a carriage return. It is useful because in a ForEach loop that's the only way to force it go to the next line.

An example: CFilter.Tpl

This is the Content Filter Template:

-
  ```
  %%StripLineFeeds=1%%SubstituteVarChar(",') %%ForEach(%%ContentFilter_Subject_Name,SetCounter=%%IItem)
  "%%UniqueIDString_Message","S","%%ContentFilter_Subject_Name[%%IItem]","%%ContentFilter_Subject_Context[%%IItem]
  "%%EOL %%EndFor %%ForEach(%%ContentFilter_Text_Name,SetCounter=%%JItem)
  "%%UniqueIDString_Message","T","%%ContentFilter_Text_Name[%%JItem]","%%ContentFilter_Text_Context[%%JItem]"%%E
  OL %%EndFor
  %%ForEach(%%ContentFilter_Attachment_Name,SetCounter=%%KItem)"%%UniqueIDString_Message","A","%%ContentFilter_
  Attachment_Name[%%KItem]","%%ContentFilter_Attachment_Context[%%KItem]"%%EOL
  %%EndFor%%SubstituteVarChar(",")
  ```

The format of the Content Filter Template *(cfilter.tpl)* includes a unique alphanumeric string for tracking the message and the subject name followed by the context variable (the words immediately preceding and following the filtered word), with similar variables for events deeper in the message or its attachments, and statistical counter variables to track triggers.

The templates allow administrators to customize data that is mined by GWAVA processes. Here is the same Content Filter template again, this time broken down into smaller sections:

Explanation	CFilter.Tpl
Strip line is included as GWAVA may be handling content which may have its own carriage returns. Assists in delimiting	%%StripLineFeeds=1%%SubstituteVarChar(",') %%ForEach
For each content filter subject name and sets the counter increment.	(%%ContentFilter_Subject_Name,SetCounter=%%IItem)
The unique ID string will assist administrators track messages as they are processed by different filters and are reported upon in different logs.	"%%UniqueIDString_Message","S","%%ContentFilter_Subject_Name[%%IItem]",
Content filters firing in the text part Closes a *%%ForEach* loop, in this case, the one at the start of the template. This underlines an important point: *variable operations can be nested.*	"%%ContentFilter_Subject_Context[%%IItem]"%%EOL %%EndFor %%ForEach(%%ContentFilter_Text_Name,SetCounter=%%JItem) "%%UniqueIDString_Message","T","%%ContentFilter_Text_Name[%%JItem]", "%%ContentFilter_Text_Context[%%JItem]"%%EOL %%EndFor

Additional Notification Templates Notes

This appendix details the notification templates used in GWAVA 3. They are populated by the GWAVA metavariables. Note that starting with GWAVA 3.1, Virus Attachments to Admin notifications are off by default in Tadmin.822 It can be activated again in the GWAVA configuration program's Miscellaneous options section.

TRecip and TOrig notification templates

Trecip and Torig are the two other master notification templates used by GWAVA 3. They contain much the same information as the TAdmin file except that data and variable information included only contains recipient information while the Torig contains sender data. For example, Trecip.822 has the subject 'Subject: GWAVA **RecipientAdmin** Notification' while Torig.822 contains 'GWAVA SenderAdmin Notification (%%EventFireListDelimitby=",")

Dlystats.822 and Yesterd.822

The templates Dlystats.822 and yesterd.822 are simplified forms of the Administration.822 template. Yesterd.822 is the same as dlystats.822, but refers to yesterday's statistics instead of today's stats. Imagine the report firing at midnight for example – today's stats will be more or less zero, and you probably want yesterday's figures instead.

The default time for dlystats.822 is set to 23:55. Note that the daily stats setting can be controlled in MConfig.

SuRBL

One of the new templates in GWAVA 3.5 is for SuRBLs.

- %%SubstituteVarChar(",')%%ForEach(%%SURBLBlockedDomain,SetCounter=%%IItem)"%%UniqueIDString_Message","%%SURBLBlockedDomain[%%IItem]","%%SURBLSite[%%IItem]"%%EOL%%EndFor%%SubstituteVarChar(",")

The format of the address block template includes which blocked domain and a counter, a unique alphanumeric string for identifying the message, and a variable for identifying which SuRBL site was referenced for this block

The Address Block Template

- %%SubstituteVarChar(",')%%ForEach(%%BlockedSourceAddress,SetCounter=%%IItem)"%%UniqueIDString_Message","%%BlockedSourceAddress[%%IItem]"%%EOL%%EndFor%%ForEach(%%BlockedDestinationAddress,SetCounter=%%JItem)"%%UniqueIDString_Message","%%BlockedDestinationAddress[%%JItem]"%%EOL%%EndFor%%SubstituteVarChar(",")

The format of the address block template includes a unique alphanumeric string for identifying the message and lists which blocked source or destination address or addresses, triggered the event.

The Attachment Template

- %%SubstituteVarChar(",')%%ForEach(%%Attachment_Name,SetCounter=%%RCPItem)"%%UniqueIDString_Message","%%Attachment_Name[%%RCPItem]","%%Attachment_Size[%%RCPItem]"%%EOL%%EndFor%%SubstituteVarChar(",")

The format of the attachment template includes a unique alphanumeric string for identifying the message, and details about the attachment including its name and size.

The Attachment Block Template

- %%SubstituteVarChar(",')%%ForEach(%%BlockedFileTypeName,SetCounter=%%IItem)"%%UniqueIDString_Message","%%BlockedFileTypeName[%%IItem]"%%EOL%%EndFor%%SubstituteVarChar(",")

The format of the address name block template includes a unique alphanumeric string for identifying the message and the name of the attachment which triggered the block.

The Content Filter Template

-
  ```
  %%StripLineFeeds=1%%SubstituteVarChar(",') %%ForEach(%%ContentFilter_Subject_Name,SetCounter=%%IItem)
  "%%UniqueIDString_Message","S","%%ContentFilter_Subject_Name[%%IItem]","%%ContentFilter_Subject_Context[%%IItem]
  "%%EOL %%EndFor %%ForEach(%%ContentFilter_Text_Name,SetCounter=%%JItem)
  "%%UniqueIDString_Message","T","%%ContentFilter_Text_Name[%%JItem]","%%ContentFilter_Text_Context[%%JItem]"%%E
  OL %%EndFor
  %%ForEach(%%ContentFilter_Attachment_Name,SetCounter=%%KItem)"%%UniqueIDString_Message","A","%%ContentFilter_
  Attachment_Name[%%KItem]","%%ContentFilter_Attachment_Context[%%KItem]"%%EOL
  %%EndFor%%SubstituteVarChar(",")
  ```

The format of the address block template includes a unique alphanumeric string for tracking the message and the subject name followed by the context variable (the words immediately preceeding and following the filtered word), with similar variables for events deeper in the message or its attachments, and statistical counter variables to track triggers.

The Fingerprint Template

-
  ```
  %%SubstituteVarChar(",')%%ForEach(%%FingerprintedAttachmentName,SetCounter=%%FPItem)"%%UniqueIDString_Message
  ","%%FingerprintedAttachmentName[%%FPItem]","%%FingerPrintFileType[%%FPItem]"%%EOL%%EndFor%%SubstituteVarCha
  r(",")
  ```

The format of the address block template includes a unique alphanumeric string for tracking the message and the fingerprinted attachment name and type.

The Messages Template

-
  ```
  %%SubstituteVarChar(",')"%%UniqueIDString_Message","%%YearLong-%%MonthofYearNumeric-%%PadDayofMonth
  %%HourofDay24:%%MinuteOfHour:%%SecondOfMinute","%%FROM","%%SUBJ","%%EventText","%%ArchiveFileName","%%Curre
  ntMessageSizeBytes"%%EOL%%SubstituteVarChar(",")
  ```

The messages template includes a unique string for identifying the message, date and sender, its archival file name and size.

The Oversize Template

-
  ```
  %%SubstituteVarChar(",')%%VarExists(%%EventFire_MessageOversize)"%%UniqueIDString_Message","%%MessageSizeLimitKB
  ","%%CurrentMessageSizeBytes","Text","M"%%EOL%%EndVarExists%%VarExists(%%EventFire_AttachmentOversize)%%ForEac
  h(%%OverSizeAttachmentName,SetCounter=%%JItem)"%%UniqueIDString_Message","%%AttachmentSizeLimitBytes","%%Ove
  rsizeAttachmentSize[%%JItem],"%%OverSizeAttachmentName[%%JItem],"A"%%EOL%%EndFor%%EndVarExists%%SubstituteV
  arChar(",")
  ```

The oversize template format includes a unique string for identifying the message, and variables for both oversize messages or attachments as well as size limits.

The RBL Template

-
  ```
  %%SubstituteVarChar(",')%%ForEach(%%RBLBlockedIP,SetCounter=%%IItem)"%%UniqueIDString_Message","%%RBLBlockedIP[
  %%IItem]","%%RBLSite[%%IItem]"%%EOL%%EndFor%%SubstituteVarChar(",")
  ```

The RBL template lists the blocked IP by the RBL and a unique id to identify the message and a variable for incrementing the relevant counter.

The Recipient Template

-
  ```
  %%SubstituteVarChar(",')%%ForEach(%%RecipientAddress,SetCounter=%%RCPItem)"%%UniqueIDString_Message","%%Recipie
  ntAddress[%%RCPItem]","%%RecipientType[%%RCPItem]"%%EOL%%EndFor%%SubstituteVarChar(",")
  ```

This template details which recipient address block was triggered, and contains counter controls for the triggering event as well as a unique string to identify the message.

The Spam Template

-
  ```
  %%SubstituteVarChar(",')"%%UniqueIDString_Message","%%AntiSpamScore","%%AntiSpamThreshold","%%AntiSpamLogFile"%
  %EOL%%SubstituteVarChar(",")
  ```

The spam template uses variables to report the score, the threshold and a variable which references the location of the anti-spam log file, if it exists.

The Virus Template

- %%SubstituteVarChar(",')%%ForEach(%%InfectedFileName,SetCounter=%%IItem)"%%UniqueIDString_Message","%%InfectedFileName[%%IItem]","%%VirusName[%%Item]"%%EOL%%EndFor%%SubstituteVarChar(",")

The format of the virus block template includes the infected file names, a unique id string to identify the message, the infected file name and the virus name.

The Tadmin.822 template

Glossary	TAdmin.822 template
The TAdmin is in a sense the master template in GWAVA 3. Both the TRecip.822 and the TOrig.822 templates contain selected portions of the information in the TAdmin.822 Template. For example, recipients are not presented with the full details of content filtering monitoring information. Several of the variables are populated when you set up GWAVA, for example, *%%AdministratorAddress*. Many metavariables in GWAVA can represent multiple values. The reason why this is so is because single messages can fire multiple events. **%%VarExists and %%EndVarExists** are used to control how variables interact with one another. These two metavariables are the brackets enclosing analytical operations in GWAVA 3. To the right you see the preliminary and header information in the 822 template. What follows next is the Virus information section. We will also see an example of how VarExists and EndVarExists work.	From: <%%SMTPMailFrom> MIME-Version: 1.0 Message-ID: <%%UniqueIDString_Message.%%AdministratorAddress> Subject: GWAVA Admin Notification (%%EventFireListDelimitby=",") Content-Type: multipart/mixed; boundary="%%UniqueIDString_Message.SHELL" This is a multi-part message in MIME format. --%%UniqueIDString_Message.SHELL Content-Type: multipart/alternative; boundary="%%UniqueIDString_Message.MAIN" %%Comment=" A NOTE TO GWAVA ADMINISTRATORS: The next section will only show up when viewing in plain text The HTML view is defined separately later, and is much easier to read (the layout capabilities of HTML shine here)" --%%UniqueIDString_Message.MAIN Content-Type: text/plain; charset=%%MIMECharset Content-Transfer-Encoding: 7bit A message was blocked by GWAVA - Content protection for Novell GroupWise. GWAVA Agent: %%GWAVASource GWAVA Server: %%FileServerName - %%AgentPlatform (%%ProfileName) The message was blocked for the following reason(s): %%EventFireList The message contained the following information: Subject: %%SUBJ From:%%FROM Recipient(s): %%TO_Addresses %%CC_Addresses %%BC_Addresses The following information details the events that prevented delivery of this message:

Virus

To the right, we see that *%%VarExists="* has been used to begin the *%%EventFire_Virus"* process. If there is no *%%EventFire_Virus" value* appearing, then the VarExists enclosing it will prevent GWAVA from using resources by generating outputs that do not exist.

Again, to the right we see anther example, *%%VarExists= "%%VirusName"*. Logically, if there is no virus event here, then no virus name will be inserted by the *"%%VirusName"* metavariable. We may therefore see how VarExists works to ensure that only existing variables are used for generating outputs and secondly, they can nest operations. In this case, virus found and then the virus name.

```
=======================================================
======%%VarExists(%%EventFire_Virus)
A virus was detected in the message. Please use caution
when opening the contents.

The following attachments within this message had viruses
detected in them:
%%InfectedFileNameDelimitBy="
"

%%VarExists(%%VirusDetailAvailable)The following virus types were
found:%%VirusNameDelimitBy="
"%%EndVarExists
```

Note: GWAVA only identifies the virus when used together with InoculateIT or Command Interceptor. Your server based AV solution may have more information on the specific type of infection in its logs

Attachment Variables

Next in the TAdmin.822 template are basic attachment variables.

```
=======================================================
======%%EndVarExists%%VarExists(%%EventFire_AttachmentType)
One or more attachments within this message were blocked because of
their file type.

The following attachments were blocked:
%%BlockedFileTypeNameDelimitBy="
"
```

Content Filter Variables Note the nesting of the *%%EndVarExists*.	== ======%%EndVarExists%%VarExists(%%EventFire_ContentFilter) Content within this message was disallowed. (This violates Content Filter Rule: %%ContentFilterName) %%VarExists(%%EventFire_SubjectContentFilter) - Subject Content%%EndVarExists %%VarExists(%%EventFire_AttachmentContentFilter) - Attachment Content --%%ContentFilteredAttachmentNameDelimitBy="-- "%%EndVarExists%%VarExists(%%EventFire_BodyTextContentFilter) - Body Text Content%%EndVarExists%%VarExists(%%FilterContext) The message included the following text %%FilterContextDelimitBy=" "%%EndVarExists
Address bock variables Again, it is vital to understand that variables are in fact, multivariables: for example, more than one attachment might be blocked.	== ======%%EndVarExists%%VarExists(%%EventFire_AddressBlock) The source or destination address of this message was rejected. The rejected addresses were: %%VarExists(%%BlockedSourceAddress) Sender: %%BlockedSourceAddress%%EndVarExists %%VarExists(%%BlockedDestinationAddress) Recipient(s): %%BlockedDestinationAddressDelimitBy=" "%%EndVarExists
RBL Next in the TAdmin.822 template is the RBL section. Note that only one RBL event is permitted at present.	== ======%%EndVarExists%%VarExists(%%EventFire_RBL) This message was rejected by a RBL server. The IP address of the blocked message is: %%RBLBlockedIP which the %%RBLSite RBL Server flagged.
SuRBL	== ======%%EndVarExists%%VarExists(%%EventFire_SURBL) This message was rejected by a SURBL server. The address of the blocked message is: %%SURBLBlockedDomain which the %%SURBLSite SURBL Server flagged.

Fingerprinting	== ======%%EndVarExists%%VarExists(%%EventFire_FingerPrint) An attachment within this message was rejected because it was detected to be of a disallowed type. The following attachments were blocked: %%ForEach(%%FingerprintedAttachmentName,SetCounter=%%FPItem)%% FingerprintedAttachmentName[%%FPItem] - %%FingerPrintFileType[%%FPItem]%%EOL%%EndFor
Spam	== ======%%EndVarExists%%VarExists(%%EventFire_Spam) This message was considered to be spam, as The message scored %%AntiSpamScore, which exceeds the Anti-Spam Threshold of %%AntiSpamThreshold. If you have enabled the Generate Log Files--in the Advanced settings for Anti-Spam Heuristics-- the following log files are available, and contain additional information about the message: %%VarExists(%%AntiSpamLogFile)%%IncludeAntiSpamLogFile %%EndVarExists
Oversize Note that there are separate variables for oversized messages and oversized attachments.	== ======%%EndVarExists%%VarExists(%%EventFire_Oversize) The message exceeds the %%AttachmentSizeLimitKB KB limit set in GWAVA's Oversized Attachment Feature. %%VarExists(%%EventFire_MessageOversize) - Message%%EndVarExists %%VarExists(%%EventFire_AttachmentOversize) - Attachments%%EndVarExists

Statistics
GWAVA uses several types of additive statistics.

To the right, we have *%%StatTodaysTotalMessagesProcesseed*. In addition to Today statistics, GWAVA generates Cumulative and Overall statistics for many statistical variables.

Finally, if a statistical variable lacks a qualifier for Today, Cumulative or Overall, it will report for all firings of that variable in all GWAVA records on your installation.

```
========================================================
======%%EndVarExists

Current Statistics (Today/Cumulative)
System Version: %%NLMVersion
Program Version:%%ProgramVersion
GWAVA Location: %%GWAVABaseUNC
Date: %%MonthOfYearNumeric/%%DayOfMonth/%%YearLong
(%%HourOfDay24:%%MinuteOfHour:%%SecondOfMinute)
%%VarExists(%%ArchiveFileName)Archived to File:
%%ArchiveFileName%%EndVarExists

Total messages processed:
%%StatTodaysTotalMessagesProcessed/%%StatTotalMessagesProcessed
Total virus infections detected:
%%StatTodaysInfectedMessageCount/%%StatInfectedMessageCount
Oversize messages:
%%StatTodaysOversizeMessageCount/%%StatOversizeMessageCount
Oversize attachments:
%%StatTodaysOversizeAttachmentCount/%%StatOversizeAttachmentCount
Messages blocked by address:
%%StatTodaysAddressBlockedMessageCount/%%StatAddressBlockedMessageCount
Content filtered messages:
%%StatTodaysContentFilteredMessageCount/%%StatContentFilteredMessageCount
Blocked attachments:
%%StatTodaysAttachmentBlockedMessageCount/%%StatAttachmentBlockedMessageCount
Fingerprint detections:
%%StatTodaysFingerPrintBlockedMessageCount/%%StatFingerPrintBlockedMessageCount
RBL blocks:
%%StatTodaysRBLBlockedMessageCount/%%StatRBLBlockedMessageCount
SURBL blocks
:%%StatTodaysSURBLBlockedMessageCount/%%StatSURBLBlockedMessageCount

Spam:
%%StatTodaysHeuristicsBlockedMessageCount/%%StatHeuristicsBlockedMessageCount

--%%UniqueIDString_Message.MAIN
Content-Type: multipart/related;
 boundary="%%UniqueIDString_Message.BODY"

--%%UniqueIDString_Message.BODY
Content-Type: text/html; charset=%%MIMECharSet
Content-Transfer-Encoding: 7bit
```

HTML This is the easily formatted portion of the TAdmin.822 template. It is therefore easily customizable. The default template includes the GWAVA graphic and a table for reporting results. A link to GWAVA for support.	<!doctype html public "-//w3c//dtd html 4.0 transitional//en"> <html> &nbsp; <table COLS=1 WIDTH="400" > <tr> <td> <!--- if you don't want the GWAVA graphic, delete the next line, and then remove the entire next mime part containing the actual graphical data, starting from (and INCLUDING) --%%UniqueIDString_Message.BODY but excluding the --%%UniqueIDString_Message.BODY-- Alternatively, you can also paste your own base64 encoded graphic as a replacement ---> <center><a href="http://www.gwava.com"><img SRC="cid:part1.%%UniqueIDString_Message.IMG1@gwava.com" height=72 width=229></a></center> </td> </tr> </table> <p>A message was blocked by GWAVA - Content protection for Novell GroupWise. <p>GWAVA Agent: %%GWAVASource <p>GWAVA Server: %%FileServerName - %%AgentPlatform (%%ProfileName)
The HTML form for reporting events.	<p>The message was blocked for the following reason(s): <UL> <LI>%%EventFireListDelimitBy=" <LI>" </UL> <p>The message contained the following information:<P> <TABLE> <TR><TD><FONT COLOR="0000FF"><B>Subject:</B></FONT></TD><TD>%%SUBJ</TD></TR> <TR><TD><FONT COLOR="0000FF"><B>From:</B></FONT></TD><TD>%%FROM</TD></TR> <TR><TD style="vertical-align: center;"><FONT COLOR="0000FF"><B>Recipient(s):</B></FONT></TD> <TD style="vertical-align: center;">%%TO_Addresses<br><br>%%CC_Addresses<br><br>%%BC_Addresses </TD></TR></TABLE> <P> The following information details the events that prevented delivery of this message:<P> <TABLE border="1"> <TR> <TD><FONT COLOR="0000FF"><B>Event</B></FONT></TD><TD><FONT COLOR="0000FF"><B>Details</B></FONT></TD> </TR>

Virus Scanning

HTML portion

This segment fires only if there is a virus.

A typical use of the Var Exists.

```
%%VarExists(%%EventFire_Virus)
<!-- Here's the Virus scanning section -->
<TR>
<TD style="vertical-align: top;">
<FONT COLOR="FF0000"><B>Virus Detected!</B></FONT><P>
</TD>
<TD style="vertical-align: top;">
A virus was detected in the message. Please use caution
when opening the contents.<P>

The following attachments within this message had viruses
detected in them:<P>

<UL>
<LI>%%InfectedFileNameDelimitBy="<LI>
"
</UL>

%%VarExists(%%VirusDetailAvailable)
The following virus types were found:<P>
<UL>
<LI>%%VirusNameDelimitBy="<LI>
"
</UL>

<P>
%%EndVarExists

NOTE: GWAVA only identifies the virus when used together with<br>
InoculateIT, Sophos SAVI, or Command Interceptor. Your server based AV
solution<br>
may have more information on the specific type of infection in its logs.<br>

</TD></TR>
<!-- THE NEXT VARIABLE (WHICH CAN BE REMOVED) INSERTS THE
ORIGINAL
MESSAGE (INCLUDING VIRUS) IN THE NOTIFICATION. Note you can also
put the following variable in other event loops, if you want.
If you do remove it, also remove it from the text/plain section above -->


%%EndVarExists
```

Attachment Blocking

HTML portion

```
%%VarExists(%%EventFire_AttachmentType)
<!-- Here's the Attachment Blocking Section... -->
<TR>
<TD style="vertical-align: top;">
<FONT COLOR="FF0000">Attachment blocked</FONT><P>
</TD>
<TD style="vertical-align: top;">
One or more attachments within this message were
blocked because of their file type.<P>
The following attachments were blocked:<P>

<UL>
<LI>%%BlockedFileTypeNameDelimitBy="<LI>
"
</UL>
</TD></TR>

%%EndVarExists
```

Content Filtering

HTML portion

Note the differentiating between subject, body and attachment and filters and context filters.

```
%%VarExists(%%EventFire_ContentFilter)
<!--- Content Filter --->
<TR>
<TD style="vertical-align: top;">
<FONT COLOR="FF0000">Content filtered</FONT><P>
</TD>
<TD style="vertical-align: top;">
Content within this message was disallowed.<br>
(This violates Content Filter Rule:<br>
%%ContentFilterName)<p>

<ul>
%%VarExists(%%EventFire_SubjectContentFilter)
		<li>Subject Content
%%EndVarExists
%%VarExists(%%EventFire_AttachmentContentFilter)
		<li>Attachment Content:
		<ul>
		<li>%%ContentFilteredAttachmentNameDelimitBy="<LI>
"
		</ul>
%%EndVarExists
%%VarExists(%%EventFire_BodyTextContentFilter)
		<li>Body Text Content
%%EndVarExists
<ul>
%%VarExists(%%FilterContext)
<p>The message included the following text<p>
%%FilterContext
%%EndVarExists

<p>
</TD></TR>
%%EndVarExists
```

Address Blocking

HTML portion

It is similarly constructed to the content filtering section immediately preceding.

```
%%VarExists(%%EventFire_AddressBlock)
<!--- Address Block --->
<!--- Not used are the EventFire_SourceAddressBlock
EventFire_DestinationAddressBlock metavariables --->

<TR>
<TD style="vertical-align: top;">
<FONT COLOR="FF0000">Address block</FONT><P>
</TD>
<TD style="vertical-align: top;">
The source or destination address of this message
was rejected.<P>

The rejected addresses were:<P>
%%VarExists(%%BlockedSourceAddress)
Sender: %%BlockedSourceAddress<P>
%%EndVarExists
%%VarExists(%%BlockedDestinationAddress)
Recipient(s):<P>
%%BlockedDestinationAddressDelimitBy="<BR>
"
%%EndVarExists
</TD></TR>

%%EndVarExists
```

RBL

HTML portion

```
%%VarExists(%%EventFire_RBL)
<!--- RBL --->
<TR>
<TD style="vertical-align: top;">
<FONT COLOR="FF0000">RBL block</FONT><P>
</TD>
<TD style="vertical-align: top;">
This message was rejected by a RBL server.<br>
The IP address of the blocked message is:<br>
%%RBLBlockedIP <br>
which the %%RBLSite RBL Server flagged.
</TD></TR>

%%EndVarExists
```

SuRBL

HTML portion

```
%%VarExists(%%EventFire_SURBL)
<TR>
<TD style="vertical-align: top;">
<FONT COLOR="FF0000">SURBL block</FONT><P>
</TD>
<TD style="vertical-align: top;">
This message was rejected by a SURBL server.<br>
The domain of the blocked message is:<br>
%%SURBLBlockedDomain<br>
which the %%SURBLSite SURBL Server flagged.
</TD></TR>

%%EndVarExists
```

Fingerprinting *HTML portion*	%%VarExists(%%EventFire_FingerPrint) <!--- Fingerprint ---> <TR> <TD style="vertical-align: top;"> <FONT COLOR="FF0000">Fingerprint</FONT><P> </TD> <TD style="vertical-align: top;"> An attachment within this message was rejected because it was detected to be of a disallowed type.<P> The following attachments were blocked:<P> <UL> %%ForEach(%%FingerprintedAttachmentName,SetCounter=%%FPItem)<LI> %%FingerprintedAttachmentName[%%FPItem] - %%FingerPrintFileType[%%FPItem]%%EndFor </UL> </TD></TR> <br>%%EndVarExists
Spam *HTML portion* Checks to see if an Antispam log file exists.	%%VarExists(%%EventFire_Spam) <!-- Spam --> <TR> <TD style="vertical-align: top;"> <FONT COLOR="FF0000">Spam</FONT><P> </TD> <TD style="vertical-align: top;"> The message scored %%AntiSpamScore, which exceeds the Anti-Spam Threshold of %%AntiSpamThreshold.<br><br>If you have enabled the Generate Log Files--in the Advanced settings for Anti-Spam Heuristics--<br><br>the following log files are available, and contain additional information about the message:<br><br>%%VarExists(%%AntiSpamLogFile)<br> <pre> %%IncludeAntiSpamLogFile </pre> <br>%%EndVarExists </TD></TR> <br>%%EndVarExists

Oversized

HTML portion

```
<!-- Oversized -->

%%VarExists(%%EventFire_Oversize)
<TR>
<TD style="vertical-align: top;">
<FONT COLOR="FF0000">Oversize</FONT><P>
</TD>
<TD style="vertical-align: top;">
The message exceeds the %%AttachmentSizeLimitKB KB <br>
limit set in GWAVA's Oversized Attachment Feature.<br>
<ul>
%%VarExists(%%EventFire_MessageOversize)
<li>Message
%%EndVarExists
%%VarExists(%%EventFire_AttachmentOversize)
<li>Attachments
%%EndVarExists
</ul>
</TD></TR>

%%EndVarExists
</TABLE>


<!-- Administrator Statistics -->
```

Administrator Statistics

HTML portion

```
<TABLE>
<TR><TD style="vertical-align: top; horizontal-align: center;">
<FONT COLOR="0000FF">Current</FONT> <FONT
COLOR="00FF00">GWAVA </FONT><FONT
COLOR="0000FF">Statistics</FONT><BR>
<FONT SIZE="-2">(system version %%NLMVersion / program version
%%ProgramVersion)</FONT>
</TD></TR>
<TR><TD>GWAVA Location: %%GWAVABaseUNC</TD></TR>
%%VarExists(%%ArchiveFileName)
<TR><TD>Archived to file: %%ArchiveFileName</TD></TR>
%%EndVarExists
<TR><TD>Date: %%MonthOfYearNumeric/%%DayOfMonth/%%YearLong
(%%HourOfDay24:%%MinuteOfHour:%%SecondOfMinute)
</TR></TD>

</TABLE>
<TABLE BORDER="1">
<TR><TD><FONT
COLOR="0000FF">Description</FONT></TD><TD><FONT
COLOR="0000FF">Today</FONT></TD><TD><FONT
COLOR="0000FF">Cumulative</FONT></TD>
<TR><TD>Total messages
processed</TD><TD>%%StatTodaysTotalMessagesProcessed</TD>
<TD>%%StatTotalMessagesProcessed</TD></TR>
<TR><TD>Virus infections
detected</TD><TD>%%StatTodaysInfectedMessageCount</TD>
<TD>%%StatInfectedMessageCount</TD></TR>
<TR><TD>Oversize
messages</TD><TD>%%StatTodaysOversizeMessageCount</TD>
<TD>%%StatOversizeMessageCount</TD></TR>
<TR><TD>Oversize
attachments</TD><TD>%%StatTodaysOversizeAttachmentCount</TD>
<TD>%%StatOversizeAttachmentCount</TD></TR>
<TR><TD>Blocked
attachments</TD><TD>%%StatTodaysAttachmentBlockedMessageCount</T
D>
<TD>%%StatAttachmentBlockedMessageCount</TD></TR>
<TR><TD>Messages blocked by
address</TD><TD>%%StatTodaysAddressBlockedMessageCount (
%%StatTodaysSourceAddressBlockedMessageCount,
%%StatTodaysDestinationAddressBlockedMessageCount)</TD>
<TD>%%StatAddressBlockedMessageCount
(%%StatSourceAddressBlockedMessageCount,
%%StatDestinationAddressBlockedMessageCount)
</TD></TR>
<TR><TD>Content filtered
messages</TD><TD>%%StatTodaysContentFilteredMessageCount (
%%StatTodaysContentFilteredSubjectCount,
%%StatTodaysContentFilteredMessageBodyCount,
%%StatTodaysContentFilteredAttachmentCount)
</TD>
<TD>%%StatContentFilteredMessageCount
(%%StatContentFilteredSubjectCount,
%%StatContentFilteredMessageBodyCount,
%%StatContentFilteredAttachmentCount)
</TD></TR>
<TR><TD>RBL
blocks</TD><TD>%%StatTodaysRBLBlockedMessageCount</TD>
<TD>%%StatRBLBlockedMessageCount</TD></TR>
<TR><TD>SURBL
blocks</TD><TD>%%StatTodaysSURBLBlockedMessageCount</TD>
<TD>%%StatSURBLBlockedMessageCount</TD></TR>
<TR><TD>Fingerprint
detections</TD><TD>%%StatTodaysFingerPrintBlockedMessageCount</TD>
<TD>%%StatFingerPrintBlockedMessageCount</TD></TR>
<TR><TD>Spam</TD><TD>%%StatTodaysHeuristicsBlockedMessageCoun
t</TD>
<TD>%%StatHeuristicsBlockedMessageCount</TD></TR></TABLE>
</html>

--%%UniqueIDString_Message.BODY
Content-Type: image/jpeg
Content-ID: <part1.%%UniqueIDString_Message.IMG1@gwava.com>
Content-Transfer-Encoding: base64
```

Metavariables used in GWAVA 3

Note that this is a partial list of the metavariables available, however it does cover all the major metavariables. For a complete list, consult the glossary.ini file in your GWAVA installation.

Name	Description	Category
EventFireList	Outputs a list of all the events (virus, spam, etc) that have occurred. Uses the localized text (see Miscellaneous in Configuration Program).	General
AttachExternalFile	Attaches an external file as opposed to attached a parsed external file. The file's metavariables are not parsed.	File
AttachSourceMessage	Used in notification templates, this includes the original message and attachments as a forwarded attachment Can be used for any event; the default TADMIN.822 only uses it for viruses.	File
UniqueIDString_Message	A random, unique string per message. Useful for building the notification messages, and for providing a guide for event logging.	General
UniqueIDString_Individual	A random, unique string. This value, unlike %%UniqueIDString_Message, changes each time you use it.	General
AdministratorAddress	The administrator address, as configured in the Configuration Program.	EMail
MIMECharSet	The default MIME character set, as configured in the Configuration Program.	EMail
Comment="comment"	Comments, which can span multiple lines. Typically embedded in the notification files have no function per se.	General
NLMVersion	The version of the GWAVA NLM	System
ProgramVersion	The version of GWAVA	System
StatTotalMessagesProcessed	This statistical variable reports the total number of messages processed to date.	Statistics

StatInfectedMessageCount	This variable inserts the infected message count statistic.	Statistics
StatOversizeMessageCount	This variable inserts the oversized message count statistic.	Statistics
StatOversizeAttachmentCount	This variable inserts the oversized attachment message count statistic.	Statistics
StatAttachmentBlockedMessageCount	This variable details the number of blocked attachments to date.	Statistics
StatAddressBlockedMessageCount	This statistical variable details the number of blocked messages to date.	Statistics
StatSourceAddressBlockedMessageCount	This statistical variable reports the number of messages blocked according to source.	Statistics
StatDestinationAddressBlockedMessageCount	This statistical variable reports the number of messages blocked according to destination.	Statistics
StatContentFilteredMessageCount	This statistical variable details the number of messages filtered for content.	Statistics
StatContentFilteredSubjectCount	This statistical variable counts the number of times content filters by subjects have been invoked.	Statistics
StatContentFilteredMessageBodyCount	This statistical variable counts the number of times content filters in the message body have been invoked.	Statistics
StatContentFilteredAttachmentCount	This statistical variable counts the number of times content filters in attachments have been invoked.	Statistics
StatRBLBlockedMessageCount	This statistic reports the number of messages blocked by RBL.	Statistics
StatFingerPrintBlockedMessageCount	This statistic reports the number of messages blocked because of fingerprint filtering.	Statistics
StatHeuristicsBlockedMessageCount	This statistic reports the number of messages blocked because of spam filtering.	Statistics
StatOverallInfectedMessageCount	This statistic reports the overall number of infected messages	Statistics

	intercepted by GWAVA.	
StatOverallOversizeMessageCount	This statistic reports the overall number of oversized messages.	Statistics
StatOverallOversizeAttachmentCount	This statistic reports the overall number of oversized attachments.	Statistics
StatOverallAttachmentBlockedMessageCount	This statistic reports the overall number of blocked attachments.	Statistics
StatOverallAddressBlockedMessageCount	This statistic reports the overall number of messages blocked because of address-related filtering.	Statistics
StatOverallSourceAddressBlockedMessageCount	This statistic reports the overall number of messages blocked because of their source addresses.	Statistics
StatOverallDestinationAddressBlockedMessage Count	This statistic reports the overall number of messages blocked because of their destination addresses.	Statistics
StatOverallContentFilteredMessageCount	This statistic reports the total number of messages filtered by content.	Statistics
StatOverallContentFilteredSubjectCount	This statistic reports the overall number of messages filtered by content.	Statistics
StatOverallContentFilteredMessageBodyCount	This statistic reports the overall number of e-mails filtered because of content in body of the messages.	Statistics
StatOverallContentFilteredAttachmentCount	This statistic reports the overall number of attachments filtered by content.	Statistics
StatOverallRBLBlockedMessageCount	This statistic reports the overall number of messages blocked because of RBL referencing.	Statistics
StatOverallFingerPrintBlockedMessageCount	This statistic reports the overall number of messages blocked because of fingerprinting.	Statistics
StatOverallHeuristicsBlockedMessageCount	This statistic reports the overall number of messages blocked because of spam analysis.	Statistics
StatTodaysTotalMessagesProcessed	This statistic reports the overall number of messages processed on this calendar day.	Statistics

StatTodaysInfectedMessageCount	This statistic reports the overall number of infected messages on this calendar day.	Statistics
StatTodaysOversizeMessageCount	This statistical variable reports the number of oversized messages for this calendar day.	Statistics
StatTodaysOversizeAttachmentCount	This statistical variable reports the number of oversized attachments for this calendar day.	Statistics
StatTodaysAttachmentBlockedMessageCount	This statistical variable reports the number of attachment blocks for this calendar day.	Statistics
StatTodaysAddressBlockedMessageCount	This statistical variable reports the number of messages blocked because of address filters for this calendar day.	Statistics
StatTodaysSourceAddressBlockedMessageCount	This statistical variable reports the number of messages blocked because of source address filters for this calendar day.	Statistics
StatTodaysDestinationAddressBlockedMessageCount	This statistical variable reports the number of messages blocked because of destination address filters for this calendar day.	Statistics
StatTodaysContentFilteredMessageCount	This statistical variable reports the number of messages which triggered content filters for this calendar day.	Statistics
StatTodaysContentFilteredSubjectCount	This statistical variable reports the number of messages which triggered subject header content filters for this calendar day.	Statistics
StatTodaysContentFilteredMessageBodyCount	This statistical variable reports the number of messages which triggered body content filters for this calendar day.	Statistics
StatTodaysContentFilteredAttachmentCount	This statistical variable reports the number of messages which triggered content filters in the attachments for this calendar day.	Statistics
StatTodaysRBLBlockedMessageCount	This statistical variable reports the number of messages which were blocked because of filters associated with RBL servers for this calendar day.	Statistics

StatTodaysFingerPrintBlockedMessageCount	This statistical variable reports the number of messages which were blocked because of fingerprint filters for this calendar day.	Statistics
StatTodaysHeuristicsBlockedMessageCount	This statistical variable reports the number of messages which were blocked because of heuristic filters for this calendar day.	Statistics
StatTodaysOverallInfectedMessageCount	This statistic reports the total of infected messages for this calendar day.	Statistics
StatTodaysOverallOversizeMessageCount	This statistic reports the total of oversized messages for this calendar day.	Statistics
StatTodaysOverallOversizeAttachmentCount	This statistic reports the total of oversized attachments for this calendar day.	Statistics
StatTodaysOverallAttachmentBlockedMessage Count	This statistic reports the total of blocked attachments blocked for this calendar day.	Statistics
StatTodaysOverallAddressBlockedMessageCount	This statistic reports the total of messages blocked because of address filter triggers for this calendar day.	Statistics
StatTodaysOverallSourceAddressBlockedMessage Count	This statistical variable reports the overall count of messages blocked because of their source.	Statistics
StatTodaysOverallDestinationAddressBlocked MessageCount	This statistical variable reports the overall count of messages blocked because of their destination today.	Statistics
StatTodaysOverallContentFilteredMessageCount	This statistic reports the total of messages blocked on this calendar day because of content filtering in messages. (As opposed, for example, the attachment.)	Statistics
StatTodaysOverallContentFilteredSubjectCount	This statistic reports the total of messages blocked on this calendar day because of content filtering of the subject.	Statistics
StatTodaysOverallContentFilteredMessageBody Count	This statistic reports the total of messages blocked on this calendar day because of content filtering in the body.	Statistics

StatTodaysOverallContentFilteredAttachment Count	This statistic reports the total of messages blocked on this calendar day because of content filtering in attachments.	Statistics
StatTodaysOverallRBLBlockedMessageCount	This statistical variable inserts the overall count of messages blocked by RBL filtering today.	Statistics
StatTodaysOverallFingerPrintBlockedMessage Count	This statistical variable reports the overall number of messages blocked because of fingerprinting today.	Statistics
StatTodaysOverallHeuristicsBlockedMessage Count	This statistical variable reports the overall count of messages blocked by heuristic analysis today.	Statistics
MessageSizeLimitBytes	The message size limit in bytes.	Oversize
MessageSizeLimitKb	The message size limit in kilobytes	Oversize
MessageSizeLimitMb	The message size limit in megabytes	Oversize
AttachmentSizeLimitBytes	The attachment size limit in bytes.	Oversize
AttachmentSizeLimitKb	The attachment size limit in kilobytes bytes.	Oversize
AttachmentSizeLimitMb	The attachment size limit in megabytes.	Oversize
AntiSpamThreshold	This useful reminder reports the setting of the anti-spam threshold.	Spam
IncludeAntiSpamLogFile	This variable attaches the relevant contents of the log file to the notification message.	Spam
FROM	The sender’s address.	EMail
TO	To whom it was addressed.	EMail
CC	To whom it was carbon copied.	EMail
BC	To whom it was blind-carbon-copied.	EMail
RECIPIENTS	This variable reports all the message’s recipients.	EMail
SUBJ	The original subject of the triggering message.	EMail

DayOfWeekLong	This variable inserts the weekday in long form.	Date/Time
DayOfWeekShort	This variable inserts the weekday in short form.	Date/Time
DayOfWeekNumeric	This variable reports the weekday as a numeric value.	Date/Time
DayOfMonth	This variable inserts the day of the month.	Date/Time
MonthOfYearLong	This variable inserts the month of the year data in long form, for example, January instead of Jan.	Date/Time
MonthOfYearShort	This variable inserts the month of the year data in the short form, for example, Jan instead of January.	Date/Time
MonthOfYearNumeric	This variable inserts the month of the year as a numeric value.	Date/Time
YearLong	This variable inserts the year data in long form, for example, 2005 rather than 05. It will always be four digits long.	Date/Time
YearShort	This variable inserts the year data in short form, for example, 05 rather than 2005. It will always be two digits long.	Date/Time
HourOfDay12	This variable appends the hour to the triggering event time report in a 12-hour clock format.	Date/Time
HourOfDay24	This variable appends the hour to the triggering event time report in a 24-hour clock format.	Date/Time
MinuteOfHour	This variable appends the minutes to the triggering event time report.	Date/Time
SecondOfMinute	This variable appends the seconds to the triggering event time report.	Date/Time
AMPMUpperCase	This variable inserts the AM/PM time in upper case depending upon the event time.	Date/Time
AMPMLowerCase	This variable inserts the am/pm time in lower case depending upon the	Date/Time

	event time.	
ArchiveFileName	Full path to the archive containing the message, if any.	Archive
RBLSite	This variable details which RBL site or sites involved in the triggering decision.	RBL
RBLBlockedIP	Collection of all the IP addresses listed in the RBL blacklists.	RBL
BlockedSourceAddress	Collection of all addresses blocked by a “from” address block	Address Block
BlockedDestinationAddress	Collection of all addresses blocked by a TO/CC/BCC address block.	Address Block
AntiSpamScore	This variable reports the score of messages blocked by GWAVA’s anti-spam technologies.	Spam
AntiSpamLogFile	This gives the location of the anti-spam log file, if it exists.	Spam
GWAVASource	This variable identifies whether a MTA or POA GWAVA agent triggered the event.	System
EventFire_Virus	True if Virus event occurred, blank otherwise. See %%VarExists.	Virus
EventFire_AttachmentType	True if attachment blocking event occurred, blank otherwise. See %%VarExists.	Attachment
EventFire_SourceAddressBlock	True if both address blocking event occurred and the item was a FROM address, blank otherwise. See %%VarExists., %%EventFire_AddressBlock	Address Block
EventFire_AddressBlock	True if any type of address blocking event occurred, blank otherwise. See %%VarExists.	Address Block
EventFire_DestinationAddressBlock	True if a destination of address blocking event occurred, blank otherwise. See %%VarExists.	Address Block
EventFire_RBL	True if a RBL blocking event occurred, blank otherwise. See %%VarExists.	RBL

EventFire_FingerPrint	True if a fingerprinting event occurred, blank otherwise. See %%VarExists.	Fingerprint
EventFire_Oversize	True if an oversize event occurred, blank otherwise. See %%VarExists.	Oversize
EventFire_MessageOversize	True if an oversized message event occurred, blank otherwise. See %%VarExists.	Oversize
EventFire_AttachmentOversize	True if an oversized attachment event occurred, blank otherwise. See %%VarExists.	Oversize
EventFire_Spam	True if a spam-related event occurred, blank otherwise. See %%VarExists.	Spam
EventFire_ContentFilter	True if a content filtering event occurred, blank otherwise. See %%VarExists.	Content Filter
EventFire_SubjectContentFilter	True if a subject content filtering event occurred, blank otherwise. See %%VarExists.	Content Filter
EventFire_AttachmentContentFilter	True if an attachment content filtering event occurred, blank otherwise. See %%VarExists.	Content Filter
EventFire_BodyTextContentFilter	True if a body content filtering event occurred, blank otherwise. See %%VarExists.	Content Filter
BlockedFileTypeName	Collection of all attachment blocked attachments.	Attachment Block
EventText	A collection of the different events localized according to Event Text section in GWAVA. (See Advanced)	General
FingerPrintFileType	This variable reports the type of file fingerprinted.	Fingerprint
OversizeAttachmentName	Collection of oversized attachments	Oversize
FingerprintedAttachmentName	Collection of all fingerprinted attachments.	Fingerprint
ContentFilteredAttachmentName	Collection of all content filtered attachments.	Content Filter

InfectedFileName	Collection of all infected files found.	Virus
VirusName	Name of the virus caught. Only available with API integrations.	Virus
InfectedFileDetail	This variable reports details about an infected file.	Virus
ContentFilterName	The collection of content filter names.	Content Filter
FilterContext	If the Enable Context Metavariable (Advanced section of Configuration Program) option is enabled, this variable displays the context of the filtered text	Content Filter
EndVarExists	Closes a %%VarExists loop.	Logical
VarExists	Used to test for the presence of a variable. This is useful for checking if a particular event has fired. May nested.	Logical
EmbedExternalFile="File path"	File path must be a full path. Embeds a file. Does NOT parse any metavariables in external file.	File
EmbedParsedExternalFile="File path"	File path must be a full path. Embeds a file containing metavariables and parses it.	File
ForEach(<multivaluedvariable>,SetCount =%%Dummy)	One of two ways to loop through a multivalued variable. Useful for retrieving individual values using the %%Dummy index).	Logical
EndFor	Closes a ForEach loop	Logical
PadDayofMonth	Day of month, with extra 0 prepended for days 1-9.	Date/Time
ServerHostName	DNS Host Name of GWAVA server.	System Server Host Name
ServerIPAddress	GWAVA Server's IP Address	System IP
AgentPlatform	What NOS is the GWAVA Agent running on.	System Netware
ProfileName	GWAVA profile name, if assigned.	System

StripLineFeeds	Turns on/off a stripping mechanism for removing line feeds. Useful for parsing text without extra line feeds being stuck in--See %%EOL	Logical
EOL	Inserts a line feed. Useful for controlling explicitly when a line feed occurs especially in conjunction with %%StripLineFeeds=1	Logical
GWAVABaseNW	That is the path of the GWAVA directory in NW format	System
GWAVABaseUNC	This is path of GWAVA in the UNC format	System
ContentFilter_Subject_Name	Collection of all subject content filter hits	Content Filter
ContentFilter_Text_Name	Collection of all content filter body text hits	Content Filter
ContentFilter_Attachment_Name	Collection of all content filter attachment hits	Content Filter
ContentFilterType	Collection of "Subject","Text","Attachment"	Content Filter
ContentFilter_Subject_Context	The Subject text context	Content Filter
ContentFilter_Text_Context	The text context.	Content Filter
ContentFilter_Attachment_Context	The attachment context.	Attachment Content
OversizeAttachmentSize	The collection of oversized attachment sizes.	Attachment
Attachment_Name	The collection of attachment names.	Attachment
Attachment_Size	All attachment sizes regardless of event.	Attachment
ToRecipientAddress	The Recipient's address.	General
CCRecipientAddress	Collections for the CC recipient address	General
BCCRecipientAddress	Collections for the BCC recipient address	General

RFC822Date	Date in RFC822 format: Thu, 12 Sept 2005 11:24:16 -0500	Date/Time
SubstituteVarChar	It prevents breaking comma delimitation issues.	Logical
%%SMPTMailFrom	The SMTP engine address, which can be configured separately from the Admin Address.	EMail
%%VirusScanner	This variable reports the active AV engine	Virus
%%SMTPMailFrom	Used to report the sender	General

Fingerprint Description ID file

```
0=Unknown
1=DOS low confidence
2=DOS high confidence
3=COM low confidence
4=COM high confidence
5=Windows executable
6=Windows DLL
7=Windows screen saver
8=Windows VXD
9=ActiveX control
10=Windows control panel
11=Windows help
12=Java app

13=Windows PIF
14=Write
15=Windows group
16=Windows shortcut
17=Windows password list
18=Windows registry
19=Windows true type font

20=Windows clipboard
21=Windows card file
22=Windows find file
23=Windows calendar
24=Windows animated cursor
25=Generic OLE
26=WordPerfect generic
27=WordPerfect document
28=Word
29=Word macros


30=Excel
31=Excel macros
32=PowerPoint
33=Access
34=Visio
35=PCS art
36=Binder
37=PhotoShop
38=PDF
39=Postscript


40=Adobe font
41=PageMaker
42=WPWPG
43=TIFF
44=GIF
45=BMP low confidence
46=BMP high confidence
47=PNG
48=JPEG
49=WMF


50=PCX
51=DCX
52=TNEF
53=JAR
54=ARJ
55=RAR
56=GZIP
57=ZIP
58=CAB
59=MSCompress

60=UC2
61=BAG
62=LZH
63=ZOO
64=SIT
65=CorelDraw
66=CorelPresentation
67=RIFF
68=WAV
69=AVI

70=QuickTime
71=MP3
72=RA
73=RMF
74=IFF
75=MIDI
76=ASF
77=Paradox
78=Quattro
79=123

80=Notes
81=Organizer
82=Freelance
83=WordPro
84=AmiPro
85=ANM
86=DXF
87=DWG
88=AutoAnim
89=SCM

90=SYLK
91=DIF
92=ESRIShape
93=WAD
94=OE5
95=RTF
96=BZIP
97=NLM
98=Publisher
99=XPress

100=Ogg
101=MNG
102=SWF

1000=Text
1001=HTML
1002=Dbase
```

Contact Technical Support

Your copy of GWAVA includes 30 days or 3 incidents (whichever comes first) of complimentary technical support. For all of your support and purchasing needs, please visit our home page at www.gwava.com.

E-mail support@gwava.com

Technical support: (801) 437-5678