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  -  Introduction
    -  [Overview \(Multiple Project Support\)](#)
    -  [Glossary](#)
  -  Workgroup Management System Guide
    -  [Logging In](#)
    -  [Adding a Workgroup](#)
    -  [Viewing a Workgroup](#)
    -  [Editing a Workgroup](#)
    -  [Deleting a Workgroup](#)
    -  [Managing Aliases](#)
    -  [Moving a Workgroup](#)
    -  [Migrating a Workgroup](#)
    -  [Repairing a Workgroup](#)
    -  Administration Options
      -  [WMS User Administration](#)
      -  [Synchronize Anonymous Account](#)
      -  [Viewing Global Workgroup Information](#)
      -  [Editing Global Workgroup Information](#)
      -  [Logging Workgroup Information](#)
      -  [Blocking and Unblocking Workgroups](#)
      -  [Managing Web Server Security](#)
      -  [Workgroup Database Operations](#)
      -  [Upgrading Version 3.x Workgroups](#)
      -  [Upgrading Version 4.x, 5.x or 6.x Workgroups](#)
      -  [WMS Maintenance Operations](#)
      -  [User Management](#)
  -  Appendix A: Workgroup Installation
    -  [Using Oracle Database](#)
  -  Appendix B: Database Administration
    -  [Database Administration](#)
  -  Appendix C: Time Zone Information
    -  [Windows Time Zone Selection Chart](#)
  -  Other Help Guides
    -  [User's Guide](#) ( [PDF Version](#) )
    -  [Administration Guide](#) ( [PDF Version](#) )
    -  [User Management System Guide](#) ( [PDF Version](#) )
    -  [Installation Guide](#) ( [PDF Version](#) )
  -  Support
    -  [Knowledge Base and FAQ](#)
    -  [Contacting NetResults](#)

The Workgroup Management System Guide contains information for installing and maintaining multiple Tracker workgroups. At the physical level a workgroup consists of a set of web pages (part of a web site or its own separate web site) and a single database. At the logical level a workgroup is a place (web site) where a group of users can collaborate on a common project or a set of projects. The functions in the Workgroup Management System are separate from the user management operations in the [User Management System](#) and are also separate from the [Administrative](#) operations within a particular workgroup (database). The [User Management System Guide](#) contains information for user operations for all workgroups and the [Administrator's Guide](#) contains information for operations within each workgroup, such as customizing fields, workflow settings, user groups and privileges.

**Note: It is important to make regular backups of your installation especially the database and attachments for each workgroup. If you are using SQL Server or Oracle as the database type for your workgroup(s), a simple file copy or a simple file backup to tape is not sufficient for backing up SQL Server or Oracle database files because they are not standard files.** More information on backing up your Tracker installation can be found in the [Database Administration](#) section.

## Supporting Multiple Projects

It is common for Tracker to be called upon to handle the requirements of several independent projects. Different product development teams, IT departments, or customer support organizations may wish to use the system at the same time, with slightly differing needs. Tracker supports multiple projects, including independent customization for each project - on a single server.

## Single Workgroup

A single workgroup installation can support any number of projects and forms (a set of fields used to submit and track issues). Separate workflows can be created for various combinations of project and form. For example, support issues reported by customers and product development issues can each have their own form, fields and workflow and co-exist in a single workgroup. Some of the fields and workflow steps and users involved may overlap between the two areas. Using a single workgroup allows multiple areas to be addressed in a single location with centralized access and reporting.

## Multiple Workgroups

If it is important for the various groups using Tracker to have an independent database (access and reporting for each area involves a different set of users or requirements), then each project can be configured as its own workgroup. Tracker supports this by allowing you to install any number of Tracker workgroups on the same server. Each workgroup can be independently customized and accessed via a unique web address (URL). Even if the data requirements are very similar for various groups, you may also wish to create independent workgroups if the organizations are very separate so that each workgroup can be maintained independently (each with its own administrator). This can also simplify the process of moving a workgroup to a new machine (without affecting the existing workgroups) should organizational changes or access requirements (e.g. support needs to allow outside access to the system and therefore must run on a web server outside your firewall) necessitate a move to a separate Tracker installation. Independent workgroups may also be required for security reasons (if physically separate databases or web sites are required). Within each of these independent workgroups, you can still use multiple forms and projects to create separate workflows for different product lines, departments, types of requests to be processed, etc.

## Workgroup Management System

The Workgroup Management System (WMS) is the administrative interface for maintaining multiple Tracker workgroups. Within WMS, the following actions can be performed for each workgroup:

- [Add](#)
- [View](#)
- [Edit](#)
- [Delete](#)
- [Manage Aliases](#)
- [Move to another location](#)
- [Migrate to another database type](#)
- [Repair](#)

These options can be selected clicking on the buttons in the Button Bar or by clicking on the icons to the left of each workgroup listed on the Workgroup Management System Home Page.

It is recommended that you temporarily disable any anti-virus software while you perform configuration in the Workgroup Management System (WMS). This is suggested so that your anti-virus software will not prevent WMS from performing operations such as copying files, running scripts, configuring your web server, setting file permissions and registry entries. Your anti-virus software can be reactivated safely after you have completed any necessary WMS configuration.

The Workgroup Management System has an Admin section where additional operations can be performed for each workgroup:

- [WMS User Administration - Change WMS User Password](#)
- [Synchronize Tracker Anonymous Account \(PUSR4hostname\) Password in WMS](#)
- [View Common Parameters used by WMS](#)
- [Edit Common Parameters used by WMS](#)
- [Log Workgroup Information](#)
- [Block and Unblock Workgroups](#)
- [Manage Web Server Security](#)
- [Manage Workgroup Database Operations](#)
- [Upgrade Workgroups from Version 3.x to Latest Version](#)
- [Upgrade Workgroups from Version 4.x, 5.x and 6.x to Latest Version](#)
- [Other Maintenance Operations](#)

To perform an operation in the **Admin** section of the Workgroup Management System, select an option using the radio button to the left of the option desired, then click on the **Continue** button.

Individual sections of this Help documentation can also be accessed from within the Workgroup Management System by clicking on the Help link in the upper right corner of each page.

## Glossary of Terms

**Add** - The operation for creating a new workgroup in WMS.

More information: [Adding a Workgroup](#)

**Admin** - Options that allow the WMS Administrator to perform administrative operations such as reset the password, log workgroup information to a file block and unblock workgroups and more.

More information: [Overview](#)

**Alias** - The operation for adding, editing or deleting an alias or a nickname for a workgroup.

More information: [Managing Aliases](#)

**Delete** - The operation for deleting a workgroup in WMS.

More information: [Deleting a Workgroup](#)

**Edit** - The operation for editing a workgroup in WMS. The workgroup's description, host name, IP Address and other items can be modified.

More information: [Editing a Workgroup](#)

**Help** - Clicking on this icon in the top button bar will display the WMS Help Guide in a second browser window. Clicking on this link in the Status bar will display the context-sensitive Help section in a second browser window.

More information: [WMS Help Guide Table of Contents](#)

**Home Page** - The page the WMS Administrator first sees when logging into WMS. A list of all workgroups is displayed on the Home Page. You can also view, edit and perform other workgroup operations directly from the Home Page.

More information: [Logging In](#)

**License Manager** - The interface that shows your Tracker license information. The License Manager shows what type of licenses and how many of each type you have purchased.

More information: [Entering License Information](#)

**Login to WMS** - The operation used to access WMS.

More information: [Logging In](#)

**Login to Workgroup** - The operation used to access a workgroup.

More information: [Logging In](#)

**Logoff** - Clicking on this icon in the top button bar will end your WMS session.

**Migrate** - The operation for converting the database type of a workgroup's database.

More information: [Migrating a Workgroup](#)

**Move** - The operation for moving workgroups and/or databases.

More information: [Moving a Workgroup](#)

**Repair** - The operation for resetting a workgroup to its default settings (e.g. copying a new set of web pages, resetting file permissions and IIS settings).

More information: [Repairing a Workgroup](#)

**Session** - A session is started when a user logs into a workgroup. The session ends when a user logs off or is logged off by an Administrator. A list of user sessions for each workgroup can be viewed in WMS.

More information: [Blocking and Unblocking Workgroups](#)

**UMS Administrator** - The user account for accessing UMS. The User ID of the UMS Administrator is "useradmin".

More information: [Overview](#)

**User Management System (UMS)** - The interface for adding and maintaining user accounts for all workgroups in Tracker.

More information: [Overview](#)

**View** - The operation for viewing a workgroup's configuration.

More information: [Viewing a Workgroup](#)

**WMS Administrator** - The user account for accessing WMS. The User ID of the WMS Administrator is "ptadmin".

More information: [Logging In](#)

**Workgroup** - Created in the Workgroup Management System (WMS), a workgroup is an area with its own database and web pages. When a workgroup is created, you can select many parameters including what database type is used (Access, SQL Server or Oracle), what languages it supports (via the character set option) and where the web pages should be located. Each workgroup is intended to be an area independent of other workgroups (e.g. a workgroup has its own database and features can be enabled / disabled within each workgroup).

More information: [Adding a Workgroup](#).

**Workgroup Administrator** - The User ID "Admin" in each workgroup or any user in a workgroup that is a member of a group with the [Admin privilege](#).

**Workgroup Database Tools** - The set of operations for managing the workgroup databases (e.g. initializing, creating and deleting database tables). These operations should only be used under the guidance of [NetResults Technical Support](#).

More information: [Workgroup Database Operations](#)

**Workgroup Management System (WMS)** - The interface for creating and maintaining workgroups. An unlimited number of workgroups can be created in WMS. A user must have Local Administrator rights on the machine where Tracker is installed in order to access WMS.

More information: [WMS Overview](#)

It is recommended that you temporarily disable any anti-virus software while you perform configuration in the Workgroup Management System (WMS). This is suggested so that your anti-virus software will not prevent WMS from performing operations such as copying files, running scripts, configuring your web server, setting file permissions and registry entries. Your anti-virus software can be reactivated safely after you have completed any necessary WMS configuration.

During installation, Authentication (Basic and Windows Integrated) is configured for the Workgroup Management System login page and Anonymous Access is disabled. This will cause the web server to require that all users (browsers) authenticate themselves. Internet Explorer browsers will use Integrated Windows authentication. Internet Explorer may implicitly authenticate you (if you are already logged in as a user known to the web server) or it may pop up a dialog that asks you to enter your User Name, Password, and Domain. In all cases, you should both be logged in to Windows as a user with local Administrator privileges on the web server machine and, if prompted, enter the User Name of a user with local Administrator privileges on the web server (e.g. Administrator). Domain Administrator privileges may not be sufficient. If you are not authenticated as a user with local Administrators privileges then you will not be able to perform all operations in WMS (some operations will fail). WMS will warn you about this at login time. If you see this warning, please exit your browser window and try again.

To login to the Workgroup Management System, browse to the following URL:

<http://localhost/ptadmin/uwslogin.asp>

**localhost** indicates the web server on the local machine. To access the Workgroup Management System from a remote machine the URL is:

<http://servername/ptadmin/uwslogin.asp>

**servername** indicates the TCP/IP name of the machine where Tracker is installed.

In both cases above, you can omit the "/uwslogin.asp" at the end, as we have configured uwslogin.asp (the login page) as the default page for the ptadmin virtual directory.

By default during the installation process, setup configures your web server (IIS) such that the Workgroup Management System (WMS) inherits any IP Address configuration or restrictions set on the web site where you chose to install Tracker. If you wish to apply more security to your Workgroup Management, such as only allowing WMS to be accessed locally, please refer to the following article in our Knowledge Base at:

<http://kb.nrtracker.com/Item.asp?id=9>

When you are presented with the Workgroup Management System login screen, enter **ptadmin** as the User ID and the corresponding password to log in. The initial **ptadmin** user password is "ptadmin". It is recommended that you change this default password during your first login session. Information on changing your password is available in the section [WMS User Administration](#).

On occasion when logging in, you may encounter the error message, "Login Failed - Your previous login session is still active." This message can come up if you were previously logged in to Tracker, but did not click the Logoff icon to finish your session. Select Yes so that the previous session will be closed and a new session will begin and allow you to login. If you select No, you will not be able to login to WMS as only one user is allowed in WMS at a time.

## The Home Page

After logging in, the first screen you will see is the Workgroup Management System Home Page.

NetResults Tracker WMS Version 6.6.0

Status: 4 Workgroups - Ready

Warning: Antivirus software may interfere with the proper operation of WMS. Please disable your antivirus software while using WMS. Click [here](#) for more information.

Home Page - Workgroup List Thu May 14 10:11:26 PDT 2009

Action	Name	Description	Version	Authentication	Database Name	Database User Name	State
	chgmgmt	Change Management	6.5.0	NetResults Tracker	bugtrack.mdb		Active
	kb	Knowledge Base	6.5.0	NetResults Tracker	bugtrack.mdb		Active
	nrtracker1	Product Development	6.5.0	NetResults Tracker	bugtrack.mdb		Active
	pteval	Product Development	6.5.0	NetResults Tracker	bugtrack.mdb		Active

This page will show all workgroups that are currently installed. Certain actions, such as View, Edit, Delete, Login, Repair and Database Tools can be performed using the icons to the left of each Workgroup Name. Other actions can be performed by using the icons in the top Button Bar.

#### **View**

Please review the section [Viewing a Workgroup](#) for more information.

#### **Edit**

Please review the section [Editing a Workgroup](#) for more information.

#### **Delete**

Please review the section [Deleting a Workgroup](#) for more information.

#### **Repair**

Please review the section [Repairing a Workgroup](#) for more information. This icon will not appear for a workgroup which has not been upgraded to the latest version using one of the upgrade options in the Admin menu.

#### **Workgroup Database Tools**

The Database Tools page for a workgroup can be accessed by clicking on the Workgroup Database Tools icon to the left of the workgroup name on the Workgroup Management System Home Page. As the operations in the Workgroup Database Tools page can make irreversible changes to your database, these tools should be used with extreme care and only in accordance with the procedures listed in this Help document or in the [Knowledge Base](#) section of the NetResults web site.

#### **Login**

To login to a workgroup from the Workgroup Management System Home Page, click on the login icon to the left of the workgroup. A separate window will be launched with the login page for the workgroup.

You can also login to a workgroup by browsing directly to:

**<http://servername/workgroup/ptlogin.asp>**

**servername** indicates the TCP/IP name of the machine where Tracker is installed.

If a workgroup has not been upgraded to the latest version by using one of the upgrade options in the Admin menu, you will not be able to login to the workgroup. The version for each workgroup is displayed in a column on the Home Page.

If you are adding a workgroup using Oracle as your database type, please perform the procedure outlined in the [Using Oracle Database](#) Help section. Once you have completed these steps, return to this section and follow the procedure listed below.

Home		Add	View	Edit	Delete	Alias	Move	Migrate	Repair	Admin	Users	EXIT	Logoff	Help	NetResults Tracker WMS Version 6.6.0	
Status	Ready														Help	
<b>Add New Workgroup</b>																
Name:	nrtracker1															
Description:	Help Desk															
Location:	C:\inetpub\wwwroot\NetResultsTracker															
Template:	Help Desk															
Database Type:	Access															
Web Site:	Default Web Site (1)															
Authentication:	NetResults Tracker															
Require SSL:	<input type="checkbox"/>															
Host Name:	<input type="radio"/> SERVERNAME <input type="radio"/> IP Address:															
Port Number:	80															
Comment:	<input type="text"/>															
Character Set:	Windows-1252															
Email Header Encoding:	Auto Select															
Add Multipart Email:	No															
Time Zone:	[UTC -0800] Pacific Standard Time															
	<input checked="" type="checkbox"/> Adjust to Daylight Saving Time (DST)															
<input type="button" value="Reset"/> <input type="button" value="Continue »"/>																

Click on the Add button on the Button Bar to add a new workgroup. You will be prompted to fill in the following fields in order to create the new workgroup:

- Name**  
 A brief name to identify the workgroup. Example: productX
- Description**  
 A description of the workgroup.
- Location**  
 The path where the workgroup files will be located. We recommend you maintain this directory to be within your installation directory. By default, the installation directory is **C:\inetpub\wwwroot\NetResultsTracker**. WMS will create a directory similar to the workgroup name under this location. Example: If the workgroup name is productX, and the location is **C:\inetpub\wwwroot\NetResultsTracker**, then WMS will create the following directory **C:\inetpub\wwwroot\NetResultsTracker\productX** and create workgroup files under this directory.



- **Template**

Select the template type that corresponds to the environment where Tracker will be used. Each template comes with a basic set of fields and workflow steps modeled for the environment where it will be used. The following templates are available:

- **Product Development**

The Product Development template is intended for a product (software, hardware, service) development process. An explanation is available in the [Product Development template](#) section of the [Administration Help Guide](#).

- **Web Site Development**

The Web Site Development template is intended for a web site development process. An explanation is available in the [Web Site Development template](#) section.

- **Knowledge Base**

The Knowledge Base template is intended for the process of publishing articles to a searchable Knowledge Base available to external users. An explanation is available in the [Knowledge Base template](#) section.

- **Help Desk**

The Help Desk template is modeled for a process where internal users are supported by a Help Desk. An explanation is available in the [Help Desk template](#) section.

- **Support**

The Support template is geared for a process where external users are supported by a Customer Support team. An explanation is available in the [Support template](#) section.

- **Base**

The Base template is a database with minimal configuration. If the rest of the template choices do not match with how you plan to use Tracker choose this template. It will allow you to set up your fields and process without having to change or remove extra fields, workflow and other configuration that you don't plan to use. An explanation is available in the [Base template](#) section.

- **Change Management**

The Change Management template is geared for a process where changes must be approved by a Change Control board. An explanation is available in the [Change Management template](#) section.

- **Database Type**

Select the database type for this workgroup from the pulldown menu options. Access, SQL Server, and Oracle database types are supported. If you are adding a workgroup using SQL Server or Oracle as your database type, **please complete the [Preparations](#) required for the version of SQL Server or Oracle you are using listed in the "Database Driver Software on Web Server Machine" and "Database Server Software" sections of that page. Additionally, for workgroups using Oracle, before adding a new workgroup please perform the procedure outlined in the [Using Oracle Database Help](#) section.** Once you have completed these steps, return to this section to create a new workgroup using Oracle as the database type.

- **Web Site**

Select the web site where the workgroup should be installed.

- **Authentication**

Select the type of authentication that should be set for the workgroup. "NetResults Tracker" will be selected by default. NetResults Tracker is authentication performed by the Tracker application itself using a Login web page which requests the user's Tracker User ID and Password. The Microsoft IIS web server will be configured to allow "Anonymous" access (no authentication is performed by IIS itself). All other forms of authentication use the Microsoft IIS web server and Windows operating system to authenticate the user before they are given access to any Tracker web pages. The Tracker Login Page is not displayed. However, a user's web browser may display a pop-up to request the user's credentials (Windows user name, password, and, in some cases, domain) if it needs this information (or is configured to always request this information) in order to complete authentication with the IIS web server.

Selecting "IIS Basic", "IIS Integrated Windows" or "IIS Basic and Integrated Windows" authentication enables single sign-on capability provided by the Microsoft IIS web server. If one of those authentication mechanisms is selected, the IIS web server and Windows operating system will authenticate the user and then verify that the user should be given access to the Tracker web pages (using the Windows file system permission settings on the web pages). If the Windows authentication and access control checks pass, then IIS will pass the request on to Tracker. Tracker will then search its own user account list for a matching entry (Windows User name matches Tracker User ID) to verify that the user should be given access to the workgroup before displaying the user's Home Page.

A summary of the reasons why you might select one form of authentication over another is provided below. If after reading it, you are still not sure which one to pick, we recommend using "NetResults Tracker". You can use the Edit Workgroup function in WMS to change it later.

Generally speaking, NetResults Tracker authentication is the simplest for you to set up and has the lowest Windows Server licensing costs. However, it does require that your users maintain a separate user account for Tracker and for Windows (if they are using Windows). If they routinely change their password, they will have to change their Windows password and their Tracker password. NetResults Tracker authentication works with all supported browsers running on any operating system.

If you use one of the three forms of IIS authentication, your users will not need to maintain a separate password (authentication will be done by IIS using their Windows user account) and you can use Windows to enforce password policies. However, it is generally harder to configure and maintain (especially if you are using IIS Integrated Windows or IIS Basic and Integrated Windows). It may cost more for your Windows Server licensing to use Windows authenticated users (contact your Microsoft reseller and ask about Windows authenticated users accessing the IIS web server).

IIS Basic Authentication works with all supported web browsers on any operating system. However, it sends Windows passwords in "clear text", so it should only be used in conjunction with SSL.

IIS Integrated Windows does encrypt passwords (even without SSL), but can not be used with any browser other than Internet Explorer. Also, IIS Integrated Windows (or "IIS Basic and Integrated Windows") can not be used in an environment where there is a (hardware or software) firewall or proxy server between your end users (their web browsers) and the web server. Though it may appear to work in some cases, it will (sometimes intermittently) have situations where the browser requests the users credentials over and over. Keep in mind that software which acts as a firewall or proxy server may not label itself as such. It may be labeled as "intrusion prevention" software or "web acceleration" software. Some "pop-up blocker" software packages also use a proxy server. If you were using IIS Integrated Windows authentication and one or more of your users suddenly starts complaining that they are being repeatedly asked to enter their user name and password or are getting an "access denied" error, odds are that they are now using a firewall or proxy server (perhaps installed on their browser machine or in their network).

If you wish to use one of the IIS authentication mechanisms, we recommend using IIS Basic combined with SSL. This will allow your users to use any supported browser (including Firefox) and will work through firewalls and proxy servers. For further details on the differences between these choices, please consult the Microsoft Authentication documentation:

[Windows Server 2012, IIS 8.0 and Windows Server 2012 R2, IIS 8.5](#)

[Windows Server 2008, IIS 7.0 and Windows Server 2008 R2, IIS 7.5](#)

[Windows Server 2003, IIS 6.0](#) In particular, we recommend the summary table in this section.

- **Windows Domain or Computer Name**

This option will only be available if something other than "NetResults Tracker" has been selected for the Authentication field. Enter the name of the Windows domain that contains the users that should be allowed to access the workgroup. The web server machine on which Tracker is installed must be a member of this domain. If the web server machine is not a member of a Windows domain or you only wish to allow access using local (to the web server machine) Windows user accounts, then you can specify the Windows computer name of the machine on which Tracker is installed instead of a Windows domain name. In that case, only local user accounts from that web server machine will be given access. This information will be used to fill in the choices on the [Authentication Details](#) page.

- **Require SSL**

Check the box for this option if you have configured SSL (Secure Socket Layer) encryption for communications with the web site selected above. Please ensure you have entered a valid Server Certificate on your web server in order to apply the Secure Communications feature to your workgroup. Enabling this option will require your users to use **https://** instead of **http://** when browsing to this workgroup.

- **Host Name or IP Address**

Select the radio button to specify either Host Name or IP Address that corresponds to the web site selected for the workgroup. This information will be used to configure the URL used to access this workgroup.

- **Port Number**

If applicable, enter the port number associated with the web site you selected above. This information will be used to configure the URL for this workgroup.

- **Comment**

This field can be used to add any information to describe the new workgroup.

The following fields are Internationalization settings. Please consider the following information when making your selection for these fields. Once you have added records to your Tracker database, you will not be able to change the character set selection. When making your selection, also consider what languages you will need to support in the future.

1. **Character Set**

ISO-8859-1, Windows-1252, and UTF-8 are the character sets that are supported by Tracker.

- **ISO-8859-1** (also known as Latin1) is a standard single-byte character set that supports Western European languages including: English, Basque, Catalan, Danish, Dutch, Finnish, French, German, Icelandic, Irish, Italian, Norwegian, Portuguese, Scottish, Spanish, and Swedish. The ISO-8859-1 character set is a subset of the Windows-1252 character set. The image below displays the set of characters supported by ISO-8859-1.

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
2		!	"	#	\$	%	&	'	(	)	*	+	,	-	.	/
3	0	1	2	3	4	5	6	7	8	9	:	;	<	=	>	?
4	@	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
5	P	Q	R	S	T	U	V	W	X	Y	Z	[	\	]	^	_
6	`	a	b	c	d	e	f	g	h	i	j	k	l	m	n	o
7	p	q	r	s	t	u	v	w	x	y	z	{		}	~	
A		ı	ş	£	□	¥	ı	§	"	©	ª	«	-		@	-
B	°	±	²	³	´	µ	¶	·	,	ı	°	»	¼	½	¾	¿
C	À	Á	Â	Ã	Ä	Å	Æ	Ç	È	É	Ê	Ë	Ì	Í	Î	Ï
D	Ð	Ñ	Ò	Ó	Ô	Õ	Ö	×	Ø	Ù	Ú	Û	Ü	Ý	Þ	ß
E	à	á	â	ã	ä	å	æ	ç	è	é	ê	ë	ì	í	î	ï
F	ð	ñ	ò	ó	ô	õ	ö	÷	ø	ù	ú	û	ü	ý	þ	ÿ

- Windows-1252 is a single-byte character set that supports all of the characters in ISO-8859-1, plus some additional European characters including: the Euro sign, tilde, caron, and per mille. The image below displays the additional characters which are in Windows-1252 (but are not in ISO-8859-1). If you require the use of any of these characters, then you can not use the ISO-8859-1 character set.

€	EURO SIGN
,	SINGLE LOW-9 QUOTATION MARK
f	LATIN SMALL LETTER F WITH HOOK
„	DOUBLE LOW-9 QUOTATION MARK
...	HORIZONTAL ELLIPSIS
†	DAGGER
‡	DOUBLE DAGGER
ˆ	MODIFIER LETTER CIRCUMFLEX ACCENT
‰	PER MILLE SIGN
Š	LATIN CAPITAL LETTER S WITH CARON
‹	SINGLE LEFT-POINTING ANGLE QUOTATION MARK
Œ	LATIN CAPITAL LIGATURE OE
Ž	LATIN CAPITAL LETTER Z WITH CARON
‘	LEFT SINGLE QUOTATION MARK
’	RIGHT SINGLE QUOTATION MARK
“	LEFT DOUBLE QUOTATION MARK
”	RIGHT DOUBLE QUOTATION MARK
•	BULLET
–	EN DASH
—	EM DASH
˜	SMALL TILDE
™	TRADE MARK SIGN
š	LATIN SMALL LETTER S WITH CARON
›	SINGLE RIGHT-POINTING ANGLE QUOTATION MARK
œ	LATIN SMALL LIGATURE OE
ž	LATIN SMALL LETTER Z WITH CARON
ÿ	LATIN CAPITAL LETTER Y WITH DIAERESIS

- UTF-8 supports virtually all available languages. It includes support for all Western European languages mentioned above for ISO-8859-1 and Windows-1252 as well as other languages such as Arabic, Chinese, Czech, Greek, Hebrew, Hindi, Hungarian, Japanese, Korean, Polish, Romanian, Russian, Tamil and many others. UTF-8 is an ASCII compatible encoding method for Unicode (ISO 10646).

Even though UTF-8 supports the widest range of languages, each user must have all of the necessary fonts installed on their desktop (web browser) machine in order to view all characters. Also, UTF-8 generally uses slightly more processor power at both web server and browser. If you are confident that the workgroup will only require English or another Latin1 language that does not require the special characters in the Windows-1252 character set (e.g. Euro symbol), then you should use ISO-8859-1. If you are using a Latin1 language and require one of the special symbols

in Windows-1252, then you should use Windows-1252 as the character set. If you are not using a Latin1 language (or expect to add use of a non-Latin1 language to this workgroup in the future), then you should use UTF-8.

When selecting the character set for your workgroup, you should also consider the users that will be accessing the workgroup. Each user account has a set of profile information that is displayed within each workgroup. Each user account has a character set, which is based on the characters used in the user account's profile information. The User Character Set must be compatible with the workgroup character set. For example, a user account with UTF-8 characters in its profile can only be given access to a workgroup with UTF-8 configured as the workgroup character set.

Some basic guidelines related to user / workgroup character set compatibility:

- If a user account contains only ASCII characters (supported by ISO-8859-1 character set), this user account can be given access to any workgroup because all character sets support ASCII characters.
- If a user account contains non-ASCII characters supported by the Windows-1252 character set, this user account can be given access to any workgroup that is configured with the Windows-1252 or UTF-8 character set.
- As mentioned above, if a user account contains non-ASCII characters only supported by the UTF-8 character set, this user account can only be given access to a workgroup configured with the UTF-8 character set.

To view a user's character set, use the [Edit a User](#) operation in the [User Management System](#) section.

## 2. Email Header Encoding

Email headers must contain only US-ASCII characters. Headers that contain non US-ASCII characters must be encoded so that they contain only US-ASCII characters. This process involves using either **B (Base 64)** or **Q (Quoted-Printable)** to encode certain characters. The **Q** encoding is recommended for use when most of the characters to be encoded are in the ASCII character set; otherwise, the **B** encoding should be used. If you select **Auto**, Tracker will automatically select an encoding option.

## 3. Add Multipart Email

This option determines whether the emails generated by Tracker will contain text or text and HTML within the messages. Selecting **Yes** for this option will allow the emails to contain both text and HTML. For example, if you selected UTF-8 as the character set for a workgroup, email generated by Tracker may also contain UTF-8 characters. If your email client cannot display UTF-8 characters, selecting **Yes** for the Email Add HTML Part option might help. With this option enabled, Tracker will send email with both text and HTML format. If your email client can display HTML format, UTF-8 email can be displayed.

## 4. Time Zone

This option determines which time zone will be selected for users by default to view the workgroup data. Irrespective of the setting you choose for the default here, each user can select their own time zone setting in the [Preferences](#) section. For a list of available time zones, please refer to the following section:

[Windows Time Zones](#)

## 5. Adjustment for Daylight Saving Time

This option determines whether the workgroup date is adjusted to observe daylight saving time. If you have selected a time zone that observes daylight saving time, it is recommended that you check the box to enable Tracker to make the appropriate adjustments.

Once you have entered the relevant information to create the new workgroup, click on the **Continue** button. If you selected a method of authentication other than NetResults Tracker, you will be prompted to set the [Authentication Details](#). If you selected SQL Server or Oracle as the Database Type, you will be prompted to enter the [SQL Server Database Details](#) or [Oracle Database Details](#).

### Authentication Details

If you selected an option other than "NetResults Tracker" for the Authentication field, you will be prompted to provide additional information for the authentication configuration:

- **Windows Domain Name or Computer Name**

The Windows domain or computer name selected on the Add Workgroup page will be displayed. When you use one of the Microsoft IIS authentication schemes, user authentication and access control will be performed as follows. First, the Microsoft IIS web server in conjunction with the web browser and (in most cases) your Windows domain server will authenticate the user which is trying to access a web page in the workgroup. That authentication may be implicit (user will not see it happen) or it may be explicit (user may see a pop-up displayed by their browser requesting Windows user name, password, and, in some cases, domain) depending on the browser configuration, web server configuration, and your domain configuration. If the end user successfully authenticates to Windows/IIS, the IIS web server will then perform access control by comparing the Windows user account to the Windows file system permission on the web page being accessed. If that access control check passes, the web page request will then be passed on to Tracker. Tracker will then check its [user account](#) information to see if that user account exists in Tracker and has access to the workgroup. If so, the Home Page for that user will be displayed and the user's login session will be started. If the user was browsing to the Knowledge Base page or the Submit via Web for Unregistered Users page, then the last check will not be performed because those pages do not require that the user has a Tracker user account.

- **Windows User Groups**

The Windows user groups available in the selected domain or computer will be listed. Select the Windows user group(s) that should be allowed to access this workgroup. To select multiple user groups, hold down the Ctrl button on your keyboard as you select the user groups. The Windows file system permissions on the Tracker web pages for this workgroup will be modified to allow access by each User Group which you select.

**Note:** Tracker only adds to or modifies your existing Windows file system permissions for the selected User Groups. It does not remove or modify any existing entries for other User Groups which you did not select. In other words, the file system permissions will be set to guarantee that users in the selected User Groups will pass the IIS access check. They will not be set to make sure that all other users will fail the IIS access check. If Tracker did that, it might remove access for users who may not need to browse to the web pages, but do need access to the files themselves (such as local administrators, backup operators, etc.). So, for example, if you have installed the workgroup in a Windows folder which has access for Everyone, then the IIS web server will give Everyone (who successfully authenticates with a valid Windows user account) access to the Tracker web pages. However, Tracker will still reject access for users who do not have a Tracker user account (excluding Knowledge Base and Submit via Web for Unregistered Users pages which don't require a Tracker user account). If you wish to narrow this list (so that more IIS access control is performed), then you should set the file system permissions on the folder that you selected as the Location in the first Add Workgroup page **before** you create (Add) the workgroup. Otherwise you may inadvertently remove file system permissions which Tracker added so that your workgroup can properly function. Also, be careful to not remove access that may be needed by users/tools which run on the web server machine (such as for the Administrators of the server, the user accounts that are used by the backup tool(s) which you use, etc.).

After creating the workgroup, you must still add a Tracker [user account](#) with the User ID that matches the Windows user account for each user who will use the workgroup. Please note that changes made to the user profile information in the user accounts in Tracker will not be reflected in Active Directory (and vice versa).

- **Windows User for Admin**

Enter the Username of the Windows user account that will be authenticated as the Tracker Admin user account for the workgroup. The user selected must be a member of one of the groups selected for **Windows User Groups** above and in the Windows **Domain or Host Name** selected above. This allows you to associate any Windows user with the Tracker Admin user account (so that you do not have to create a Windows user account with the user name Admin).

Once you have entered the relevant information for the Authentication settings, click on the **Continue** button. If you selected SQL Server or Oracle as the Database Type, you will be prompted to enter the [SQL Server Database Details](#) or [Oracle Database Details](#).

#### SQL Server Database Details

If you selected SQL Server as the database type, you will be prompted to provide additional information to connect to SQL Server:

Home             Add             View             Edit             Delete             Alias             Move             Migrate             Repair             Admin             Users             EXIT             Help		NetResults Tracker WMS Version 6.6.0
Status		Help
Ready - Database Details		
Add New Workgroup - nrtracker2 - Database Details		
Location (Server):	<input type="text" value="SERVERNAME"/>	
Use SQL Native Client Provider:	<input type="checkbox"/> <b>Note:</b> By default (option is unchecked) SQL OLE DB Provider will be used. Use this option if you want to take advantage of SQL Server 2005 features. You may need to <a href="#">download</a> and install the SQL Native Client on the Web Server.	
Database User Name:	<input type="text" value="NRTracker"/>	
Database User Password:	<input type="password" value="••••••••"/>	
Create Database User:	<input checked="" type="checkbox"/>	
Confirm Database User Password:	<input type="password" value="••••••••"/>	
Database Name:	<input type="text" value="nrtracker2"/>	
Create Database:	<input checked="" type="checkbox"/>	
DBA User Name:	<input type="text" value="sa"/>	
DBA User Password:	<input type="password" value="••••"/>	
<input type="button" value="« Back"/> <input type="button" value="Reset"/> <input type="button" value="Continue »"/>		

- Location (Server)**  
 Enter the name of the machine where SQL Server is located.
- Use SQL Native Client Provider**  
 When enabling this option by checking the box, Tracker will use SQL Native Client Provider to connect to SQL Server. By default this property is **unchecked** so that Tracker will use SQL OLE DB Provider to connect. This property is optional and can be used if you want to take advantage of SQL Server features such as database mirroring. **If you are not using SQL Server 2005 or newer, please \*do not\* enable this property.** Use of this feature is only recommended in cases where you have an expert SQL Server administrator with detailed knowledge of SQL Server client configuration. Enabling this property may require you to [download](#) and install the SQL Native Client on the web server.
- Fail Over Location (Server)**  
 This property will only be displayed when **Use SQL Native Client Provider** is enabled. Specify the name of the "mirror" server that should be used in the event that the principal server fails. This property is optional and can be used if you want to take advantage of SQL Server features such as database mirroring. **If you are not using SQL Server 2005 or newer, please \*do not\* enter a value for this property.** Use of this feature is only recommended in cases where you have an expert SQL Server administrator with detailed knowledge of SQL Server client configuration. **Even if you are using SQL Server 2005 or newer, please leave this property blank if you are not using database mirroring or are not familiar with database mirroring.** Click [here](#) for more information about database mirroring.
- Database User Name**  
 Enter the User Name of the login that should be used by this workgroup to connect to the database. "NRTracker" is listed by default. The login does not need to already exist on SQL Server. You can enter the User Name for a new login to be created on SQL Server for use with this workgroup.
- Database User Password**  
 Enter the password for the **Database User Name** specified above to connect to SQL Server. If the Database User Name does not exist already on SQL Server, enter a new password to be used when creating the new login.
- Create Database User**  
 Check the box for this option if you would like to create a new login on SQL Server for use with this workgroup. Do not check the box for this option if the login specified in **Database User Name** already exists on SQL Server.
- Confirm Database User Password**  
 This field will only be displayed if the box for the option **Create Database user** is checked. Confirm the password entered in the **Database User Password** field above.
- Database Name**

By default, this will display the name selected as the workgroup name. You can change this in the space provided if desired. The database does not need to already exist on SQL Server. You can enter the Database Name for a new SQL Server database to be created for use with this workgroup.

- **Create Database**

This option will only be displayed when SQL Server is selected as the **Database Type**.

Check the box for this option if you would like to create a new database on SQL Server for use with this workgroup. Do not check the box for this option if the database specified in the **Database Name** field already exists on your SQL Server installation.

- **DBA User Name**

This field will only be displayed when the boxes for either **Create Database User** or **Create Database** are checked.

Enter the User Name of a login for a database administrator on SQL Server. "sa" is entered into this field by default.

- **DBA User Password**

Enter the password for the login specified in the **DBA User Name** field.

Click on the **Continue** button to proceed with creating the workgroup. A confirmation page will be displayed with the following:

- **Database Name**

Shows the Database Name as it was entered on the previous page.

- **Physical Path**

The location of the database files within SQL Server will be configured with the default path. You can enter a different path if desired. If the path you entered is not synchronized with the SQL Server installation path, you might get an error while creating the workgroup.

- **Max Size**

The maximum size of the database. "UNLIMITED" will be set by default.

- **File Growth**

The percentage by which the database file should grow automatically. "10%" will be set by default.

### Oracle Database Details

If you selected Oracle as the database type, you will be prompted to provide some additional information to connect to Oracle. If you are adding a workgroup using Oracle as your database type, you must first create the database using the procedure outlined in the [Using Oracle Database](#) Help section. Once you have completed these steps, return to this section to create a new workgroup using Oracle as the database type.

The screenshot shows the 'Add New Workgroup - nrtracker2 - Database Details' form in the NetResults Tracker WMS interface. The status bar at the top indicates 'Ready - Database Details'. The form contains the following fields and values:

Important Note:	Oracle database instance must be created manually. If you haven't already created the database for this workgroup, please <a href="#">create it now</a> (before clicking Continue).
Location (Server):	ORACLESERVER1
Database User Name:	NRTracker
Database User Password:	••••••••
Create Database User:	<input checked="" type="checkbox"/>
Confirm Database User Password:	••••••••
Database Name:	nrtracker2
DBA User Name:	system
DBA User Password:	••••••

At the bottom of the form, there are three buttons: « Back, Reset, and Continue ».

- **Location (Server)**

Enter the name of the machine where your Oracle server is located.

- **Database User Name**

Enter the User Name of the user that should be used by this workgroup to connect to the database. "NRTracker" is listed by default. The user does not need to already exist on your Oracle Server. You can enter the User Name for a new user to be created for use with this workgroup.

- **Database User Password**

Enter the password for the **Database User Name** specified above to connect to Oracle. If the Database User Name does not exist already on oracle, enter a new password to be used when creating the new user.

- **Create Database User**

Check the box for this option if you would like to create a new user on your Oracle server for use with this workgroup. Do not check the box for this option if the user specified in **Database User Name** already exists on your Oracle server.

- **Confirm Database User Password**

This field will only be displayed if the box for the option **Create Database user** is checked. Confirm the password entered in the **Database User Password** field above.

- **Database Name**

By default, this will display the name selected as the workgroup name. You can change this in the space provided if desired. Before proceeding with connecting to Oracle, you should have already created a database on Oracle server for this workgroup. If you have not already done so, create the database using the procedure outlined in the [Using Oracle Database](#) Help section. Then return to this section to proceed with creating the new workgroup.

- **DBA User Name**

This field will only be displayed when the box for the option **Create Database User** is checked.

Enter the User Name of a user for a database administrator on Oracle. "system" is entered into this field by default.

- **DBA User Password**

Enter the password for the user specified in the **DBA User Name** field.

Click on the **Continue** button to proceed with creating the workgroup. If the box for the option **Create Database User** was not checked, a [workgroup confirmation page](#) will be displayed. If the box for the option **Create Database User** was checked, a confirmation before creating the Database User will be displayed with the following:

NetResults Tracker  
WMS  
Version 6.6.0

Status: Ready - Database Details

Add New Workgroup - nrtracker2 - Database Details

Create New Database User

Database User Name:	NRTracker
Default Tablespace Name:	<Create new tablespace>
New Tablespace Name:	NRTracker
Data File Name:	E:\ORACLE\ORADATA\ORADB11\NRTracker01.dbf
Size:	50 MB
Auto Extend:	Yes

« Back    Reset    Continue »

- **Database User Name**

Shows the Database User Name as it was entered on the previous page.

- **Default Tablespace Name**

Select which tablespace in the database should be associated with the new user. Existing tablespaces for this workgroup will be available for selection or you can select "<Create new tablespace>". If you are unsure which tablespace to select, it is recommended that you either select the "<Create new tablespace>" option or select the USERS tablespace.

When selecting "<Create new tablespace>", the options below will be displayed:



**New Tablespace Name**

Enter a name for the new tablespace. The name entered by default will match the name of the Database User to be created.

**Data File Name**

Enter the path where the database file (\*.dbf) should be located.

**Size**

The initial size of the database. "50 MB" is set by default. The value entered must be at least 50 MB.

**Auto Extend**

This option determines whether the database should be allowed to grow as needed. "Yes" is set by default.

Click on the **Continue** to proceed with creating the workgroup.

A Component Check will be done to validate the information entered for the new workgroup. If the Component Check is successful, a confirmation of the database information will be shown. If the Component Check is unsuccessful, details about the components that failed will be listed. If you wish to save the settings you entered above to be displayed as the default settings whenever adding future new workgroups, check the box labeled **Save as default settings**. You can click on the **Back** button to make any modifications to the database information. Otherwise, click on the **Create Workgroup** button as the final step to create the workgroup.

The screenshot shows the NetResults Tracker WMS Version 6.6.0 interface. At the top, there is a navigation bar with icons for Home, Add, View, Edit, Delete, Alias, Move, Migrate, Repair, Admin, Users, Logoff, and Help. The status bar indicates "Success - Workgroup Components Check Passed". The main content area is titled "Add New Workgroup - nrtracker2 - Confirmation" and contains a table of configuration details:

Name:	nrtracker2
Description:	Help Desk
Location:	C:\Inetpub\wwwroot\NetResultsTracker\nrtracker2
Web Site:	Default Web Site (1)
Authentication:	NetResults Tracker
Require SSL:	No
Host Name:	SERVERNAME
Port Number:	80
Template:	Help Desk
Character Set:	Windows-1252
Email Header Encoding:	Auto Select
Add Multipart Email:	No
Time Zone:	[UTC -0800] Pacific Standard Time
Adjust to DST:	Yes
Database Type:	Access
Database Location:	C:\Inetpub\wwwroot\NetResultsTracker\nrtracker2\Database
Database Name:	bugtrack.mdb

Below the table, there is a checkbox labeled "Save as default settings" which is currently unchecked. At the bottom, there are two buttons: "« Back" and "Create Workgroup".

If you selected SQL Server or Oracle as the database type, click on the **Initialize Tables** button that appears after the workgroup has been created.

To login to your new workgroup, go back to the Workgroup Management System Home Page, find the name of the workgroup you added, then click on the key icon to the left of the workgroup name. A separate window will be launched with the Login page for your workgroup. Or, you can launch a browser window and enter the following URL to reach your workgroup:

<http://servername/workgroupname/>

where **servername** is the TCP/IP host name of the machine where you installed Tracker and **workgroupname** is the name of the workgroup you created.

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## Backing Up Workgroup Data

**Note:** It is important to make regular backups of your installation especially the database and attachments for each workgroup. If you are using SQL Server or Oracle as the database type for your workgroup(s), a simple file copy or a simple file backup to tape is not sufficient for backing up SQL Server or Oracle database files because they are not standard files. More information on backing up your Tracker installation can be found in the [Database Administration](#) section.

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## Active Directory Integration

Tracker workgroups can be configured to authenticate users via Active Directory. When a workgroup is configured to authenticate users via Active Directory, the users do not see the Tracker login page when attempting to [login](#). To configure a **new workgroup** to use Active Directory for authentication:

1. Choose a form of Authentication other than "NetResults Tracker" when [adding the workgroup](#)
2. Ensure that each user that needs to access Tracker has a user account created in the [User Management System](#). The User ID for the Tracker user account must match the User ID for their Windows user account in Active Directory that belongs to one of the Windows user groups you selected in the [Authentication Details](#) when creating the workgroup. Please note that changes made to the user profile information in the user accounts in Tracker will not be reflected in Active Directory (and vice versa).

To configure an **existing workgroup** to use Active Directory for authentication:

1. [Edit the workgroup](#) to select a form of Authentication other than "NetResults Tracker"
2. Ensure that each user that needs to access Tracker has a user account created in the [User Management System](#). The User ID for the Tracker user account must match the User ID for their Windows user account in Active Directory that belongs to one of the Windows user groups you selected in the [Authentication Details](#) when editing the workgroup. Please note that changes made to the user profile information in the user accounts in Tracker will not be reflected in Active Directory (and vice versa).

## User Passwords

For workgroups where a method of authentication other than NetResults Tracker has been selected, the **Password** entered for a user's Tracker account will be ignored because the password for the user's Windows account will be used for authentication. Entering a password when creating a user account in the [User Management System \(UMS\)](#) is still required in case the Authentication settings for the workgroup is ever changed to use NetResults Tracker.

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## Database Mirroring with SQL Server

Tracker supports the use of Database Mirroring on SQL Server 2005 or newer. **Database Mirroring should only be used if you have an expert SQL Server administrator with detailed knowledge of SQL Server client configuration.** Please consult the following references on Microsoft's web site about configuring database mirroring:

[SQL Server 2012 and SQL Server 2014](#)  
[SQL Server 2008](#)  
[SQL Server 2005](#)

In order to use database mirroring, you must set the properties "Use SQL Native Client Provider" and "Fail Over Location (Server)" for the workgroup when [adding the workgroup](#) (or [edit an existing one](#)). However, simply setting these properties for the workgroup is not sufficient to use database mirroring. If you are not familiar with database mirroring or SQL Server client configuration, please do not attempt to use this feature.

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To view a workgroup, click on the **View** button on the Button Bar, select a workgroup from the pulldown menu, then click on the **View** button below the pulldown menu. You can also click on the **View** icon to the left of a workgroup name from the Home Page.

Details of the workgroup will be displayed including general workgroup and database information as well as information about IP Address restrictions, global attachments, aliases, Internet Information Services (IIS) settings and history.

Home		Add	View	Edit	Delete	Alias	Move	Migrate	Repair	Admin	Users	EXIT	Logoff	Help	NetResults Tracker WMS Version 6.6.0	
Status	View Workgroup Details - chgmgmt (Change Management)													Help		
View Workgroup Details - chgmgmt														Thu May 14 11:24:47 PDT 2009		
<b>General:</b>																
Name:	chgmgmt															
Login URL:	<a href="http://SERVERNAME/chgmgmt/ptlogin.asp">http://SERVERNAME/chgmgmt/ptlogin.asp</a>															
Description:	Change Management															
Location:	C:\Inetpub\wwwroot\NetResultsTracker\chgmgmt															
Web Site:	Default Web Site (1)															
Authentication:	NetResults Tracker															
Host Name:	SERVERNAME															
Port Number:	80															
Require SSL:	No															
Comment:																
Character Set:	Windows-1252															
Version:	6.5.0															
Current State:	Active															
User Mode:	Multi-user															
<b>IP Address Access Restrictions:</b>																
Your Current IP Address:	127.0.0.1															
Page Type:	Login and Self Registration Pages [ Edit ]															
Enable IP Address Restriction:	No															
Allowed IP Addresses:	198.128.0.1 (WG + WMS)															
Access Denied Message:	<b>Application Access Denied</b>     127.0.0.1 Sorry, you are not authorized to access this workgroup from your location. Please contact the workgroup administrator with your current IP address: <ip_address>.															

## General Information

The following information about the workgroup is displayed in the General section.

- **Name**  
The name of the workgroup.
- **Login URL**  
The URL of the workgroup's Login Page. Click on the link to browse to the workgroup.
- **Description**  
A short description of the workgroup.

- **Location**  
The path where the workgroup files are located.
- **Web Site**  
The web site where the workgroup is located.
- **Authentication**  
The form of authentication configured for this workgroup. Information about the types of authentication can be found in the [Editing a Workgroup](#) section.
- **Host Name**  
The host name or IP address that corresponds to the web site where the workgroup is configured.
- **Port Number**  
The port number that corresponds to the web site where the workgroup is configured.
- **Require SSL**  
Lists whether the use of Secure Socket Layer (SSL) is required for this workgroup.
- **Comment**  
Lists the text entered into this field when the workgroup was added or last edited. Can be used to enter additional details relevant to the workgroup.
- **Character Set**  
The character set selected for the workgroup when it was created; this determines which languages are supported in the workgroup.
- **Version**  
The Tracker version of the workgroup.
- **Current State**  
Describes whether the workgroup is "Active" (accessible to users) or "Blocked" (not accessible to users). The workgroup's state can be changed in the [Block/Unblock Workgroups](#) section.
- **User Mode**  
Describes whether the workgroup is in "Single-user" or "Multi-user" mode. If the workgroup is in Single-user mode, the user who changed it to this mode and the date and time it was changed will be listed. A link "Switch to Multi-user" is available to [change the mode](#).

## Changing the User Mode for the Workgroup

When a workgroup is in [Single-user mode](#), only the user listed is able to login and access the workgroup. There is the option to change the workgroup back to Multi-user mode on the WMS View Page, allowing other users to access the workgroup.

To switch the workgroup back to **Multi-user mode**:

1. Login to the [Workgroup Management System](#)
2. Click on the **View** icon in the Button Bar
3. Locate the **User Mode** section
4. If the workgroup is in Single-user Mode, a **Switch to Multi-user** link will be present
5. Click on the link to change the workgroup back to Multi-user mode
6. Click **OK** to confirm. "(Switched Successfully)" will be displayed in the User Mode field to confirm that the mode was switched back to Multi-user mode.

---

## IP Address Access Restrictions

Access to a workgroup can be limited by restricting access to only certain IP addresses (physical location). When this feature is enabled, a user will only be able to access the workgroup if the user's IP address matches one of the IP addresses or IP Address ranges configured in the **Allowed IP Addresses** field. If the user's IP Address does not match a configured address or range, they will see an "Access Denied" message that can be customized with any desired wording and HTML code. Restrictions can be configured for accessing the Login and Self-Registration pages and other pages used when logged into the workgroup, the Submit Page for Unregistered Users and the Knowledge Base. The configuration can be set here in the Workgroup Management System (WMS) or can be set in the workgroup sections for configuring [Login and Self-Registration pages](#), the [Submit Page](#) and the [Knowledge Base](#). The option "WMS Only" is available to configure IP Address restrictions here in WMS such that any entries with that option set are not visible by workgroup Administrators. IP Address restrictions configured in this section take effect immediately after clicking on the **Save** button.

To **add** an IP address/range in the Allowed IP Addresses list:

1. Login to the [Workgroup Management System](#)
2. Click on the **View** icon in the Button Bar
3. Select the workgroup you wish to view, then click on the **View** button
4. In the IP Address Access Restrictions section, make a selection for the **Page Type** option. [Login and Self-Registration pages](#) refers to the workgroup Login Page, Self-Registration page, and all pages that can be found within the workgroup. [Submit via Web](#) refers to the form outside of

the workgroup that can be used to submit records without logging in. [Knowledge Base](#) refers to all of the Knowledge Base pages that a user can access without logging into the workgroup.

5. Click on the **Edit** link to the right of Page Type
6. The workgroup **Name** and **Description** and **Your Current IP Address** will be displayed.
7. Click on the **Add** button to add an IP address or range of addresses.

For **Type** select "Single computer" to add a single IP Address or "Range of computers" to add a range of IP Addresses. For **IP Address**, enter the IP address, then click **OK**. For **IP Address Range**, enter the first IP Address in the range, then enter the last IP Address in the range. For **Visible To** select "WMS Only" if the IP address/range should only be displayed in the Allowed IP Addresses list when viewed in WMS; any IP address/range with this option selected will not be displayed in the Allowed IP Addresses list when viewed in the workgroup. Select "Workgroup (WG) + WMS" to display the IP address/range in the Allowed IP Addresses list in both the workgroup and WMS. Click **OK** to save the IP address/range.

8. Enter any desired text or HTML into the **Access Denied Message** to customize what a user will see if they are denied access to the workgroup because their IP Address is not configured in the **Allowed IP Addresses** list. Do not use the tags <HTML>, </HTML>, <BODY>, </BODY> or any other header tags in this field.
9. Click on the **Save** button to save the changes

To **edit** an IP address/range in the Allowed IP Addresses list:

1. Login to the [Workgroup Management System](#)
2. Click on the **View** icon in the Button Bar
3. Select the workgroup you wish to view, then click on the **View** button
4. In the IP Address Access Restrictions section, make a selection for the **Page Type** option. [Login and Self-Registration pages](#) refers to the workgroup Login Page, Self-Registration page, and all pages that can be found within the workgroup. [Submit via Web](#) refers to the form outside of the workgroup that can be used to submit records without logging in. [Knowledge Base](#) refers to all of the Knowledge Base pages that a user can access without logging into the workgroup.
5. Click on the **Edit** link to the right of Page Type
6. Click on the IP address/range you wish to modify and click on the **Edit** button. Make any desired changes, then click **OK**.
7. Click on the **Save** button to save the changes

To **remove** an item in the Allowed IP Addresses list:

1. Login to the [Workgroup Management System](#)
2. Click on the **View** icon in the Button Bar
3. Select the workgroup you wish to view, then click on the **View** button
4. In the IP Address Access Restrictions section, make a selection for the **Page Type** option. [Login and Self-Registration pages](#) refers to the workgroup Login Page, Self-Registration page, and all pages that can be found within the workgroup. [Submit via Web](#) refers to the form outside of the workgroup that can be used to submit records without logging in. [Knowledge Base](#) refers to all of the Knowledge Base pages that a user can access without logging into the workgroup.
5. Click on the **Edit** link to the right of Page Type
6. Click on the IP address/range you wish to remove and click on the **Remove** button
7. Click on the **Save** button to save the changes

---

## Database

Information about the workgroup's database is available in this section.

- **Type**  
The type of database being used (Access, SQL Server or Oracle).
- **Name**  
The name of the database. For Access, this is bugtrack.mdb. For SQL Server or Oracle, this is the name of the database created for this workgroup.
- **Location**  
The location of the database. For Access, this is a path in the web server's file system. For SQL Server and Oracle, this is the host name of server where the database is located.
- **Use SQL Native Client Provider**  
Whether the workgroup is configured to use [SQL Native Client Provider](#). This property does not apply to workgroups using Access or Oracle.
- **Database User Name**  
The user name on the database server that is associated with the database for this workgroup. This property does not apply to workgroups using Access.
- **Template**  
The [template](#) selected when the workgroup database was created.

### Physical Path

The physical location of the SQL Server database files for the workgroup. This property does not apply to workgroups using Access or Oracle.

---

### Aliases

Any [aliases](#) created for the workgroup will be displayed in this section, along with the URL to login to the workgroup using the alias.

---

### IIS Application



Settings for the workgroup's IIS application are displayed in this section. These settings are automatically configured by Tracker when the workgroup is added, edited, repaired or upgraded.

---

### History

This section provides detailed information about actions performed on the workgroup such as when the workgroup was added, edited, moved or upgraded. Each entry has a date and time stamp and a history comment. Tracker appends a history comment automatically for certain actions like adding or upgrading the workgroup. Other actions such as editing or moving a workgroup allow the user performing the action to enter a history comment.

---

 NetResults Tracker Help















Editing a Workgroup

Help Topics

<<

>>

To edit a workgroup, click on the **Edit** icon on the Button Bar. Then, select a workgroup to edit from the pulldown menu and click the **Edit** button under the pulldown menu. You can also click on the **Edit** icon to the left of a workgroup name from the Home Page.

 Home
 Add
 View
 Edit
 Delete
 Alias
 Move
 Migrate
 Repair
 Admin
 Users
 EXIT
 Help

NetResults Tracker  
 WMS  
 Version 6.6.0

Status Ready
Help

### Edit Workgroup

Name:	chgmgmt
Description:	<input type="text" value="Change Management"/>
Authentication:	IIS Basic and Integrated Windows <span style="float: right;">▼</span>
Windows Domain Or Computer Name:	<input type="text" value="SERVERNAME"/>
Require SSL:	<input type="checkbox"/>
Host Name:	<input type="text" value="SERVERNAME"/>
IP Address:	<input type="text"/>
Port Number:	<input type="text" value="80"/>
Comment:	<input style="height: 40px;" type="text"/>
History Comment:	<input style="height: 40px;" type="text"/>

« Back
Reset
Continue »

The following workgroup settings can be modified:

- **Description**

Modify the text entered to describe the workgroup

- **Authentication**

Modify the type of authentication that should be set for the workgroup. **Do not change this setting unless you clearly understand the new authentication mechanism you are selecting. Changes in authentication can block access for some or all of your current users.**

NetResults Tracker authentication is performed by the Tracker application itself using a Login web page which requests the user's Tracker User ID and Password. The Microsoft IIS web server will be configured to allow "Anonymous" access (no authentication is performed by IIS itself). All other forms of authentication use the Microsoft IIS web server and Windows operating system to authenticate the user before they are given access to any Tracker web pages. The Tracker Login Page is not displayed. However, a user's web browser may display a pop-up to request the user's credentials (Windows user name, password, and, in some cases, domain) if it needs this information (or is configured to always request this information) in order to complete authentication with the IIS web server.

Selecting "IIS Basic", "IIS Integrated Windows" or "IIS Basic and Integrated Windows" authentication enables single sign-on capability provided by the Microsoft IIS web server. If one of those authentication mechanisms is selected, the IIS web server and Windows operating system will authenticate the user and then verify that the user should be given access to the Tracker web pages (using the Windows file system permission settings on the web pages). If the Windows authentication and access control checks pass, then IIS will pass the request on to Tracker. Tracker will then search its own user account list for a matching entry (Windows User name matches Tracker User ID) to verify that the user should be given access to the workgroup before displaying the user's Home Page.

A summary of the reasons why you might select one form of authentication over another is provided below.

Generally speaking, NetResults Tracker authentication is the simplest for you to set up and has the lowest Windows Server licensing costs.

However, it does require that your users maintain a separate user account for Tracker and for Windows (if they are using Windows). If they routinely change their password, they will have to change their Windows password and their Tracker password. NetResults Tracker authentication works with all supported browsers running on any operating system.

If you use one of the three forms of IIS authentication, your users will not need to maintain a separate password (authentication will be done by IIS using their Windows user account) and you can use Windows to enforce password policies. However, it is generally harder to configure and maintain (especially if you are using IIS Integrated Windows or IIS Basic and Integrated Windows). It may cost more for your Windows Server licensing to use Windows authenticated users (contact your Microsoft reseller and ask about Windows authenticated users accessing the IIS web server).

IIS Basic Authentication works with all supported web browsers on any operating system. However, it sends Windows passwords in "clear text", so it should only be used in conjunction with SSL.

IIS Integrated Windows does encrypt passwords (even without SSL), but can not be used with any browser other than Internet Explorer. Also, IIS Integrated Windows (or "IIS Basic and Integrated Windows") can not be used in an environment where there is a (hardware or software) firewall or proxy server between your end users (their web browsers) and the web server. Though it may appear to work in some cases, it will (sometimes intermittently) have situations where the browser requests the users credentials over and over. Keep in mind that software which acts as a firewall or proxy server may not label itself as such. It may be labeled as "intrusion prevention" software or "web acceleration" software. Some "pop-up blocker" software packages also use a proxy server. If you were using IIS Integrated Windows authentication and one or more of your users suddenly starts complaining that they are being repeatedly asked to enter their user name and password or are getting an "access denied" error, odds are that they are now using a firewall or proxy server (perhaps installed on their browser machine or in their network).

If you wish to use one of the IIS authentication mechanisms, we recommend using IIS Basic combined with SSL. This will allow your users to use any supported browser (including Firefox) and will work through firewalls and proxy servers. For further details on the differences between these choices, please consult the Microsoft Authentication documentation:

[Windows Server 2012, IIS 8.0 and Windows Server 2012 R2, IIS 8.5](#)  
[Windows Server 2008, IIS 7.0 and Windows Server 2008 R2, IIS 7.5](#)  
[Windows Server 2003, IIS 6.0](#) In particular, we recommend the summary table in this section.

- **Require SSL**  
 Enable or disable the option to require SSL (Secure Socket Layer) encryption on the workgroup. Enabling this option (checking the box) requires that a valid Server Certificate has been entered on the web server to apply SSL to this workgroup.
- **Host Name or IP Address**  
 Update the Host Name or IP Address used to reach the web site where this workgroup has been created. The information stored in this field is used to configure the URL for this workgroup.
- **Port Number**  
 Update the port number used to reach the web site where this workgroup has been created. The information stored in this field is used to configure the URL for this workgroup.
- **Database User Name**  
 This option is only available for SQL Server or Oracle workgroups. If you wish to change the Database User Name, enter the new User Name and also enter the corresponding password in the **Database User Password** and **Confirm User Password** fields.
- **Database User Password**  
**Confirm User Password**  
 This option is only available for SQL Server and Oracle workgroups. If you entered a new value for **Database User Name**, enter and confirm the password for this user. Or, enter and confirm the password, if you simply want to update the password for the user.
- **Use SQL Native Client Provider**  
 This option is only available for SQL Server workgroups. When enabling this option by checking the box, Tracker will use SQL Native Client Provider to connect to SQL Server. By default this property is **unchecked** so that Tracker will use SQL OLE DB Provider to connect. This property is optional and can be used if you want to take advantage of SQL Server features such as database mirroring. **If you are not using SQL Server 2005 or newer, please \*do not\* enable this property.** Use of this feature is only recommended in cases where you have an expert SQL Server administrator with detailed knowledge of SQL Server client configuration. Enabling this property may require you to [download](#) and install the SQL Native Client on the web server.
- **Fail Over Location (Server)**  
 This option is only available for SQL Server workgroups and will only be displayed when **Use SQL Native Client Provider** is enabled. Specify the name of the "mirror" server that should be used in the event that the principal server fails. This property is optional and can be used if you want to take advantage of SQL Server features such as database mirroring. **If you are not using SQL Server 2005 or newer, please \*do not\* enter a value for this property.** Use of this feature is only recommended in cases where you have an expert SQL Server administrator with detailed knowledge of SQL Server client configuration. **Even if you are using SQL Server 2005 or newer, please leave this property blank if you are not using database mirroring or are not familiar with database mirroring.** Click [here](#) for more information about database mirroring.
- **Comment**  
 Update the additional information listed for this workgroup
- **History Comment**  
 Enter a description of the changes being made to the workgroup settings

After modifying the fields you wish to update, click on the **Continue** button.



## Authentication Details

If you selected an option other than "NetResults Tracker" for the Authentication field, you will be prompted to provide additional information for the authentication configuration:

The screenshot shows the 'Edit Workgroup - chmgmt - Windows Authentication Details' dialog box. The status bar at the top indicates 'Ready - Windows Authentication Details'. The main area contains three input fields: 'Windows Domain Name Or Computer Name' with the value 'SERVERNAME', 'Windows User Groups' with a list box containing 'Remote Desktop Users', 'Replicator', 'Users' (highlighted), 'Debugger Users', and 'HelpServicesGroup', and 'Windows User for Admin' with the value 'Administrator'. At the bottom, there are three buttons: '« Back', 'Reset', and 'Update Workgroup'.

- ### Windows Domain Name or Computer Name

The Windows domain or computer name selected on the Edit Workgroup page will be displayed. When you use one of the Microsoft IIS authentication schemes, user authentication and access control will be performed as follows. First, the Microsoft IIS web server in conjunction with the web browser and (in most cases) your Windows domain server will authenticate the user which is trying to access a web page in the workgroup. That authentication may be implicit (user will not see it happen) or it may be explicit (user may see a pop-up displayed by their browser requesting Windows user name, password, and, in some cases, domain) depending on the browser configuration, web server configuration, and your domain configuration. If the end user successfully authenticates to Windows/IIS, the IIS web server will then perform access control by comparing the Windows user account to the Windows file system permission on the web page being accessed. If that access control check passes, the web page request will then be passed on to Tracker. Tracker will then check its [user account](#) information to see if that user account exists in Tracker and has access to the workgroup. If so, the Home Page for that user will be displayed and the user's login session will be started. If the user was browsing to the Knowledge Base page or the Submit via Web for Unregistered Users page, then the last check will not be performed because those pages do not require that the user has a Tracker user account.

- ### Windows User Groups

The Windows user groups available in the selected domain or computer will be listed. If you were using one of the IIS authentication mechanisms prior to performing this Edit operation, the user groups that were selected on the Add Workgroup or the most recent Edit Workgroup operation will be displayed. Select the Windows user group(s) that should be allowed to access this workgroup. To select multiple user groups, hold down the Ctrl button on your keyboard as you select the user groups. The Windows file system permissions on the Tracker web pages for this workgroup will be modified to allow access by each User Group which you select.

**Note:** Tracker only adds to or modifies your existing Windows file system permissions for the selected User Groups. It does not remove or modify any existing entries for other User Groups which you do not select (or those which you specifically unselect). In other words, the file system permissions will be set to guarantee that users in the selected User Groups will pass the IIS access check. They will not be set to make sure that all other users will fail the IIS access check. If Tracker did that, it might remove access for users who may not need to browse to the web pages, but do need access to the files themselves (such as local administrators, backup operators, etc.). So, for example, if you have installed the workgroup in a Windows folder which has access for Everyone, then the IIS web server will give Everyone (who successfully authenticates with a valid Windows user account) access to the Tracker web pages. However, Tracker will still reject access for users who do not have a Tracker user account (excluding Knowledge Base and Submit via Web for Unregistered Users pages which don't require a Tracker user account). If you wish to narrow this list (so that more IIS access control is performed), then you should set the file system permissions on the folder that you selected as the Location for the workgroup. If you wish to remove permissions for some users, then do so prior to completing this Edit Workgroup operation (so that all of the settings which the Edit Workgroup operation configures will be maintained). Be careful to not remove access that may be needed by users/tools which run on the web server machine (such as for the Administrators of the server, the user accounts that are used by the backup tool(s) which you use, etc.).

After creating the workgroup, you must still add a Tracker [user account](#) with the User ID that matches the Windows user account for each user who will use the workgroup. Please note that changes made to the user profile information in the user accounts in Tracker will not be reflected in Active Directory (and vice versa).

- ### Windows User for Admin

Enter the Username of the Windows user account that will be authenticated as the Tracker Admin user account for the workgroup. The user selected must be a member of one of the groups selected for **Windows User Groups** above and in the Windows **Domain or Host Name** selected above. This allows you to associate any Windows user with the Tracker Admin user account (so that you do not have to create a Windows user account with the user name Admin).

Once you have entered the relevant information for the Authentication settings, click on the **Update Workgroup** button.

To delete a workgroup, click on the **Delete** button on the Button Bar, select a workgroup name from the pulldown menu, then click on the **Delete** button below the pulldown menu. You can also click on the **Delete** icon to the left of the workgroup name from the Home Page.

Details of the workgroup to be deleted will be displayed. If you wish to also delete the database as well as the workgroup, check the box at the bottom labeled **Also delete the workgroup database**. If you wish to also delete the database and the database is a SQL Server database:

- You will be prompted to enter the DBA User Name and Password. The Login "sa" will be entered into the DBA User Name field by default. Enter the credentials for a SQL Login that has Database Administrator permissions on the SQL Server where the database is located.
- Wait **one full minute** before proceeding with the delete process to allow the connection to the database to shutdown. Failure to wait one full minute before clicking on the Delete Workgroup button will result in an error. If you receive the error, you will have to attempt to delete operation again.

Click the **Delete Workgroup** button to proceed with deleting the workgroup. Click **OK** to confirm that the workgroup should be deleted. A message will appear to confirm that the workgroup was deleted successfully.

If there are any active users using this Tracker workgroup, WMS will not allow the workgroup to be deleted and will display a warning message. To successfully delete a workgroup, all active users should be logged off from the workgroup. You can logoff users with the [Logoff User Sessions](#) operation available in the [Block and Unblock Workgroups](#) section.

The screenshot shows the NetResults Tracker WMS Version 6.6.0 interface. The status bar indicates 'Verify & Confirm Workgroup Delete'. The main window displays the following details for the workgroup 'chgmt':

Name:	chgmt
Description:	Change Management
Location:	C:\Inetpub\wwwroot\NetResultsTracker\chgmt
Web Site:	Default Web Site (1)
Comment:	
Character Set:	Windows-1252
Database Type:	Access
Database Name:	bugtrack.mdb
Database Location:	C:\Inetpub\wwwroot\NetResultsTracker\chgmt\Database
Template:	Product Development
	<input type="checkbox"/> <b>Also delete the Workgroup database</b>

At the bottom of the dialog, there are two buttons: « Back and Delete Workgroup.

You may wish to create an alias for a workgroup in order to re-direct a URL to one of your workgroups as an alternative to using the default URL for the workgroup.

For example, instead of using the default URL

**http://servername/workgroup/ptlogin.asp** or **http://servername/workgroup**,

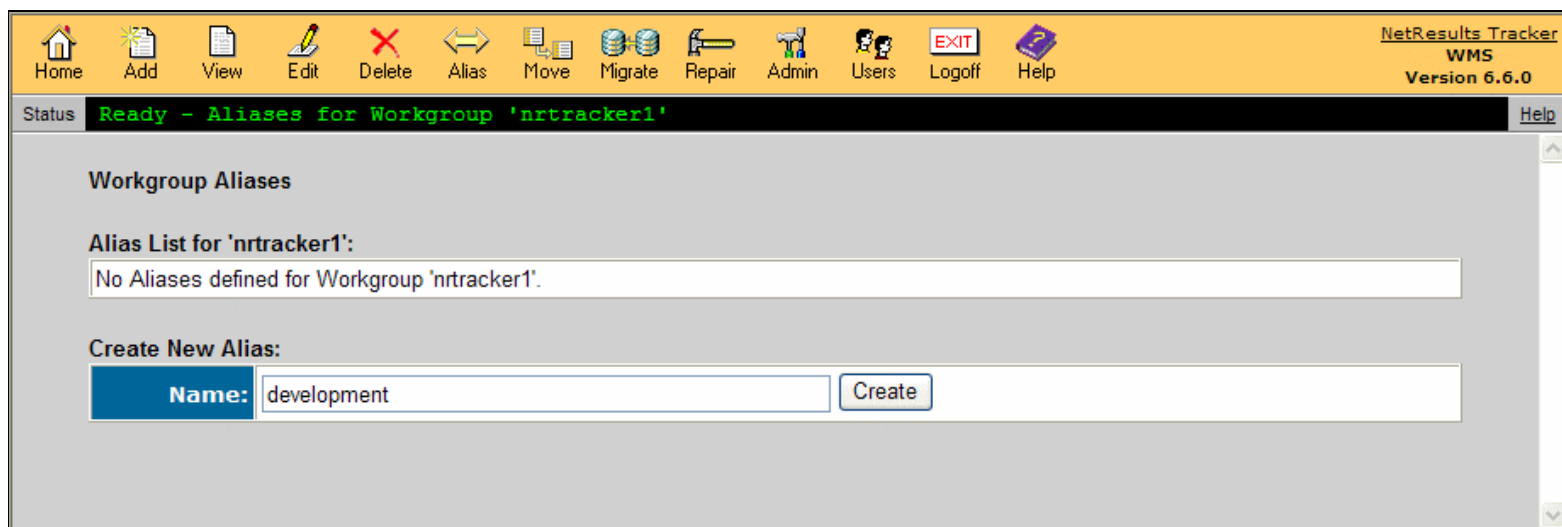
instead you would like to use the URL

**http://servername/product1**. To do this, add "product1" as an alias for this workgroup.

To create an alias, click on the **Alias** icon on the Button Bar, select a workgroup from the pulldown menu, then click on the **Alias** button below the pulldown menu.

If there are any current aliases for the workgroup, they will be displayed in the **Alias List** at the top of the Workgroup Aliases page. Type in the new alias in the field labeled **Create New Alias**. The alias cannot contain the symbols "/", "\", "<" or ">". Click on the **Create** button at the right to save the new alias. The alias will then appear on the **Alias List**.

To delete an alias on the **Alias List**, select the radio button to the left of the alias, then click on the **Delete** button.



The screenshot displays the NetResults Tracker WMS interface. At the top, there is a yellow toolbar with icons for Home, Add, View, Edit, Delete, Alias, Move, Migrate, Repair, Admin, Users, Logoff, and Help. The status bar shows "Ready - Aliases for Workgroup 'nrtracker1'". The main content area is titled "Workgroup Aliases" and contains an "Alias List for 'nrtracker1':" section with a text box stating "No Aliases defined for Workgroup 'nrtracker1'". Below this is a "Create New Alias:" section with a "Name:" label, a text input field containing "development", and a "Create" button.

To move a workgroup, click on the **Move** button on the Button Bar. Select a workgroup from the pulldown menu, select one of the following move operations described below, then click on the **Continue** button.

If you have manually applied any custom security to your workgroups (such as file system permissions or IIS application settings), you will need to re-apply these changes to this workgroup after it using one of the move operations described below.

### Move Workgroups within the same Web Server machine

This operation should be used if you want to change the physical location of the workgroup within the web server machine where the workgroup is currently located:

**Move Workgroup - Workgroups within the same Web Server machine**

**Current Configuration:**

Name:	nrtracker1
Location:	C:\inetpub\wwwroot\NetResultsTracker\nrtracker1
Web Site:	Default Web Site (1)
Authentication:	NetResults Tracker
Host Name:	SERVERNAME
Port Number:	80
Require SSL:	No

**New Configuration:**

Location:	E:\inetpub\wwwroot\NetResultsTracker\nrtracker1
Web Site:	Default Web Site (1)
Authentication:	NetResults Tracker
Host Name:	SERVERNAME
IP Address:	
Port Number:	80
Require SSL:	<input type="checkbox"/>

**History Comment:** Move from C:\ to E:\ drive

« Back    Reset    Continue »

1. Login to the Workgroup Management System
2. Click on the **Move** icon
3. Select a workgroup from the pulldown menu, select the option **Move Workgroups within the same web server machine**, then click on the **Continue** button
4. The workgroup name, location, and web site will be displayed in the **Current Configuration** section.
5. Enter the path of the new location into the **Location** field and / or select a different **Web Site** in the New Configuration section.
6. Enter the **Host Name** or **IP Address** and the **Port Number** that corresponds to the web site where this workgroup will be located.
7. Enter a **History Comment** to describe the change you are making.
8. Click on the **Continue** button to proceed.
9. A confirmation page will be displayed. Click the **Back** button to make any necessary changes to the location and / or web site. Otherwise, click on the **Move Workgroup** button, then click on the **OK** button to complete the move operation.

## Move Database from one machine to another

This option allows you to move the database to another machine while still keeping the workgroup's web pages in the same location. This operation cannot be performed for Access databases.

Home	Add	View	Edit	Delete	Alias	Move	Migrate	Repair	Admin	Users	Logoff	Help	NetResults Tracker WMS Version 6.6.0
Status	Ready												Help
<b>Move Workgroup - Database from one machine to another</b>													
<b>Current Configuration:</b>													
Name:	nrtracker1												
Database Type:	SQL Server												
Database Name:	nrtracker1												
Database User Name:	NRTracker												
Database Location:	HQTEST-WIN03-01												
Use SQL Native Client Provider:	No												
Character Set:	Windows-1252												
<b>New Configuration:</b>													
Location (Server):	SQLSERVER1												
Use SQL Native Client Provider:	<input type="checkbox"/> <b>Note:</b> By default (option is unchecked) SQL OLE DB Provider will be used. Use this option if you want to take advantage of SQL Server 2005 features. You may need to <a href="#">download</a> and install the SQL Native Client on the Web Server.												
Database User Name:	NRTracker												
Database User Password:	●●●●●●●●												
Create Database User:	<input checked="" type="checkbox"/>												
Confirm Database User Password:	●●●●●●●●												
Database Name:	nrtracker1												
Create Database:	<input checked="" type="checkbox"/>												
DBA User Name:	sa												
DBA User Password:	●●●●●												
History Comment:	Moving database to SQLSERVER1												
<input type="button" value="« Back"/> <input type="button" value="Reset"/> <input type="button" value="Continue »"/>													

Click on the link below that corresponds to the database type you are using:

[SQL Server](#)

[Oracle](#)

### SQL Server

1. Login to the Workgroup Management System
2. Click on the **Move** icon
3. Select a workgroup from the pulldown menu, select the option **Move Database from one machine to another**, then click on the **Continue** button
4. The workgroup name, database type, database name, and database location will be displayed in the **Current Configuration** section.
5. Enter new values for any of the following fields in the **New Configuration** section:

- o **Location (Server)**  
Enter the name of the new SQL Server machine where the data will be located after the move
  - o **Use SQL Native Client Provider**  
When enabling this option by checking the box, Tracker will use SQL Native Client Provider to connect to SQL Server. By default this property is **unchecked** so that Tracker will use SQL OLE DB Provider to connect. This property is optional and can be used if you want to take advantage of SQL Server features such as database mirroring. **If you are not using SQL Server 2005 or newer, please \*do not\* enable this property.** Use of this feature is only recommended in cases where you have an expert SQL Server administrator with detailed knowledge of SQL Server client configuration. Enabling this property may require you to [download](#) and install the SQL Native Client on the web server.
  - o **Fail Over Location (Server)**  
This property will only be displayed when **Use SQL Native Client Provider** is enabled. Specify the name of the "mirror" server that should be used in the event that the principal server fails. This property is optional and can be used if you want to take advantage of SQL Server features such as database mirroring. **If you are not using SQL Server 2005 or newer, please \*do not\* enter a value for this property.** Use of this feature is only recommended in cases where you have an expert SQL Server administrator with detailed knowledge of SQL Server client configuration. **Even if you are using SQL Server 2005 or newer, please leave this property blank if you are not using database mirroring or are not familiar with database mirroring.**
  - o **Database User Name**  
Enter the User Name of the login that should be used by this workgroup to connect to the database. "NRTracker" is listed by default. The login does not need to already exist on SQL Server. You can enter the User Name for a new login to be created on SQL Server for use with this workgroup.
  - o **Database User Password**  
Enter the password for the **Database User Name** specified above to connect to SQL Server. If the Database User Name does not exist already on SQL Server, enter a new password to be used when creating the new login.
  - o **Create Database User**  
Check the box for this option if you would like to create a new login on SQL Server for use with this workgroup. Do not check the box for this option if the login specified in **Database User Name** already exists on the new SQL Server.
  - o **Confirm Database User Password**  
This field will only be displayed if the box for the option **Create Database user** is checked. Confirm the password entered in the **Database User Password** field above.
  - o **Database Name**  
By default, this will display the name selected as the workgroup name. You can change this in the space provided if desired. The database does not need to already exist on the new SQL Server. You can enter the Database Name for a new SQL Server database to be created for use with this workgroup.
  - o **Create Database**  
This option will only be displayed when SQL Server is selected as the **Database Type**.  
  
Check the box for this option if you would like to create a new database on the new SQL Server for use with this workgroup. Do not check the box for this option if the database specified in the **Database Name** field already exists on the new SQL Server installation.
  - o **DBA User Name**  
This field will only be displayed when the boxes for either **Create Database User** or **Create Database** are checked.  
  
Enter the User Name of a login for a database administrator on the new SQL Server. "sa" is entered into this field by default.
  - o **DBA User Password**  
Enter the password for the login specified in the **DBA User Name** field.
  - o **History Comment**  
You must enter information into this field to proceed.
6. Click on the **Continue** button to proceed with moving the workgroup. A confirmation page will be displayed with the following:
- o **New Database Name**  
Shows the Database Name as it was entered on the previous page.
  - o **Physical Path**  
The location of the database files within the new SQL Server will be configured with the default path. You can enter a different path if desired. If the path you entered is not synchronized with the SQL Server installation path, you might get an error while creating the workgroup.
  - o **Max Size**  
The maximum size of the database. "UNLIMITED" will be set by default.
  - o **File Growth**  
The percentage by which the database file should grow automatically. "10%" will be set by default.
7. Click on the **Continue** button.
8. A confirmation page will be displayed. Click the **Back** button to make any necessary changes to the location and / or web site. Otherwise, click on the **Move Workgroup** button, then click on the **OK** button to complete the move operation.
9. After the workgroup files have been moved, the database needs to be moved into the new machine using the import / export tool for SQL Server using the procedure in the following Knowledge Base article:

<http://kb.nrtracker.com/Item.asp?id=335>

## Oracle

1. Perform the steps in the [Using Oracle Database](#) section first to prepare the new server for the move.
2. Login to the Workgroup Management System
3. Click on the **Move** icon
4. Select a workgroup from the pulldown menu, select the option **Move Database from one machine to another**, then click on the **Continue** button
5. The workgroup name, database type, database name, and database location will be displayed in the **Current Configuration** section.
6. Enter new values for any of the following fields in the **New Configuration** section:
  - o **Location (Server)**  
Enter the name of the new Oracle machine where the data will be located after the move
  - o **Database User Name**  
Enter the User Name of the user that should be used by this workgroup to connect to the database. "NRTracker" is listed by default. The user does not need to already exist on your Oracle server. You can enter the User Name for a new user to be created for use with this workgroup.
  - o **Database User Password**  
Enter the password for the **Database User Name** specified above to connect to Oracle. If the Database User Name does not exist already on Oracle, enter a new password to be used when creating the new user.
  - o **Database Name**  
By default, this will display the name selected as the workgroup name. You can change this in the space provided if desired. Before proceeding with connecting to Oracle, you should have already created a database on the new Oracle server for this workgroup. If you have not already done so, create the database using the procedure outlined in the [Using Oracle Database](#) Help section. Then, return to this section to proceed with moving the workgroup.
  - o **Create Database User**  
Check the box for this option if you would like to create a new user on your Oracle server for use with this workgroup. Do not check the box for this option if the user specified in **Database User Name** already exists on the new Oracle server.
  - o **Confirm Database User Password**  
This field will only be displayed if the box for the option **Create Database user** is checked. Confirm the password entered in the **Database User Password** field above.
  - o **DBA User Name**  
This field will only be displayed when the box for **Create Database User** is checked.  
  
Enter the User Name for a database administrator on the new Oracle server. "system" is entered into this field by default.
  - o **DBA User Password**  
Enter the password for the user specified in the **DBA User Name** field.
  - o **History Comment**  
You must enter information into this field to proceed.
7. Click on the **Continue** button to proceed with moving the workgroup. If the box for the option **Create Database User** was not checked, a confirmation page will be displayed. Skip to the step that starts with "A confirmation page will be displayed". If the box for the option **Create Database User** was checked, a page with the following fields will displayed:
  - o **Database User Name**  
Shows the Database User Name as it was entered on the previous page.
  - o **Default Tablespace Name**  
Select which tablespace in the database should be associated with the new user. Existing tablespaces for this workgroup will be available for selection or you can select "<Create new tablespace>". If you are unsure which tablespace to select, it is recommended that you either select the "<Create new tablespace>" option or select the USERS tablespace.  
  
When selecting "<Create new tablespace>", the options below will be displayed:
    - New Tablespace Name**  
Enter a name for the new tablespace. The name entered by default will match the name of the Database User to be created.
    - Data File Name**  
Enter the path where the database file (\*.dbf) should be located.
    - Size**  
The initial size of the database. "50 MB" is set by default. The value entered must be at least 50 MB.
    - Auto Extend**  
This option determines whether the database should be allowed to grow as needed. "Yes" is set by default.
8. A confirmation page will be displayed. Click the **Back** button to make any necessary changes to the location and / or web site. Otherwise, click on the **Move Workgroup** button, then click on the **OK** button to complete the move operation.



9. After the workgroup files have been moved, the database needs to be moved into the new machine using the import / export tool for Oracle using the procedure in the following Knowledge Base article:

<http://kb.nrtracker.com/Item.asp?id=335>

## Move / Populate Workgroup based on the PTAdmin Database

This option allows you to move all of the workgroups and settings in your ptadmin database to another machine. For example, if you need to move your entire Tracker to a new machine, you can move your Workgroup Management System information to the new machine without having to re-enter information. However, this option is generally used as part of the procedure for moving your installation (not as a stand alone step). Please click on one of the links below to see the Knowledge Base article that provides the steps for moving your installation based on the database type you are using:

Access: <http://kb.nrtracker.com/Item.asp?id=298>

SQL Server or Oracle: <http://kb.nrtracker.com/Item.asp?id=330>

NetResults Tracker  
WMS  
Version 6.6.0

Status: **Success - Workgroup Components Check Passed** Help

Move Workgroup - Populate Workgroup - Change Configuration

Current Configuration:

Name:	nrtracker1
Description:	Product Development
Workgroup Location:	C:\Inetpub\wwwroot\NetResultsTracker\nrtracker1
Web Site:	Default Web Site (1)
Authentication:	NetResults Tracker
Require SSL:	No
Host Name:	SERVERNAME
Port Number:	80
Template:	Product Development
Database Type:	Access
Database Location:	C:\Inetpub\wwwroot\NetResultsTracker\nrtracker1\Database
Database Name:	bugtrack.mdb

New Configuration:

Workgroup Location:	C:\Inetpub\wwwroot\NetResultsTracker
Web Site:	Default Web Site (1) ▾
Authentication:	NetResults Tracker ▾
Require SSL:	<input type="checkbox"/>
Host Name:	SERVERNAME
IP Address:	
Port Number:	80

« Back   Reset   Continue »

Complete the following steps before selecting the option to move / populate workgroup based on the ptadmin database:

1. Install Tracker on the new server machine. When prompted during the installation, do not choose to install the evaluation workgroup called **pteval**.
2. Copy your ptadmin database from your old server to the new server. The ptadmin database can be found in your installation directory. By default, the path is **C:\Inetpub\wwwroot\NetResultsTracker\ptadmin\Database\ptadmin.mdb**, where C:\Inetpub\wwwroot\NetResultsTracker is the installation directory.
3. Copy your user management database from your old server to the new server. The user management database (ptcommon.mdb) can be found in your installation directory. By default, this is located at **C:\Inetpub\wwwroot\NetResultsTracker\ptcommon\Database\ptcommon.mdb**, where C:\Inetpub\wwwroot\NetResultsTracker is the installation directory.
4. Login to the Workgroup Management System

5. Click on the **Move** icon on the Button Bar. Select a workgroup from the pulldown menu, select the option **Move / populate workgroup based on the Workgroup Management System database**, then click on the **Continue** button.
6. Existing properties of the selected workgroup will be displayed in the **Current Configuration** section. You have an option to change the workgroup location, virtual web site, host name or IP address and the port number for this workgroup on the new server. If you don't need to change anything accept the default values. Click on the **Continue** button.
7. New properties for this workgroup will be displayed in the **New Configuration** section. Click on the **Move Workgroup** button to complete the process.
8. Copy the **Attachments** folder from the old server to the new server for this workgroup. The Attachments folder can be found in the installation directory. By default, the path is **C:\inetpub\wwwroot\NetResultsTracker\workgroup\Attachments** where workgroup is pteval, ptdev, etc.

**Important Note:**

For workgroups with an **Access** database, you will need to complete one more additional step:

- o Copy the workgroup database file **bugtrack.mdb** from the old server to the new server. The workgroup database can be found in your installation directory. By default, the path is **C:\inetpub\wwwroot\NetResultsTracker\workgroup\Database\bugtrack.mdb** where workgroup is pteval, ptdev, etc. You can also find the database location by [viewing](#) the workgroup information on the old server.
9. Repeat the above steps for each of the workgroup that you wish to move to the new server.

The following options are available for migrating a workgroup to a different database type. Review the corresponding Knowledge Base article at the link listed in the "KB Article Link" or contact Technical Support as described in the table below:

Option	Current Database Type	New Database Type	KB Article Link
1	Access	SQL Server	<a href="http://kb.nrtracker.com/Item.asp?id=12">http://kb.nrtracker.com/Item.asp?id=12</a>
2	Access	Oracle	<a href="http://kb.nrtracker.com/Item.asp?id=14">http://kb.nrtracker.com/Item.asp?id=14</a>
3	SQL Server	Oracle	Contact <a href="#">NetResults Technical Support</a> for procedure
4	Oracle	SQL Server	Contact <a href="#">NetResults Technical Support</a> for procedure

A repair operation is available to correct certain aspects of a workgroup that may have been manually configured or damaged. The repair operation can be used to install a fresh set of web pages for the workgroup, delete and re-create the web server settings for the workgroup, and reset the related file system permissions. The repair operation is not available for a workgroup until it has been upgraded to the latest version. The latest version is the version that matches that of the Workgroup Management System. The Workgroup Management System version can be found in the upper right corner of the Workgroup Management System Home Page.

The options available to repair a workgroup are:

- **Copy Web Files**

This option will copy a fresh set of web pages into the workgroup's directory. By default, the workgroup's directory can be found at **C:\inetpub\wwwroot\NetResultsTracker\workgroup** where workgroup is the name of the workgroup.

If you have customized the workgroup's [login page](#) you will need to re-apply the changes after performing a repair with this option selected.

- **Reset File Permissions**

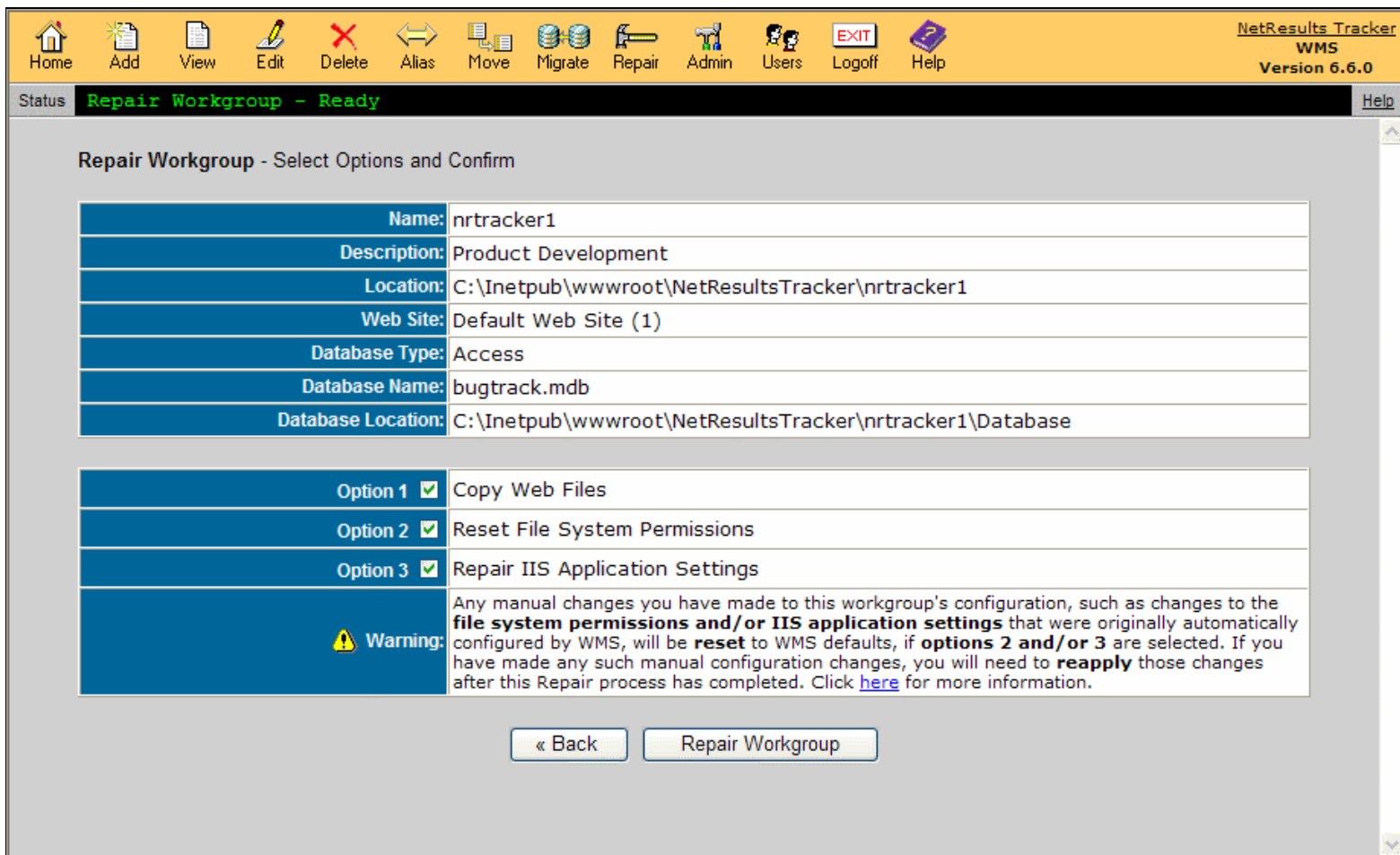
This option will reset the file system permissions for the workgroup to the defaults that were set when the workgroup was created.

If you have manually applied your own custom file system permissions to your workgroups, you will need to re-apply these changes after running the repair operation with this option selected.

- **Repair IIS Application Settings**

This option will delete and recreate the IIS settings related to this workgroup.

If you have manually applied any custom security in IIS for your workgroups, you will need to re-apply these changes to this workgroup after running the repair operation.



The screenshot shows the NetResults Tracker WMS interface. The top navigation bar includes icons for Home, Add, View, Edit, Delete, Alias, Move, Migrate, Repair, Admin, Users, Logoff, and Help. The status bar indicates 'Repair Workgroup - Ready'. The main content area is titled 'Repair Workgroup - Select Options and Confirm' and displays the following configuration details:

Name:	nrtracker1
Description:	Product Development
Location:	C:\inetpub\wwwroot\NetResultsTracker\nrtracker1
Web Site:	Default Web Site (1)
Database Type:	Access
Database Name:	bugtrack.mdb
Database Location:	C:\inetpub\wwwroot\NetResultsTracker\nrtracker1\Database

Below the configuration details, three options are listed, all of which are checked:

- Option 1  Copy Web Files
- Option 2  Reset File System Permissions
- Option 3  Repair IIS Application Settings

A warning message is displayed:

**Warning:** Any manual changes you have made to this workgroup's configuration, such as changes to the **file system permissions and/or IIS application settings** that were originally automatically configured by WMS, will be **reset** to WMS defaults, if **options 2 and/or 3** are selected. If you have made any such manual configuration changes, you will need to **reapply** those changes after this Repair process has completed. [Click here](#) for more information.

At the bottom of the dialog, there are two buttons: « Back and Repair Workgroup.

To **repair** a workgroup:

1. Login to the [Workgroup Management System](#)
2. Click on the **Repair** icon in the Button Bar. Or, you can also click on the **Repair** icon to the left of the workgroup name on the Home Page.

3. If you clicked on the Repair icon in the button bar, you will be prompted to select a workgroup from the pulldown menu, then click on the **Repair** button below the pulldown menu.
4. A confirmation page will appear. Click the **Back** button to select another workgroup to be repaired. Check the boxes that correspond to the areas you wish to repair. Click on the **Repair Workgroup** button to complete the repair operation.
5. Re-apply any custom settings for the workgroup (such as file system permissions or IIS application settings).



The User accounts that access the Workgroup Management System are administered in this section.

To change the password for a user account:

1. Login to the [Workgroup Management System](#)
2. Click on the **Admin** icon
3. Select the option **WMS User Administration**, then click on the **Continue** button
4. Type in the current password, the new password, then confirm the new password in the corresponding fields. Click **Save** to complete the password change.

NetResults Tracker  
WMS  
Version 6.6.0

Status **WMS User Administration** Help

Administration Section - WMS User Administration

User Name:	ptadmin
Current Password:	●●●●●●●●
New Password:	●●●●●●●●
Confirm Password:	●●●●●●●●

« Back Save

When changes are made to **PUSR4hostname**, the Tracker Anonymous User account, it may be necessary to synchronize this user's information stored in the Workgroup Management System.

The password of the PUSR4hostname can be synchronized with the current password of PUSR4hostname account in Windows User Manager.

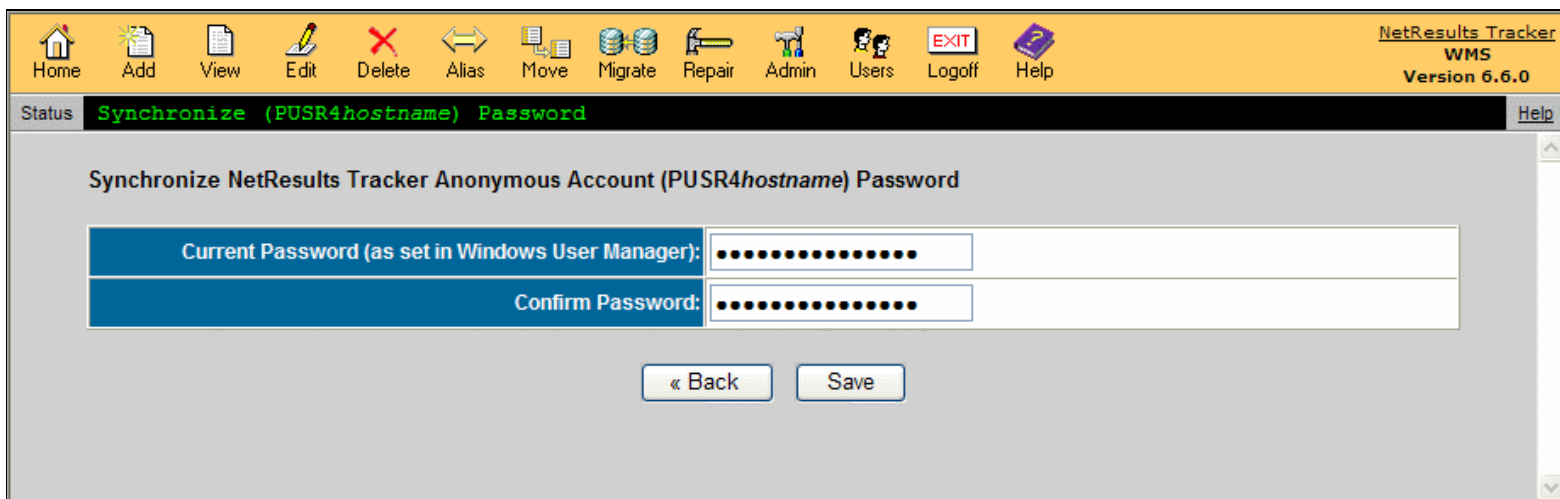
If you would like to have a different password for PUSR4hostname account other than the one supplied by WMS, then first change the password for this user in the Windows User Manager and then synchronize the password in WMS by using this function.

**Note:** Using this function will not change the actual password for PUSR4hostname account in the Windows User Manager. This will update only the password stored in WMS.

After changing the password in WMS, this new password will be used while adding, repairing and upgrading workgroups. If you have disabled Password Synchronization in IIS Anonymous User Configuration (by default it is enabled), then to complete the synchronization process, you must repair each workgroup by using the 'Repair' functionality in WMS.

To synchronize PUSR4hostname's password in WMS:

1. Login to the [Workgroup Management System](#)
2. Click on the **Admin** icon
3. Select the option called **Synchronize Tracker Anonymous Account**
4. Click on the **Continue** button
5. Type in the current password (the password saved for this user in the local Windows User Manager) and confirm the password
6. Click **Save** to submit the change of password. You will get a confirmation message when the password is synchronized (updated) in WMS.



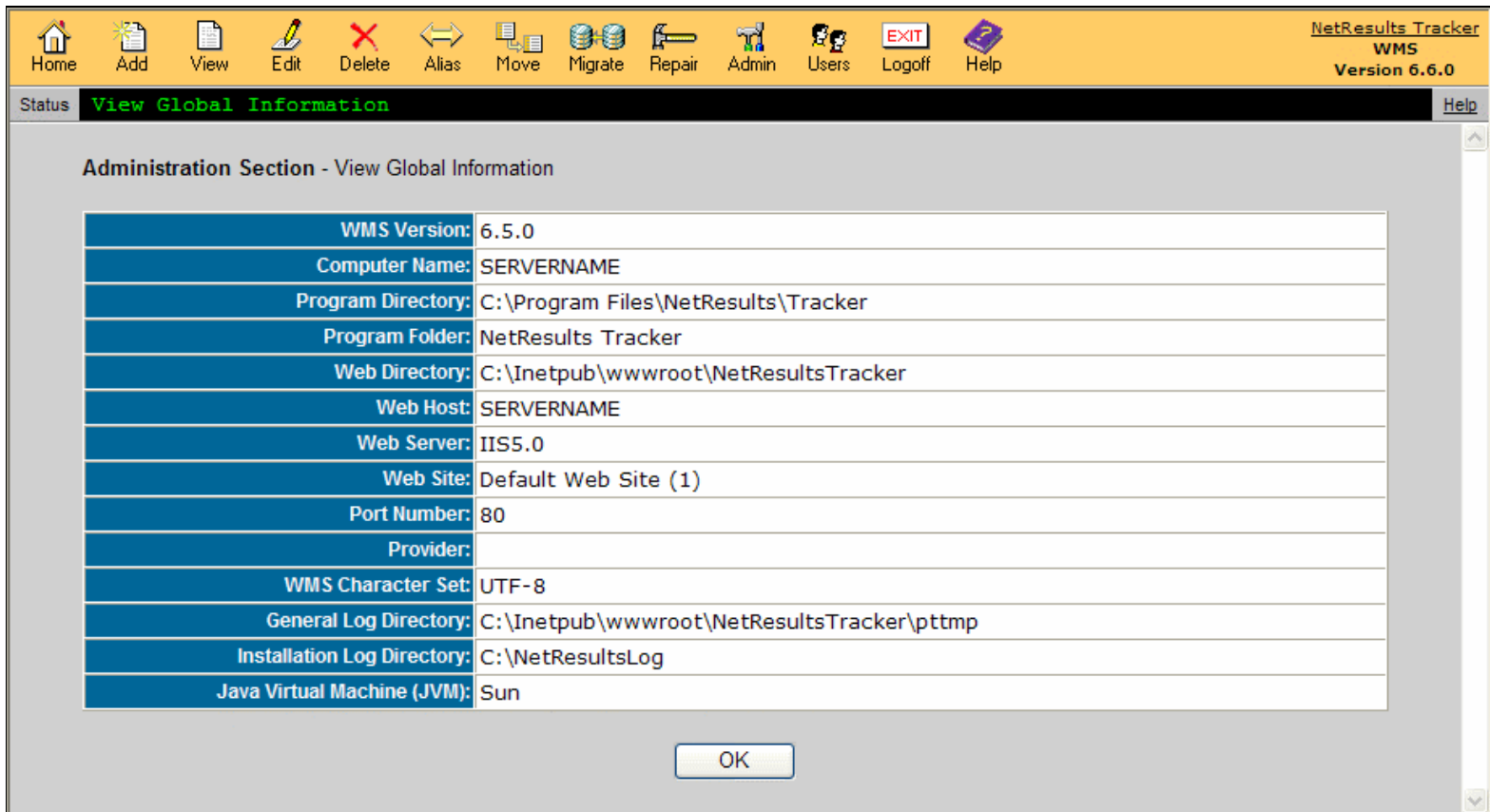
The screenshot shows the NetResults Tracker WMS interface. At the top is a navigation bar with icons for Home, Add, View, Edit, Delete, Alias, Move, Migrate, Repair, Admin, Users, Logoff, and Help. The status bar indicates 'Synchronize (PUSR4hostname) Password'. The main content area displays the title 'Synchronize NetResults Tracker Anonymous Account (PUSR4hostname) Password' and two password input fields: 'Current Password (as set in Windows User Manager):' and 'Confirm Password:'. Both fields contain masked characters (dots). Below the fields are '« Back' and 'Save' buttons. The bottom right corner of the interface shows 'NetResults Tracker WMS Version 6.6.0'.

To view common parameters used by the Workgroup Management System:

1. Login to the [Workgroup Management System](#)
2. Click on the **Admin** icon in the Button Bar
3. Select the option called **View Common Parameters used by Workgroup Management System**
4. Click on the **Continue** button

The following information will be displayed:

- WMS Version
- Computer Name
- Program Directory Path
- Program Folder Path
- Web Directory Path
- Web Host Name or IP Address
- Web Server Name and Version
- Web Site where WMS is installed
- Port Number for WMS
- Provider for WMS (default is OLE-DB)
- Character Set for WMS
- General Log Directory Path
- Installation Log Directory Path
- Java Virtual Machine (JVM) used



The screenshot shows the 'Administration Section - View Global Information' dialog box. The title bar includes 'NetResults Tracker WMS Version 6.6.0'. The status bar shows 'View Global Information'. The main area displays a table of system parameters:

WMS Version:	6.5.0
Computer Name:	SERVERNAME
Program Directory:	C:\Program Files\NetResults\Tracker
Program Folder:	NetResults Tracker
Web Directory:	C:\Inetpub\wwwroot\NetResultsTracker
Web Host:	SERVERNAME
Web Server:	IIS5.0
Web Site:	Default Web Site (1)
Port Number:	80
Provider:	
WMS Character Set:	UTF-8
General Log Directory:	C:\Inetpub\wwwroot\NetResultsTracker\pttmp
Installation Log Directory:	C:\NetResultsLog
Java Virtual Machine (JVM):	Sun

An 'OK' button is located at the bottom center of the dialog box.



The options in this section allow you to edit common parameters used by the Workgroup Management System. Currently, the parameter that can be edited is the Java Virtual Machine type used to generate email notifications.

---

## Java Virtual Machine

You should only modify this field if you wish to change the Java Virtual Machine (JVM) type used to send and receive email notifications or under the advice of NetResults Technical Support. You must have the corresponding JVM installed **before** you change the type selected in this section. Sun JVM is recommended for use with Windows Server 2003 or newer as Microsoft does not ship Microsoft JVM with Windows Server 2003 or newer. Either JVM can be used on Windows 2000. Information for download and installing JVM can be found in the [Preparation for Installing Tracker](#) information.

To change the JVM selected in WMS:

1. Login to the [Workgroup Management System](#)
2. Click on the **Admin** icon in the Button Bar
3. Select the option **Edit Common Parameters used by Workgroup Management System**
4. Click on the **Continue** button
5. Select the type in the **Java Virtual Machine (JVM)** pulldown, then click on the **Save** button
6. A confirmation page will be displayed
7. Click on the **OK** button to return to the Admin section

A log with basic information about a workgroup can be generated for troubleshooting purposes.

To log the workgroup information to a file:

1. Login to the [Workgroup Management System](#)
2. Click on the **Admin** icon in the Button Bar
3. Select the option **Log Workgroup Information to a file**
4. Click on the **Continue** button
5. Select a workgroup from the pulldown menu
6. Click on the **Log Info** button
7. Retrieve the file from the pttmp folder in the installation directory. The path will be displayed at the top of the page after the logging operation has been completed. By default, the path to retrieve the file will be

**C:\inetpub\wwwroot\NetResultsTracker\pttmp\workgroup.txt**

where C:\inetpub\wwwroot\NetResultsTracker is the installation directory and *workgroup* is the name of the workgroup.

The log file (workgroup.txt) will contain the following information about the workgroup.

- Basic database information stored in Workgroup Management System
- Alias information
- Web files/folders
- Permissions on this web files/folders
- IIS web server information
- MTS (Component Services) package information
- Application Pool information (if applicable)
- IP Address restriction information
- Workgroup database information
- General history information
- Detailed history information

This log file is mainly used for assisting NetResults Technical Support in case there is any problem accessing the workgroup.

When performing maintenance or making administrative changes to your database, you may find it useful to block the workgroup from user access. There is also a facility for you to logoff any active user sessions prior to blocking a workgroup.

To **block** a workgroup(s):

1. Login to the [Workgroup Management System](#)
2. Click on the **Admin icon**.
3. Select the option called **Block / Unblock Workgroups**, then click on the **Continue** button.
4. Each workgroup and its block / unblock status will be listed. Check the box to the left of each workgroup you wish to block. If you wish to select all workgroups, click on the check box at the top of the left column.
5. If you would like users who attempt to browse to a blocked workgroup to see a custom message (rather than the default message listed below), enter that message in the Block Message box. The text you are entering will be treated as raw HTML (so you can include things such as links to other pages). However, please do not include <HTML>, </HTML>, <BODY>, </BODY>, or other HTML header tags as this HTML will be embedded in a web page that already has those tags.
6. Then click on the **Block/Unblock** button.
7. Click **OK** to confirm.
8. The workgroup's status will be updated to **Blocked**.

When new users attempt to login to a blocked workgroup, a message saying **Workgroup Blocked** (along with the custom message you entered, if applicable) will be displayed and users will not be able to login. The workgroup must be unblocked in WMS to allow users to login into the workgroup again. Active users who were using the system when the workgroup was blocked, will get a session expired message and have to login again to use the workgroup.

To **unblock** a workgroup(s):

1. Login to the [Workgroup Management System](#).
2. Click on the **Admin icon**.
3. Select the option called **Block / Unblock Workgroups**, then click on the **Continue** button.
4. Check the box to the left of each workgroup you wish to unblock. If you wish to select all workgroups, click on the check box at the top of the left column.
5. Click on the **Block/Unblock** button.
6. Click **OK** to confirm.
7. The status will be updated to **Active**.

## Customize the Block Message

When a workgroup is blocked, users that attempt to login to the blocked workgroup will see information notifying them that the workgroup is blocked and that they cannot login at this time. By default, the message below is displayed:

### Workgroup Blocked

This workgroup is currently blocked by your Administrator for maintenance/administrative operations. Please contact your Administrator to use this workgroup or try again after few minutes.

If you wish to customize the message that users see when a workgroup is blocked, make sure that you enter the custom message before you click the Block button. See the instructions on how to block a workgroup above for information on where to enter the custom message.

**Administration Section - Block/Unblock Workgroups**

**Note:** Choose workgroups with same state and click **Block/Unblock** button to block or unblock (make active) the workgroups. When blocking workgroups from **Active** to **Blocked** state, provide an optional message to be displayed to the users. A default message will be used, if no message is provided. Blocking will end all user sessions in the workgroups. If you wish to selectively end user sessions, choose workgroups and click **Logoff User Sessions** button.

<input type="checkbox"/>	View	Workgroup Name	State	Version	Description	Database Type	Database Name
<input type="checkbox"/>		chgmtgmt	Active	6.5.0	Change Management	Access	bugtrack.mdb
<input type="checkbox"/>		kb	Active	6.5.0	Knowledge Base	Access	bugtrack.mdb
<input type="checkbox"/>		nrtracker1	Active	6.5.0	Product Development	Access	bugtrack.mdb
<input type="checkbox"/>		pteval	Blocked	6.5.0	Product Development	Access	bugtrack.mdb

**Block Message:**

[Note: You can enter HTML content here. Please do not use <html>, </html>, <body>, </body> or any other header tags.]

« Back    Block/Unblock    Logoff User Sessions »

## Logging Off User Sessions

You may wish to see whether there are users logged into a workgroup before blocking access to the workgroup using the **Block** operation.

To see a list of active user sessions for a workgroup:

1. Login to the [Workgroup Management System](#).
2. Click on the **Admin** icon.
3. Select the option called **Block / Unblock Workgroups**, then click on the **Continue** button.
4. Check the box on the left of each workgroup for which you wish to see the list of active user sessions, then click on the **Logoff User Sessions** button at the bottom of the page.
5. A list of all active sessions will be displayed. The User ID, full name, and license type will be displayed for each session. To end a session by logging off a user, click on the user session to highlight it, then click on the **Logoff** button. By holding down the **CTRL** or **SHIFT** key on your keyboard, you can select multiple user sessions before clicking on the **Logoff** button. You will be prompted with a popup box to confirm the logoff operation. Click **OK** on the popup to end the selected users' sessions.
6. Click on the **OK** button on the bottom of the page to return to the Block / Unblock Workgroups section.

The figure below shows an example of the User Sessions list.

**Administration Section** - Active User Sessions in the selected Workgroup(s)

[Help](#)

**Note:** Please select any of the user(s) and click "Logoff" button to end their session(s).

**Active User Sessions**

Workgroup: pteval

- bld\_mgr (Build Manager / Static)
- dev\_mgr (Development Manager / Static)

(Hint: Hold control or shift key to select multiple values)

Logoff

OK

Tracker does not automatically configure the web server security to restrict the Workgroup Management System to only local access. This can be achieved by directly configuring the IIS settings. Details on enabling or disabling local or remote access via IIS can be found in the Knowledge Base section of our web site at:

<http://kb.nrtracker.com/Item.asp?id=9>

The following options are available for each workgroup in the Workgroup Database Operations section. Each of these options may result in **permanent data loss** and should only be used under the guidance of NetResults Technical Support or Professional Services:

To access the Workgroup Database Operations for a particular workgroup:

1. Login to the [Workgroup Management System](#)
2. Click on the **Workgroup Database Tools** icon to the left of the workgroup name on the Workgroup Management System Home Page.

Optionally, you can get to the Workgroup Database Operations page by clicking on the **Admin** icon, selecting the option Manage Workgroup Database Operations, then clicking on the **Continue** button.

3. Select the radio button to the left of the option you wish to use (each is described in detail below), then click on the **Continue** button

### Initialize Tables

This operation creates the necessary database tables and populates the database with the initial data. This operation is typically run after using the Add Workgroup operation to add a SQL Server database rather than from this page.

### Create Tables

This operation creates the necessary database tables without initializing them (empty tables). This function is typically used after performing a Migrate operation rather than from this page.

### Delete Tables

This operation completely deletes **all** data (records, configuration settings, etc.) and tables from the database. This operation should not be used without the supervision of NetResults Technical Support.

### Create Indexes

This operation creates the necessary indexes on the tables to improve the performance of queries and metrics in the workgroup.

### Upgrade Data Only

This operation upgrades the database from a previous version of Tracker to the current version. This operation will only upgrade the database. To upgrade the workgroup files, choose the relevant upgrade option in the WMS Admin section (by clicking on the **Admin** icon in the button bar of WMS).

### Upgrade Users Only

This operation upgrades the user accounts in the workgroup to the latest version of Tracker and adds them to the WMS User database. This operation will only upgrade the user accounts. If you need to upgrade the entire workgroup (the web pages, database, etc.), please go to the WMS Admin section and choose the relevant upgrade option (by clicking on the **Admin** icon in the button bar of WMS).

Home
 Add
 View
 Edit
 Delete
 Alias
 Move
 Migrate
 Repair
 Admin
 Users
 EXIT
 Help

**NetResults Tracker**  
**WMS**  
**Version 6.6.0**

Status **Workgroup Database Tools**
Help

### Administration Section - Manage Workgroup Database Operations

Select a Workgroup:

**⚠ Note:** Please make backups of the above selected workgroup's database before proceeding with any of the operations listed below. All operations on this page should only be used under the direction of NetResults Technical Support or Professional Services. **Improper use of these operations may result in permanent loss of data.**

<input checked="" type="radio"/>	<b>1</b>	Initialize Tables	Create and initialize the NetResults Tracker tables in the database. This is typically done after 'Add Workgroup' operation rather than from this page.
<input type="radio"/>	<b>2</b>	Create Tables	Create the NetResults Tracker tables without initializing them (empty tables). This is typically done after 'Migrate Workgroup' operation rather than from this page.
<input type="radio"/>	<b>3</b>	Delete Tables	Delete all the NetResults Tracker tables in the database. <b>Warning: This will not only delete records, but also all of your NetResults Tracker configuration (projects, forms, workflows, users, option menus, saved queries, metrics etc.).</b>
<input type="radio"/>	<b>4</b>	Create Indexes	Create the necessary indexes on the NetResults Tracker tables to improve the performance on queries and metrics in the workgroup.
<input type="radio"/>	<b>5</b>	Upgrade Data Only	Upgrade NetResults Tracker data from previous version to the latest version. <b>Warning: This operation will only perform the data upgrade.</b> To upgrade NetResults Tracker web pages (including data), choose relevant upgrade options in the Administration Section page and proceed further. If you are upgrading from NetResults Tracker 2.x, please contact NetResults Technical Support.
<input type="radio"/>	<b>6</b>	Upgrade Users Only	Upgrade (Or Repair) Users in the NetResults Tracker workgroup database. <b>Warning: Do not perform this operation unless directed to do so by NetResults Technical Support or Professional Services.</b>

« Back
Continue »



Please contact [NetResults Technical Support](#) for assistance with upgrading a Version 3.x workgroup to the latest version.

## Upgrading a Workgroup from Version 4.x, 5.x or 6.x to the Latest Version

Help Topics

<<

>>

If you are upgrading from Version 4.x, please contact [NetResults Technical Support](#) for assistance.

If you are upgrading from Version 5.x or 6.x, please refer to the [Installation Instructions](#) and click on the link that corresponds to the version you are upgrading from.

The Maintenance Operations section is available to make repairs to the WMS, Users or Workgroup database. This interface should **only** be used under the direction of NetResults Technical Support. Use of this interface without the guidance of NetResults personnel could result in **permanent data loss**.

The following instructions apply to use of Oracle Database. Oracle is a professional RDBMS and by its nature is very complex. This document assumes that you are very familiar with the administration and use of Oracle. Please refer to the documentation included with Oracle for detailed instructions where necessary. **Before performing the steps below, please complete the [Preparations](#) required for the version of Oracle you are using listed in the "Database Driver Software on Web Server Machine" and "Database Server Software" sections of that page.**

**For questions regarding the use of Oracle, please contact Oracle Corporation technical support.**

In order to use Oracle with Tracker you must perform the following steps on the machine in which the Oracle Server is installed:

1. [Create an Oracle Database](#)
2. [Configuring the Oracle Client \(for remote Oracle servers only\)](#)

## 1. Create an Oracle Database

By default Tracker uses a Microsoft Access database, however it can also be used with Oracle. Oracle database is a separately sold product available from Oracle Corporation and is not bundled with Tracker.

To use Tracker with Oracle, you must first create a database using Oracle. You can create a database of any name, although it is recommended that it matches the workgroup name. If your Oracle software is installed on a machine with a Windows-based platform, perform the following steps to create the database. If your Oracle software is installed on a Sun Solaris platform, click [here](#) for a different set of steps.

You can create one Oracle database for use with multiple workgroups. You should use a different User and Tablespace for each workgroup pointed at a single Oracle database. Users and Tablespaces can be set when during the process of [adding a workgroup](#).

### Oracle 9i on Windows or Sun Solaris platform:

1. Start the Oracle Database Configuration Assistant
2. Select the option "Create a Database" and click "Next"
3. Select the option "General Purpose" and click "Next"
4. Enter the Global Database Name in the form "databasename.domain" and the System Identifier (SID) in the form "databasename", then click "Next". It is advised that you select the database name to match the workgroup name that you will be using. However, using a different name is acceptable.
5. Select the option "Dedicated Server Mode" and click "Next"
6. Select the "Custom" option
7. If you do not plan to use multinationalization, skip to the next step. If you wish to have the Oracle database use multinationalization, then click on the "DB Sizing" tab. In the "Database Character Set" field, select "UTF8".
8. Click "Next". Click "Next" once more.
9. Check the option for the option "Create Database" and click "Finish"
10. Click "OK" to confirm the creation of the database
11. Click on the button "Save as an HTML file" to save the database parameters, then click "OK" to proceed with creating the database
12. After the database creation operation has completed successfully, click on the "Password Management" button to change the default password and unlock the database accounts of the new database

### Oracle 10g on Windows platform:

1. Start the Oracle Database Configuration Assistant. Click "Next"
2. Select the option "Create a Database" and click "Next"
3. Select the option "General Purpose" and click "Next"
4. Enter the Global Database Name in the form "databasename.domain" and the System Identifier (SID) in the form

- "databasename", then click "Next". It is advised that you select the database name to match the workgroup name that you will be using. However, using a different name is acceptable.
5. Check the option "Configure the Database with Enterprise Manager", and accept the default selection for other options and click "Next"
  6. Enter a Password and Confirm Password for all accounts or you can enter different passwords and click "Next"
  7. Select the storage mechanism as "File System" and click "Next"
  8. Select the location of the Database files to be created. If you are not sure as what to choose, select the option "Use Database File Locations from Template" and click "Next".
  9. Choose the recovery options for the database and click "Next"
  10. Uncheck the option "Sample Schemas" and click "Next"
  11. In the "Memory" tab, select the "Custom" option
  12. If you do not plan to use multinationalization, skip to the next step. If you wish to have the Oracle database use multinationalization, then click on the "Character Sets" tab. In the "Database Character Set" field, click "Choose from the list of character sets", and select "UTF8" from the list. Also select "UTF8" for the "National Character Set". Click "Next".
  13. If you wish, you can review (and modify) the control file, data files and redo log groups for the database. Click "Next".
  14. Select the option "Create Database" and click "Finish"
  15. Click on the button "Save as an HTML file" to save the database parameters, then click "OK" to proceed with creating the database
  16. After the database creation operation has completed successfully, click on the "Password Management" button to change the default password and unlock the database accounts of the new database

#### **Oracle 11g on Windows platform:**

1. Start the Oracle Database Configuration Assistant. Click "Next"
2. Select the option "Create a Database" and click "Next"
3. Select the option "General Purpose" and click "Next"
4. Enter the Global Database Name in the form "databasename.domain" and the System Identifier (SID) in the form "databasename", then click "Next". It is advised that you select the database name to match the workgroup name that you will be using. However, using a different name is acceptable.
5. Check the option "Configure the Database with Enterprise Manager", and accept the default selection for other options and click "Next"
6. Enter a Password and Confirm Password for all accounts or you can enter different passwords and click "Next"
7. Select the storage mechanism as "File System" and click "Next"
8. Select the location of the Database files to be created. If you are not sure as what to choose, select the option "Use Database File Locations from Template" and click "Next".
9. Choose the recovery options for the database and click "Next"
10. Uncheck the option "Sample Schemas" and click "Next"
11. In the "Memory" tab, select the "Custom" option
12. If you do not plan to use multinationalization, skip to the next step. If you wish to have the Oracle database use multinationalization, then click on the "Character Sets" tab. In the "Database Character Set" field, click "Choose from the list of character sets", and select "UTF8" from the list. Also select "UTF8" for the "National Character Set". Click "Next".
13. Select the default security settings "Keep the enhanced 11 g default security settings", then click on the "Next" button
14. Check the option "Enable automatic maintenance tasks" and click "Next"
15. If you wish, you can review (and modify) the control file, data files and redo log groups for the database. Click "Next"
16. Select the option "Create Database" and click "Finish"
17. Click on the button "Save as an HTML file" to save the database parameters, then click "OK" to proceed with creating the database
18. After the database creation operation has completed successfully, click on the "Password Management" button to change the default password and unlock the database accounts of the new database

Now you have successfully created an Oracle database.

## 2. **Configuring the Oracle Client on the Web Server (for remote Oracle servers only)**

If your Oracle server is installed on a machine other than the Web Server, then you have to do the following on the Web Server in order to connect to the Oracle database and use Tracker.

### **For Oracle 9i:**

You have to do the following to configure the Oracle client on the web server machine:

1. Start Net / Net9 Configuration Assistant (or Net / Net9 Easy Config Utility) that gets installed when you install the client.
2. Select the option "Create", give the workgroup name as the "New Net Service Name" and click "Next".
3. Select "TCP/IP (Internet Protocol)" and click "Next".
4. Enter the Oracle Server name as the "Host Name" and accept the default for the "Port Number" and click "Next".
5. Enter the workgroup name for the "Database SID" field and click "Next".
6. Click "Test Service".
7. In the new dialog, enter the username and password as NRTracker and click "Test". If the database and the NRTracker user are configured correctly, then a successful connection will be established. Click "Done" to close the dialog.
8. Click "Finish".

### **For Oracle 10g or 11g:**

You have to do the following to configure the Oracle client on the web server machine. It is required that you install the full Oracle client for use with Tracker. **The Instant Client that is available for Oracle 10g or 11g is not sufficient for use with Tracker.** Browse to [Oracle Metalink](#) or contact Oracle Technical Support for further details on how to install Oracle Database 10g or 11g software. :

1. Start Net Configuration Assistant that gets installed when you install the client.
2. Select the option "Local Net Service Name configuration" and click "Next".
3. Select the option "Add" and click "Next".
4. Enter the newly created Oracle database name as the "Service Name" and click "Next".
5. Select "TCP" protocol and click "Next".
6. Enter the Oracle Server name as the "Host Name" and select "Use the standard port number" and click "Next".
7. Select "Yes, perform a test" and click "Next".
8. Click "Change Login".
9. In the new dialog, enter the username and password as NRTracker and click "OK". If the database and the NRTracker user are configured correctly, then a successful connection will be established. Click "Next".
10. Enter the newly created Oracle database name as the "Net Service Name" and click "Next".
11. Select "No" to configure another net service name and click "Next".
12. Click "Next" and click "Finish" to close the dialog.

Now you have successfully configured your Oracle client for the Tracker workgroup. To complete the process of creating your Oracle workgroup(s), please complete the steps listed in the [Adding a Workgroup](#) section.

## Overview

Tracker integrates with either Microsoft Access, Microsoft SQL Server, or Oracle databases using a standard OLE-DB interface. Utilities are included with Tracker to provide some basic operations (e.g. initialization) which may be required in order to use a database with Tracker. **However, backups and other database administration should be performed using the tools that come with the database.**

## Workgroup Management System

Regardless of the database type being used for the workgroups in your Tracker installation, the Workgroup Management System is in Access format and must be backed up on a regular basis.

By default, the Workgroup Management System database file is located at:

***installDir*\ptadmin\Database\ptadmin.mdb**

where *installDir* is the directory where Tracker was installed (by default, **C:\inetpub\wwwroot\NetResultsTracker**).

## User Management System

Regardless of the database type being used for the workgroups in your Tracker installation, the User Management System is in Access format and must be backed up on a regular basis.

By default, the User Management System database file is located at:

***installDir*\ptcommon\Database\ptcommon.mdb**

where *installDir* is the directory where Tracker was installed (by default, **C:\inetpub\wwwroot\NetResultsTracker**).

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## Workgroup Databases

Each workgroup has a database which can be in Access, SQL Server or Oracle format. Each workgroup also has an Attachments folder, containing the files attached to the Tracker records. Both the database and the Attachments for each workgroup must be backed up on a regular basis.

## Workgroups with Microsoft Access Databases

By default Tracker uses a Microsoft Access database file located at:

***installDir*\workgroup\Database\Bugtrack.mdb**

where *installDir* is the directory where Tracker was installed (by default, **C:\inetpub\wwwroot\NetResultsTracker**), and *workgroup* is the name of the Tracker workgroup that was installed. There is one database per workgroup.

It is recommended that you **back up the database file on a regular basis** (e.g. daily) and at a time when it is highly unlikely to be in use (e.g. backups are commonly run early mornings). As with any other Windows file, if the file is open, it cannot be backed up until it is closed. Tracker only accesses the database (opens the file) briefly to handle each request (it is only opened between the time a user clicks on a link or button and the requested web page is returned, it is not left open).

To back up the Access database for a workgroup, copy the file ***installDir*\versionDir\Database\Bugtrack.mdb** (as described above) for each workgroup.

You also need to back up the Attachments folder which is located at ***installDir*\workgroup\Attachments** for each workgroup.

Over time this file may become quite large. You can attempt to compact this file by using Microsoft Access. It is strongly recommended that you backup the file before attempting this operation.

## Workgroups with MS SQL Server Databases

If you are using Tracker with a SQL Server database, please refer to the SQL Server documentation on recommended administration procedures, such as **regular scheduled backups**, etc. **SQL Server databases are not standard files, therefore, a simple file copy or file backup to tape is not sufficient for backing up a SQL Server database.**

There is one SQL Server database for each Tracker workgroup. By default, the database name is the same as the workgroup name. If the database name is different than the workgroup name, the database name can be found by [viewing a workgroup](#) in the Workgroup Management System.

By default, Tracker uses a login with the name NRTracker to access these databases for Tracker operations.

You also need to back up the Attachments folder which is located at **installDir\workgroup\Attachments** for each workgroup where installDir is the directory where Tracker was installed (by default, **C:\inetpub\wwwroot\NetResultsTracker**), and workgroup is the name of the Tracker workgroup that was installed.

## Workgroups with Oracle Databases

If you are using Tracker with an Oracle database, please refer to the Oracle documentation on recommended administration procedures, such as **regular scheduled backups**, etc. **Oracle databases are not standard files, therefore, a simple file copy or file backup to tape is not sufficient for backing up an Oracle database.**

There is one Oracle database for each Tracker workgroup. By default, the database name is the same as the workgroup name. If the database name is different than the workgroup name, the database name can be found by [viewing a workgroup](#) in the Workgroup Management System.

By default, Tracker uses a login with the name NRTracker to access these databases for Tracker operations.

You also need to back up the Attachments folder which is located at **installDir\workgroup\Attachments** for each workgroup where installDir is the directory where Tracker was installed (by default, **C:\inetpub\wwwroot\NetResultsTracker**), and workgroup is the name of the Tracker workgroup that was installed.

## Direct Database Edits are Not Supported

Although Tracker uses a standard database, it is recommended that you **do not directly modify** (or even open) **the database(s)**. **Doing so may result in serious and perhaps unrecoverable damage to your Tracker data.** Directly accessing the database may also lock users out of the system. Support is not provided for Tracker installations in which the database(s) have been modified using anything other than the (unmodified) Tracker web pages that are shipped with the product (unless you were directed to do so by NetResults Technical Support or NetResults Professional Services). If NetResults Technical Support discovers that your data has been directly modified (or your Tracker web pages have been modified), they may require that you reinstall the product and reinitialize the database(s) before providing any further support.

Direct modification of a Tracker database or source pages by users is not supported by NetResults.



## Windows Time Zone Selection Chart

[Help Topics](#)

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The following is a list of time zones that are supported by Tracker when installed on a Windows system.

Time Zone Offset (in Hours)	Time Zone	System Time Zone (as displayed in Date/Time Settings)
-12:00	Dateline Standard Time	Eniwetok, Kwajalein
-11:00	Samoa Standard Time	Midway Is, Samoa
-10:00	Hawaiian Standard Time	Hawaii
-10:00	Alaskan Standard Time	Alaska
-08:00	Pacific Standard Time	Pacific Time (US & Canada); Tijuana
-07:00	Mexican Standard Time [La Paz]	Chihuahua, La Paz, Mazatlan
-07:00	Mountain Standard Time	Mountain Time (US & Canada)
-07:00	Mountain Standard Time [Arizona]	Arizona
-06:00	Central Standard Time	Central Time (US & Canada)
-06:00	Mexico Standard Time	Mexico City, Tegucigalpa
-06:00	Canada Central Standard Time	Saskatchewan
-06:00	Central America Standard Time	Central America
-05:00	Eastern Standard Time	Eastern Time (US & Canada)
-05:00	Eastern Standard Time [Indiana (East)]	Indiana (East)
-05:00	SA Pacific Standard Time	Bogota, Lima, Quito
-04:00	Atlantic Standard Time	Atlantic Time (Canada)
-04:00	SA Western Standard Time	Caracas, La Paz
-04:00	Pacific SA Standard Time	Santiago
-03:30	Newfoundland Standard Time	Newfoundland
-03:00	SA Eastern Standard Time	Buenos Aires, Georgetown
-03:00	E. South America Standard Time	Brasilia
-03:00	Greenland Standard Time	Greenland
-02:00	Mid-Atlantic Standard Time	Mid-Atlantic
-01:00	Azores Standard Time	Azores
-01:00	Cape Verde Standard Time	Cape Verde Is
00:00	Universal Coordinated Time	Casablanca, Monrovia
00:00	Greenwich Mean Time	Greenwich Mean Time: Dublin, Edinburgh, Lisbon, London
+01:00	Romance Standard Time	Amsterdam, CopenHagen, Madrid, Paris, Vilnius
+01:00	W. Central Africa Standard Time	West Central Africa
+01:00	Central European Standard Time	Belgrade, Sarajevo, Skopje, Sofija, Zagreb
+01:00	Central Europe Standard Time	Bratislava, Budapest, Ljubljana, Prague, Warsaw
+01:00	W. Europe Standard Time	Brussels, Berlin, Bern, Rome, Stockholm, Vienna
+02:00	Egypt Standard Time	Cairo

+02:00	South Africa Standard Time	Harare, Pretoria
+02:00	Israel Standard Time	Israel
+02:00	E. Europe Standard Time	Bucharest
+02:00	FLE Standard Time	Helsinki, Riga, Tallinn
+02:00	GTB Standard Time	Athens, Istanbul, Minsk
+03:00	Arab Standard Time	Kuwait, Riyadh
+03:00	E. Africa Standard Time	Nairobi
+03:00	Arabic Standard Time	Baghdad
+03:00	Russian Standard Time	Moscow, St. Petersburg, Volgograd
+03:30	Iran Standard Time	Tehran
+04:00	Arabian Standard Time	Abu Dhabi, Muscat
+04:00	Caucasus Standard Time	Baku, Tbilisi
+04:00	Afghanistan Standard Time	Kabul
+05:00	West Asia Standard Time	Islamabad, Karachi, Tashkent
+05:00	Ekaterinburg Standard Time	Ekaterinburg
+05:30	India Standard Time	Bombay, Calcutta, Madras, New Delhi
+05:45	Nepal Standard Time	Kathmandu
+06:00	Central Asia Standard Time	Almaty, Dhaka
+06:00	Sri Lanka Standard Time	Columbo
+06:00	N. Central Asia Standard Time	Almaty, Novosibirsk
+06:30	Myanmar Standard Time	Rangoon
+07:00	SE Asia Standard Time	Bangkok, Hanoi, Jakarta
+07:00	North Asia Standard Time	Krasnoyarsk
+08:00	China Standard Time	Beijing, Chongqing, Hong Kong, Urumqi
+08:00	W. Australia Standard Time	Perth
+08:00	Singapore Standard Time	Singapore
+08:00	Taipei Standard Time	Taipei
+08:00	North Asia East Standard Time	Irkutsk, Ulaan Bataar
+09:00	Tokyo Standard Time	Osako, Sapporo, Tokyo
+09:00	Korea Standard Time	Seoul
+09:00	Yakutsk Standard Time	Yakutsk
+09:30	AUS Central Standard Time	Darwin
+09:30	Cen. Australia Standard Time	Adelaide
+10:00	AUS Eastern Standard Time	Canberra, Melbourne, Sydney
+10:00	E. Australia Standard Time	Brisbane
+10:00	West Pacific Standard Time	Guam, Port Moresby
+10:00	Tasmania Standard Time	Hobart
+10:00	Vladivostok Standard Time	Vladivostok
+11:00	Central Pacific Standard Time	Magadan, Solomon Is, New Caledonia

+12:00	Fiji Standard Time	Fiji, Kamchatka, Marshall Is
+12:00	New Zealand Standard Time	Auckland, Wellington
+13:00	Tonga Standard Time	Nuku'alofa

Our Knowledge Base (KB) section is updated quite often. For the latest information, available 24 hours a day, 7 days a week, please browse to the [NetResults Tracker Knowledge Base](#) on our web site. It is likely that you will find the answer to your question or resolution (or workaround) to a problem in the Knowledge Base. We also have a [Frequently Asked Questions](#) section which contains commonly asked questions and their answers.

If you are unable to resolve a problem after searching the [Knowledge Base](#) section of our web site, and you are evaluating the product or have a current support agreement with NetResults, please contact us via email. Standard support is available via email on business days (Monday through Friday, excluding holidays). You should receive a response within one business day. [Additional support options](#) (e.g. phone support, extended hours) may be purchased from NetResults. Phone support is not included with the product, it must be purchased separately.

For the appropriate support email address, standard support hours, and a list of information to send us for fastest resolution to your problem, please [click here](#). If for some reason you are unable to reach our site via the web, please send your support email to

[support@nrtracker.com](mailto:support@nrtracker.com)

In your email please be sure to include the following information (emails with this information are generally given priority over those without):

1. Version of Tracker you are using (e.g. 6.6.0, 6.5.1, 6.0.1, 5.5).
2. Web Server software being used (e.g. IIS 7.5, IIS 7.0, IIS 6).
3. Database being using (e.g. MS Access, MS SQL Server 2008/2005, Oracle 11g/10g).
4. Operating System of the server on which Tracker is installed (e.g. Windows Server 2008, Windows Server 2003).
5. Web Browser software being used (e.g. IE 7.0 / 8.0, Firefox 3.5 / 3.6, Safari 3.2 / 4.0).
6. **The full text of any error message which is displayed.** In many cases if you get a generic database error message, you can scroll further down on the page to find more detailed error information.
7. **The steps required to reproduce the problem.**
8. Whether you are an evaluator or licensed user with support.
9. Attach the following files from your installation to your message:
  - o All files present in the installation log folder where you installed Tracker. By default, the files can be found in C:\NetResultsLog.
  - o If your problem is related to the Workgroup Management System, attach the file called ptadminlog.txt that can be found in the "pttmp" folder of your web server directory. By default, this file can be found at C:\inetpub\wwwroot\NetResultsTracker\pttmp\ptadminlog.txt.
  - o If your problem is related to email notification messages, attach the file called emaillog.txt that can be found in the "pttmp" folder of your web server directory. By default, this file can be found at C:\inetpub\wwwroot\NetResultsTracker\pttmp\emaillog.txt.
  - o For all other problems, attach all the files that can be found in the "pttmp" folder of your web server directory. By default, this directory can be found at C:\inetpub\wwwroot\NetResultsTracker\pttmp.

Please be as specific as possible in your description of what is wrong. Including steps to reproduce the problem and the full text of all error messages is very helpful and can significantly reduce the amount of time it takes to resolve a problem.