

Oracle® Hospitality Symphony Venue Management
Security Guide
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Preface

This document provides security reference and guidance for Symphony Venue Management (SimVen).

Audience

This document is intended for:

- Implementation Specialists
- System administrators for Symphony Venue Management
- End users of Symphony Venue Management

Customer Support

To contact Oracle Customer Support, access My Oracle Support at the following URL:
<https://support.oracle.com>

When contacting Customer Support, please provide the following:

- Product version and program/module name
- Functional and technical description of the problem (include business impact)
- Detailed step-by-step instructions to re-create
- Exact error message received and any associated log files
- Screen shots of each step you take

Documentation

Oracle Hospitality product documentation is available on the Oracle Help Center at
<http://docs.oracle.com>.

- Open Web Application Security Project (OWASP)
<http://www.owasp.org>
- Center for Internet Security (CIS) Benchmarks (used for OS Hardening)
<https://Benchmarks.cisecurity.org/downloads/multiform/>
- Refer to the *Simphony First Edition Venue Management Installation Guide* for information about installing the Symphony Venue Management application.

Revision History

| Date | Description of Change |
|---------------|---|
| December 2016 | <ul style="list-style-type: none">• Initial publication |

1 Symphony Venue Management Security Overview

This chapter provides an overview of Oracle Hospitality Symphony Venue Management security and explains the general principles of application security.

Basic Security Considerations

The following principles are fundamental to using any application securely:

- **Keep software up-to-date.** This includes the latest product release and all patches that apply to it.
- **Limit privileges as much as possible.** Users should be given only the access necessary to perform their work. Review user privileges periodically to determine relevance to current work requirements.
- **Monitor system activity.** Establish the appropriate system component users and frequency of access, and monitor those components.
- **Install software securely.** See [Performing a Secure Symphony Venue Management Installation](#) for more information about secure software installation.
- **Learn about and use the Symphony Venue Management security features.** See [Implementing Symphony Venue Management Security](#) for more information.
- **Use secure development practices.** For example, take advantage of existing database security functionality instead of creating your own application security.
- **Stay up-to-date on security information.** Oracle regularly issues security-related patch updates and security alerts. You must install all security patches as soon as possible. See the [Critical Patch Updates and Security Alerts](#) for more security update information.

Symphony Venue Management Security

Architectural Overview

Symphony Venue Management is an add-on product to the Symphony Client Server\ service oriented architecture (SOA) that is a collection of loosely coupled self-contained modules. The core of the SimVen software is the Back Office application (SimVen Back Office). This application is Windows-based and communicates with supporting services.

Symphony Architecture vs. Single Server Systems

The Symphony Architecture leads to a more scalable and reliable system compared to server-based models as services are distributed and do not have to be located on a single machine.

Technology

Simphony Venue Management SOA uses industry standard SOAP services that provide greater ability to work with third-party applications.

A Merteck Data Systems database driver is used to connect the SimVen Microsoft Windows application to the Microsoft SQL Server Database.

A Microsoft Windows Service facilitates communication to the point-of-sale (POS) workstations.

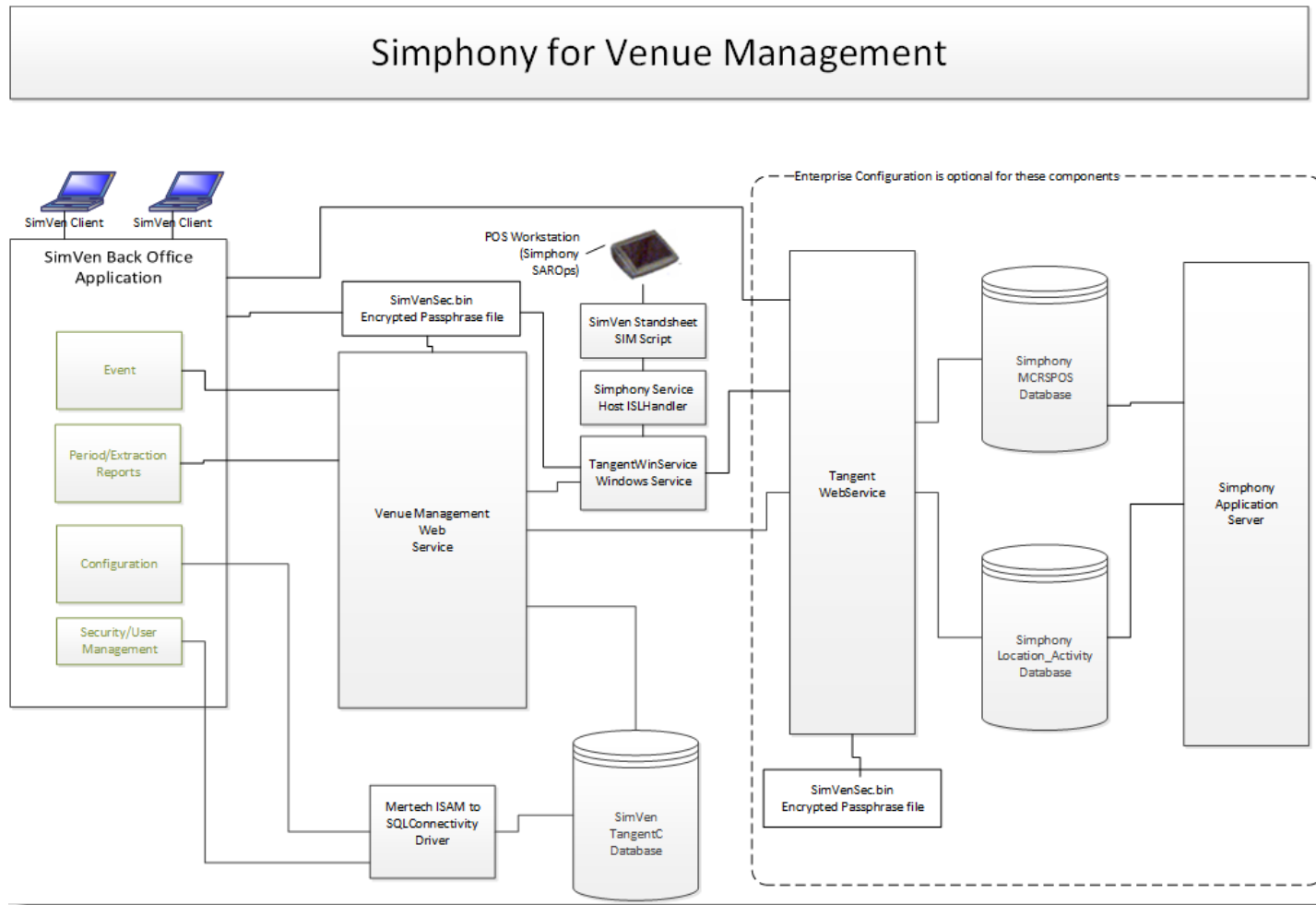


Figure 1-1 - Basic Simphony Venue Management Topology

Understanding Symphony Venue Management Services

The Symphony Venue Management back office application is a Microsoft Windows desktop application that resides behind a firewall on a property and is used to manage perpetual inventory, warehouse data and Event Management. The SimVen services include:

- The Venue Management web service provides a mechanism for extracting data related to inventory for specific events, and is also referred to as **Stand-Sheet** data
- The Tangent Web Services provides the interface to communicate with Symphony databases
- The Tangent Windows Service interacts with the Tangent Web Service and also provides a mechanism to communicate with the POS workstations

Simphony Venue Management Back Office Authentication

Overview

Authentication is the process of ensuring that people on both ends of the connection are who they say they are. This applies to both the entity trying to access a service, and to the entity providing the service.

Database User Management

The Symphony Venue Management sample database is installed with only one pre-defined username and password, the SimVen user (SYSADMIN, sysadmin\$1), which allows access to SimVen's Security screen.

Oracle Hospitality mandates that users create a unique, strong password for the pre-defined SimVen user. The password must be at least 8 characters long and include letters and numbers.

SimVen's installation wizard also prompts for the creation of a Microsoft SQL Server Login and a Database User with default username (TANADMIN) and password. The same credentials are being used by the Mertech SQL Driver to log into the Microsoft SQL Server database at runtime.

Security Note

Authentication Database credentials are stored in the configuration file on the SimVen application server, protected by Microsoft Windows Server file permissions.

Understanding the Symphony Venue Management Environment

When planning your Symphony Venue Management implementation, consider the following:

Which resources need to be protected?

- You need to protect customer data, such as credit-card numbers
- You need to protect internal data, such as proprietary source code
- You need to protect system components from being disabled by external attacks or intentional system overloads

Who are you protecting data from?

You need to protect your subscribers' data from other subscribers, but someone in your organization might need to access that data to manage it. You can analyze your workflows to determine who needs access to the data. For example, it is possible that a system administrator can manage your system components without needing to access the system data.

What happens if protections on strategic resources fail?

In some cases, a fault in your security scheme is nothing more than an inconvenience. In other cases, a fault might cause great damage to you or your customers. Understanding the security ramifications of each resource will help you protect it properly.

Recommended Deployment Configurations

This section describes recommended deployment configurations for SimVen.

The SimVen product can be deployed on a single server or in a cluster of servers.

This single-computer deployment may be cost effective for small organizations. However, it cannot provide high availability because all components are stored on the same computer. In a single server environment such as the typical installation, the server should be protected behind a firewall.

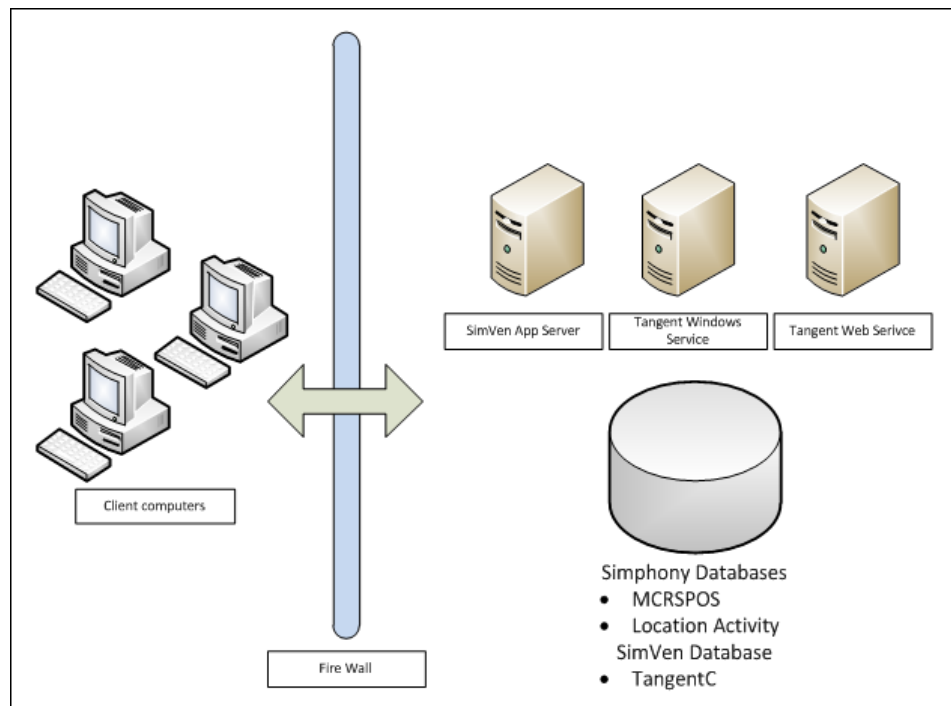


Figure 1-2 - Single-Computer Deployment Architecture

The general architectural recommendation is to use the well-known and generally accepted Internet-Firewall-DMZ-Firewall-Intranet architecture shown in Figure 1-3 - Traditional DMZ View.

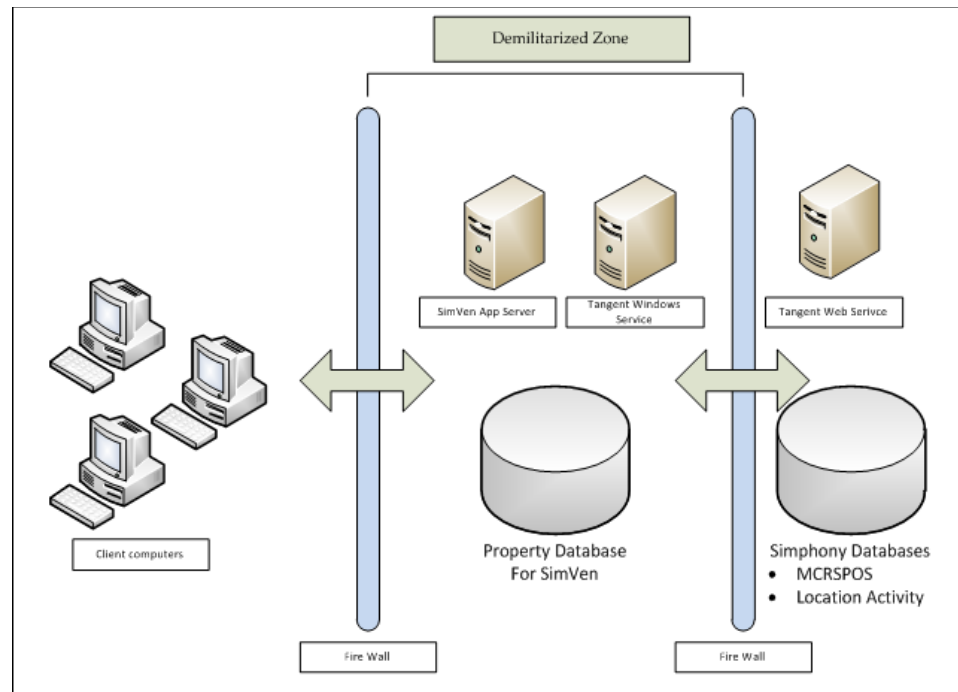


Figure 1-3 - Traditional DMZ View

The term demilitarized zone (DMZ) refers to a server that is isolated by firewalls from both the Internet and the intranet, thus forming a buffer between the two. Firewalls separating DMZ zones provide two essential functions:

- Block traffic types that are known to be illegal
- Provide intrusion containment, should successful intrusions take over processes or processors

Refer to [Simphony Venue Management Port Numbers](#) in Appendix B for more information about Simphony for Venue Management network port usage.

Simphony for Venue Management Security

Operating System Security

Prior to installation of SimVen, it is essential that the operating system be updated with the latest security updates.

1. Refer to the following Microsoft TechNet articles for more information about operating system security:
 - [Microsoft Windows Server 2008 R2 Security](#)
 - [Microsoft Windows Server 2012 Security](#)
2. Perform the steps outlined in the [How to disable 8.3 file name creation on NTFS partitions](#) article on the SimVen application server.

Database Platform Security

Oracle Database

Refer to the [Oracle Database Security Guide](#) for more information about Oracle Database security.

Microsoft SQL Server

Refer to the [Microsoft SQL Server 2012 Security Best Practices Whitepaper](#) for more information about Microsoft SQL Server security.

Network Security

It is recommended that Symphony Venue Management is configured to use secure communications when transmitting data between the client application and Microsoft Internet Information Services (ISS) running on the application server. Oracle Hospitality recommends the use of Transport Layer Security (TLS) 1.1 (or higher) to provide secure network communications.

To ease the configuration, the installation program provides the necessary functionality to configure the required certificates for the Symphony Venue Management web services. It is recommended to use a certificate obtained from a trusted certificate authority (CA).

Authentication

All Microsoft Windows and Web Service requests are authenticated to ensure that the request comes from a trusted source. A token is stored in a protected file and read before transmitting a request to a Web Service. A token is transmitted with AES 256 bit SHA hash/ Salt combination in the SOAP header for each request. The Web Service compares the incoming token with the stored token to ensure authentication before accepting requests. The stored pass phrase file is encrypted with Microsoft Windows System encryption.

2 Performing a Secure Symphony Venue Management Installation

This chapter presents Symphony Venue Management installation planning information. For information about installing Symphony for Venue Management, see the *Symphony for Venue Management Installation Guide*.

Pre-Installation Configuration

Perform the following tasks before installing Symphony Venue Management:

1. Apply critical security patches to the operating system.
2. Apply critical security patches to the database server application.
3. Review the [Oracle Hospitality Enterprise Back Office Security Guide](#).
4. Review the [Oracle Hospitality MICROS Hardware Wireless Networking Best Practices Guide](#).
5. Install Microsoft Internet Information Services (IIS) and configure it for Transport Layer Security (TLS) 1.1 (or higher) network communications.
6. Perform the steps outlined in the [How to disable 8.3 file name creation on NTFS partitions](#) article on the SimVen application server.

Symphony for Venue Management Installation

The Symphony for Venue Management Installation is comprised of two components:

1. SimVen Back Office Installer – Installs the Back Office applications.
2. SimVen Interface Installer – Installs the Windows and Web services.

Remove or disable features that you do not need after the installation.

The installation requires the user running the installation to have administrator privileges. No other users have the required access to successfully complete the installation.

When creating a new database, enter a complex password that adheres to the database hardening guides for all users.

The following SimVen Web services are required for proper connectivity with Symphony:

- Tangent Web Service
- Venue Management Web Service

The following SimVen Microsoft Windows service is required for proper connectivity with the workstations:

Tangent Win Service

Post-Installation Configuration

This section explains additional security configuration steps to complete after Symphony Venue Management is installed.

Operating System

Turn On Data Execution Prevention (DEP)

Refer to the Microsoft product documentation library at:
<https://technet.microsoft.com/en-us/> for instructions.

Turning Off Auto Play

Refer to the Microsoft product documentation library at:
<https://technet.microsoft.com/en-us/> for instructions.

Configuring the Microsoft Windows Idle Time Logout Setting

For additional security, configure Microsoft Windows to ensure that the Maximum Idle Time in Minutes setting is not greater than 15 minutes (default setting).

Refer to <https://technet.microsoft.com/en-us/library/jj852253.aspx> for more information about configuring the Maximum Idle Time in Minutes setting.

Application

Software Patches

Apply the latest Symphony Venue Management patches available on My Oracle Support. Follow the deployment instructions included with the patch.

Pass Phrase and Database Connection Management in Symphony Venue Management

The **SimVen Crypt** utility stores connection information for establishing a connection to a database, and creates an encrypted pass phrase for the Authorization token. All Microsoft Windows and Web services use the **SimVenDbSettings.xml** file to store all user credentials that can connect to a database. The password entry for each connection in this .xml file is stored and encrypted with Microsoft Windows System encryption.

Database Connection

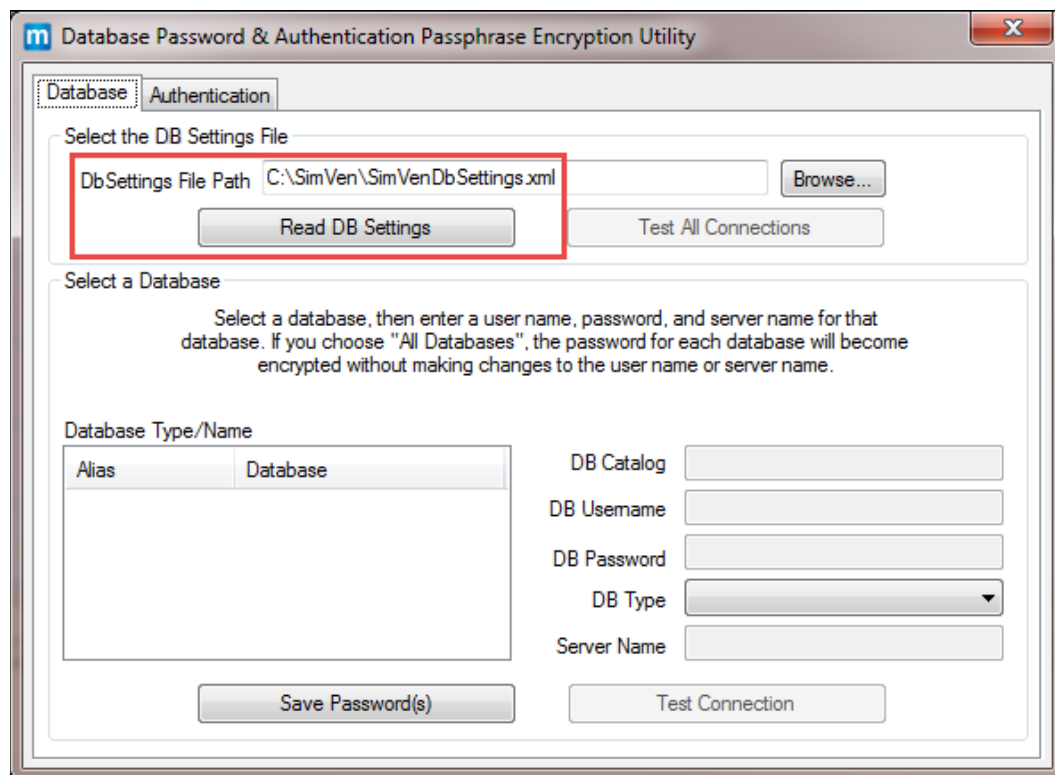


Figure 2-1 - DB Password & Authentication Pass Phrase Encryption Utility - DB Settings

To establish a database connection, perform the following steps:

1. Navigate to the <Drive>:\SimVen\SimVenTools\Crypt folder, and open the **SimVenCrypt.exe** utility.
The **Database** tab shows the folder in which SimVen was installed. This is the default location of the pass phrase.
2. Click the **Read DB Settings** button to read the contents of the SimVenDBSettings.xml file.
3. If the SimVenDBSettings.xml file is not present, a message appears to have you create the default file.

If the message appears, click **OK** to create the new file with the default settings. After the DB Settings file has been read, the screen shows all of the available connections in the **Database Type/Name** section as shown on Figure 2-2 - Testing All Database Connections.

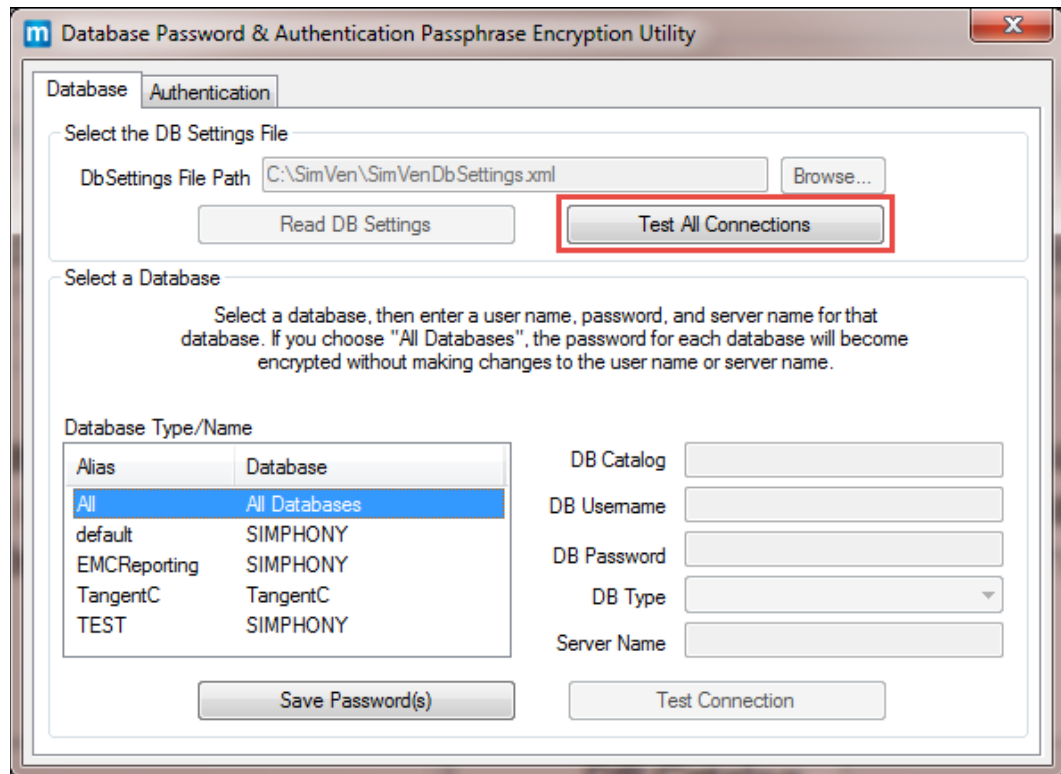


Figure 2-2 - Testing All Database Connections

The first entry in the Database Type/Name section is **All Databases**.

1. Click the **Test all Connections** button to test all connections for all of the databases. The utility tests all available database connections and a message appears showing the results of the test for each connection.

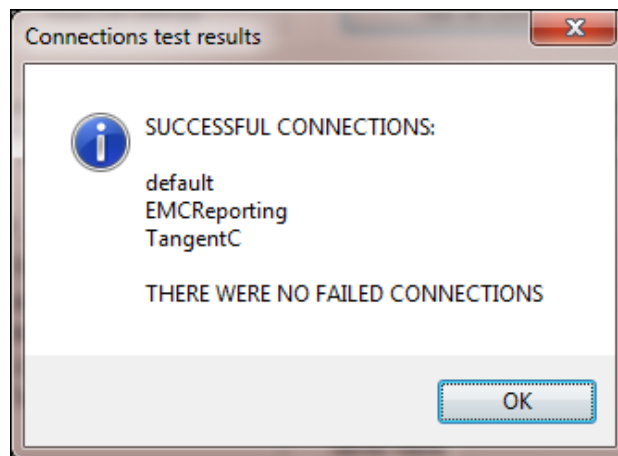


Figure 2-3 - Connection Message Prompt

2. When a specific connection is selected in the Database Type/Name section, the fields on the right populate with the connection's details.
 - When you click **Test Connection**, the connection to the database is initiated using the data contained in the populated text fields
 - If the connection fails, a message appears indicating the connection failure and provides an option to view the detailed exception. Re-enter the correct connection details (in the text fields on the right) for the tested connection, and retry clicking **Test Connection**.

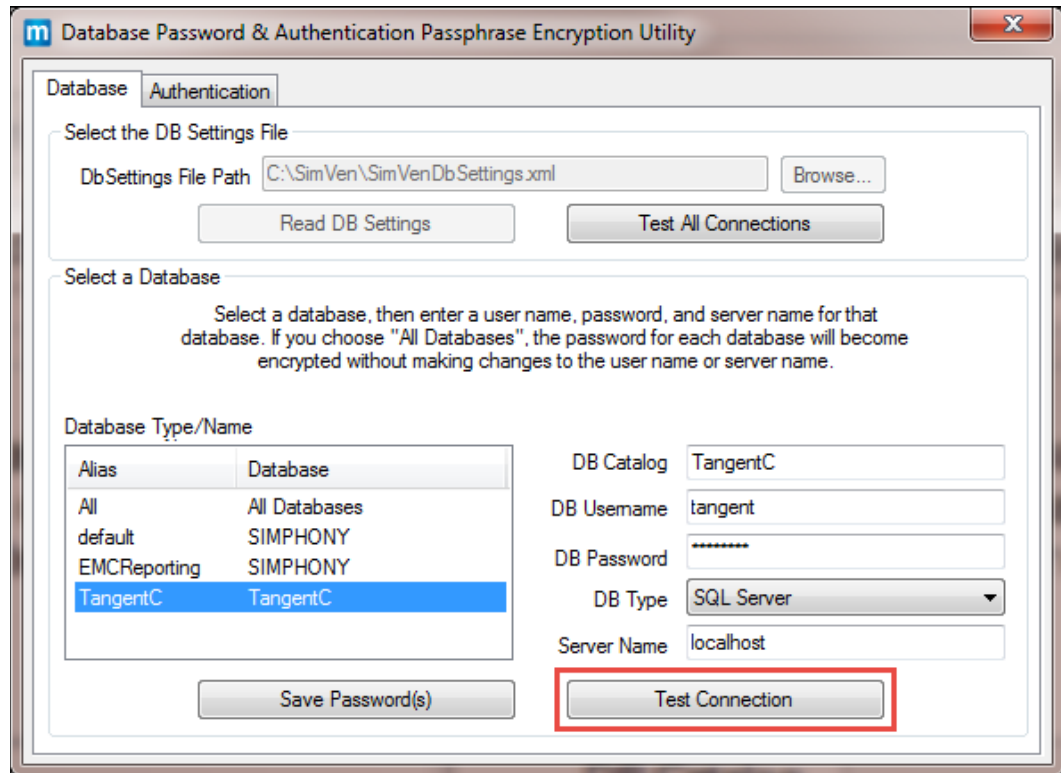


Figure 2-4 - Testing Specific Database Connections

Creating a New Pass Phrase File

Authentication in the Symphony Venue Management Crypt Utility

Pass phrase data is managed by the **Authentication tab** of the SimVen Crypt utility. The pass phrase file is encrypted with DPAPI 256 encryption and is stored in a file named, SimVenSec.bin. The installation folder for SimVen is the default location of this file.

To create a new pass phrase file:

1. Click the **Authentication** tab.
2. Enter a new pass phrase between 8 and 14 characters in the **New Pass Phrase** field.
3. Re-enter the new pass phrase in the **Verify New Pass Phrase** field.
4. Click **Change**. A message appears indicating that the pass phrase was successfully created.

If the pass phrase is not successfully created, repeat steps 1-4.

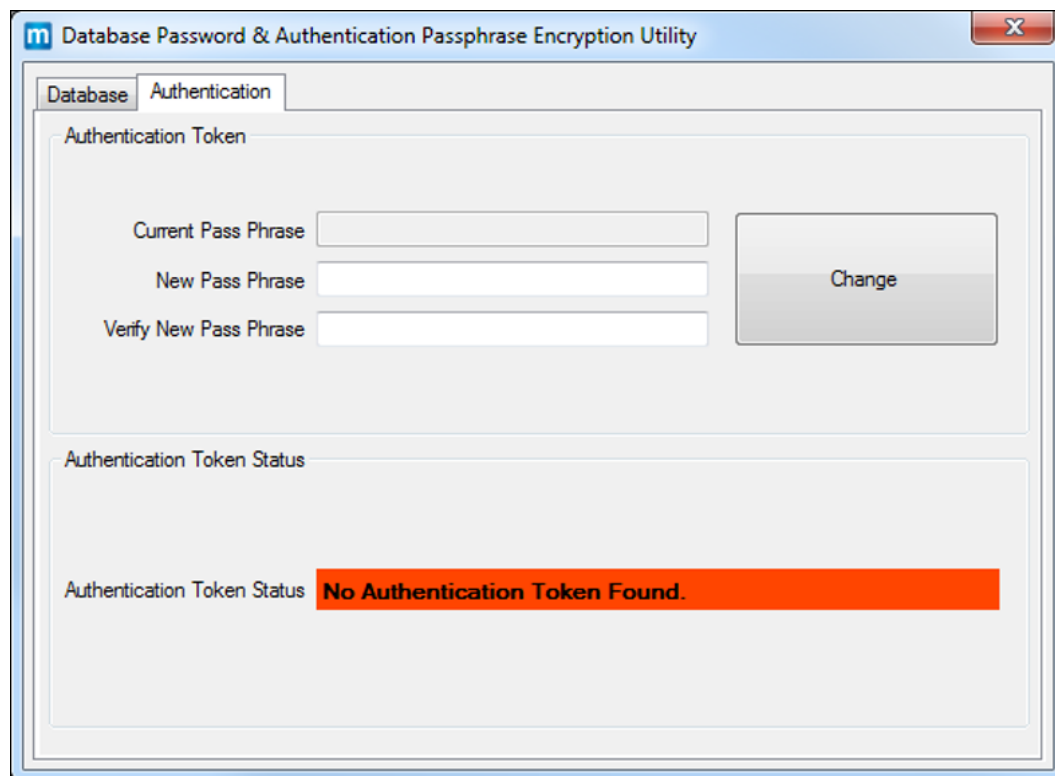


Figure 2-5 - Creating a new Authentication Token Pass Phrase

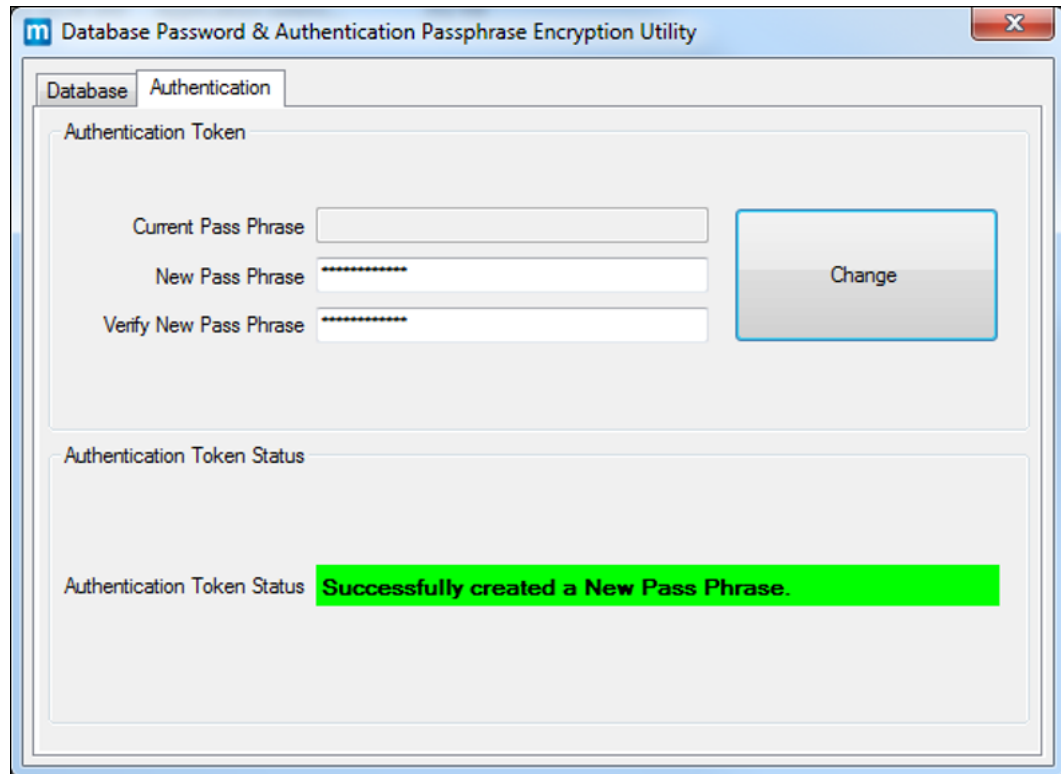


Figure 2-6 – Verifying the status of a new or existing Authentication Token Pass Phrase

Managing an Existing Pass Phrase

1. Enter the existing pass phrase in the **Current Pass Phrase** field.
2. Enter a new pass phrase in the **New Pass Phrase** field.
3. Re-enter the new pass phrase in the **Verify New Pass Phrase** field and click **Change**.
4. A message indicating either success or failure appears. If successful, the new pass phrase is encrypted and saved to the file.

Changing Default Passwords

Previous releases of Symphony Venue Management installed a default administrator username and password. As a post-upgrade step of SimVen, Oracle Hospitality recommends that the default administrator password be changed to a strong password immediately upon logging on for the first time.

Security Configurations

The System Profile Management, System Profile tab contains fields that are related to SimVen password and access security and should be configured after initial installation.

- Global SYSTEM Lock
 - **System is Totally Locked** checkbox - When enabled, this option prevents all users from logging into SimVen until it is disabled
- Login and Password
 - **Password Timeout Period (in Days)** field - This value represents the number of days before passwords expire and all SimVen users must enter a new password
 - **Use SQL Login** checkbox - When enabled, this allows users to sign in to SimVen using their Microsoft SQL Server login credentials

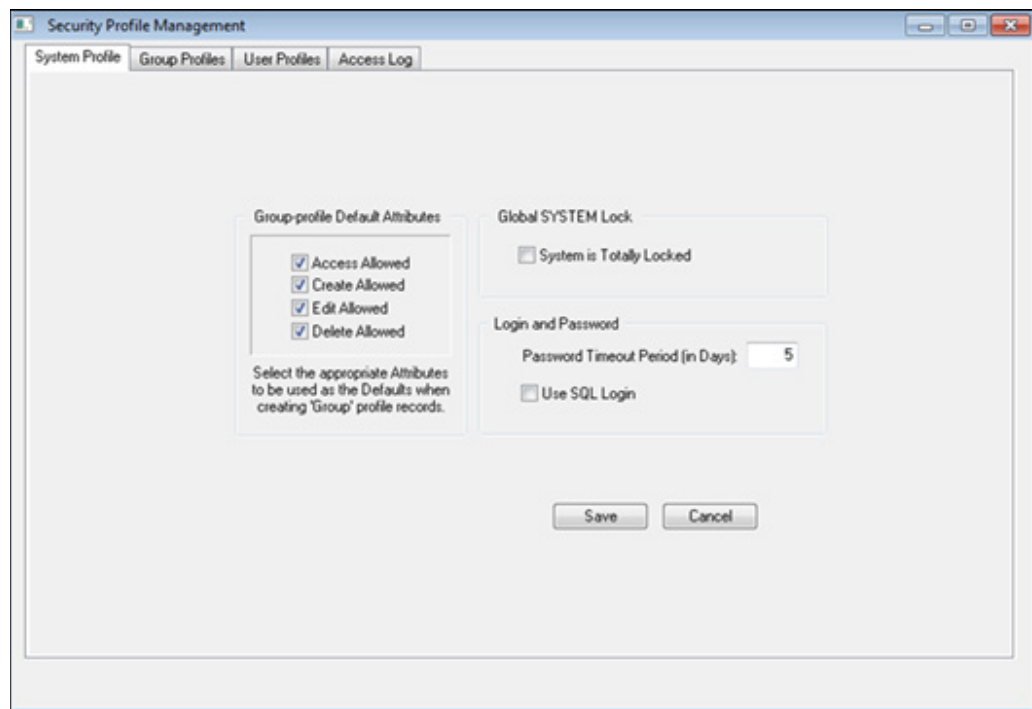


Figure 2-7 - Security Profile Management - System Profile tab

Configuring User Passwords in Symphony Venue Management

To configure a user's password:

1. Access **Security Profile Management** and select the **User Profiles** tab.
2. Select the user.
3. Enter the password in the **Password** field. Passwords are case-sensitive.

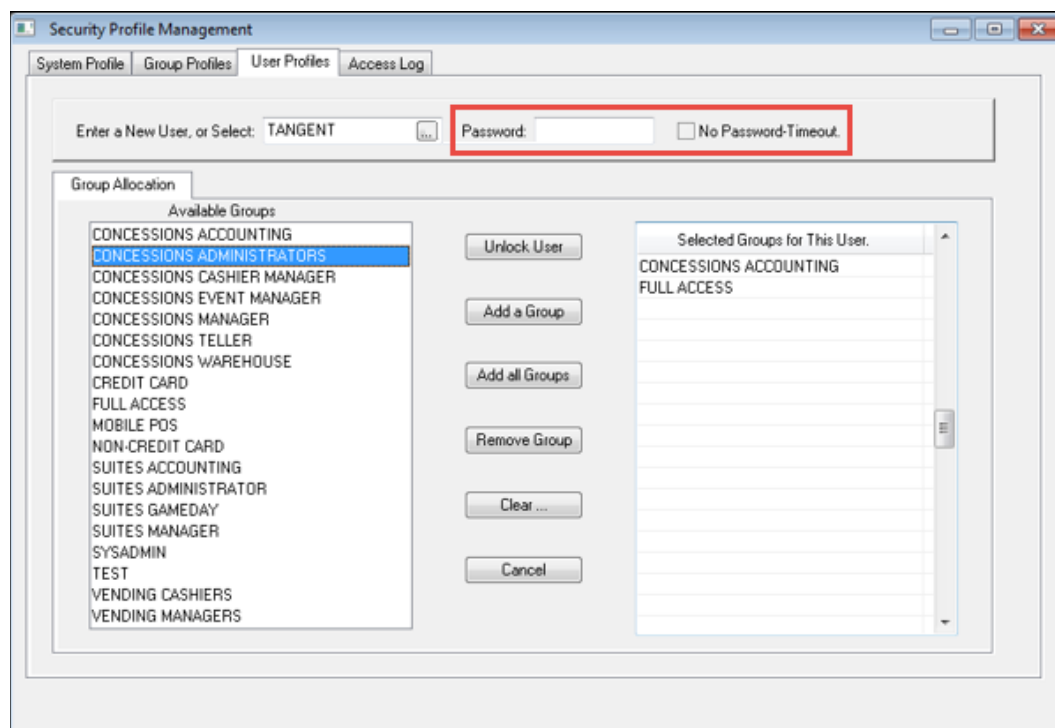


Figure 2-8 - Security Profile Management - Setting SimVen User Passwords

Purging Data

Purging Symphony Venue Management data is not required for security purposes. Symphony Venue Management does not store any sensitive information such as credit card cardholder data.

3 Implementing Symphony Venue Management Security

Passwords Policy Overview

Symphony Venue Management enforces a strong password policy by default. The following password requirements are enforced:

- The password must be at least 8 characters long and maximum 20 characters
- The password must contain letter(s), number(s), and punctuation character(s): ! " # \$ % & ' () * + , - . / : ; < = > ? @ [\] ^ _ ` { | } ~
- Users cannot choose a password equal to the last 5 previously used passwords
- The Maximum Allowed Failed Logins before a user account is locked out is 5
- Passwords expire based upon the policy configured in System Profile Management. This policy should be reviewed periodically

Authorization Privileges

Setting Authorization privileges establishes strict access control, explicitly enabling or restricting a user's system access and their performance of specific functions.

Symphony Venue Management User Authorization Management

All users' logon credentials for the SimVen Back Office application are stored in the TangentC database. Anyone who has access to the SimVen Back Office software must provide a valid and unique login user name and password. No SimVen users can have the same username.

It is mandated that sites maintain proper configuration and adhere to privilege level restrictions based on a need-to-know basis. For security purposes, each user's activities are traced via an audit trail log file stored in the TangentC database. To ensure strict access control of the Symphony Venue Management Back Office application, always assign unique user names and complex passwords to each account. During installation, the SimVen Back Office installer prompts the user to configure the SimVen Back Office Administrator user, which will be used to access the Back Office configurator.

The Symphony Venue Management Back Office' installation will create a SQL Server database user. During installation the user will be prompted for a username and password to create the database user. This user will be granted the minimum required permissions for the SimVen application to interface with the database. These credentials are used by the Mertech SQL Driver to connect to the Microsoft SQL Server database.

Symphony Venue Management Access Controls

Setting Authorizations/Privileges establishes strict access control, explicitly enabling or restricting a user's system access and their performance of specific functions.

- Access control for SimVen Back Office views and reports is defined within the Back Office, Security, User's Security Setup, Group Profiles tab
- User access control is defined within the Back Office, Security, User's Security Setup, User Profiles tab

General Configuration

The System Profile tab allows setting the default Group Profile attributes, locking out the entire system, and the default password timeout options.

Understanding Group Profiles

You can group employees according to the duties they perform, such as cashiers, managers, accounting clerks, and assign the same privilege and option settings to a group using Group Profiles. For example, the **Accounting** group is authorized to access, create, delete, and edit the **Chart of Accounts Maintenance** view. Without groups, each accountant would be assigned individual authorizations, which can be a repetitive and time-consuming task. Groups are assigned to an employee within the Back Office, Security, User's Security Setup, User Profiles tab.

Working with Group Profiles

Group Profiles limit access and determine how each securable item, including views and reports, in SimVen Back Office are used. A group grants the privileges needed to access, create, delete, or edit each securable item.

Adding or Removing Securable Item Authorizations

To create a group (or edit an existing group) and add or remove securable item authorizations to them, perform the following steps:

1. Navigate to the Back Office, Security, User's Security Setup, and click the **Group Profiles** tab.
2. Enter the name of the group in the **Enter a New Group or Select Existing Group** field. To edit an existing group, click the ellipses button (...), select the desired group from the Available Groups list window and click **OK**.
3. Select the view or report to be added to the group from the **Securable Items** list until it highlights. Views are highlighted green and reports are highlighted red.

See Figure 3-1 - Security Profile Management - Group Profiles.

Table 3-1 - Adding or Removing Securable Item Authorizations To and From Groups

| Action | Instructions |
|--|---|
| Adding an individual Securable Item Authorization to a group | <ol style="list-style-type: none">a. Click Add Item.b. Resume with step 4 below. |
| Adding All Securable Item Authorizations to a group | <ol style="list-style-type: none">a. Click Add All.b. Resume with step 4 below. |
| Removing an individual Securable Item Authorization from a group | <ol style="list-style-type: none">a. Click Remove Item.b. Resume with step 4 below. |
| Removing All Securable Item Authorizations from a group | <ol style="list-style-type: none">a. Click Remove All.b. Resume with step 4 below. |

4. The item appears in the **Selected Items for this Group** table.
5. Select or deselect each authorization checkbox to allow or deny access, creation, deletion, or editing of the selected securable item.
6. Repeat steps 2-5 until all desired securable item authorizations are added or removed for the group.
7. Click **Save**.

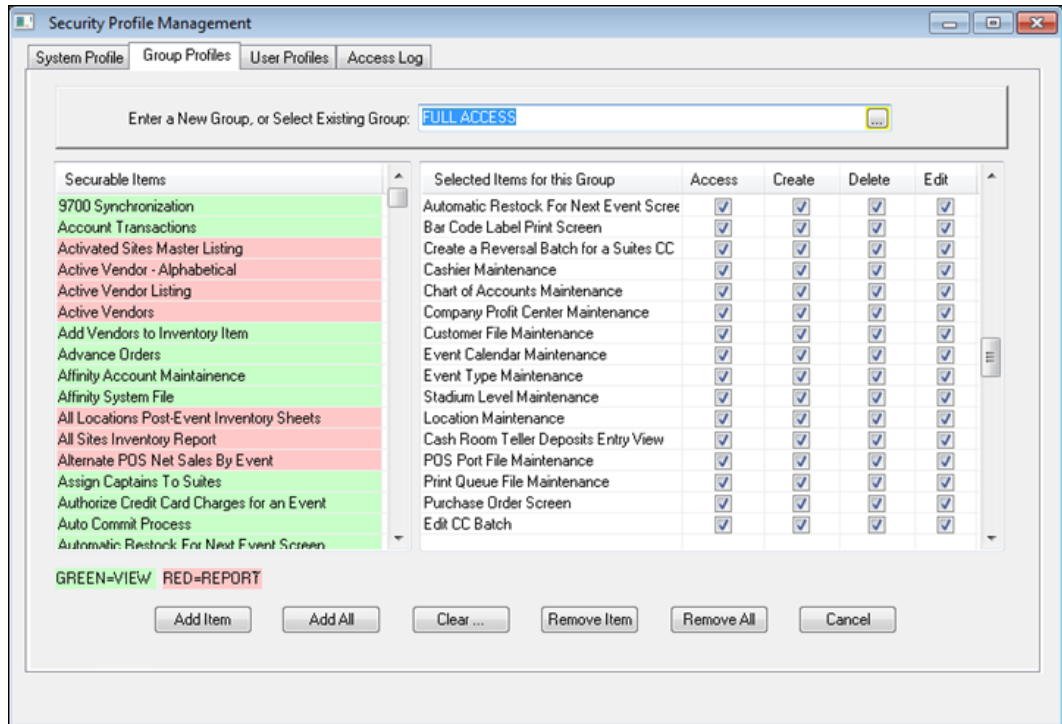


Figure 3-1 - Security Profile Management - Group Profiles

Deleting Groups

To delete an entire group:

1. In the **Enter New Group or Select Existing Group** field, click the ellipses button (...).
2. Select the group to be deleted from the Available Groups List window and click **OK**.
3. Click **Delete and Save**.

Note: You cannot delete a group when a user is associated with it. To successfully delete an entire group, first remove any user associations with the group in the User Profiles tab.

Adding Individual Groups

To add a group:

1. Select or enter the employee in the **Enter a New User, or Select** field.
2. Select the desired group from the Available Groups list until the group highlights.
3. Click **Add a Group**. The group appears in the **Select Groups for This User** list.
4. Click **Save**.

Adding All Groups

To add all groups at once:

1. Select or enter the employee in the **Enter a New User, or Select** field.
2. Click **Add all Groups**. All groups appear in the **Select Groups for This User** list.
3. Click **Save**.

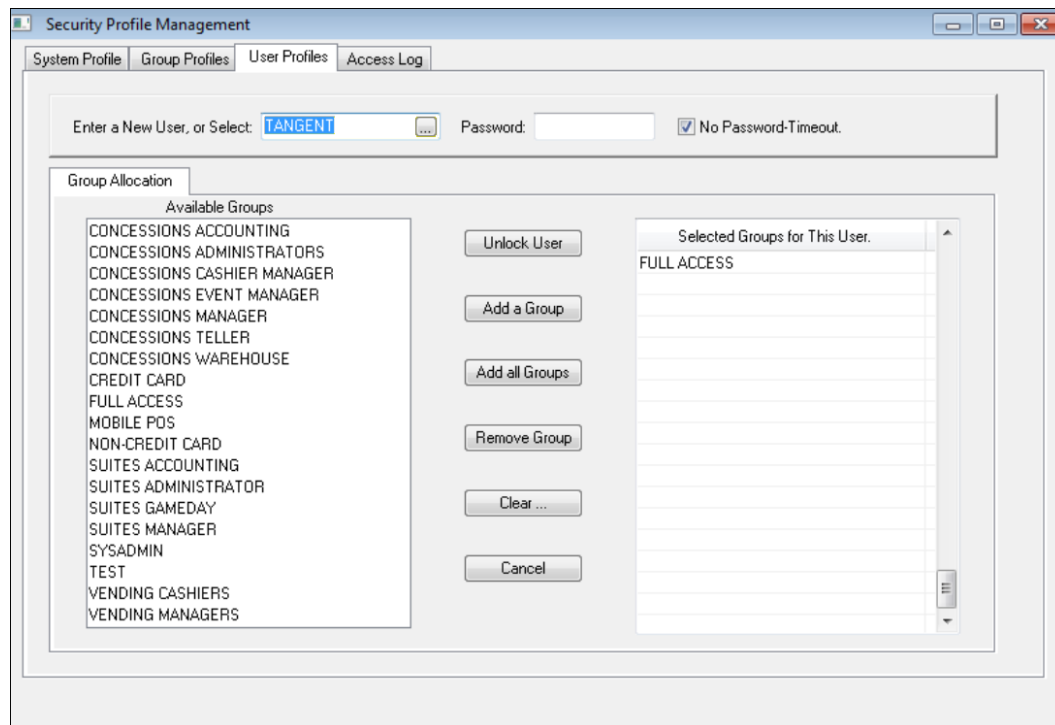


Figure 3-2 - Security Profile Management - User Profiles

Removing a Group

To remove a Group:

1. Select or enter the employee in the **Enter a New User, or Select** field.
2. Select the group to be removed from the Available Groups list until the group highlights.
3. Click **Remove Group**. The group is removed from the **Select Groups for This User** list.
4. Click **Save**.

Understanding User Profiles

You can use the User Profiles to grant different levels of access to securable items, including views and reports, through the assignment of Group Profiles.

Creating New Users

The User Profile view is used to create a new user, create the user's password, and link groups to users.

To create a new user:

1. Enter a unique username in the **Enter a New User, or Select field**
2. Enter a strong password in the **Password** field.
3. Click **Save**.

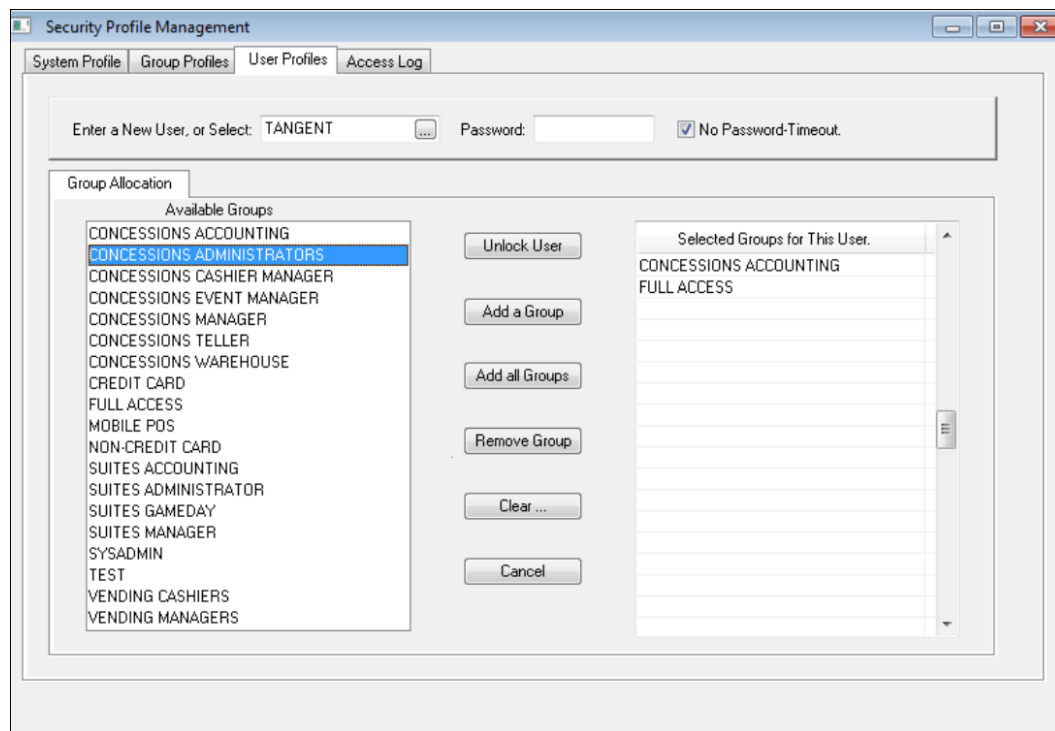


Figure 3-3 - Security Profile Management - Creating New Users

Linking Employees to Groups

Employees are linked to groups within the Back Office, Security, User's Security Setup, User Profiles tab.

If there are unique users among the staff who do not fit any of the general groups, create a group for them. For example, Sheila usually works as a cashier, but occasionally fills in as a manager when necessary. She needs to be able to perform the duties of both groups (Cashier and Manager). Create a group that combines the privileges required to perform as a cashier and allows the authorizations required of a manager. Label this new class perhaps something like, Utility, or maybe Sheila, and then add this group to only her user profile. The number of groups that can be created is limited only by the size of the system's memory.

Tracking Symphony Venue Management Configuration, Edits, Errors, and Access

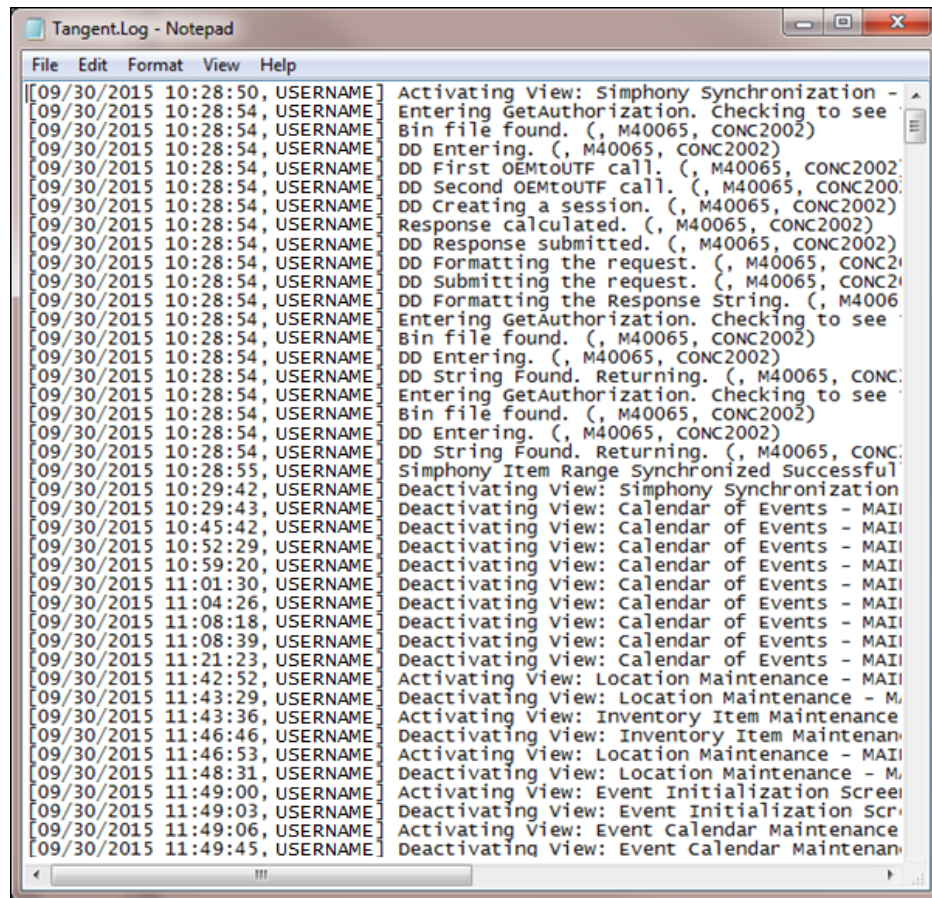
Configuration and Edit Logging

The **Tangent.Log** file tracks configuration steps and edits performed within SimVen.

Accessing the Tangent.Log file

To access and review the Tangent.Log file:

Navigate to <Drive>:\SimVen\Data\Tangent.Log and open the file using a text editor.



```
File Edit Format View Help
[09/30/2015 10:28:50, USERNAME] Activating view: Symphony Synchronization -
[09/30/2015 10:28:54, USERNAME] Entering GetAuthorization. Checking to see
[09/30/2015 10:28:54, USERNAME] Bin file found. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Entering. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD First OEMTOUTF call. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Second OEMTOUTF call. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Creating a session. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] Response calculated. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Response submitted. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Formatting the request. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Submitting the request. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Formatting the Response String. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] Entering GetAuthorization. Checking to see
[09/30/2015 10:28:54, USERNAME] Bin file found. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Entering. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD String Found. Returning. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] Entering GetAuthorization. Checking to see
[09/30/2015 10:28:54, USERNAME] Bin file found. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD Entering. (, M40065, CONC2002)
[09/30/2015 10:28:54, USERNAME] DD String Found. Returning. (, M40065, CONC2002)
[09/30/2015 10:28:55, USERNAME] Symphony Item Range Synchronized Successful
[09/30/2015 10:29:42, USERNAME] Deactivating view: Symphony Synchronization
[09/30/2015 10:29:43, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 10:45:42, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 10:52:29, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 10:59:20, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 11:01:30, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 11:04:26, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 11:08:18, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 11:08:39, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 11:21:23, USERNAME] Deactivating view: Calendar of Events - MAI
[09/30/2015 11:42:52, USERNAME] Activating view: Location Maintenance - MAI
[09/30/2015 11:43:29, USERNAME] Deactivating view: Location Maintenance - MAI
[09/30/2015 11:43:36, USERNAME] Activating view: Inventory Item Maintenance
[09/30/2015 11:46:46, USERNAME] Deactivating view: Inventory Item Maintenance
[09/30/2015 11:46:53, USERNAME] Activating view: Location Maintenance - MAI
[09/30/2015 11:48:31, USERNAME] Deactivating view: Location Maintenance - MAI
[09/30/2015 11:49:00, USERNAME] Activating view: Event Initialization Screen
[09/30/2015 11:49:03, USERNAME] Deactivating view: Event Initialization Screen
[09/30/2015 11:49:06, USERNAME] Activating view: Event Calendar Maintenance
[09/30/2015 11:49:45, USERNAME] Deactivating view: Event Calendar Maintenance
```

Figure 3-4 - Tracking Configuration and Edits - Tangent. Log file

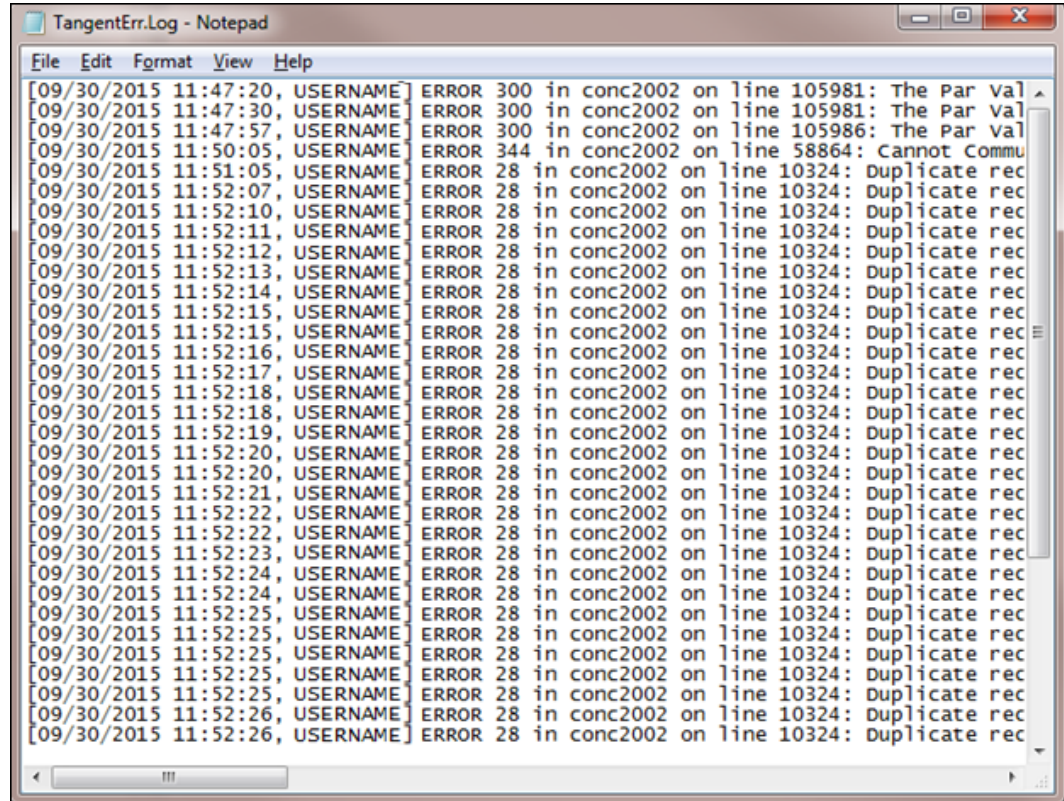
Error Logging

Errors that have occurred in the SimVen Back Office application are written to the **TangentErr.Log** file. The file (as seen in **Figure 3-5 - Tracking System Errors - TangentErr.Log**) lists the date and time the error occurred, the error number, where the error occurred, and the error message.

Accessing the TangentErr.Log file

To access and review the TangentErr.Log file:

Navigate to <Drive>:\SimVen\Data\TangentErr.Log and open the file using a text editor.



```
File Edit Format View Help
[09/30/2015 11:47:20, USERNAME] ERROR 300 in conc2002 on line 105981: The Par Val
[09/30/2015 11:47:30, USERNAME] ERROR 300 in conc2002 on line 105981: The Par Val
[09/30/2015 11:47:57, USERNAME] ERROR 300 in conc2002 on line 105986: The Par Val
[09/30/2015 11:50:05, USERNAME] ERROR 344 in conc2002 on line 58864: Cannot Commu
[09/30/2015 11:51:05, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:07, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:10, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:11, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:12, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:13, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:14, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:15, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:15, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:16, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:17, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:18, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:18, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:19, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:20, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:20, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:21, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:22, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:22, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:23, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:24, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:24, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:24, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:25, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:25, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:25, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:25, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:25, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:25, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:26, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
[09/30/2015 11:52:26, USERNAME] ERROR 28 in conc2002 on line 10324: Duplicate rec
```

Figure 3-5 - Tracking System Errors - TangentErr.Log

Simphony Venue Management Access Logging

The **Access Log** within SimVen Back Office tracks and records each login to the SimVen Back Office application. The Access Log tracks:

- Login Date
- Login Time
- Login User name
- Login View name
- Login Action

The Access Log also monitors unsuccessful logins.

Accessing the SimVen Access Log

To access and view the Access Log:

1. Navigate to the Back Office, Security, User's Security Setup, and click the **Access Log** tab.

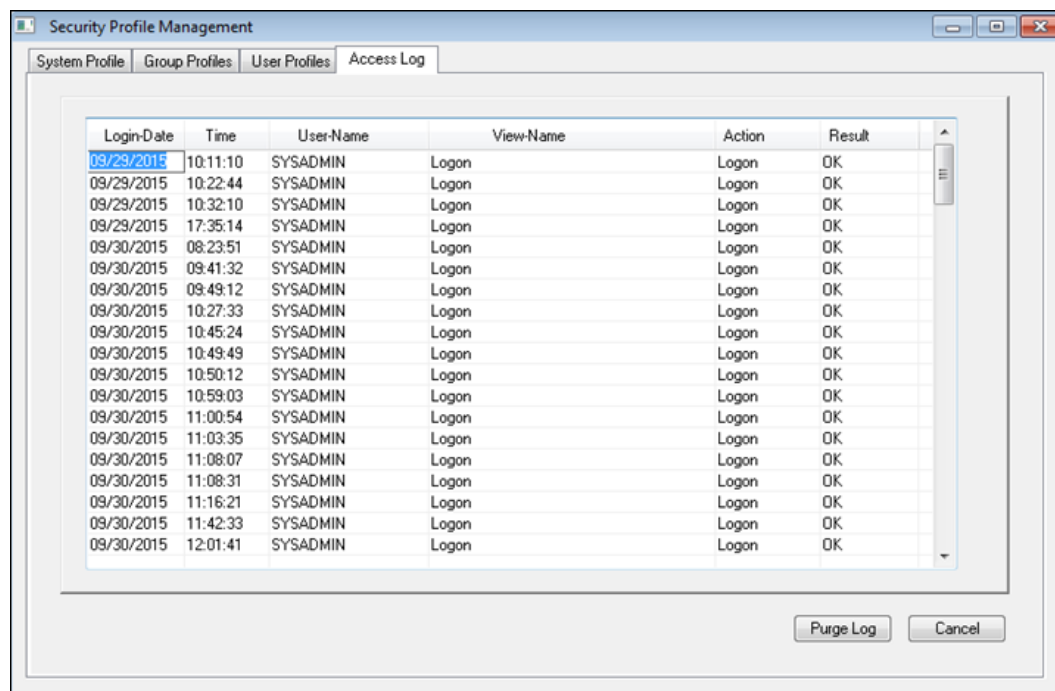


Figure 3-6 - Security Profile Management - Access Log tab

Appendix A Secure Deployment Checklist

The following security checklist includes guidelines that help secure your database:

- Install only what is required
- Lock and expire default user accounts
- Enforce password management
- Enable data dictionary protection
- Practice the principle of least privilege
 - Only grant the minimal amount of privileges to perform a job
 - Revoke unnecessary privileges from the PUBLIC user group.
 - Restrict permissions on run-time facilities
- Enforce access controls effectively and authenticate clients stringently
- Restrict network access
- Apply all security patches and workarounds
 - Use a firewall
 - Never poke a hole through a firewall
 - Protect the Oracle listener
 - Monitor Oracle listener activity
 - Monitor who accesses your systems
 - Check network IP addresses
 - Encrypt network traffic
 - Harden the operating system security

Appendix B Symphony Venue Management Port Numbers

Port Numbers

The following tables list port numbers that are used in Symphony Venue Management. Open only the minimum required ports based upon the installation type and deployment configuration.

Enterprise Ports

Table 3-2 - Enterprise Ports

| Service | Port Number | Configurable? |
|---|-------------|---------------|
| Database Default (Oracle) | 1521 | Yes |
| Database Default (Microsoft SQL Server) | 1433 | Yes |
| Tangent Web Service | 8081 | Yes |

Property Ports

Table 3-3 - Property Ports

| Service | Port Number | Configurable? |
|------------------------------|-------------|---------------|
| Tangent Win Service | 5050 | Yes |
| Venue Management Web Service | 8080 | Yes |