



Version 1.0 Installation and User Guide

Trigger Details for ClearManage Region: ACME, Inc.
Master VOB: \office
Total 36 of 36 VOB(s) displayed

VOB Finder: \v21

All of the 11 Master Trigger defined are applied to the VOB (\v21) EXACTLY as they are in the Master VOB...

11
0
11
5 15 25 35 45 --VOB(s)

^-- Closer to Master policy

All of the 11 Master Trigger defined are applied to the VOB (\v21) EXACTLY as they are in the Master VOB...

Details as of: Mon Jan 06 12:24:55 2003 For examples of triggers look [here](http://www.abs-consulting.com).
For help visit A Better Solution, Inc. at <http://www.abs-consulting.com>.

All of the 11 Master Trigger defined are applied to the VOB (\v21) EXACTLY as they are in the Master VOB...

Trigger Details for ClearManage Region: ACME, Inc.
Master VOB vs. VOB: \v2

Trigger Name	Compare	Status
Master VOB \office		
GET_BUG_NUM	=0	
NO_RMELEM	==	
NO_RMVER	=?	
VOB \v2		
####		
NO_RMELEM		
NO_RMVER		
Excessive Trigger Name in VOB \v2		
NO_CHEVENT	0=	
NO_CO_MAIN	0=	

Details on Master-VOB \office Item:

trigger type "NO_RMVER"
06-Jan-03.12:59:49 by cclarke3.Domain Users@abnt07
owner: ABS\cclarke3
group: ABS\Domain Users

all element trigger
pre-operation rmver
action: -exec \\vobsvr\policy\INHIBIT.bat

Details on VOB \v2 Item:

trigger type "NO_RMVER"
06-Jan-03.12:58:36 by cclarke3.Domain Users@abnt07
owner: ABS\cclarke3
group: ABS\Domain Users

all element trigger
pre-operation rmver
action: -exec c:\INHIBIT.bat

Details as of: Mon Jan 06 13:16:14 2003 For examples of triggers look [here](http://www.abs-consulting.com).
For help visit A Better Solution, Inc. at <http://www.abs-consulting.com>.

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Introduction

ClearManage Overview

ClearManage is a custom add-on to Rational Software's ClearCase product. It serves to simplify the task of centrally maintaining triggers for your ClearCase installation by integrating with your current ClearCase installation without having to move VOBs to new machines or reorganizing your network. All previously written triggers may be used and no additional proprietary language is required to utilize the program. ClearManage allows one to "push" triggers written for one VOB to any number of VOBs in a ClearCase region.

Therefore, **ClearManage is an efficient way to manage existing and future triggers for your organization.** ClearManage specializes in ClearCase trigger "management" only. If further trigger management, trigger avoidance and/or policy creation is required, please ask about our ClearTrigger product. Upon installation and configuration, ClearManage is ready to use.

ClearManage takes full advantage of existing triggers, allowing them to be viewed and copied to or removed from a number of other VOBs in your region with ease. In addition, triggers can be compared side-by-side on different VOBs by designating a "Master" VOB. The Master VOB can be any existing VOB you choose and you can change it at any time. Such a designation enables one to determine if a particular VOB contains the Master Policy. It will then be possible to detect missing and/or non-standard Master Triggers. Triggers are compared by name and by content to ensure that no master policy trigger is missed in the event that a trigger of the same name might have different functionality associated with it. **The ability to globally move or delete triggers to or from any VOB is minimized to 3 mouse clicks in most instances.**

ClearManage is implemented through the use of configuration files called *clearmgt_file*. Though the *clearmgt_file* does not have to be named such, for the purpose of explanation, the file shall be referred to as "***clearmgt_file***" throughout this document. The *clearmgt_file* file allows you to define a Master VOB and a ClearManage depot. The depot contains directories used by ClearManage as well as storage for any comparative graphs created. Organizations may have unlimited number of *clearmgt_files*. In addition, several configuration files may be created to divide the policy depot among multiple teams or departments. Such subdivision would create ***ClearManage regions***.

ClearManage eliminates having to access each organization's VOBs to redefine triggers or create and maintain homegrown script. This can be done without moving VOBs to new machines or reorganizing your network. To begin, simply install and configure ClearManage!

Customer Support

To obtain additional information on ClearManage or services offered by A Better Solution, Inc., visit our web site at www.abs-consulting.com. To report problems with the ClearManage software or documentation, please submit a problem report via email to clearmanage_team@abs-consulting.com.

If you purchased ClearManage from ClearVision (the only licensed reseller of ClearManage in the European regions) then you should contact support@clearvision-cm.com for support.

Supported Platforms

ClearManage integrates with ClearCase installations from version 3.2 and higher. A single installation of ClearManage is capable of serving an entire organization. The system requirements for ClearManage are consistent with those used to run ClearCase version 3.2 and higher. The following operating systems are supported for ClearManage:

❖ WINDOWS:

- **Windows 9x**
- **Windows NT**
- **Windows 2000 and higher**

❖ UNIX:

- **Solaris**
- **SunOS**
- **HP-UX**
- **RedHat Linux**
- **True64**
- **AIX**
- **IRIX**



Installing ClearManage

Consider where ClearManage will be used from prior to installation. The machine from which ClearManage is “run” is considered a ClearManage Client. The executable, however, may reside on another machine. The accessibility of software from the machine(s) where you will perform “trigger management” should be considered during installation.

The machine that runs ClearManage (a ClearManage Client) should have ClearCase installed as well as access to the following:

- a. the **clearmgt_file(s)** for the region(s) to be managed
- b. a ClearCase license server
- c. the ClearCase registry server for the regions to be manage
- d. the VOB server(s) that hosts the VOBs to be managed
- e. a web browser (i.e. Internet Explorer or Netscape)

All ClearCase clients are potential ClearManage clients. Because the executable does not have to physically reside on a ClearCase client machine, the software need not be installed on any or all clients. It must simply be *accessible* from the ClearManage client.

Installation steps

- 1) **Create a directory that will serve as your ClearManage Depot.** You may name this directory “depot”, though, any name will work the same. The depot should be accessible from the machines from where you will run ClearManage. To be able to “manage” triggers from multiple locations, place the depot in a highly available location (We suggest a ClearCase VOB server, registry server or license server). To “manage” triggers from a single workstation, place the executable locally on the machine so long as that machine satisfies the criteria of a ClearManage Client.
- 2) **Create a [clearmgt_file](#)** (i.e. clearmgt.txt) in a location accessible to all ClearManage clients. While it is not necessary that the **clearmgt_file** be in the depot, we recommend this. A pre-populated **clearmgt_file (clearmgt.txt)** was included with this distribution. In the event this did not occur, copy the file in the section entitled “[a sample clearmgt_file](#)” from this document.

- 3) Create a directory called “**web_pages**” in the depot. This directory **MUST** be named “**web_pages**” and should be writable by anyone that might run ClearManage. ClearManage will place web pages built for reports or graphs in this directory.
- 4) Create a directory called “**images**” in the depot. This directory **MUST** be named “**images**” and should be readable by anyone that might run ClearManage. ClearManage expects to find the images required for creating reports and graphs in this directory. Populate a directory called “**images**” in your **depot**.

The images are located in your distribution area. These images can be found in the same directory or same http page in which binaries reside (look for the following icon).



clearmanage_images

When using a Windows OS, click the self-extracting executable and point it to your depot to create and populate the directory. If on UNIX follow the same steps before moving the images to their appropriate locations.

- 5) **Copy the ClearManage executable (clearmanage.exe)** to a location accessible from the ClearManage client machine(s). While not required, we suggest that the ClearManage executable be placed in the depot.

Installation of ClearManage is now complete!

Client setup

ClearManage requires minimal client setup. If ClearCase is properly installed on the ClearManage client and it has access to ClearManage depot, ClearManage executable, and clearmgt_files, setup is complete. ClearManage requires the following:

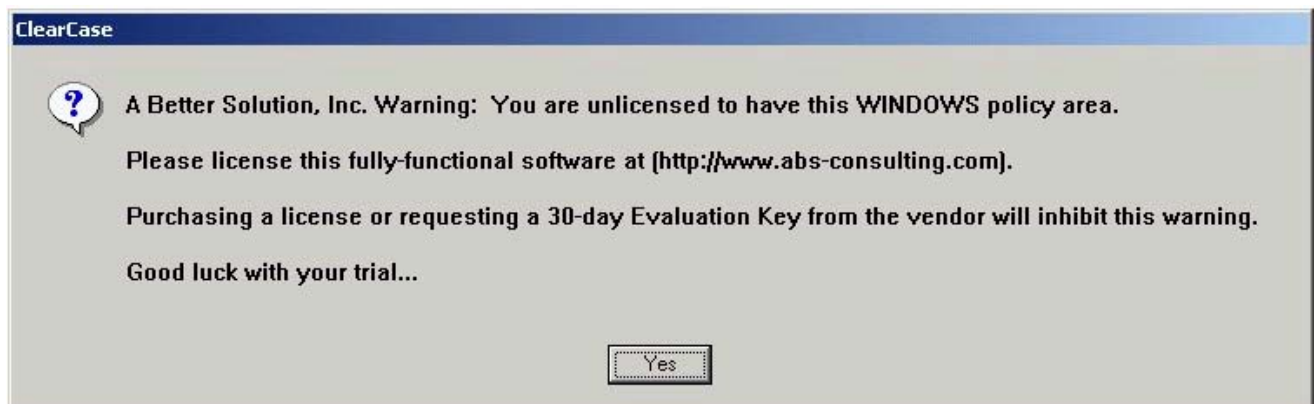
- ClearCase must be properly installed on the ClearManage Client. ClearManage relies on ClearCase to function.

License Registration

A Better Solution, Inc. distributes user licenses for ClearManage on a per architecture basis. In most instances, a single license is required when in an inter-op organization as trigger management can be performed from either side (Windows or UNIX). ClearManage should be licensed to the location that is accessible to the architecture from which you expect to manage your triggers.

A license request form will be sent upon purchase of ClearManage from A Better Solution, Inc. The completed form should be faxed or e-mailed to A Better Solution, Inc. A license is not required for installation and configuration of ClearManage. (ABS encourages our clients to try it first.). ClearManage is distributed as fully functional software with an **evaluation license key**.

If necessary, sites may also operate using an evaluation license. Upon obtaining the license key, it will need to be placed in the ClearManage *clearmgt_file*. Use of an evaluation license will cause random *Splash Messages* from the vendor similar to the one below. *Splash Messages* will not change the functionality of ClearManage. All functions shall be completed. However, splash screens can be either modeless (does not require confirmation to proceed) or modal (requires confirmation to proceed).

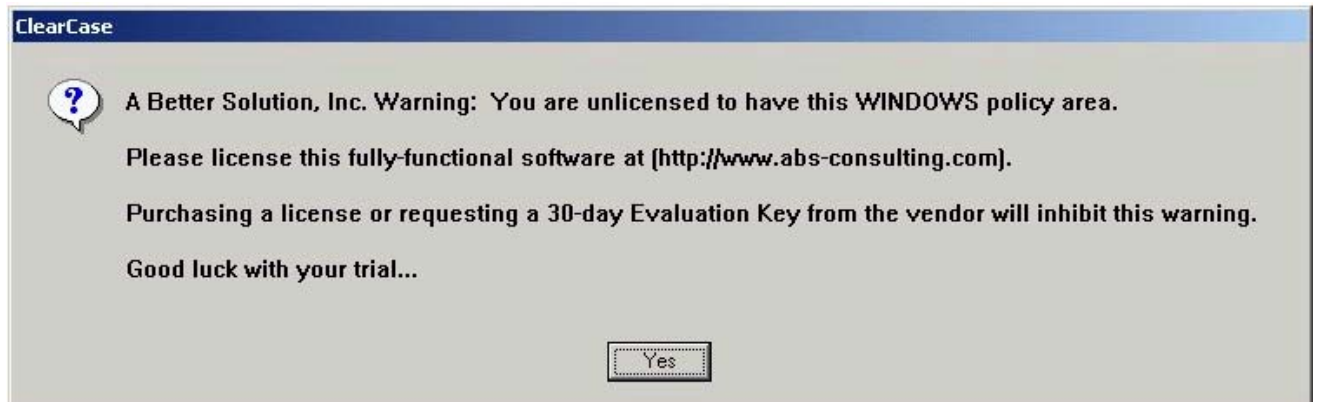


License Strings

The first section of **clearbits.txt** is the license section. It contains the Product Name, Vendor Name, License Key Generator ID, License Key, and ClearManage Region Name (often the organization name). In this location, replace the default license entry with your license key for each architecture license you have purchased from A Better Solution, Inc. or a licensed reseller. If an evaluation license key was acquired, likewise, place it here. Keys should appear similar to the following examples:

clearmanage ABS licman;123456789;ACME Inc – East Campus;
clearmanage ABS licman;123456789;ACME Inc.;
clearmanage ABS licman;123456789;ACME Inc. – West Campus;

Note: Only a vendor-generated license will allow ClearManage to operate without randomly displaying the *ABS Splash Message*.



Input the Organization Name as it will appear in web pages and graphs created. See license key example:

clearmanage ABS licman;123456789;ACME Inc.;

With this key, ClearManage might create the following graphs:

Trigger Details for ClearManage Region: ACME, Inc.
Master VOB: \office
Total 36 of 36 VOB(s) displayed

VOB Finder: \v21

All of the 11 Master Trigger defined are applied to the VOB (\v21) EXACTLY as they are in the Master VOB...

From License String

Details as of: Mon Jan 06 13:16:14 2003 For help visit A Better Solution, Inc. at <http://www.abs-consulting.com>

Trigger Details for ClearManage Region: ACME, Inc.
Master VOB vs. VOB: \v2

Trigger Name	Compare Status	Trigger Name
Master VOB \office		VOB \v2
GET_BUG_NUM	=0	####
NO_RMELEM	==	NO_RMELEM
NO_RMVER	=?	NO_RMVER
		Excessive Trigger Name in VOB \v2
	0=	NO_CHEVENT
	0=	NO_CO_MAIN

Details on Master-VOB \office Item:

```

trigger type "NO_RMVER"
06-Jan-03.12:59:49 by cclarke3.Domain Users@absnt07
owner: ABS\cclarke3
group: ABS\Domain Users
=====
all element trigger
pre-operation rmver
action: -exec \\vobsvr\policy\INHIBIT.bat
  
```

Details on VOB \v2 Item:

```

trigger type "NO_RMVER"
06-Jan-03.12:58:36 by cclarke3.Domain Users@absnt07
owner: ABS\cclarke3
group: ABS\Domain Users
=====
all element trigger
pre-operation rmver
action: -exec c:\INHIBIT.bat
  
```

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Configuring ClearManage (clearmgt_file)

The **clearmgt_file** is the configuration file used by ClearManage. It holds both licensing and region configuration information used to find and manage ClearCase triggers for the region. This file must be properly populated prior to running ClearManage. The product distribution comes with a valid file that will have to be configured. Users may populate this file manually or by using the “Configure ClearManage” option on the ClearManage main GUI (shown later). The following information is used to configure the **clearmgt_file**. Refer to each individual section for descriptions and proper formatting of information in the configuration file. A sample clearmgt_file file is shown in the section entitled [▲ sample Clearmgt file](#) and would contain the following ClearTrigger items:

- [License String\(s\)](#)
- [ClearManage Depot](#)
- [Master VOB designator](#)
- [Other Configurable run-time items](#)

ClearManage Regions

Prior to reviewing the *clearmgt_file*, it is essential to more clearly define **ClearManage Regions**.

As defined in the *clearmgt_file*, a *ClearManage Region* is both a region name and a path to the *ClearManage depot*. Multiple ClearManage Regions can be defined to subdivide the VOBs in your organization and may exist without having to purchase additional ClearManage licenses. *ClearManage Regions* are unrelated to *ClearCase Regions*. However, many companies will make a one-to-one mapping between the two. **You can have any number of ClearManage Regions without having to purchase more ClearManage Licenses.**

ClearManage requires that a ClearManage depot within the *clearmgt_file* be defined. In a ClearCase InterOp configuration (where a VOB may be accessed from both UNIX and Windows operating Systems) two *clearmgt_files* may be chosen but not required as trigger management can be performed for both from either platform. These paths may point to the same physical location if using NFS or Samba like software. It is also possible to create multiple *clearmgt_files* files that utilize the same depot. Organizations may have unlimited *clearmgt_files* files to divide policy across projects, teams, department, and/or other organizations.

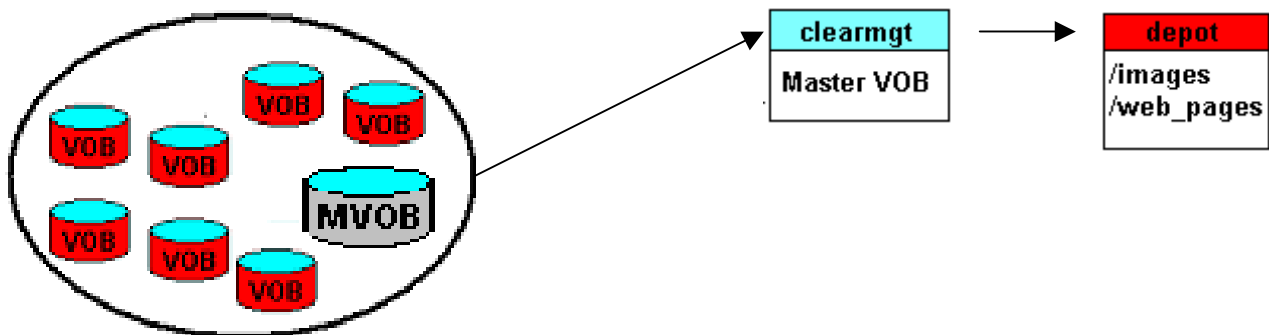
Thus, define a *ClearManage Region* as the **region name:depot** pair. Charges will not be incurred for having multiple *clearmgt_files* or policy depots. As a result, organizations may create multiple *ClearTrigger Regions* utilizing the same *ClearManage depot*.

Unless political reasons exist creating a case for maintaining unique region names on reports and graphs, instances of obtaining multiple licenses of ClearManage are rare.

See the following examples of ClearTrigger Regions with corresponding policy depots and *clearbits.txt*:

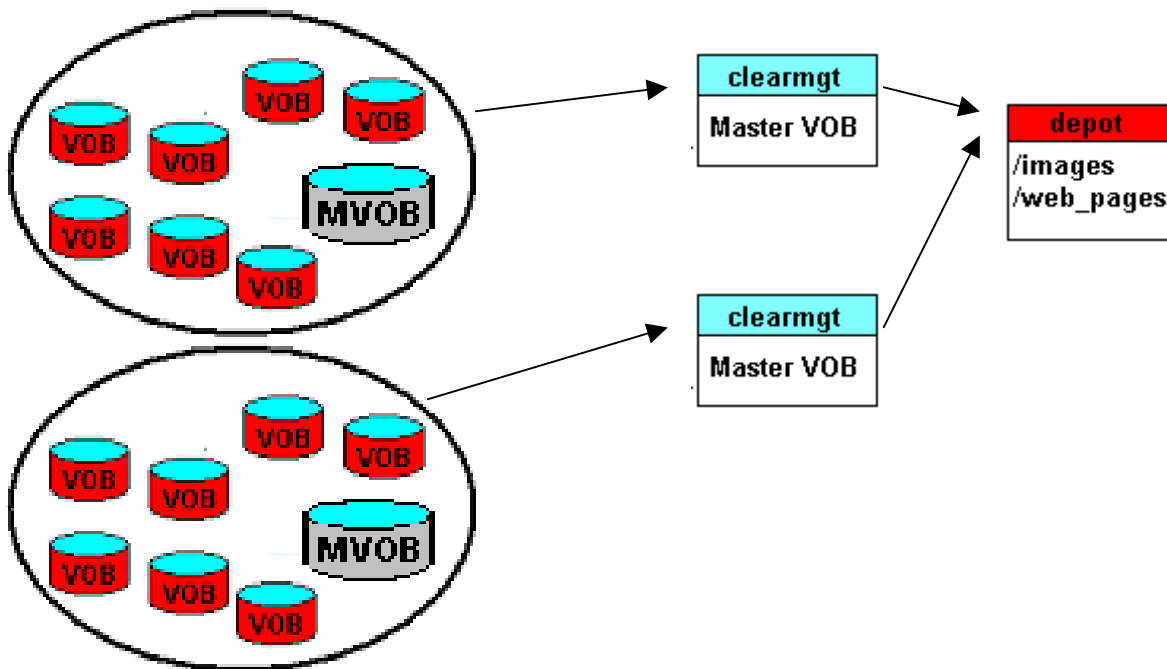
One ClearCase Region – One ClearManage Region

When VOBs in a single ClearCase region use a single *clearmgt_file* (which points to a *depot*) **one** ClearManage Region is created. All VOBs in this *ClearManage Region* may share, compare or move triggers within the region. **Such an occurrence would require one license.**



Two ClearCase Regions – One ClearManage Region

Two ClearCase regions may be used to control two *clearmgt_files* (both pointing to a single *depot*), thereby creating **two** ClearManage Regions. All VOBs in both *ClearManage Regions* rely on the same depot. Such a configuration is ideal when it is necessary to enforce separate policies within the organization for varying ClearCase regions. **If access to the same Master Triggers is needed, register the Master VOB in both ClearCase Regions. Remember: the “Master” VOB is a designation only. A new VOB with defined triggers or any existing VOB may be used.**

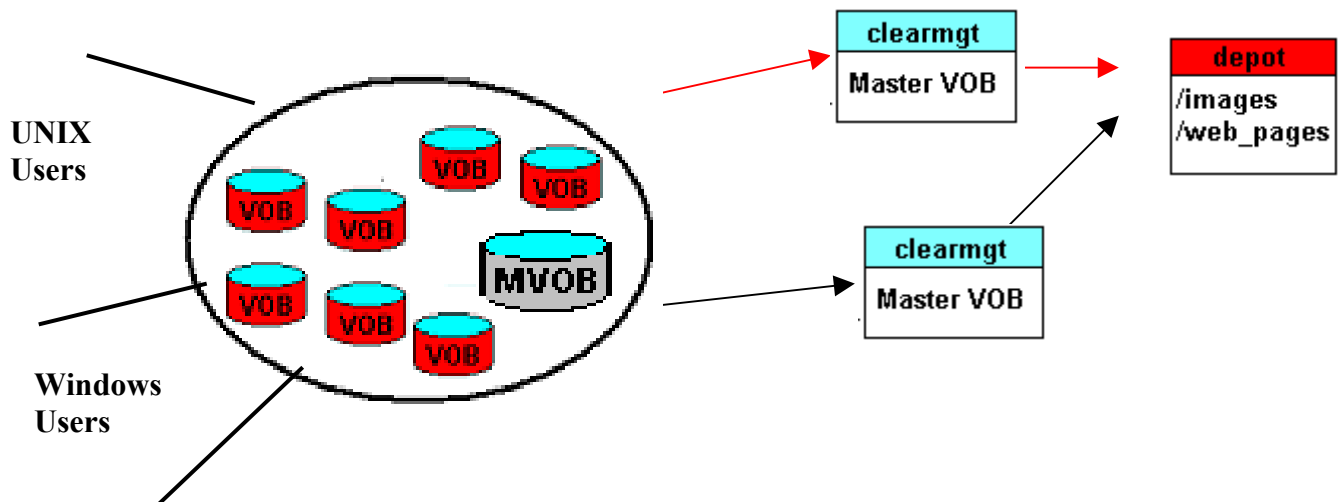


This configuration requires one or two licenses. Remember, a license key is based on a unique path to the depot and the region name (i.e. the name expected want to appear on web pages built in reports). Two regions may exist with the same name in ClearManage. Therefore, if regions were named "Acme, Inc - (Financial Division)" and "Acme, Inc - (Commerce Division)," two licenses would be required. However, if both regions were named "Acme Company, Inc.," only one license is required. **Again, it is rare to have to obtain multiple ClearManage licenses for your organization.**

InterOp Configuration

ClearManage is only concerned with “trigger management.” Therefore, how users access ClearCase is immaterial to ClearManage. It is possible to “manage” the triggers from one architecture. This is comparable to the [“One ClearCase Region – One ClearManage Region”](#) scenario previously discussed.

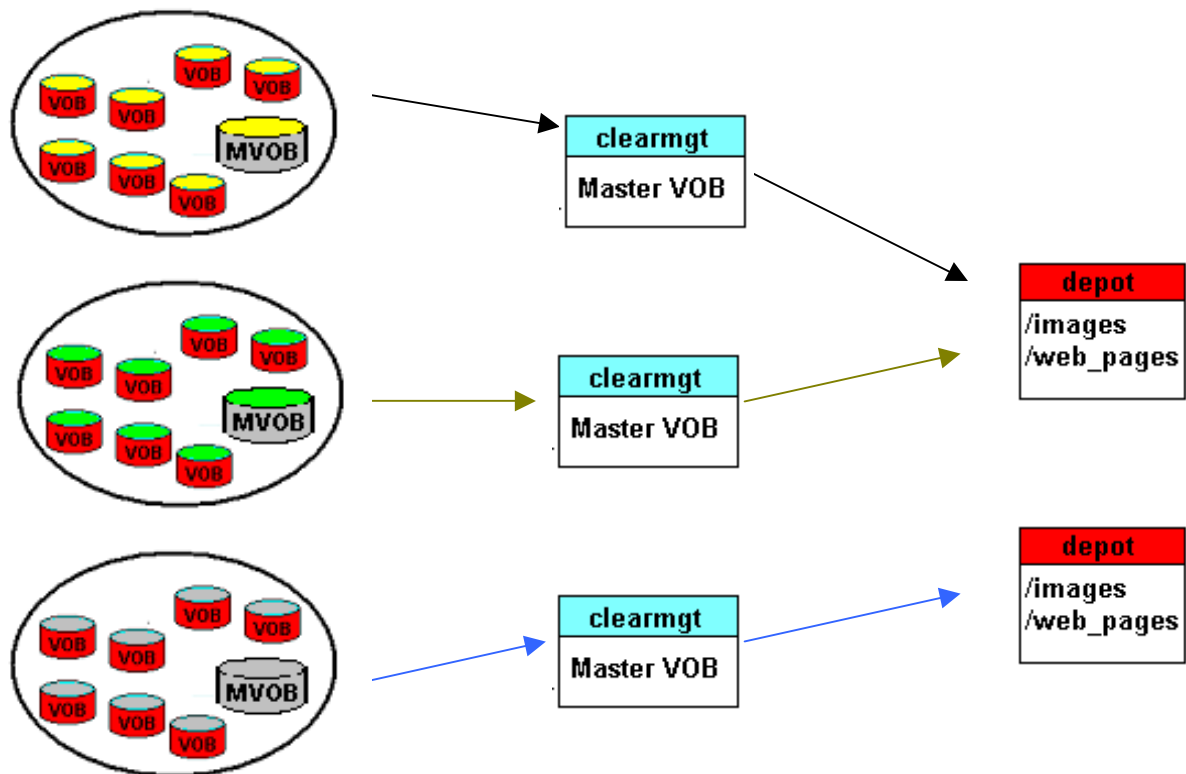
If access to ClearManage is desired from both architectures, separate paths to your clearmgt_file (a Windows path and a UNIX path) and the depot are required. Each clearmgt_file points to the same depot (through NFS or Samba) creating **two** ClearTrigger Regions.



This configuration requires one or two licenses. Remember, a license key is based on a unique path to the depot and the region name (i.e. the name expected to appear on web pages built in reports). Two regions may exist with the same name in ClearManage. Therefore, if regions were named "Acme, Inc - (Financial Division)" and "Acme, Inc - (Commerce Division)," two licenses would be required. However, if both regions were named "Acme Company, Inc.," only one license is required. **Again, it is rare to have to obtain multiple ClearManage licenses for your organization.**

ClearManage Regions vs. ClearCase Regions

No hard association exists between *ClearManage Regions* and *ClearCase Regions*. It is acceptable for VOBs in different ClearCase regions to be part of the same *ClearManage Region* and vice-versa. VOBs in another ClearCase region (hidden from the **cleartool lsvo** listing) might have the same company-wide policy implemented. In the following example VOBs in different *ClearCase Regions* (**Green**, **Yellow**, **Grey**) exist in different *ClearManage Regions* (**blue**, **brown**, **black**).



A sample clearmgt_file

```
#####
# ClearManage License File
#####

##### ClearManage Defaults #####
#!clearmanage browser=C:\Program Files\Internet Explorer\IEXPLORE.EXE
#!clearmanage pathing=relative
#!clearmanage master=\some_vob
#!clearmanage auto_keep_pages=no
#####

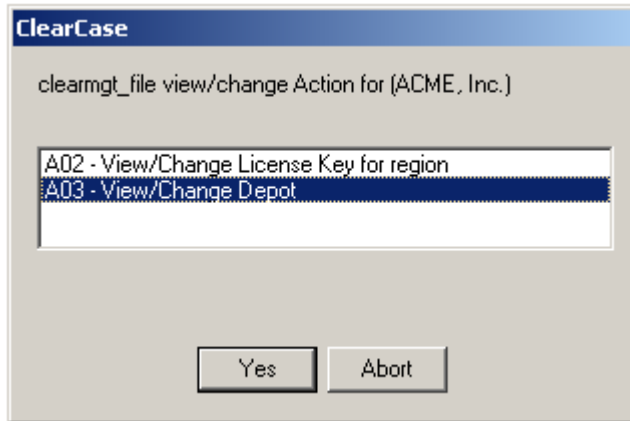
#####
# ClearManage License String
#
# The license string contains a:
# Preamble, License Key and ClearManage Region Name
# when generated by the vendor.
#####
clearmanage ABS licman;123456789;ACME Inc;

#####
# The ClearManage Policy Depot;
#
# The Depot definition appears as:
# {depot_path};
#####
c:\ClearManage\depot;
```

ClearManage Depot

The depot is a required directory for ClearManage. It contains a **web_pages** directory where by default, ClearManage saves graphs and queries if requested

([#!clearmanage auto keep pages=yes](#)). The depot also contains the required **images** directory that contains the image files required for the created web pages (results of queries or graphs). The directory must exist and be accessible from the machine from which ClearManage runs. The “depot” directory can either be defined manually by editing the `clearmgt_file` or by using the [A02 functionality](#) within ClearManage.



The section of the **clearmgt_file** entitled ‘ClearManage Region Information’ contains the network path to the ClearManage depot and is used to calculate the vendor generated license string. When defining the ClearManage depot, use the semicolon (;) at the end of the line to “terminate” the depot. Examples on formatting the policy depot are shown below:

Examples:

Windows examples:

```
\\win2k_01\Policy\region1_depot;  
c:\ClearManage\depot;
```

UNIX examples:

```
/net/earth/policy/region1_depot;  
/policy/clearmanage/a_depot;
```

The policy depot should be in a valid architecture specific structure that terminates to a location available to machines using ClearManage. The depot should contain an empty/writable directory called “web_pages” as well as one named “images,” both included with the ClearManage distribution. The following tables show acceptable conventions for path naming:

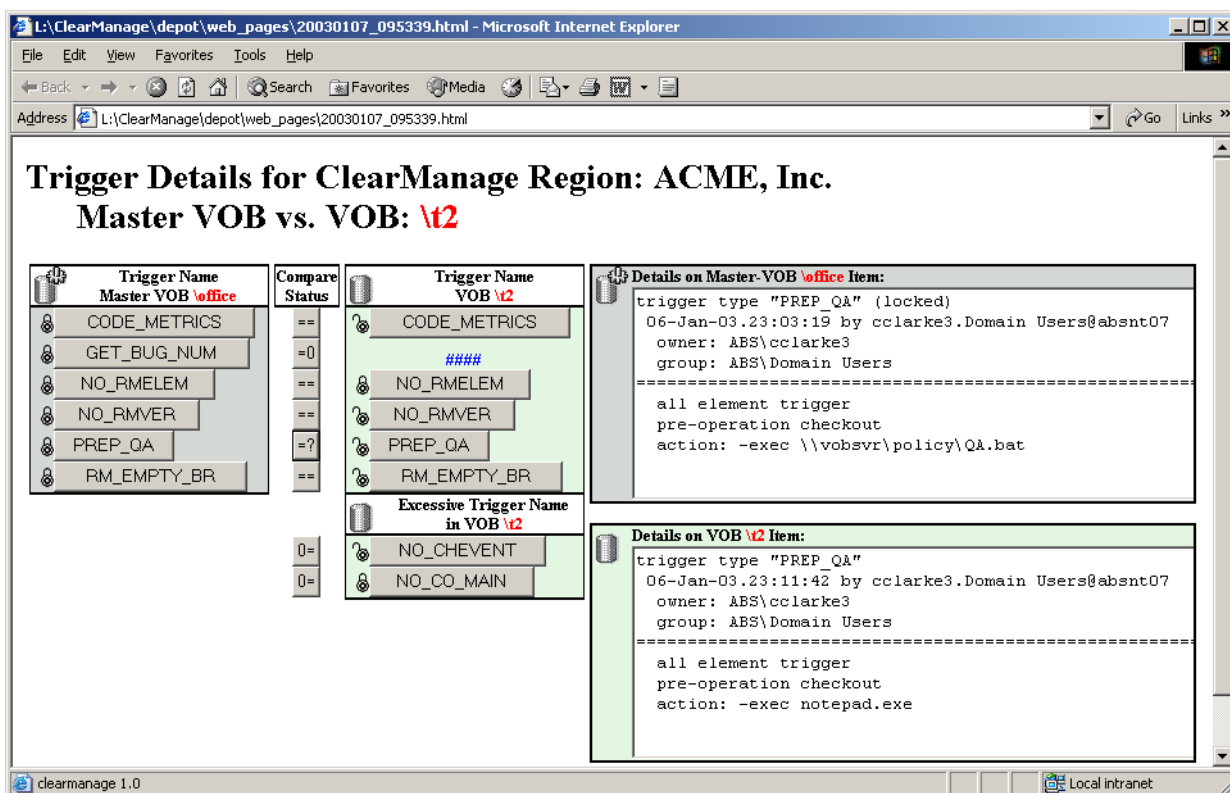
Windows	Allowed path naming
UNC Naming	\\server_name\share_name\{path_to_policy_depot}
Drive Resident	D:\{path_to_policy_depot}

UNIX	Allowed path naming
Network Naming	/net/server_name/{path_to_policy_depot}
Mounted or Absolute local	/ {path_to_policy_depot}

ClearManage Master VOB Designation

The **Master VOB** is a required designation for ClearManage and is the VOB containing the most standard triggers you want your VOBs to have. The **Master VOB** can be any current VOB or any VOB created only holding triggers and can be [changed](#) at any time.

When viewing a VOB's triggers, view it against the Master VOB to compare how it measures up with the Master Policy. The following example shows such a comparison. Details can be seen on page in the section entitled: [Q02 – Show VOB Triggers \(Detail\)](#)



The screenshot displays a web browser window with the address `L:\ClearManage\depot\web_pages\20030107_095339.html`. The page title is "Trigger Details for ClearManage Region: ACME, Inc. Master VOB vs. VOB: \t2".

Trigger Name Master VOB \office	Compare Status	Trigger Name VOB \t2
CODE_METRICS	==	CODE_METRICS
GET_BUG_NUM	=0	####
NO_RMELEM	==	NO_RMELEM
NO_RMVER	==	NO_RMVER
PREP_QA	=?	PREP_QA
RM_EMPTY_BR	==	RM_EMPTY_BR
Excessive Trigger Name in VOB \t2		
	0=	NO_CHEVENT
	0=	NO_CO_MAIN

Details on Master-VOB \office Item:

```

trigger type "PREP_QA" (locked)
06-Jan-03.23:03:19 by cclarke3.Domain Users@absnt07
owner: ABS\cclarke3
group: ABS\Domain Users
=====
all element trigger
pre-operation checkout
action: -exec \\vobsrv\policy\QA.bat

```

Details on VOB \t2 Item:

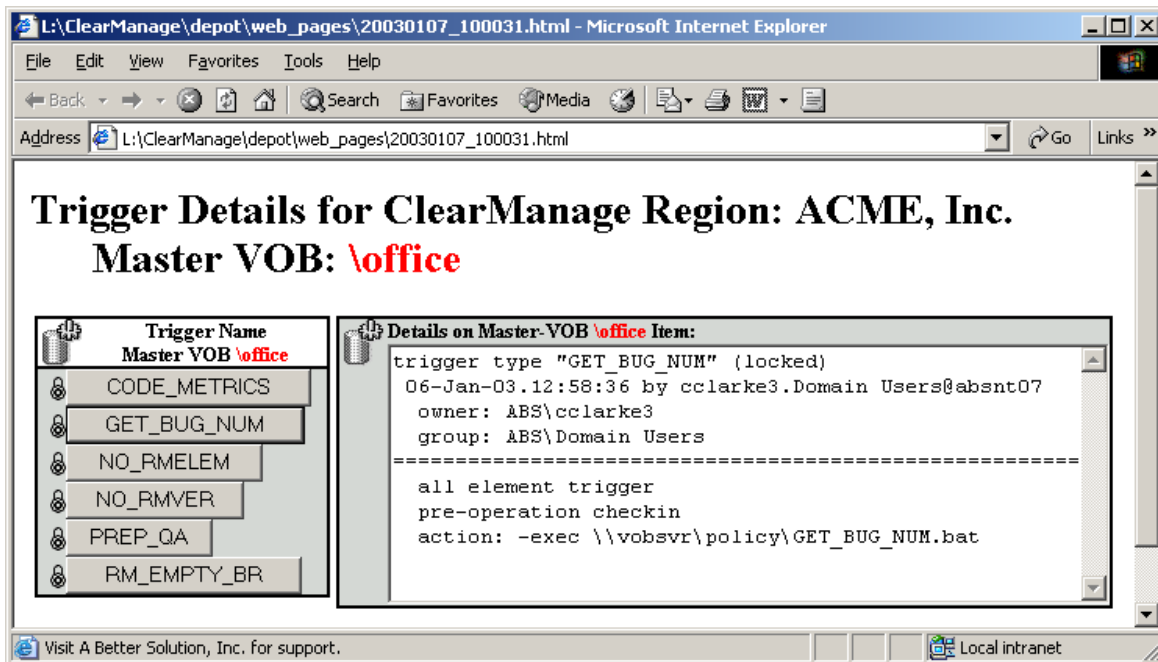
```

trigger type "PREP_QA"
06-Jan-03.23:11:42 by cclarke3.Domain Users@absnt07
owner: ABS\cclarke3
group: ABS\Domain Users
=====
all element trigger
pre-operation checkout
action: -exec notepad.exe

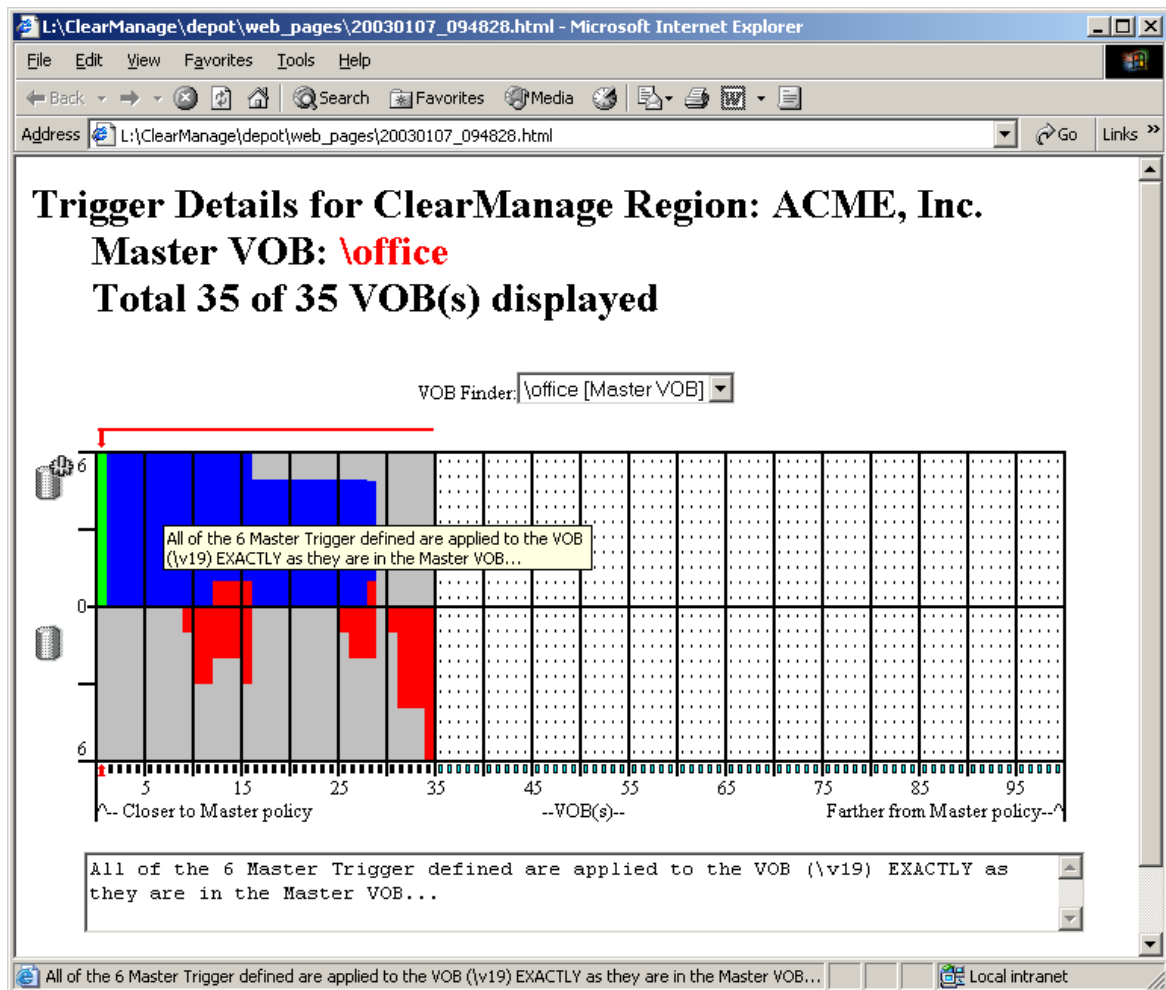
```

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To view the Master VOB alone, select [Q01 – Show Master VOB Triggers \(Detail\)](#) from the Main Menu.



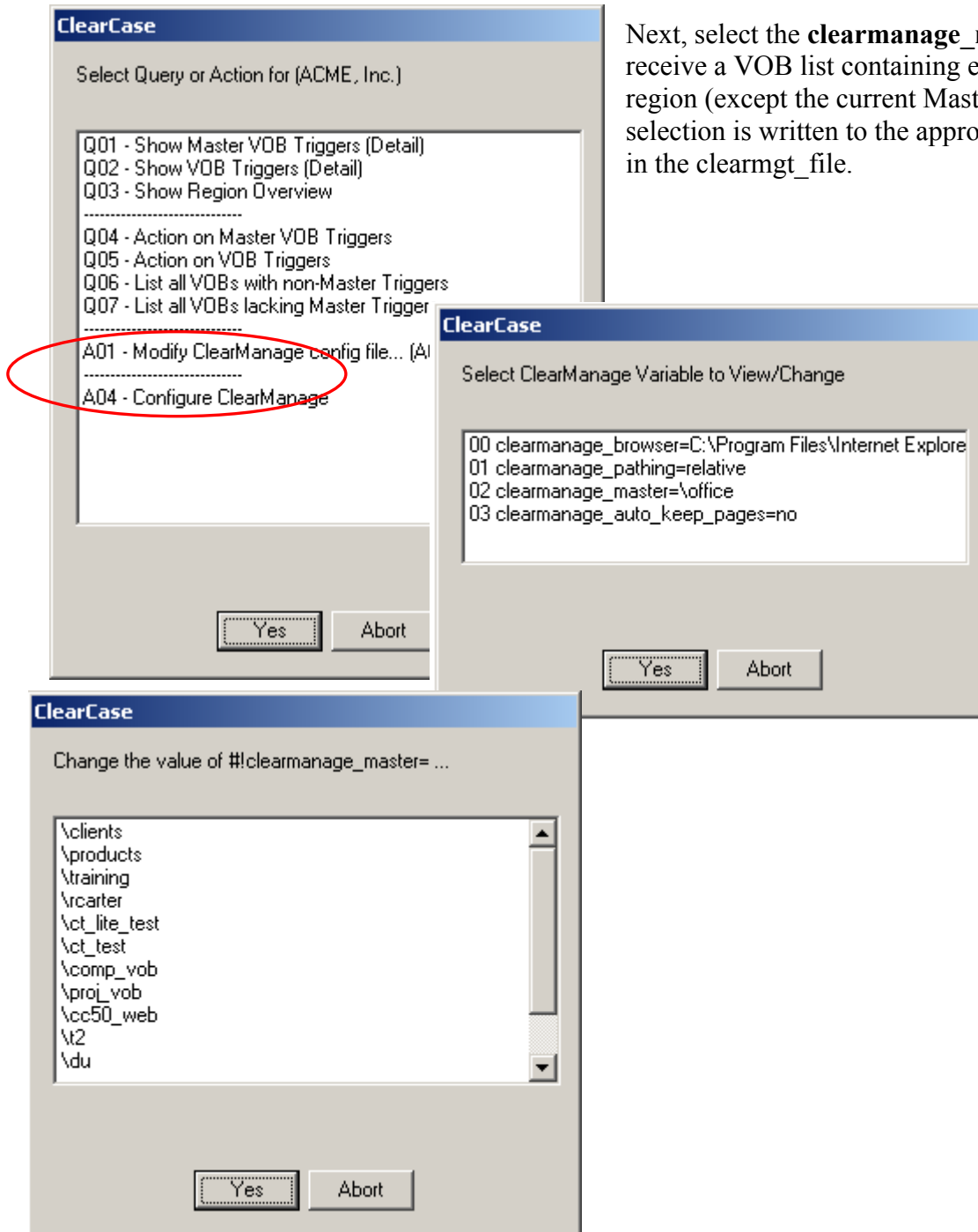
To view the Master VOB against or all VOBs, select [Q03 – Show Region Overview](#) from the Main Menu.



Changing the Master VOB

To change the Master VOB, manually edit the clearmgt_file or select the A04 functionality from the Main Menu...

Next, select the **clearmanage_master** option to receive a VOB list containing each VOB in the region (except the current Master VOB). The selection is written to the appropriate location in the clearmgt_file.

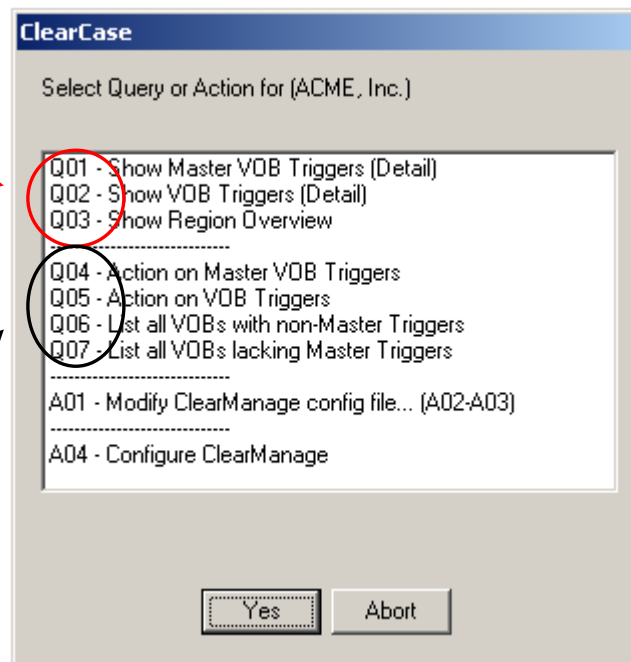


Running ClearManage

ClearManage provides a **query facility** for ClearCase Triggers. Two types of queries exist: those producing **reports** (web_pages) for viewing data and those producing an **action_list** (dialogs) for viewing data and performing actions (add, delete, lock, unlock or **copy** triggers). The Queries above the first separator in the Main Menu (Q01-Q03) are **reports**; those below the line (Q04-Q07) produce **action_lists**.

[ClearManage Reports](#)

[ClearManage Action_Lists](#)



To view details on a particular Report or Action_List, select a link from below:

- [Q01 Show Master VOB Triggers \(Detail\)](#)
- [Q02 Show VOB Triggers \(Detail\)](#)
- [Q03 Show Region Overview](#)
- [Q04 Action on Master VOB Triggers](#)
- [Q05 Action on VOB Triggers](#)
- [Q06 List all VOBs with non-Master Triggers](#)
- [Q07 List all VOB lacking Master Triggers](#)
- [A01 Modify ClearManage config file ... \(A02-A03\)](#)
- [A04 Configure ClearManage](#)

A04 - Configure ClearManage

Little configuration is required for ClearManage. Most information is obtained from the existing clearmgt_file(s). However, another executable (an internet browser) is called upon, ClearManage must be informed of the location of the executable. ClearManage stores the information in the clearmgt_file; therefore, this need only be done once per region.

There are currently four (4) variables that ClearManage recognizes:

- **#!clearmanage_browser=**
- **#!clearmanage_pathing=**
- **#!clearmanage_master=**
- **#!clearmanage_auto_keep_pages=**

The value of the variable is shown following the equal sign.

Example:

```
#!clearmanage_browser=C:\Program Files\Internet Explorer\IEXPLORE.EXE
#!clearmanage_pathing=relative
#!clearmanage_master=\some_vob
#!clearmanage_auto_keep_pages=no
```

- **#!clearmanage_browser=**
Lets ClearManage know which web browser to display html graphs created to show the results of "queries" requested in ClearManage. This can be overridden by using the environmental variable [ABS CLEARMANAGE BROWSER](#).
- **#!clearmanage_pathing=**
Lets ClearManage know whether to build html pages with relative pathing (i.e. "../images/image.gif") or absolute pathing (i.e. "\\net\\machine\\cleartrigger\\depot\\images\\images.gif") to satisfy image location. Appropriate values are "absolute" or "relative." The default is "relative" pathing.

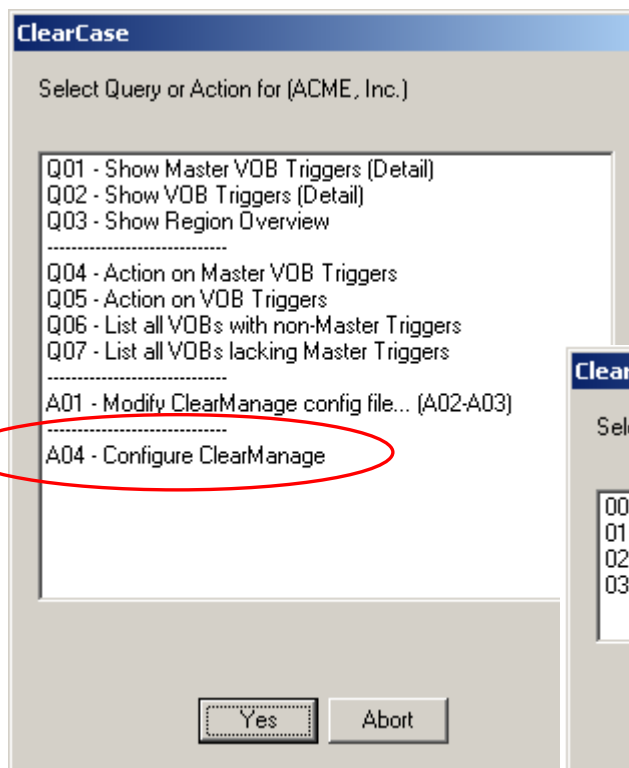
- **#!clearmanage_master=**
Lets ClearManage know which VOB you are designating to be the Master VOB for this ClearManage region. This is the VOB by which all other VOBs in the region are compared to determine if they have the “standard” triggers. Any VOB can be designated to be the Master VOB and can be changed at any time.
- **#!clearmanage_auto_keep_pages=**
Lets ClearManage know the default should “save” web pages built as a result of a query or report request. If set to “yes,” the pages are save automatically in the **web_pages** directory in the ClearManage depot. The default is “no”. Previously built web pages can be saved by using your web browser’s save-as functionality.

You can add/change these variables manually (See clearmgt_file – clearmgt.txt for examples) or use ClearManage to configure the region.

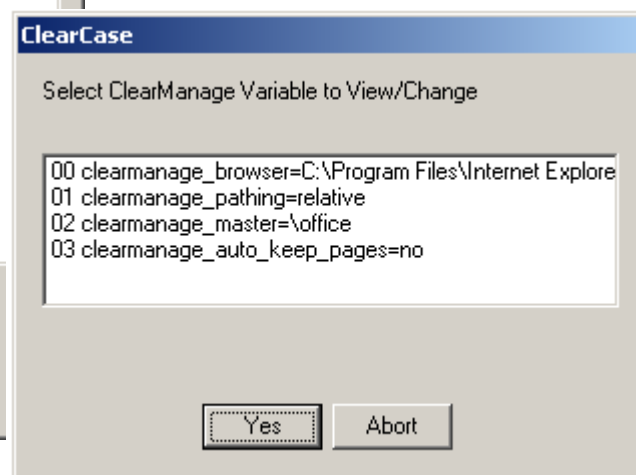
Type clearmanage.exe F={path to clearmgt_file}.

Ex: **clearmanage.exe F=clearmgt.txt**

Then select A04 and “Yes” to configure.



Which will show you the current values and allow you to change them. Any changes are written to the clearmgt_file.

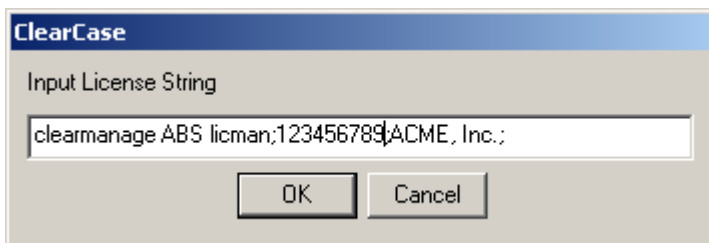
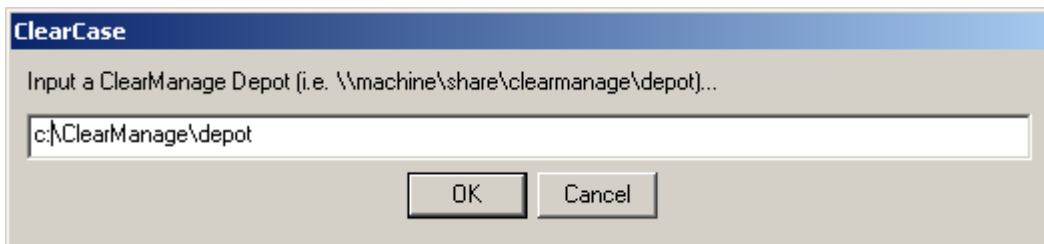
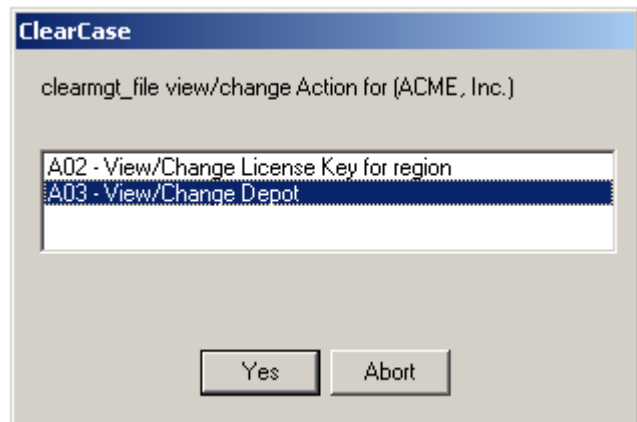


A01 – Modify ClearManage config file ... (A02-A03)

With ClearManage, it is easier to manage your clearmgt_file. Select A01 from the initial menu or pass A=1 to the command line to reach the menu entitled “**clearmgt_file view/change Action for (Region Name)**” to modify a clearmgt_file. Select the field needing change and let ClearManage guide you. Use this to view or change:





- ClearManage License Key
- ClearManage Depot

When selecting an “action,” current data is shown (if any) for the purpose of changing it. Confirmation of the change is requested; if agreed, the change is made to the clearmgt_file.





ClearManage Reports

ClearManage reports are web pages built as a result of a current query. The web pages to be displayed are built in the web_pages directory in the depot and are saved there upon request when configuring ClearManage ([#!clearmanage auto keep pages=yes](#)). Using the web browser's Save As functionality saves any report. All data needed to display the report is contained within the web page for viewing and comparison. When reports are created, the file name appears YYYYMMSS_HHMMSS.html. Any report can be saved by any name at any time.

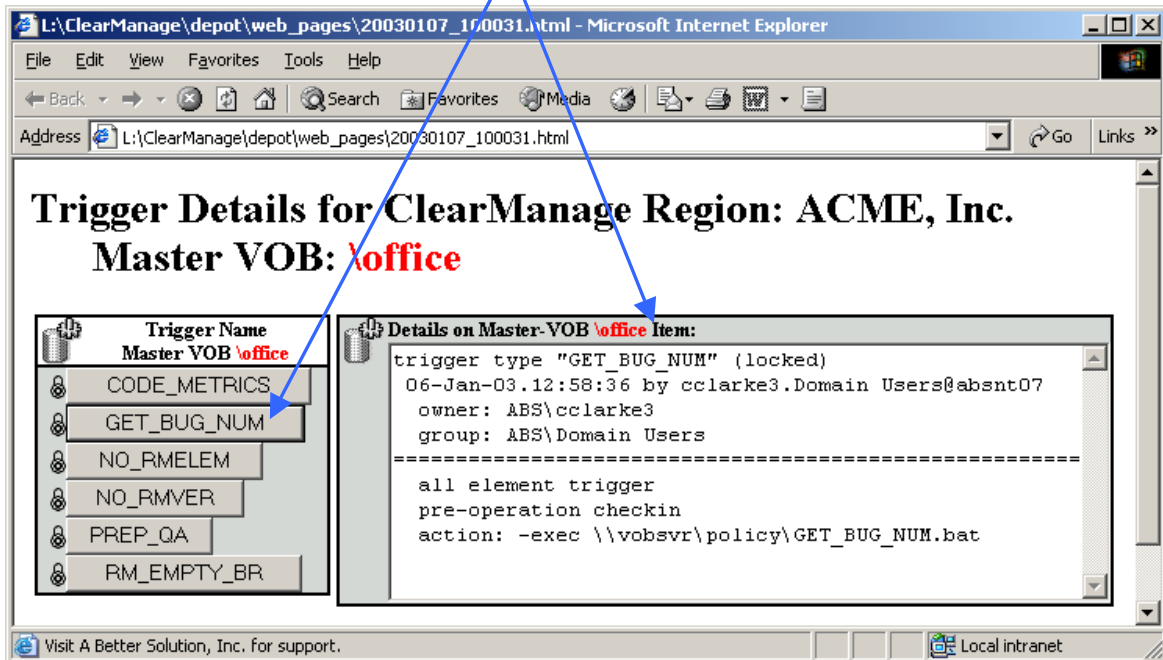
When viewing reports, associate the  icon with Master VOB data and the  icon with other VOBs. When you see the  icon, the trigger associated with this data is locked and is unlocked with this  icon.

Q01 Show Master VOB Triggers (Detail)







The Q01 is the simplest of the reports, displaying the triggers of the current Master VOB. All triggers on the Master VOB are displayed with their lock state (either locked  or unlocked ).

Selecting a trigger button will display a trigger's details (except the creation comment) in the trigger details window.

For example, selecting **GET_BUG_NUM** will result in that trigger's details being displayed as such:



Trigger Details for ClearManage Region: ACME, Inc.
Master VOB: \office



Trigger Name	Master VOB \office
 CODE_METRICS	
 GET_BUG_NUM	
 NO_RMELEM	
 NO_RMVER	
 PREP_QA	
 RM_EMPTY_BR	



Details on Master-VOB \office Item:

```

trigger type "GET_BUG_NUM" (locked)
06-Jan-03.12:58:36 by cclarke3.Domain Users@absnt07
owner: ABS\ccclarke3
group: ABS\Domain Users
=====
all element trigger
pre-operation checkin
action: -exec \\vobsvr\policy\GET_BUG_NUM.bat
  
```

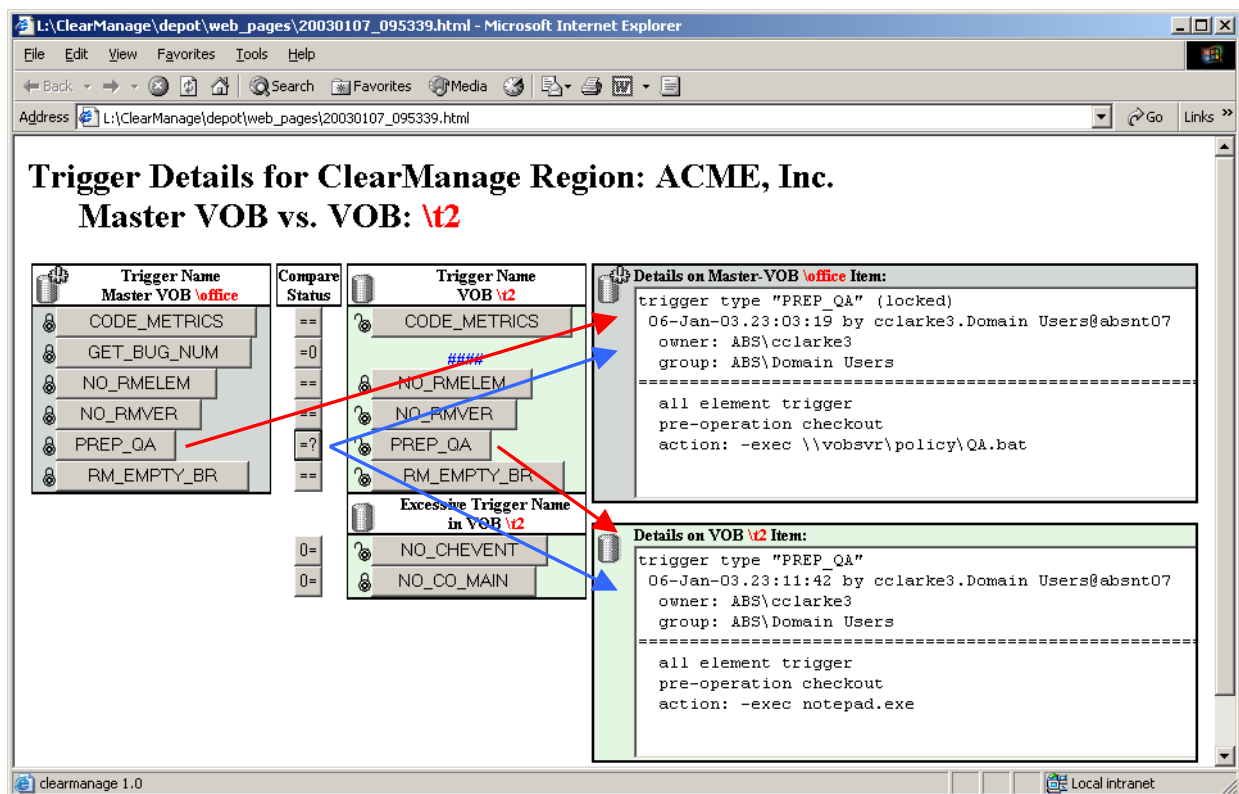
Q02 – Show VOB Trigger (Detail)

The Q02 report displays the triggers of a current VOB against the current Master VOB. All triggers on both VOBs are displayed along with their lock state (either locked  or unlocked .

Selecting a trigger button will display that trigger's details (except the creation comment) in its appropriate trigger details window (either Master VOB  or non-master VOB .

For example, selecting **PREP_QA** will result in that trigger's details being displayed in the appropriate details window as depicted in the following image:

Select buttons in the **Compare Status** column to populate/clear both the Master Trigger Details windows and the Details Window at the same time.



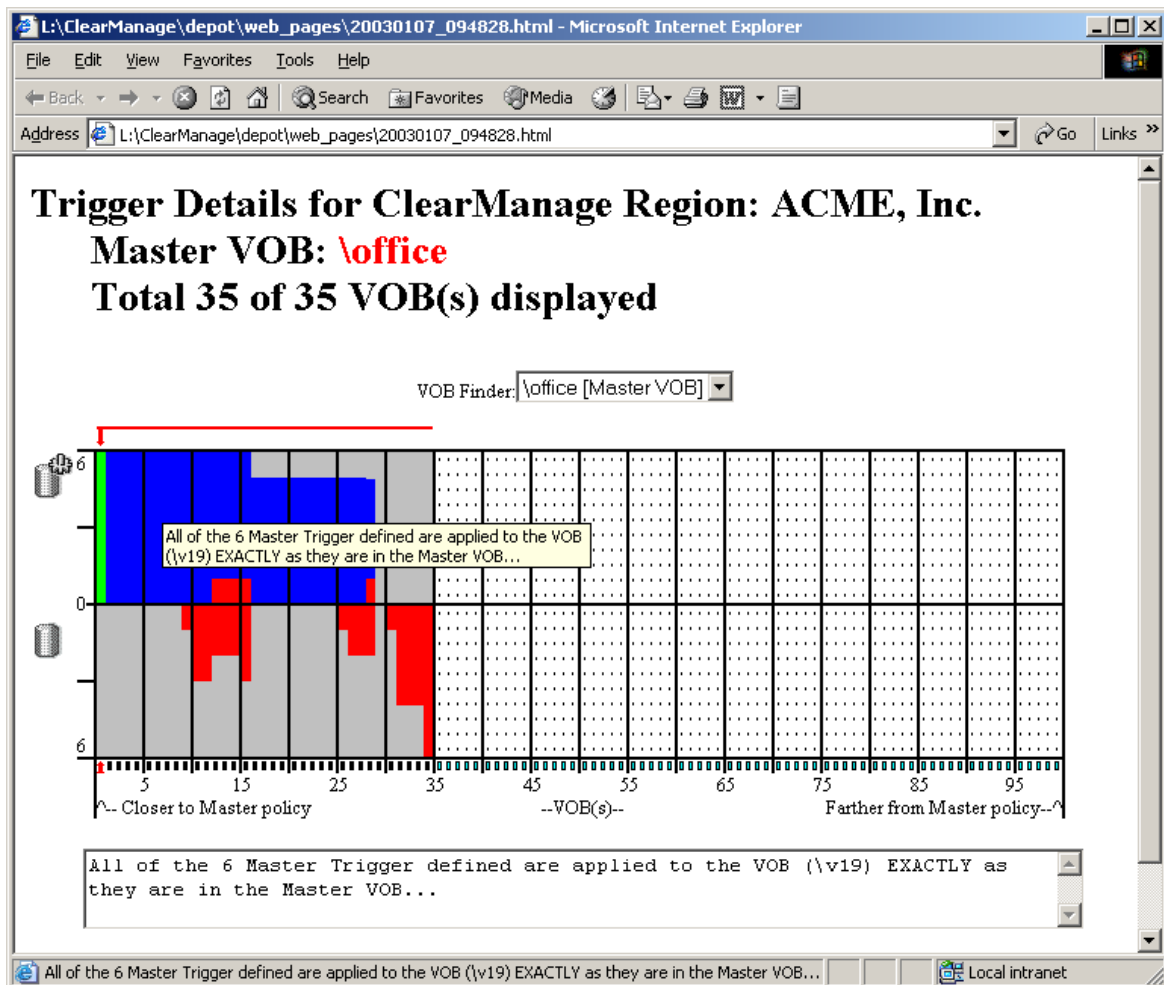
Compare Status	Meaning
==	The named trigger exists in both the Master VOB and the Non-Master VOB and is IDENTICAL. Selecting the button will populate both Details Windows
=?	The named trigger exists in both the Master VOB and the Non-Master VOB (by name) but they are NOT identical. Selecting the button will populate both Details Windows
=0	The named trigger exists in the Master VOB but is missing from the Non-Master VOB. Selecting the button will populate the Master Trigger Details Windows and clear the non-Master Trigger Details Window
0=	The named trigger exists in the VOB but is NOT a standard trigger defined in the Master VOB. Selecting the button will populate the no-Master Trigger Details Windows and clear the Master Trigger Details Window

Q03 – Show Region Overview

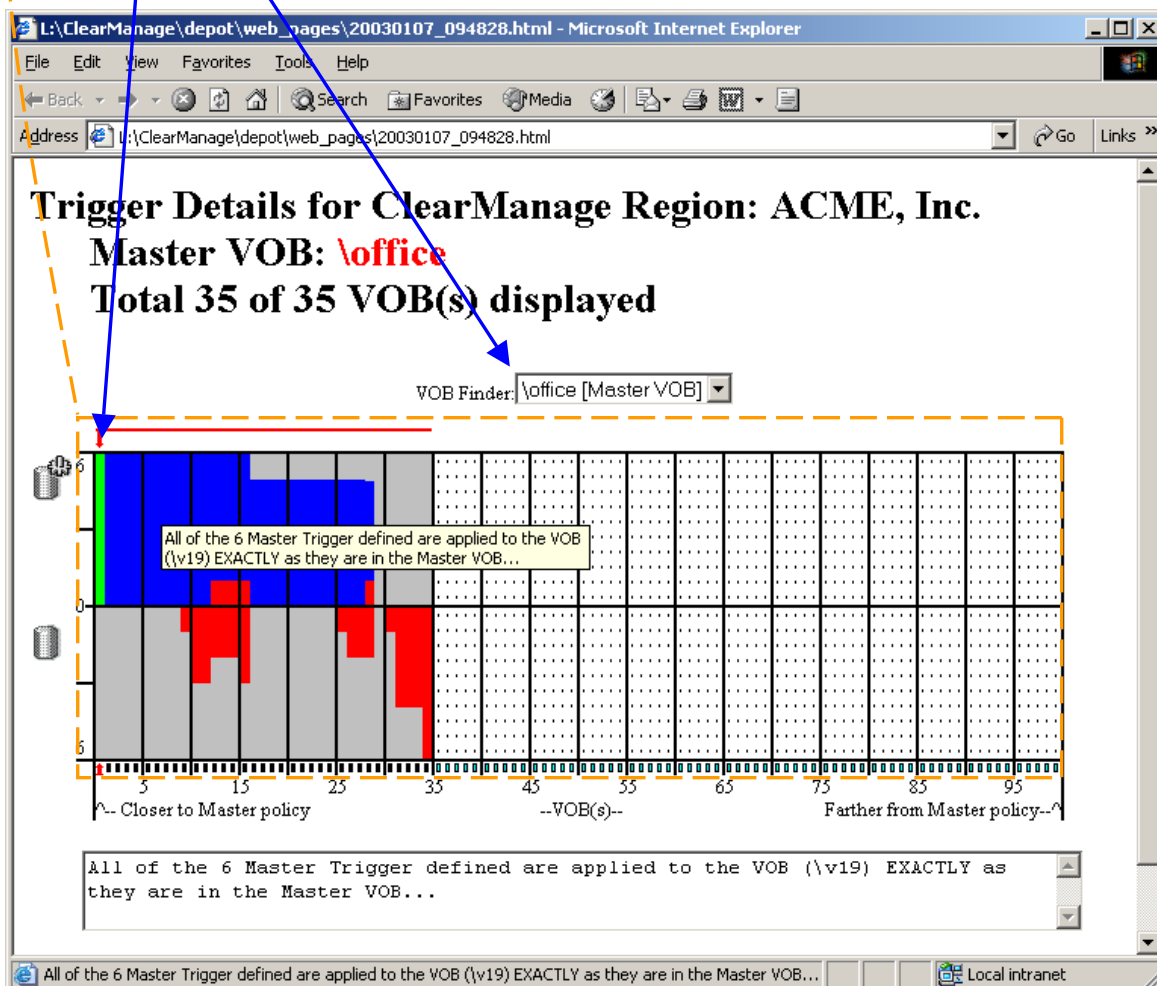
The Q03 creates a summarizing report of how conforming any or all VOB in the region are to the Master VOB. The Master VOB is always first (far left) in the graph and depicted in green (■). Any trigger on the Master VOB is a Master Trigger. Master Triggers are compared to the triggers on other displayed VOBs having the same name as a Master Trigger are above the center line; triggers that do not have a name equal to a Master Trigger are below the line. Triggers that **EXACTLY** match a Master Trigger are depicted in blue (■) while triggers **NOT** exactly matching a Master Trigger are depicted in red (■).

Quickly, one can visually determine compliance of VOBs to the Master VOB by observing:

- Which VOBs are compliant (match the Master VOB for Triggers)
- Which VOBs are missing Master Triggers
- Which VOBs have triggers that Match-By-Name a Master Trigger but have different characteristics
- Which VOBs have “excessive” triggers (triggers not define in the Master VOB)



- Every point within the dashed enclosed portion of the graph is “hot” and will display in the details windows, the browser status bar and as an alt pop-up depending on the web browser used.
- VOBs can be found by changing the VOB Finder pull down value. Doing so will change the VOB to which the VOB Pointer is directed. It is also possible to “click” within the actual gridded area that depicts a VOB to move the VOB pointer to that VOB.



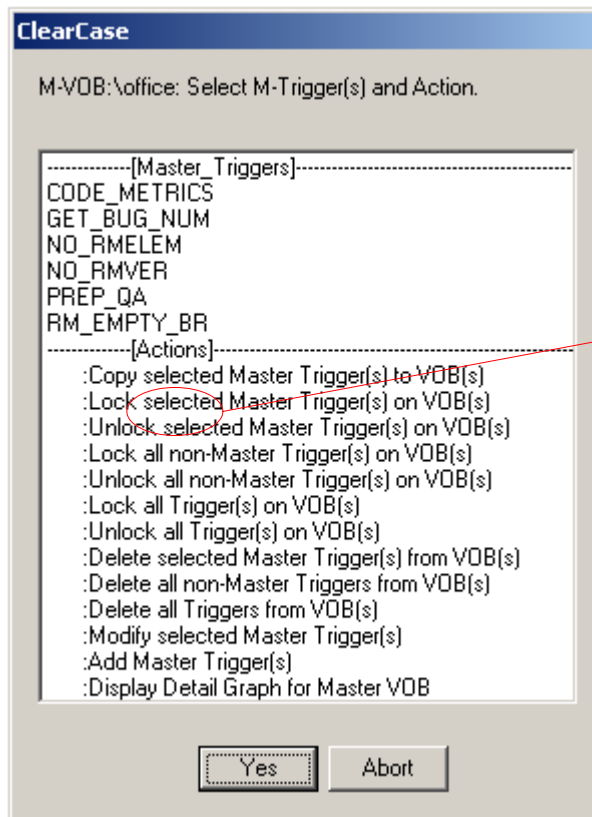
ClearManage Action_List

ClearManage **Action_Lists** are dialogs built as a result of a current query. Action_Lists both display data and provide the ability to perform some action.

Q04 – Action on Master VOB Triggers)

This Action_List (dialog) allows you to:

- see the Master Triggers defined by name and perform Actions on those triggers.
- add new Master Triggers.

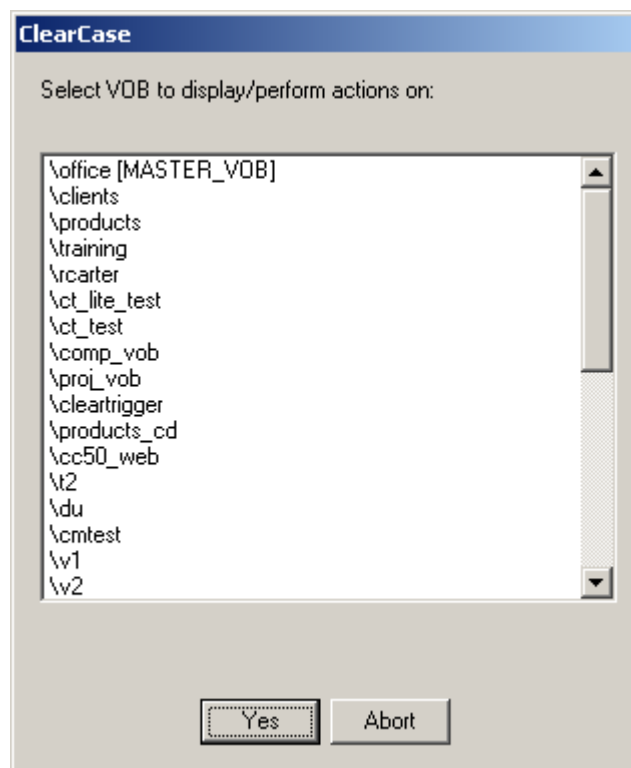


Master Triggers (if any) are listed below the line “---[Master_Triggers]-----“

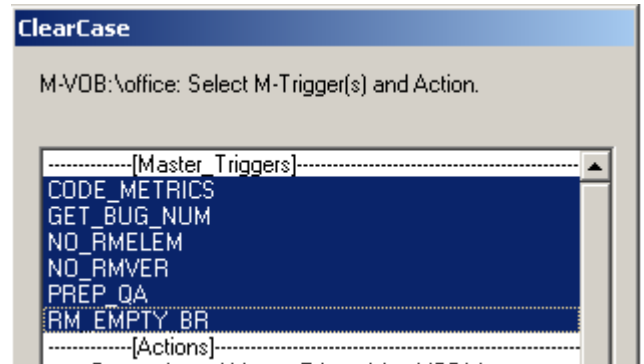
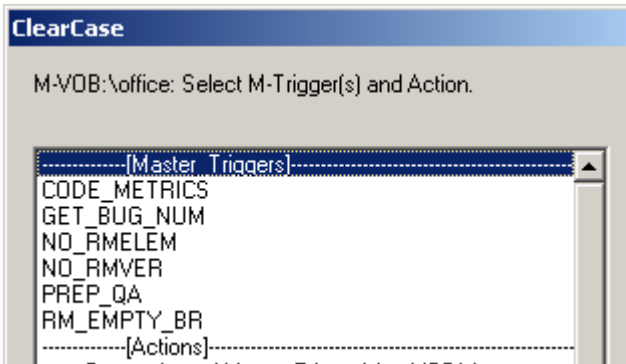
And available actions are listed below the line “---[Actions]---“ in the dialog.

Only one Action may be selected at a time. If the selected action contains the phrase “**selected**,” a minimum of 1 trigger must also be selected.

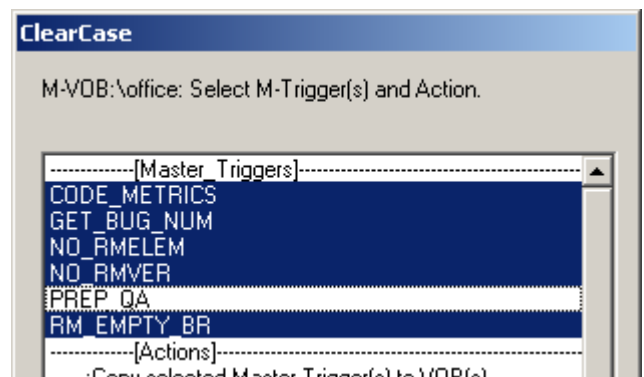
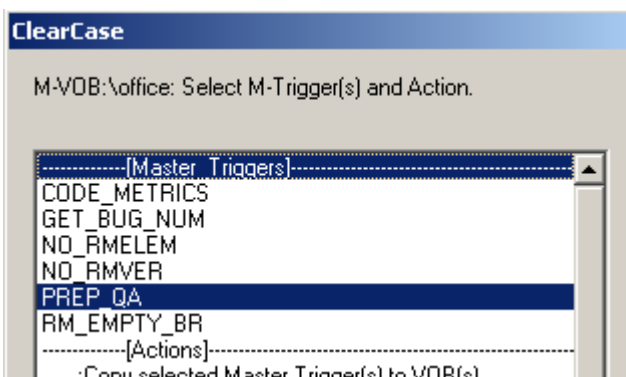
If the selected action contains the phrase “**VOB(s)**” a prompt to select which VOB to which the action should apply will occur. The Master VOB will only appear in the list if it is appropriate to do so.



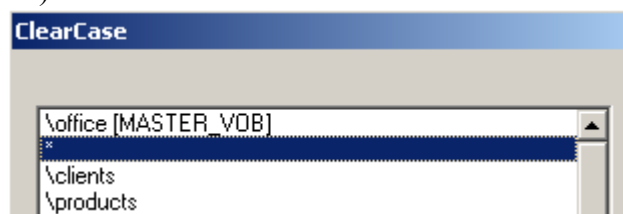
In the event that multiple triggers exist but the need arises to select all but one (or a few) of them, ClearManage has the “all but” option. Select the “---[Master Triggers]-----” line in the dialog. Do NOT consider this the “all Master Triggers” option. Rather, deem it the “all Master Triggers except” option, as it is more powerful. When selected, it serves as a “toggle” for the available triggers in the list such that:



Both above selections are equivalent and select “all Master Triggers.” Both selections below are also equivalent and select “all Master Triggers except the PREP_QA trigger”.



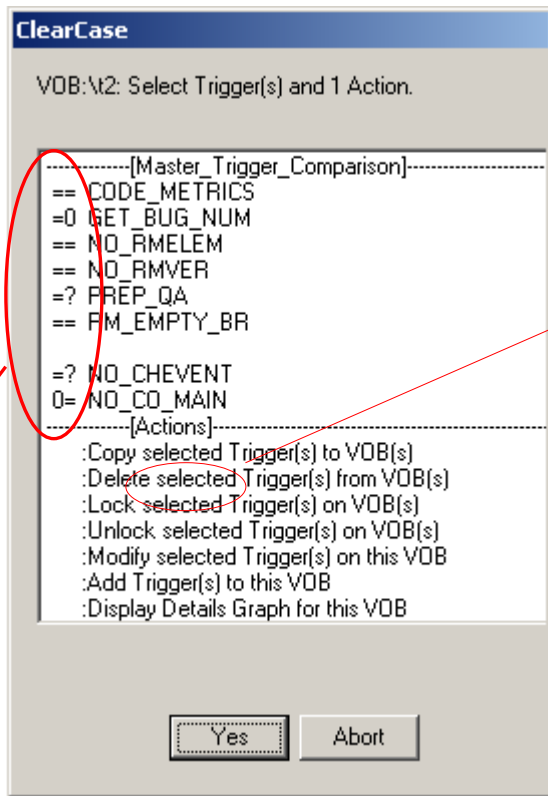
The same applies to VOB selection dialogs and the “*” entry (Exception: Master VOB is never included in it’s toggle functionality – the Master VOB must always be explicitly selected or unselected)



Q05 – Action on VOB Triggers)

This Action_List (dialog) allows you to:

- See the Triggers defined by name and perform Actions on those triggers
- Add new Triggers
- See how the trigger compare to other triggers on the Master VOB

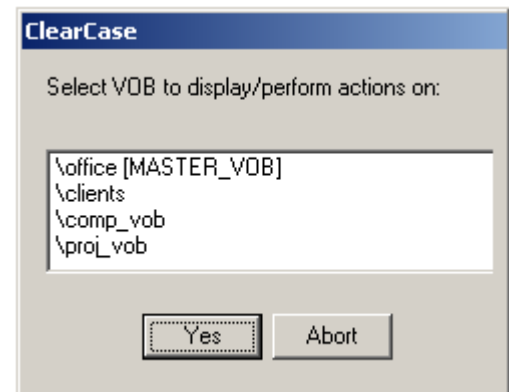


Master Triggers (if any) are listed below the line
“---[Master_Trigger_Comparison]-----“

And available actions are listed below the line
“---[Actions]---“ in the dialog.

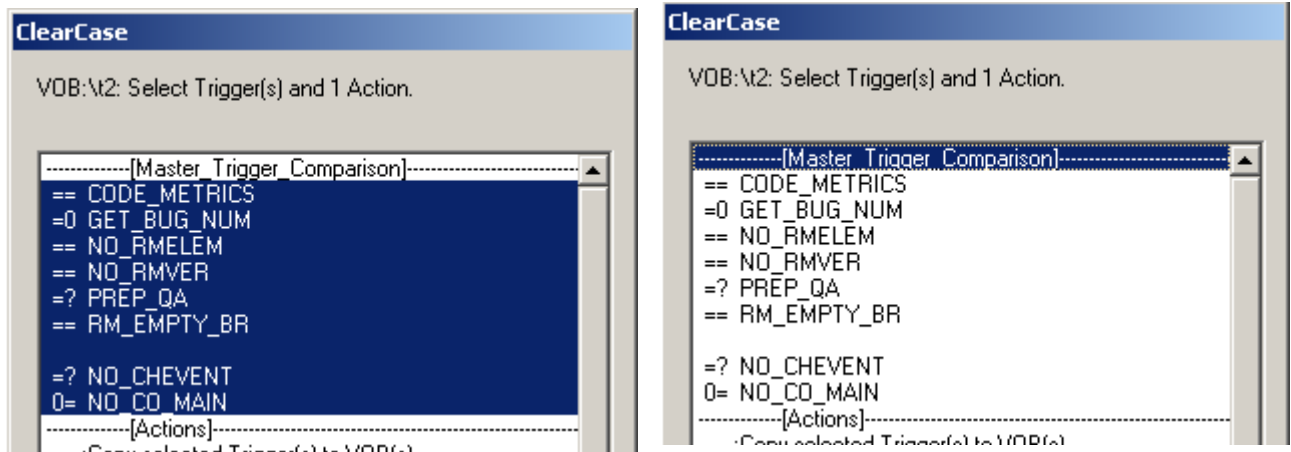
Only one Action may be selected at a time. If the selected action contains the phrase “**selected**,” a minimum of 1 trigger must also be selected.

If the selected action contains the phrase “**VOB(s)**,” select the VOB to which the action should apply. The Master VOB will only appear in the list if it is appropriate to do so. The VOB associated with the Action_List will only appear in the list if appropriate.

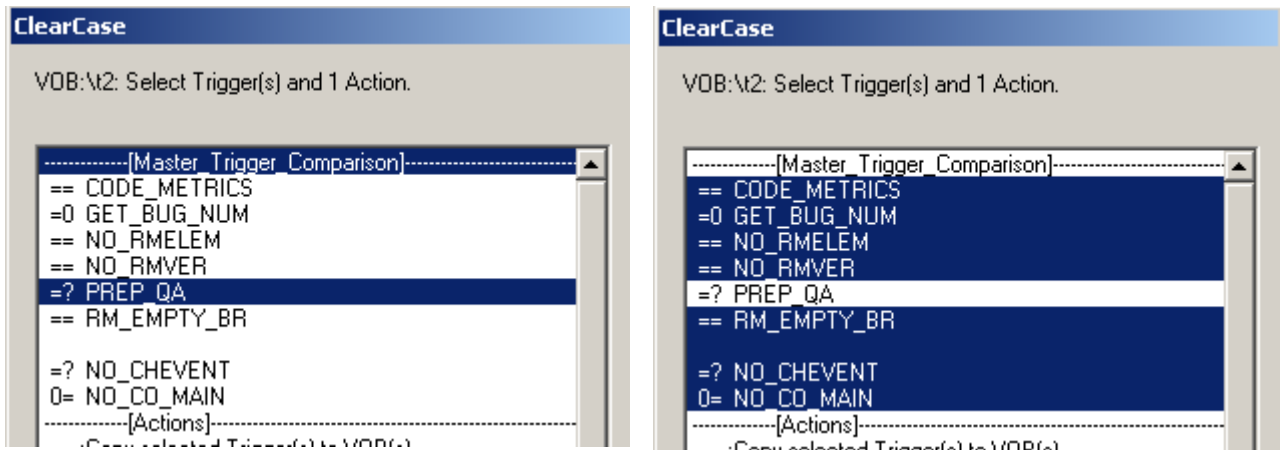


Compare Status	Meaning
==	The named trigger exists in both the Master VOB and the Non-Master VOB and is IDENTICAL. Selecting the button will populate both Details Windows
=?	The named trigger exists in both the Master VOB and the Non-Master VOB (by name) but is NOT identical. Selecting the button will populate both Details Windows
=0	The named trigger exists in the Master VOB but is missing from the Non-Master VOB. Selecting the button will populate the Master Trigger Details Windows and clear the non-Master Trigger Details Window
0=	The named trigger exists in the VOB but is NOT a standard trigger defined in the Master VOB. Selecting the button will populate the no-Master Trigger Details Windows and clear the Master Trigger Details Window

In the even that multiple triggers exist but the need arises to select all but one (or a few) of them, ClearManage has the “all but” option. You may actually select the “---[Master Trigger Comparison]-----” line in the dialog. Do NOT consider this the “all Master Triggers” option. Rather, consider it the “all Master Triggers except” option, as it is more powerful. When selected it serves as a “toggle” for the available triggers in the list such that:



Both selections above are equivalent and select “all master triggers.” Both selections below are also equivalent and select “all triggers except the PREP_QA trigger”.



The same applies to VOB selection dialogs and the “*” entry (Exception: the Master VOB is never included in it’s toggle functionality – The Master VOB must always be explicitly selected or unselected.)

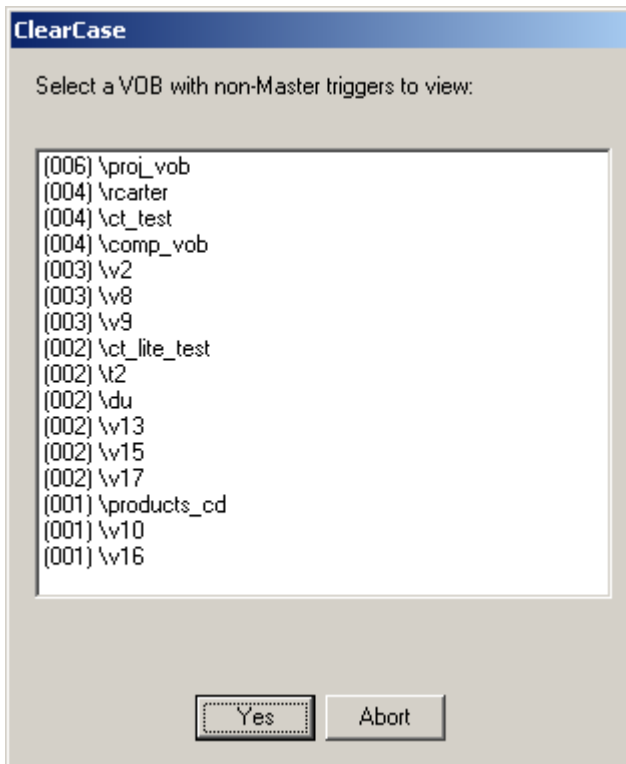


Q06 - List all VOBs with non-Master Triggers

This Action_List (dialog) allows you to:

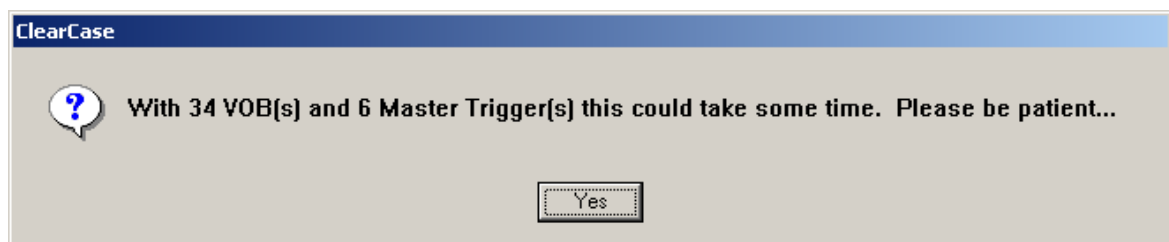
- See all VOBs that have Non-Master (excessive) triggers applied to them.
- Select a VOB to view Trigger Details Report (Q2).

The list is ordered so that the VOBs that stray the farthest from the Master Policy (has the most “excessive” triggers applied to them) appear at the top of the list.



If the number of VOBs in the region multiplied by the number of Triggers on the Master VOB is greater than 200, a warning is displayed. The warning is modeless (does not require confirmation for ClearManage to continue).

(i.e. with 34 VOBs in the region and 6 triggers on the Master VOB the dialog below would be displayed because $34 * 6 = 204$)

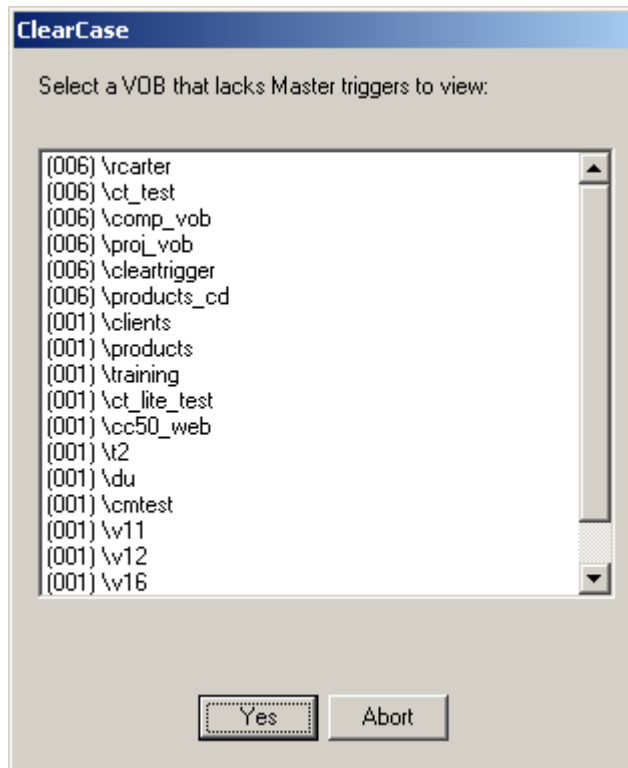


Q07 - List all VOB lacking Master Triggers

This Action_List (dialog) allows you to:

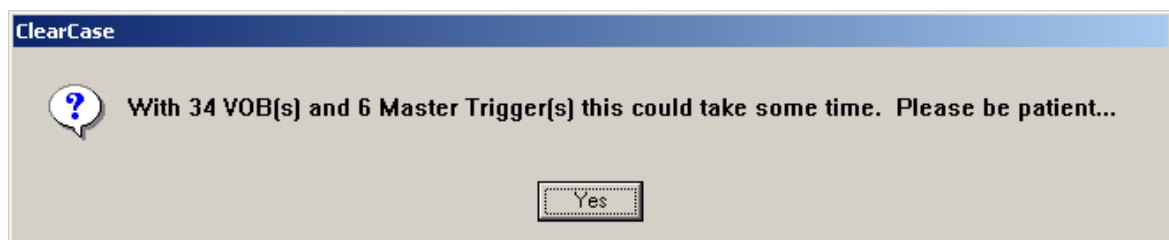
- See all VOBs that are missing 1 or more Master Triggers.
- Select a VOB to view Trigger Details Report (Q2).

The list occurs such that the VOBs that stray farthest from the Master Policy (has the most “missing” Master triggers applied to them) appear at the top of the list.



If the number of VOBs in the region multiplied by the number of Triggers on the Master VOB is greater than 200, a warning is displayed. The warning is modeless (does not require confirmation for ClearManage to continue).

(i.e. with 34 VOBs in the region and 6 triggers on the Master VOB the dialog below would be displayed because $34 * 6 = 204$)



Copying Triggers Using ClearManage

It is possible to copy multiple triggers from one VOB to multiple VOBs in under three mouse clicks. After selecting one or more triggers from the [Q04](#) or [Q05](#) dialogs and selecting the “Copy selected Trigger(s) to VOB(s)” options, the selected triggers are copied to all of the selected VOBs. If any of the triggers exist in the destination VOB, they are replaced.

Deleting Triggers Using ClearManage

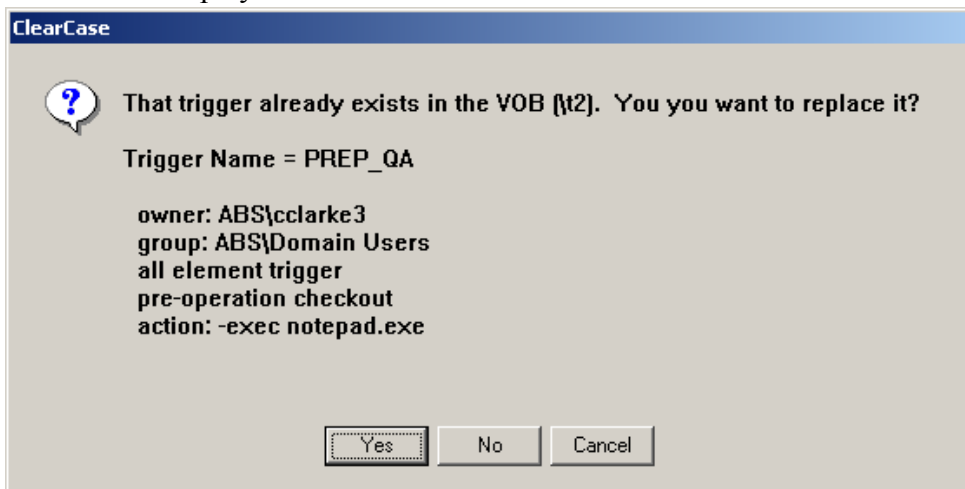
It is possible to delete multiple triggers from multiple VOBs in under three mouse clicks. After selecting one or more triggers from the [Q04](#) or [Q05](#) dialogs and selecting one of the Delete options, the selected are removed from all of the selected VOBs.

Locking/Unlocking Triggers Using ClearManage

It is possible to lock/unlock multiple triggers in multiple VOBs in under three mouse clicks. After selecting one or more triggers from the [Q04](#) or [Q05](#) dialogs and selecting any of the “lock/unlock” options, the triggers are locked/unlocked in all of the selected VOBs.

Adding Triggers Using ClearManage

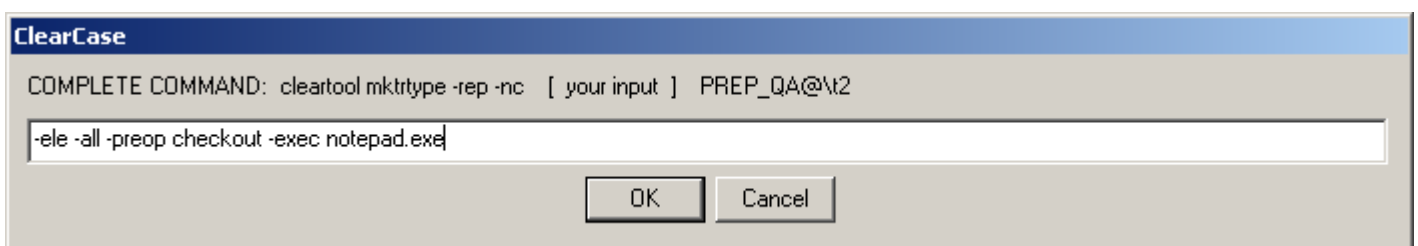
Users can create new triggers in a VOB using ClearManage by selecting one or more VOBs in under three mouse clicks. After selecting the “Add Trigger(s) to this VOB” option from the [Q04](#) or [Q05](#) dialog, the user is prompted for the name of the new trigger. If the trigger already exists, it will be displayed for additional confirmation.



The user can try another name or choose to replace the trigger.

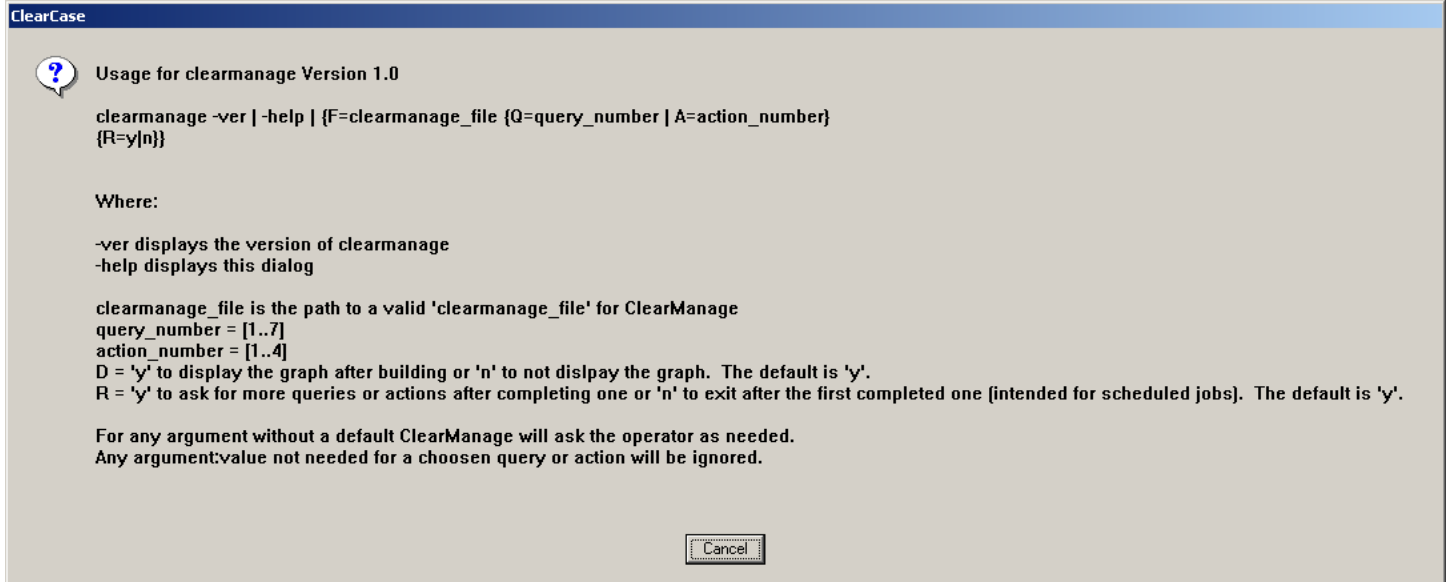
If the name is unique or the user wishes to replace the trigger then a dialog similar to the one below is display for the user to input the trigger definition. If the trigger is being replaced, the dialog is pre-populated with the command that would have created the existing trigger.

The “**cleartool mktrtype -nc**” or “**cleartool mktrtype -rep -nc**” portion of the command, nor the **TRIGGER_NAME@VOB_TAG** portion has to be typed. Selecting “OK” will create or replace the trigger.



Running ClearQuery- Command Line Interface (CLI)

The ClearQuery usage statement describing the CLI is below:



User Defined Environment Variables for ClearManage

ClearManage has several user defined environmental variables that enable the user to modify ClearManage behavior.

Environment Variable	Values
ABS_PREFER_NO_GUI	If the user sets this variable to "YES," most "processing" dialogs appearing when ClearManage is performing a time intensive action would appear to stdout. Dialogs requiring an answer from a single button the single default answer would be automatically selected. This is useful for scripts that run unattended.
ABS_CLEARMANAGE_FILE	Here, ClearManage does not require that the clearmgt_file ("F"argument) be passed at the command line. When set and the F-argument are passed, the F-argument is used.
ABS_CLEARMANAGE_VERBOSITY	When set to any value, ClearManage not only confirms changes before made to the clearmgt_file through ClearManage, but also confirms such change afterwards. The default will simply confirm before the change is made.
ABS_CLEARMANAGE_BROWSER	When set, ClearManage will attempt to use this browser instead of the one defined in the clearmgt_file to display graphs and reports generated.