Contents

PART 1 Introduction 1

Chapter 1 • Documentation and Technical Support Overview ........................................ 3
Purpose of This Document ................................................................. 3
Target Audience .............................................................................. 3
Technical Support ............................................................................ 4

Chapter 2 • System and Installation Overview ......................................................... 5
System Architecture Overview .......................................................... 5
Migration and Upgrade Support ......................................................... 7
Installation, Configuration, and Post-Installation Procedures Outline ............... 7
Installation, Configuration, and Post-Installation Results ............................... 9

PART 2 Installation Preparation 13

Chapter 3 • Prepare for SAS Installation ................................................................. 15
Meet Pre-Installation Requirements for SAS 9.3 .............................................. 15
Create Server Users ............................................................................ 16
Confirm Use of Correct Java Development Kit .............................................. 16
Know Your Web Application Server ......................................................... 16
Understand JUnit Use If Needed .................................................................. 17
Verify the Operating System Requirements .................................................... 18
Perform SAS Intelligence Platform Pre-Installation Tasks ............................... 19

Chapter 4 • Prepare the Database .......................................................................... 21
Configure Oracle Databases ....................................................................... 21
Configure MySQL Databases ..................................................................... 23
Configure IBM DB2 Databases .................................................................... 24
Configure Microsoft SQL Server ................................................................... 26
Create Database Users .............................................................................. 27
Ensure Proper DB Client and JDBC Driver Setup ............................................ 28

PART 3 Installation and Configuration Process 31

Chapter 5 • Review the Installation and Configuration Process ................................ 33
Overview of the Install and Configure Sequence ............................................ 33

Chapter 6 • Run the SAS Deployment Wizard ....................................................... 35
Run the SAS Deployment Wizard in Install Mode ............................................ 35
Run the SAS Deployment Wizard in Configure Mode ..................................... 36
Recover from JBoss Configuration Failure Message ........................................ 43
Part 1

Introduction

Chapter 1
Documentation and Technical Support Overview ......................... 3

Chapter 2
System and Installation Overview ........................................... 5
Chapter 1

Documentation and Technical Support Overview

Purpose of This Document

This document provides installation and configuration information for the SAS Social Network Analysis Server and the SAS Financial Crimes Monitor.

Target Audience

The target audience for this document includes SAS administrators, database administrators, and system administrators using the SAS Social Network Analysis Server or the SAS Financial Crimes Monitor. For the purpose of this document, the SAS Administrator, the Database Administrator, and the System Administrator tasks are defined as follows:

SAS Administrator
- SAS administrators assign investigator roles to investigators for the SAS Social Network Analysis Server and administrator roles to the SAS Financial Crimes Monitor users.

Database Administrator
- Database administrators configure schema and database user IDs for use with the SAS Social Network Analysis Server and the SAS Financial Crimes Monitor.

System Administrator
- System administrators configure data sources, data stores, and investigation paths.
Technical Support

SAS Technical Support is the first group to contact regarding installation and configuration issues that are encountered. To contact SAS Technical Support, perform the following steps:

2. Select Contact Us.
3. Select the appropriate Web page or telephone number from the Support Contacts section of the page.
Chapter 2
System and Installation Overview

System Architecture Overview

The SAS Financial Crimes Monitor and the SAS Social Network Analysis Server are offerings included with the SAS Fraud Framework. The solution is designed to be optimized easily for various industries (for example, banking, insurance, health care, or government).

For purposes of installation and configuration, it is best to think of the system as divided into three sections—a client tier, a middle tier, and a data tier. The relationship of the tiers is shown in the following figure.
After the system is installed and configured and the post-installation tasks are completed, there are two entrance points, depending on the user and the type of access required. Administrators and analysts access the SAS Financial Crimes Monitor to set up projects and to define scenario groups and scenarios (including fraud detection, risk, second pass, scoring, routing, and suppression). Using the SAS Financial Crimes Monitor, users can also apply data enrichment to entities within scenarios, create managed lists, and use calculated fields to optimize project data. Investigators access the SAS Social Network Analysis Server to triage and manage alerts.

The solution includes three essential data models:

- **FINCRMDB**
  FINCRMDB is the default database used by the SAS Financial Crimes Monitor to store initial, development, and saved data.

- **SASSNADS**
  SASSNADS is the default database for SAS Social Network Analysis Server.

- **Out-of-the-Box Data Models**
  In some instances, SAS provides data models designed to manage the store of core data such as transactions and dimensions.

The following section describes the high-level process for installing, configuring, and performing post-installation tasks for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server.
## Migration and Upgrade Support

In the first maintenance release of the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server, the following migration and upgrade paths are supported.

<table>
<thead>
<tr>
<th>Source</th>
<th>Target</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Version 2.3</td>
<td>Version 2.3</td>
<td>Enables migration to other environments, such as from Development to Testing or Production.</td>
</tr>
<tr>
<td>Version 2.3</td>
<td>Version 2.3M1</td>
<td>Enables upgrading from Version 2.3 to the first maintenance release of the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server.</td>
</tr>
<tr>
<td>Version 2.3M1</td>
<td>Version 2.3M1</td>
<td>Enables migration to other environments, such as from Development to Testing or Production.</td>
</tr>
</tbody>
</table>

Refer to “Upgrading to The First Maintenance Release” on page 73 for information and resources to enable upgrading from Version 2.3 to the first maintenance release of the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server. For assistance with migration or upgrade issues, contact Technical Support as directed in “Technical Support” on page 4.

## Installation, Configuration, and Post-Installation Procedures Outline

The SAS Financial Crimes Monitor and the SAS Social Network Analysis Server can be upgraded from version 2.3 to the first maintenance release, or they can be installed as a first deployment. If you are upgrading to the first maintenance release, refer to “Upgrading to The First Maintenance Release” on page 73 for detailed information. If you are performing an initial installation, here are the high-level steps for installing, configuring, and performing post-installation tasks for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server:

### Installation and Configuration Procedure

1. Confirm that the pre-installation requirements for SAS 9.3, the system requirements for SAS 9.3, and the system requirements for both the SAS Financial Crimes Monitor 2.3 and the SAS Social Network Analysis Server 2.3 have been met.

   Note: If your process for running jobs through the SAS Financial Crimes Monitor includes automatic kickoff of projects, then you will need to make sure that you have a compatible scheduler installed that can launch the SAS program required to run jobs. Without a scheduler, jobs must be executed manually.

2. Create an operating system account that will be used to enable the SAS Financial Crimes Monitor to access the needed databases and system resources when a job is executed.
CAUTION: Avoid delays in the installation process. In some deployments, requests for user IDs must be submitted. If requests for user IDs need to be made, make the request early and confirm setup before proceeding with the process. Otherwise, delays for installing and configuring SAS software might be encountered.

3. Install third-party software:
   a. Install and configure one of the following databases:
      • Oracle Database
      • MySQL Server
      • IBM DB2
      • Microsoft SQL Server
      See “Prepare the Database” on page 21 for additional information about preparation of databases.
   b. Install one of the following Web application servers:
      • JBoss Application Server. See “Know Your Web Application Server” on page 16 for additional information about supported JBoss versions and configuration requirements.
      • IBM WebSphere Application Server
      • Oracle WebLogic Server

4. Launch the SAS Deployment Wizard and specify Install SAS Software.
   Note: If you are planning to set up an installation with multiple managed servers, you must select Custom (not Typical) from the SAS Deployment Wizard during the process in order to be presented with the option to install multiple managed servers.
   Use the SAS Deployment Wizard to install, but not configure, the following:
   a. SAS Foundation
   b. SAS/ACCESS
   c. SAS Financial Crimes Monitor. This includes the SAS Financial Crimes Monitor middle tier, which can be installed on the same machine as the SAS Financial Crimes Monitor server.
   d. SAS Social Network Analysis Server. This includes the SAS Social Network Analysis Server middle tier, which can be installed on the same machine as the SAS Social Network Analysis Server.

5. Run the SAS Deployment Wizard in configure mode to configure the installed SAS software.
   Note: Depending on the version of JBoss that you are using, you might have to perform a manual configuration task before the SAS Deployment Wizard configuration procedure can be completed. See “Know Your Web Application Server” on page 16 for additional information about supported JBoss versions and configuration requirements.

Post-Installation Procedure
1. Perform post-installation and configuration tasks for SAS 9.3, the SAS Financial Crimes Monitor, and the SAS Social Network Analysis Server:
SAS 9.3
a. Access the appropriate documentation resources for your operating system as indicated in “Perform Post-Installation Configuration for SAS 9.3” on page 47.
b. Follow the instructions to complete the post-installation steps for SAS 9.3.
c. Continue with the post-installation procedures for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server.

SAS Financial Crimes Monitor
a. Confirm that the LIBNAME statement is correct.
b. Assign groups to the SAS Financial Crimes Monitor: Admin role.

Note: At the end of the post-installation process for the SAS Financial Crimes Monitor, you will be able to log on to the SAS Financial Crimes Monitor, but you will be unable to create or save items until administration tasks have been completed. See SAS Social Network Analysis Server: Administration Guide for details about the administrative tasks that must be performed.

SAS Social Network Analysis Server
a. Import SAS stored processes from a SAS package.
b. Deploy the imported SAS stored processes as a Web service.
c. Add an Investigator group and investigators.

2. Access each application to ensure that the installation, configuration, and post-installation procedures were performed correctly. See “Installation, Configuration, and Post-Installation Results” on page 9 for a description of what to expect when you launch each application after completing the SAS Deployment Wizard installation and configuration process and the post-installation procedures.

---

Installation, Configuration, and Post-Installation Results

The process of completing the SAS Deployment Wizard installation and configuration procedure and performing the post-installation tasks for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server can take hours to complete. The result of completing the process yields a stable fraud detection system that is available to users through the specified Web browsers.

The system has two points of entry, based on configured users and the associated permission level. The SAS Financial Crimes Monitor enables users to create projects that generate alerts. Investigators have access to these alerts through the SAS Social Network Analysis Server. The SAS Social Network Analysis Server enables investigators to triage and manage alerts. The following image presents a simplified view of the user components available at the completion of the installation and configuration process.
After the installation, configuration, and post-installation procedures are complete for the SAS Social Network Analysis Server and the SAS Financial Crimes Monitor, each application can be launched from the designated Web addresses.

The SAS Financial Crimes Monitor opens to display the interface.

*Note:* Although you will be able to log in to the SAS Financial Crimes Monitor, you will not be able to create or save items until administration tasks have been completed. See *SAS Social Network Analysis Server: Administration Guide* for details about the administrative tasks that must be performed.

**Display 2.1  Example of Initial SAS Financial Crimes Monitor Window**

The SAS Social Network Analysis Server prompts to allow selection of an alert series if the user logging in has been configured for access to more than one alert series. If the user has not been configured to access an alert series or if at least one alert series has not been configured, a warning might be displayed. If all conditions are met, however, then the SAS Social Network Analysis Server opens to display an interface ready to list alerts and show the network diagram associated with entities defined through the SAS Financial Crimes Monitor.

*Note:* The Alert Disposition panel must be configured and enabled as a separate procedure. Refer to *SAS Social Network Analysis Server: Administration Guide* for detailed instructions for enabling and configuring the Alert Disposition panel.
Display 2.2  Example of an Initial SAS Social Network Analysis Window Showing No Alerts

Note: If post-installation procedures have not been completed properly, including configuration of analytic contexts and deployment of stored processes to populate the interface with data, then an error or warning might be presented after you log on to the SAS Social Network Analysis Server.

Display 2.3  Example of an Initial SAS Social Network Analysis Window

Further enhancements can be made to customize the applications. See \textit{SAS Social Network Analysis Server: Administration Guide} for additional configuration and customization features for the SAS Social Network Analysis server and the SAS Financial Crimes Monitor.
Part 2

Installation Preparation

Chapter 3
Prepare for SAS Installation ........................................... 15

Chapter 4
Prepare the Database ..................................................... 21
Chapter 3
Prepare for SAS Installation

Meet Pre-Installation Requirements for SAS 9.3

Create Server Users

Confirm Use of Correct Java Development Kit

Know Your Web Application Server

Understand JUnit Use If Needed

Verify the Operating System Requirements

Perform SAS Intelligence Platform Pre-Installation Tasks

The following table contains URLs to reference documentation for installing SAS 9.3 Foundation on UNIX and Microsoft Windows environments. Go to the URL that corresponds to the appropriate operating system and follow all the applicable steps on those pages.

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Title</th>
<th>URL</th>
</tr>
</thead>
</table>
Create Server Users

The SAS Financial Crimes Monitor and the SAS Social Network Analysis Server rely on an alert generation process to analyze data, perform rule-based and analytic processing, and then generate and display alerts from the analyzed data. To run the alert generation process, the solution requires an operating system user ID. You can assign this user ID operating system credentials or you can create an additional operating system user, such as femctrl. Since this user ID is an operating system ID, rely on best practices for your enterprise when making this decision.

If you do not already have an operating system account to use for running the alert generation process, then create one, or request one from your system administrator.

As a post-installation task, user IDs must be created in metadata and then the user IDs must be associated with the SAS Financial Crimes Monitor or the SAS Social Network Analysis Server, as appropriate.

For details about database users and access permissions, see “Create Database Users” on page 27.

Confirm Use of Correct Java Development Kit

Use the following URL to identify the version required for the specific hardware and operating environment:


Refer to the Java Development Kits (JDK) section at the URL. Be sure to get the JDK that matches your Web application server.

Note: It is not necessary to download a JDK if the IBM WebSphere Application Server is used in the deployment. The IBM WebSphere Application Server includes a specific version of the IBM JDK that is automatically installed and used.

Know Your Web Application Server

The SAS Financial Crimes Monitor and the SAS Social Network Analysis Server support the IBM WebSphere Application Server, Oracle WebLogic Server, and many versions of JBoss Application Server. For more information about these Web application servers, see the SAS 9.3 Support for Web Application Servers and HTTP Servers page at the following URL: http://support.sas.com/resources/thirdpartysupport/v93/appservers/index.html.

The SAS Financial Crimes Monitor and the SAS Social Network Analysis Server support a subset of the JBoss Application Servers. Make sure your JBoss Application Server is consistent with one of the ones listed in the following table.
<table>
<thead>
<tr>
<th>JBoss Application Server Versions Supported by the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>JBoss EAP 5.1.1</td>
<td>For performance optimization and to eliminate the need for manual configuration during the SAS Deployment Wizard configuration procedure, this is the recommended JBoss Application Server version.</td>
</tr>
<tr>
<td>JBoss EAP 4.3.0 CP08 through 4.3.0 CP10</td>
<td>Not recommended. Can be used, but you will receive a Configuration Failure error during the SAS Deployment Wizard configuration procedures. Several manual changes must be performed before the SAS Deployment Wizard configuration procedure can be completed. See “Recover from JBoss Configuration Failure Message” on page 43 for additional information.</td>
</tr>
<tr>
<td>JBoss EAP 4.3.0 through 4.3.0 CP07</td>
<td>Not recommended. Can be used, but you will receive a Configuration Failure error during the SAS Deployment Wizard configuration procedures. Several manual changes must be performed before the SAS Deployment Wizard configuration procedure can be completed. See “Recover from JBoss Configuration Failure Message” on page 43 for additional information.</td>
</tr>
<tr>
<td>JBoss AS (Community) 4.2.3</td>
<td>Not recommended. Can be used, but you will receive a Configuration Failure error during the SAS Deployment Wizard configuration procedures. Several manual changes must be performed before the SAS Deployment Wizard configuration procedure can be completed. See “Recover from JBoss Configuration Failure Message” on page 43 for additional information.</td>
</tr>
</tbody>
</table>

For more information about JBoss Application Server support for SAS 9.3, see the JBoss Application Server Support for SAS 9.3 page at the following URL:

http://support.sas.com/resources/thirdpartysupport/v93/appservers/jbosssw.html

For more information about the types of changes that are required for deployments including either JBoss AS (Community) 4.2.3 or any of the JBoss EAP versions between 4.3.0 and 4.3.0 CP07, inclusive, see “Recover from JBoss Configuration Failure Message” on page 43.

---

**Understand JUnit Use If Needed**

If the SAS Deployment Tester is installed in addition to the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server, then JUnit 4.8.1 is recommended. See the JUnit information that is provided on the SAS 9.3 Support for Additional Software Products page at the following URL:

http://support.sas.com/resources/thirdpartysupport/v93/othersw.html#tab_junit
Verify the Operating System Requirements

Before you install the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server, make sure that you meet the minimum system requirements that are described in the system requirements documentation. System requirements are unique for each operating system. Items that are addressed as system requirements include software requirements, hardware requirements, space requirements, specific product requirements, and graphics hardware and software compatibility.

To view system requirements for the SAS Financial Crimes Monitor:

2. Select the SAS 9.3 (TS1M0) System Requirements link.
   The Search page is displayed showing the Results Filter tab having focus with 9.3 selected as the SAS Release option.
3. Perform each of the following:
   a. From the Product menu on that Web page, select SAS Financial Crimes Monitor.
      The page updates to show linked documents meeting the criteria specified.
   b. Click the name of the desired link to access the system requirements document.
      The page that is displayed includes information about the server tier, the middle tier, and the client tier, as appropriate. Use the drop-down menus to select a target environment for which to display the requirements.

To view system requirements for the SAS Social Network Analysis Server:

2. Select the SAS 9.3 (TS1M0) System Requirements link.
   The Search page is displayed showing the Results Filter tab having focus with 9.3 selected as the SAS Release option.
3. Perform each of the following:
   a. From the Product menu on that Web page, select SAS Social Network Analysis Server.
      The page updates to show linked documents meeting the criteria specified.
   b. Click the name of the desired link to access the system requirements document.
      The page that is displayed includes information about the server tier, the middle tier, and the client tier, as appropriate. Use the drop-down menus to select a target environment for which to display the requirements.
Perform SAS Intelligence Platform Pre-Installation Tasks

For information about pre-installation tasks that are required to install the SAS Intelligence Platform, see the *SAS Intelligence Platform: Installation and Configuration Guide* at [http://support.sas.com/documentation/onlinedoc/intellplatform/index.html](http://support.sas.com/documentation/onlinedoc/intellplatform/index.html).
Chapter 4
Prepare the Database

Configure Oracle Databases ............................................. 21
  Product Documentation ............................................... 21
  Instructions for the SAS Financial Crimes Monitor and the
  SAS Social Network Analysis Server .............................. 22
Configure MySQL Databases ............................................ 23
  Product Documentation ............................................... 23
  Prerequisites .................................................................. 23
  Instructions for the SAS Financial Crimes Monitor and the
  SAS Social Network Analysis Server .............................. 24
Configure IBM DB2 Databases .......................................... 24
  Product Documentation ............................................... 24
  Instructions for the SAS Financial Crimes Monitor ......... 24
  Instructions for the SAS Social Network Analysis Server . 25
Configure Microsoft SQL Server ...................................... 26
  Product Documentation ............................................... 26
  Instructions for the SAS Financial Crimes Monitor ......... 26
  Instructions for the SAS Social Network Analysis Server . 25
Create Database Users .................................................. 27
Ensure Proper DB Client and JDBC Driver Setup ............... 28

Configure Oracle Databases

Product Documentation

Oracle Database 11g Release 2 Documentation Library: http://www.oracle.com/pls/db112/homepage

CAUTION:
Successful installation is driver-dependent. If you are using Oracle Database 11g Release 2, you must use the driver that is delivered with this release. Using any other driver version will result in operating issues and you might see connection errors in the log files.

Oracle Database 10g Release 2 Documentation Library: http://www.oracle.com/pls/db102/homepage
Instructions for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server

1. Install Oracle Database, and record the location of the Oracle JDBC drivers.
   
The location is typically $ORACLE_HOME/jdbc/lib.
   
   **Note:** The location must be provided to the SAS Deployment Wizard.

   If the SAS middle-tier software will be installed on a different machine, then copy the drivers to the machine that will be used for the SAS middle tier.

2. Create and configure a database and schema within Oracle Database.

   During this process, the hardware sizing, hardware configuration, global database settings, table space creation, and data files specification are performed.

   **Note:** The SAS Deployment Wizard defaults to a database that is named FINCRMDB for the SAS Financial Crimes Monitor and to a database that is named SASSNADS for the SAS Social Network Analysis Server, but the names referenced by the SAS Deployment Wizard can be changed during the installation.

   The creation of the databases is usually performed with the Oracle Database Configuration Assistant (DBCA).

   **Table 4.1** Field Values for the SAS Financial Crimes Monitor Configured with DBCA

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Database Name</td>
<td>FINCRMDB.my.domain.com</td>
</tr>
<tr>
<td>SID</td>
<td>FINCRMDB</td>
</tr>
</tbody>
</table>

   **Display 4.1** Example of DBCA Dialog Box Showing Values for Fields
Table 4.2  Field Values for the SAS Social Network Analysis Server Configured with DBCA

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global Database Name</td>
<td>SASSNADS.my.domain.com</td>
</tr>
<tr>
<td>SID</td>
<td>SASSNADS</td>
</tr>
</tbody>
</table>

Display 4.2  Example of DBCA Dialog Box Showing Values for Fields

For the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server, the SID will be used in the URL for the database connection:

url: jdbc:oracle:thin:@serverName.unx.example.com:1521:FINCRMDB

Configure MySQL Databases

Product Documentation


Select the appropriate version from left navigation pane at the Web site indicated previously.

Prerequisites

If the JDBC driver has not already been installed on the middle-tier machine, then download Connector/J from the following link:


Record the location of the JDBC drivers.

Note: The location must be provided to the SAS Deployment Wizard.
Instructions for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server

1. Install MySQL version 5.1 or 5.5.

   Note: Although the middle tier for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server supports MySQL 5.0, 5.1, and 5.5, the SAS (data tier) infrastructure (see Figure 2.1 on page 6) supports 5.1 and 5.5 only. For maximum compatibility, installation of MySQL 5.1 or 5.5 is recommended. For more information about SAS/ACCESS Interface to MySQL software, please see the MySQL chapter in SAS/ACCESS Software for Relational Databases: Reference.

2. Create and configure a database within MySQL, paying attention to the following:
   - In the my.ini file, configure the database so that the default engine type is InnoDB.
   - In the my.ini file, verify that the appropriate character set is specified.
     
     Note: Because UTF-8 encoding generally allows for the proper display and saving of characters related to a wide variety of languages, UTF-8 is the recommended Unicode setting.
   - SAS also suggests setting `innodb_flush_log_at_trx_commit` to 1 so that the transaction logs are flushed to disk after each transaction is committed.

   Note: The SAS Deployment Wizard defaults to a database that is named FINCRMDB for the SAS Financial Crimes Monitor and to a database that is named SASSNADS for the SAS Social Network Analysis Server, but the names referenced by the SAS Deployment Wizard can be changed during the installation.

Configure IBM DB2 Databases

Product Documentation


IBM DB2 Database for Linux, UNIX, and Windows Information Center: [http://publib.boulder.ibm.com/infocenter/db2luw/v9r7/index.jsp](http://publib.boulder.ibm.com/infocenter/db2luw/v9r7/index.jsp)

Instructions for the SAS Financial Crimes Monitor

1. Install DB2, and record the location of the JDBC drivers.

   The location is typically in the DB2 installation directory, in a directory that is named java. Identify which JDBC driver JAR file applies to the JDK that is used by the Web application server, and then copy that JAR file to a separate directory.

   Note: The directory name must be provided to the SAS Deployment Wizard. Make sure that this directory contains only the JAR file that will be needed.
If the SAS middle-tier software will be installed on a different machine, then copy the JDBC driver JAR file to that machine.

2. Create and configure a database.

The SAS Financial Crimes Monitor requires that the table space for the database uses a 32-kilobyte page size.

The following command is a sample SQL statement for creating the SAS Financial Crimes Monitor database instance:

```
create database FINCRMDB
    pagesize 32 k user tablespace
    managed by database
    using (file '/data01/fincrmdb/fincrmdb.dbf' 16184)
    autosize yes
    temporary tablespace
    managed by system
    using ('/data01/fincrmdb/user_tmp')
    extentsize 32
```

*Note:* The SAS Deployment Wizard defaults to a database that is named FINCRMDB for the SAS Financial Crimes Monitor, but the names referenced by the SAS Deployment Wizard can be changed during the installation.

---

**Instructions for the SAS Social Network Analysis Server**

1. Install DB2, and record the location of the JDBC drivers.

   The location is typically in the DB2 installation directory, in a directory that is named `java`. Identify which JDBC driver JAR file applies to the JDK that is used by the Web application server, and then copy that JAR file to a separate directory.

   *Note:* The directory name must be provided to the SAS Deployment Wizard. Make sure that this directory contains only the JAR file that will be needed.

   If the SAS middle-tier software will be installed on a different machine, then copy the JDBC driver JAR file to that machine.

2. Create and configure a database.

   The SAS Social Network Analysis Server requires that the table space for the database uses a 32-kilobyte page size.

   The following command is a sample SQL statement for creating the SAS Social Network Analysis Server database instance:

   ```
create database SASSNADS
    pagesize 32 k user tablespace
    managed by database
    using (file '/data01/sassnads/sassnads.dbf' 16184)
    autosize yes
    temporary tablespace
    managed by system
    using ('/data01/sassnads/user_tmp')
    extentsize 32
```

*Note:* The SAS Deployment Wizard defaults to a database that is named SASSNADS for the SAS Social Network Analysis Server, but the name referenced by the SAS Deployment Wizard can be changed during the installation.
Configure Microsoft SQL Server

Product Documentation


Instructions for the SAS Financial Crimes Monitor

1. Install SQL Server.
2. Create and configure a database.

The following command is a sample SQL statement for creating the SAS Financial Crimes Monitor database instance:

```sql
create database fincrmdb
on
( name = fincrmdbdat,
  filename = 'c:\sqlserver\datafiles\fincrmbdb.mdf',
  size = 5120,
  maxsize = 8192,
  filegrowth = 50 )
log on
( name = fincrmbdblog,
  filename = 'c:\sqlserver\transaction_logs\fincrmbdblog.ldf',
  size = 5120MB,
  maxsize = 8192MB,
  filegrowth = 50MB )
```

Note: The SAS Deployment Wizard defaults to a database that is named FINCRMDB for the SAS Financial Crimes Monitor, but the name referenced by the SAS Deployment Wizard can be changed during the installation.

Instructions for the SAS Social Network Analysis Server

1. Install SQL Server.
2. Create and configure a database.

The following command is a sample SQL statement for creating the SAS Social Network Analysis Server database instance:

```sql
create database SASSNADS
on
( name = snadat,
  filename = 'c:\sqlserver\datafiles\snadat.mdf',
  size = 5120,
  maxsize = 8192,
```
Create Database Users

Creating database user IDs before running the SAS Deployment Wizard is an optional task. The SAS Deployment Wizard requires information about how to connect to the database with JDBC, including user credentials, but it installs and configures the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server without connecting to the database. As a result, you can create database user IDs before running the SAS Deployment Wizard if it is more convenient or you prefer to do so.

The following tables list the default values for the user IDs and schemas.

**Table 4.3  SAS Financial Crimes Monitor User ID and Schema**

<table>
<thead>
<tr>
<th>User ID</th>
<th>FINCRMDB</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schema</td>
<td>FINCRMDB</td>
</tr>
</tbody>
</table>

*Note:* The *fincrmdb* user will be set up to authenticate into the database in a procedure defined in the *SAS Social Network Analysis Server: Administration Guide*. You can assign this user ID operating system credentials or you can create an additional operating system user, such as *fcmctrl*. Creating unique user IDs to enable one (for example, *fincrmdb*, the default User ID created during installation) to have standard permissions to access data and another (for example, *fcmctrl*) to enable the solution to access and execute the SAS code enables you to separate access controls.

**Table 4.4  SAS Social Network Analysis User ID and Schema**

<table>
<thead>
<tr>
<th>User ID</th>
<th>SNAUSER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schema</td>
<td>SASSNADS</td>
</tr>
</tbody>
</table>

*Note:* If you are using IBM DB2 and the database uses operating system user IDs for authentication, then you need to create a user ID named *snauser* to enable proper operation of the Social Network Analysis Server. See *Table 4.5 on page 28* for details about the access permissions.
The SNAUSER needs access to certain tables in the SAS Financial Crimes Monitor to be able to perform alert dispositioning through the SAS Social Network Analysis Server. The permissions required for the SNAUSER are outlined in the following table.

**Table 4.5 Access Permissions for SNAUSER**

<table>
<thead>
<tr>
<th>Access Permission</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SELECT or READ</td>
<td>Enables access to the FCM_ALERT* tables.</td>
</tr>
<tr>
<td>INSERT</td>
<td>Enables access to the FCM_ALERT_EVENT table.</td>
</tr>
<tr>
<td>UPDATE</td>
<td>Enables access to the FCM_ALERT table. Must be able to update FCMSEQUENCE table.</td>
</tr>
</tbody>
</table>

---

**Ensure Proper DB Client and JDBC Driver Setup**

As a post-installation task, you must run several database scripts provided with the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server to prepare and initialize your databases. These database scripts assume that a database client application is installed and available on the PATH.

If the database is not installed on the same machine as the server tiers for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server, then install the database client on the server-tier machine.

The SAS Financial Crimes Monitor and the SAS Social Network Analysis Server middle-tier Web applications require access to the databases through JDBC. If the database is installed on a different machine than the middle tier applications, then install the JDBC driver for the databases on the middle-tier machine.

The following table identifies the JDBC drivers for the databases that the SAS Social Network Analysis Server and the SAS Financial Crimes Monitor support.

**Table 4.6 JDBC Driver and Java Version Support**

<table>
<thead>
<tr>
<th>Database</th>
<th>Driver</th>
<th>Java Version</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Database</td>
<td>odjbc6.jar</td>
<td>Java 6</td>
<td>This includes a compatible version of JBoss 4.3 and Oracle WebLogic Server 11g.</td>
</tr>
<tr>
<td></td>
<td>Minimum version – 11.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MySQL Database</td>
<td>mysql-connector-java-5.1.13-bin.jar</td>
<td>Java 6</td>
<td></td>
</tr>
<tr>
<td>Database</td>
<td>Driver</td>
<td>Java Version</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------------</td>
<td>---------------------</td>
<td>--------------</td>
<td>-----------------------------------------------------------------------</td>
</tr>
<tr>
<td>IBM DB2</td>
<td>db2jcc4.jar;</td>
<td>Java 6</td>
<td>This includes a compatible version of JBoss 4.3 and Oracle WebLogic Server 11g.</td>
</tr>
<tr>
<td></td>
<td>v9.5fp6a_jdbc_sjql</td>
<td></td>
<td>Failure to use v9.5fp6a_jdbc_sjql will result in Hibernate exceptions being written to the log files.</td>
</tr>
<tr>
<td>Microsoft SQL Server</td>
<td>sqljdbc4.jar</td>
<td>Java 6</td>
<td>Provides support for JDBC 4.0.</td>
</tr>
</tbody>
</table>

Because the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server support a subset of the JBoss Application Servers, you must make sure your JBoss Application Server is consistent with one of the supported versions. See “Know Your Web Application Server” on page 16 for additional information about compatible JBoss versions.
Overview of the Install and Configure Sequence

The SAS Deployment Wizard has two modes: install and configure. It is important to run the wizard in install mode and then run the wizard a second time in configure mode. The following steps describe the sequence for a single-machine deployment and then for a multiple-machine deployment.

**Single-Machine Deployment**
1. Run the SAS Deployment Wizard in install mode.
2. Run the SAS Deployment Wizard in configure mode.

**Multiple-Machine Deployment**
In a multiple-machine deployment, start with the server-tier machine and follow the same order of install and then configure:
1. Run the SAS Deployment Wizard in install mode on the server-tier machine, and then on the middle-tier machine.
2. Run the SAS Deployment Wizard in configure mode on the server-tier machine, and then on the middle-tier machine.

After the SAS Deployment Wizard installation and configuration process has completed successfully, a series of post-installation tasks must be performed before the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server can be launched without error.
Chapter 5 • Review the Installation and Configuration Process
Run the SAS Deployment Wizard in Install Mode

As described in the previous section, it is important to run the SAS Deployment Wizard in install mode, and to specifically disable the configure mode. The following figure shows the wizard with only the install mode enabled.

Display 6.1  SAS Deployment Wizard: Install SAS Software
Note: During the installation process, when given the choice of either a custom or a typical installation, if you are performing a multiple-machine deployment, then you must select Custom (as opposed to Typical) to be presented with the appropriate multiple-deployment options during the process.

Display 6.2 Example of Selected Option for Multiple Managed Servers

After you have completed the installation procedure, you can launch the SAS Deployment Wizard and enter the configure mode to configure the software. This process is detailed in the following section.

Run the SAS Deployment Wizard in Configure Mode

Start the SAS Deployment Wizard in Configure Mode

The following figure shows the wizard with only the configure mode enabled.

Display 6.3 SAS Deployment Wizard: Configure SAS Software

The following sections describe the wizard pages that are used for configuring the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server during the configuration process of the SAS Deployment Wizard.
**Indicate Preference for Anonymous Web Access**

The SAS Deployment Wizard offers an option to enable anonymous Web access. The consequence of enabling this option is that the Web services and stored processes that are used in the SAS Social Network Analysis Server and the SAS Financial Crimes Monitor will not require authenticated credentials to be used. If this option is not selected, then all requests for the Web services and stored processes require credentials. This second option results in a more secure deployment.

**Display 6.4  Anonymous Web Access**

![Anonymous Web Access](image)

The SAS Financial Crimes Monitor and the SAS Social Network Analysis Server do not require anonymous Web access, so unless some other SAS software is deployed on the machine and requires it, do not enable this option.

**Configure the SAS Financial Crimes Monitor**

Within the SAS Deployment Wizard, you are asked a series of questions regarding the database required by the SAS Financial Crimes Monitor. Complete the following instructions.

1. Select the server database product from the **Database Type** list.

**Display 6.5  SAS Financial Crimes Monitor Server Database Type Selection**

![Database Type Selection](image)

Click **Next** to continue.
The SAS Financial Crimes Monitor Server Database Properties page is displayed, with default values.

2. At the SAS Financial Crimes Monitor Server Database Properties page, enter the appropriate values or accept the default values.

   *Note:* For Oracle servers, the entry in the **Database Name** field corresponds to the System ID (SID).

**Display 6.6 Database Properties Specific to MySQL Selection**

   *Note:* The fields displayed on this page are specific to the server database type selected on the previous page. So, for example, selecting Oracle as the server database type would present a new field, **Schema Name**, on the page.

Click **Next** to continue.

The SAS Financial Crimes Monitor Server Database Connection Properties page is displayed, showing the default value for the **Database Authentication Domain** field.

3. At the SAS Financial Crimes Monitor Server Database Connection Properties page, either accept the default value or enter a new value in the **Database Authentication Domain** field.
Click **Next** to continue.

The SAS Financial Crimes Monitor Mid-Tier page is displayed.

4. At the SAS Financial Crimes Monitor Mid-Tier page, indicate the location of the JDBC driver JAR files necessary to access your database server.

When you provide the directory that contains the JDBC driver JAR files, you need to browse to the directory that contains the JAR file. You do not need to select the JAR file, and the JAR filename does not appear in the text field on the wizard page.

**Note:** Make sure that the directory contains only the JAR file that is appropriate for the JDK version that is used by the Web application server. For more information about the JDBC driver JAR files, see “Ensure Proper DB Client and JDBC Driver Setup” on page 28.

**Display 6.7  Database Authentication Domain**

After indicating the directory containing the JAR file, click **Next** to continue.
The SAS Financial Crimes Monitor Mid-Tier Database User page is displayed, with the User ID field populated with a default value.

5. At the SAS Financial Crimes Monitor Mid-Tier Database User page, specify the user information for the database connection and then click Next to continue.

Display 6.9 Mid-Tier Database User Specification

This is the final page for the SAS Financial Crimes Monitor and, after clicking Next, the initial page for configuring the SAS Social Network Analysis Server is displayed.

Configure the SAS Social Network Analysis Server

Within the SAS Deployment Wizard, you are asked a series of questions regarding the JDBC database connection information required by the Social Network Analysis middle tier. Complete the following instructions:

1. Select the database product from the Database Type list.
Click Next.

The SAS Social Network Database JDBC Properties page is displayed, with default values populating several fields.

2. Enter appropriate values or ensure that the default values are correct. Indicate the directory that contains the JDBC driver JAR files for the database.

*Note:* For Oracle servers, the entry in the Database Name field corresponds to the System ID (SID).

**Display 6.11  JDBC Properties (Specific to MySQL Selection)**

*Note:* The fields displayed on this page are specific to the server database type selected on the previous page. So, for example, selecting Oracle as the server database type would present a new field, Schema Name, on the page.
When you provide the directory that contains the JDBC driver JAR files, you need to browse to the directory that contains the JAR file. You do not need to select the JAR file, and the JAR filename does not appear in the text field on the wizard page. Also, make sure that the directory contains only the JAR file that is appropriate for the JDK version that is used by the Web application server. For more information about the JDBC driver JAR files, see “Ensure Proper DB Client and JDBC Driver Setup” on page 28.

Click Next.

The SAS Social Network Analysis Mid-Tier Database User page is displayed, with the User ID field populated with a default value.

3. Specify the user information for the JDBC connection and then click Next to continue.

Note: Depending on your database selection, a default user ID might be displayed. If the default user ID is displayed, accept this user ID.

Display 6.12  JDBC Database User

This is the final page for the SAS Social Network Analysis middle tier.

At this point in the process, follow the instructions in the appropriate operating system-specific SAS 9.3 Foundation guide. See “Meet Pre-Installation Requirements for SAS 9.3” on page 15 for links to operation-specific documentation resources.
4. At the end of the prompting phase of the SAS Deployment Wizard configuration process, the Deployment Summary page is displayed.

**Display 6.13  Deployment Summary**

Click **Start** to begin the actual configuration process.

The configuration process begins with indicators displayed to show the progress of the configuration.

**Note:** If you have indicated use of JBoss AS (Community) 4.2.3 or JBoss EAP 4.3.0 through 4.3.0 CP07 for the SAS Financial Crimes Monitor, then the configuration process is interrupted and you are presented with a Configuration Failure error. If this occurs, follow the instructions in “Recover from JBoss Configuration Failure Message” on page 43 to complete the SAS Deployment Wizard configuration process.

**CAUTION:**

For an initial installation, complete the post-installation procedures for the solution. Before you can launch the SAS Financial Crimes Monitor or the SAS Social Network Analysis Server without error or issues, you must complete the post-installation instructions for each application. Failure to do so will yield unpredictable results.

---

**Recover from JBoss Configuration Failure Message**

At the end of the prompting phase of the SAS Deployment Wizard configuration process, you will click **Start** to begin the actual configuration process. If you have indicated use of JBoss AS (Community) 4.2.3 or JBoss EAP 4.3.0 through 4.3.0 CP07 for the SAS Financial Crimes Monitor, then you will be presented with a Configuration Failure message.
The following figure shows the Configuration Failure message displayed during the SAS Deployment Wizard configuration phase of the Installation and Configuration process.

**Display 6.14  SAS Deployment Wizard: Configuration Failure Message**

You will have to modify a specific directory to remove several files before the SAS Deployment Wizard can complete the configuration process successfully.

**Note:** These file deletions are not needed for JBoss EAP 4.3.0 CP08 (and later) Cumulative Patch releases.

1. For the installations including the JBoss Application Server versions mentioned previously, when the Configuration Failure error is displayed during the SAS Deployment Wizard configuration process, navigate to the following directory.

   `<JBOS_HOME>/server/SASServer8/deploy_sas/sas.financialcrimesmonitor2.3.ear/sas.sso.fcmsserver.war/WEB-INF/lib/`

2. Delete the following files:
   - `ejb3-persistence.jar`
   - `hibernate-annotations.jar`
   - `hibernate-commons-annotations.jar`
   - `hibernate-validator.jar`
   - `hibernate3.jar`

3. At the Configuration Failure message, click **Retry** to continue with the SAS Deployment Wizard configuration procedure.
Part 4

Post-Installation Tasks

Chapter 7
Perform Post-Installation Steps for SAS 9.3

Chapter 8
Perform Post-Installation Steps for Databases

Chapter 9
Perform Post-Installation Steps for SAS Financial Crimes Monitor

Chapter 10
Perform Post-Installation Steps for SAS Social Network Analysis Server
Chapter 7
Perform Post-Installation Steps for SAS 9.3

Perform Post-Installation Configuration for SAS 9.3

Table 7.1 SAS 9.3 Configuration References

<table>
<thead>
<tr>
<th>Operating System</th>
<th>Document</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Foundation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Foundation</td>
<td></td>
</tr>
<tr>
<td>x64</td>
<td>Foundation</td>
<td></td>
</tr>
</tbody>
</table>
Chapter 8
Perform Post-Installation Steps for Databases

Post-Installation Database Setup Overview ................................................................. 49
Create Database Tables ............................................................................................... 50
  SAS Financial Crimes Monitor Tables and Sequences .............................................. 50
  SAS Social Network Analysis Server Tables and Sequences ................................. 50
  Additional Resources ............................................................................................... 51

Post-Installation Database Setup Overview

This chapter describes the process for creating tables to allow the proper operation of the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server. During installation and configuration, database schemas and database users were defined. These databases and users must be created. If necessary, work with the Database Administrator to ensure that these tasks have been completed. See “Create Database Users” on page 27 for the permissions that must be granted to the SAS Social Network Analysis Server database user role. This user requires access to several of the SAS Financial Crimes Monitor tables to be able to manage and triage alerts.

To continue with the table creation procedure in the following section, make sure you have the following information:

- SAS Financial Crimes Monitor Database User (FINCRMDB by default) account details
- SAS Social Network Analysis Server Database User (SNAUSER by default) account details
- SAS Financial Crimes Monitor Schema (FINCRMDB by default) details, if necessary
- SAS Social Network Analysis Server Schema (SASSNADS by default) details, if necessary
- Database details
Create Database Tables

SAS provides a set of scripts, based on database type, to create the tables needed. The tables must be created for the SAS Financial Crimes Monitor and for the SAS Social Network Analysis Server.

SAS Financial Crimes Monitor Tables and Sequences

The scripts to create and alter or drop the SAS Financial Crimes Monitor tables and sequences, listed in the following table, are located in one of the following directories, depending on the operating environment.

Windows Specifics

!SASROOT\fincrm\misc\dbmc\ddl\n
UNIX Specifics

!SASROOT/misc/fincrm/misc/dbmc/ddl/

When performing an initial installation (as opposed to an upgrade), then both of the scripts in the Create and Alter Table Scripts column listed in the following table must be run for your database type. First run the fcm_ddl_.sql script and then run the fcm_alter_script_.sql script.

Note: If you are performing an upgrade from the SAS Financial Crimes Monitor 2.3 to the SAS Financial Crimes Monitor first maintenance release, then you should run the appropriate fcm_alter_script_.sql script; you do not have to run the fcm_ddl_.sql script.

<table>
<thead>
<tr>
<th>Database Type</th>
<th>Create and Alter Table Scripts</th>
<th>Drop Table Scripts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle</td>
<td>fcm_ddl_oracle.sql</td>
<td>fcm_drop_scripts_oracle.sql</td>
</tr>
<tr>
<td></td>
<td>fcm_alter_script_oracle.sql</td>
<td></td>
</tr>
<tr>
<td>MySQL</td>
<td>fcm_ddl_mysql.sql</td>
<td>fcm_drop_scripts_mysql.sql</td>
</tr>
<tr>
<td></td>
<td>fcm_alter_script_mysql.sql</td>
<td></td>
</tr>
<tr>
<td>IBM DB2</td>
<td>fcm_ddl_db2.sql</td>
<td>fcm_drop_scripts_db2.sql</td>
</tr>
<tr>
<td></td>
<td>fcm_alter_script_db2.sql</td>
<td></td>
</tr>
<tr>
<td>Microsoft SQL Server</td>
<td>fcm_ddl_ms.sql</td>
<td>fcm_drop_scripts_ms.sql</td>
</tr>
<tr>
<td></td>
<td>fcm_alter_script_ms.sql</td>
<td></td>
</tr>
</tbody>
</table>

SAS Social Network Analysis Server Tables and Sequences

The scripts to create or drop the SAS Social Network Analysis Server tables and sequences, listed in the following table, are located in one of the following directories, depending on the operating environment.

Windows Specifics
### UNIX Specifics

*/SASROOT/misc/snamva/dbmsc/ddl/*

<table>
<thead>
<tr>
<th>Database Type</th>
<th>Create Table Script</th>
<th>Drop Table Script</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle</td>
<td>create_table_trans_orcl.sql</td>
<td>drop_objects_trans_orcl.sql</td>
</tr>
<tr>
<td>MySQL</td>
<td>create_table_trans_mysql.sql</td>
<td>drop_objects_trans_mysql.sql</td>
</tr>
<tr>
<td>IBM DB2</td>
<td>create_table_trans_db2.sql</td>
<td>drop_objects_trans_db2.sql</td>
</tr>
<tr>
<td>Microsoft SQL Server</td>
<td>create_table_trans_sqlserver.sql</td>
<td>drop_objects_trans_sqlserver.sql</td>
</tr>
</tbody>
</table>

### Additional Resources

Within the directories containing the scripts for the SAS Financial Crimes Monitor, you will also find the following comprehensive database documentation:

- Data dictionary for the SAS Financial Crimes Monitor database:
  - SAS_Financial_Crimes_Monitor_23_DataDictionary.rtf

- Data model for the SAS Financial Crimes Monitor database:
  - SAS_Financial_Crimes_Monitor_23_DataModel.pdf
Chapter 9
Perform Post-Installation Steps
for SAS Financial Crimes Monitor

Post-Installation Procedure for the SAS Financial Crimes Monitor

Confirm That the LIBNAME Statement Is Correct

Initialize Users and Groups

Assign Groups to the SAS Financial Crimes Monitor:Admin Role

Post-Installation Procedure for the SAS Financial Crimes Monitor

At the successful completion of the SAS Deployment Wizard installation and configuration procedures, the application is installed, the default Administrator role is created, and the application server context (either SASApp by default or a user-assigned name), is created. At this point, it is not possible to successfully log on to the SAS Financial Crimes Monitor without performing the procedure described in the following section.

Confirm That the LIBNAME Statement Is Correct

During installation and configuration, you are prompted to accept default values or, in some cases, to specify unique values for your deployment. The entries added to the SAS Deployment Wizard are used to create a LIBNAME statement that is written to the SAS autoexec.sas file. Before you can access the SAS Financial Crimes Monitor, you must confirm that the LIBNAME statement written to the SAS autoexec.sas file is correct. If the LIBNAME statement is incorrect, you must edit the statement to ensure that it is accurate. If this statement is not correct, then the SAS Financial Crimes Monitor will be unable to connect to the database and users will be unable to create projects.

The autoexec.sas file is located in the following directory:

Windows Specifics
\<SASConfig>\Lev1\Applications\SASFinancialCrimesMonitor2.3\n
UNIX Specifics
\<SASConfig>\Lev1\Applications\SASFinancialCrimesMonitor2.3/

To confirm or modify the LIBNAME specification:

1. Locate the autoexec.sas file in the appropriate directory listed above.
2. Open the autoexec.sas file using SAS 9.3.
3. Locate the LIBNAME specification line that is preceded by the following comment:
/* FCM model tables */

Note: The line written to the file is consistent with the database type that was installed and configured. The following example shows a sample for a MySQL database installation and configuration.

Display 9.1 Example of the LIBNAME Entry in the SAS autoexec.sas File

4. Ensure that the LIBNAME statement is written correctly and that the values specified are accurate for your deployment.

5. If you modified the file, make sure that you save it before closing the file and exiting SAS 9.3.

Initialize Users and Groups

Administrators use the SAS Financial Crimes monitor to manage projects and scenarios. Investigators use the SAS Social Network Analysis Server to triage and manage alerts. Access to the SAS Social Network Analysis Server and to the SAS Financial Crimes Monitor is controlled by SAS metadata permissions on metadata folders.

Assign Groups to the SAS Financial Crimes Monitor:Admin Role

At the completion of the installation process, SAS Financial Crimes Monitor is installed with a default role named Financial Crimes Monitor:Admin added to metadata. This is a universal role without limitations to tasks that can be performed. Only groups (or users) assigned to this role are able to access the SAS Financial Crimes Monitor and perform tasks.

Note: Initializing users and groups as described in the following procedure allows the users to log on to the SAS Financial Crimes Monitor. The users will be unable to create projects or to execute jobs until the setup procedure, as described in the SAS Social Network Analysis Server: Administration Guide, is completed.

1. Use the User Manager plug-in to SAS Management Console to create a group that will be assigned membership to the SAS Financial Crimes Monitor:Admin role.

   This group needs to be assigned the Financial Crimes Monitor:Admin role so that administrators have Read and Write access to the database used by the SAS Financial Crimes Monitor.

2. At the User Manager plug-in, select the group that you created, right-click and select Properties.
3. Select the **Groups and Roles** tab, and assign this group to the Financial Crimes Monitor:Admin role.

If additional groups are needed, create the groups and add them to the role as well. Only group members and users with assignment to this role will be granted access to the SAS Financial Crimes Monitor.

At the completion of the entire installation procedure, you can now log on to the SAS Financial Crimes Monitor, generally by accessing a URL that is similar to the following examples:

<table>
<thead>
<tr>
<th>Application Server</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>JBoss Application Server</td>
<td><a href="http://hostname.example.com:8780/SASFINCRM">http://hostname.example.com:8780/SASFINCRM</a></td>
</tr>
<tr>
<td>Oracle WebLogic Server</td>
<td><a href="http://hostname.example.com:7801/SASFINCRM">http://hostname.example.com:7801/SASFINCRM</a></td>
</tr>
<tr>
<td>IBM WebSphere Application Server</td>
<td><a href="http://hostname.example.com:9087/SASFINCRM">http://hostname.example.com:9087/SASFINCRM</a></td>
</tr>
</tbody>
</table>

See “Installation, Configuration, and Post-Installation Results” on page 9 for a description of what to expect upon logging on to the solution for the first time.
Chapter 10
Perform Post-Installation Steps for SAS Social Network Analysis Server

Purpose of Post-Installation Procedures for the SAS Social Network Analysis Server

The SAS Social Network Analysis Server is a customizable offering included within the SAS Fraud Framework solution. Administrators and analysts work together to create an environment consistent with the needs of the business user.

The procedures outlined in the following sections include setting up the SAS Social Network Analysis Server with sample content provided by SAS. Instructions are also provided to enable you to define users and groups that will be created to access the sample content.

The users and groups defined in this chapter are created specifically to perform the following actions:

- access the provided sample content
- log on to the SAS Social Network Analysis Server

In practice, however, the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server are designed to work together and, for certain operations, share the FCM schema, as outlined in the SAS Social Network Analysis Server: Administration Guide. To use the offerings in conjunction with one another, you must follow the guidance provided in the SAS Social Network Analysis Server: Administration Guide. The information in this chapter is provided as a way of demonstrating the success of the installation of the SAS Social Network Analysis Server. It is not intended as a procedure to allow full user access (of both offerings) or full use of the SAS Social Network Analysis Server.

The following figure shows the stand-alone operation of the SAS Social Network Analysis Server as configured for the purpose of validating the installation.
As shown in the preceding image, the installation and configuration procedure does not include integration with the SAS Financial Crimes Monitor. The following procedures are described in this chapter.

- importing SAS Stored Processes from a SAS package
- deploying the imported SAS Stored Process as a Web service
- initializing users and groups

### Import SAS Stored Processes and Deploy Web Services

#### Overview

The SAS Social Network Analysis Server shows alerts that are generated by the alert generation process. For alert viewing, SAS Stored Processes are deployed as Web services, and the SAS Social Network Analysis Server displays the alerts that are read by the SAS Stored Processes.

#### Import SAS Stored Processes from a SAS Package

SAS provides template SAS Stored Process metadata in a SAS package file. To import a template SAS package, perform the following steps:

1. Using SAS Management Console, select the **Folders** tab and navigate to `/System/Applications/SAS Social Network Analysis/Social Network Analysis 2.3`.
2. Right-click the **Social Network Analysis 2.3** folder and select **Import SAS Package**.
3. Select the **Browse** button and navigate to the location of the template SAS package file:

**UNIX Specifics**

```
!SASROOT/misc/snamva/Template.spk
```

**Windows Specifics**

```
!SASROOT\snamva\sasmisc\Template.spk
```

a. Ensure that the **Include access controls** check box is **not** selected.

b. Select **Next**.

4. At the Select Objects to Import page, make sure each stored process is selected.

**Display 10.2 Import SAS Package: Select Objects to Import**

Click **Next** to continue.

*Note:* You might be presented with an Import Warning dialog box that displays a caution message regarding not importing entries and associations related to
access control entries (ACEs) or an access control template (ACT). Click Yes to continue. Your installation will continue without an error related to this warning.

**Display 10.3**  Template Warning Dialog Box That Might Appear during SAS Package (SPK) File Import

5. Select Next on the About Metadata Connections page.
6. Select SASApp as the target application server on the SAS Application Servers page, and then click Next.
7. Select Add on the Source Code Repositories page, and provide the directory name:
   - **UNIX Specifics**
     `<SASHome>/SASFoundation/9.3/sasstp/snamva`
   - **Windows Specifics**
     `<SASHome>\SASFoundation\9.3\namva\sasstp`
8. Use the Target menu to select the directory that was just added, and then click Next.
9. Review the Summary page, and then click Next.
10. Confirm that the import process completed successfully, and then click Finish.

**Deploy the Imported SAS Stored Processes as a Web Service**

After the SAS package file is imported, metadata is associated with the SAS program code for the stored processes in the SAS installation directory. The code for the stored processes can be modified at any time to configure the display of alerts and social networks on the investigator user interface. However, they are deployed as a Web service now, even though the SAS program code can be customized later.

The stored processes include paths to the SAS source code in the Microsoft Windows environment. In addition, the paths corresponding to the same location in the UNIX environment are included in a line that is commented out.

If your deployment is on a UNIX platform, then use the following procedures titled Specify UNIX Path Directories and Deploy Stored Processes. If your deployment is on the Microsoft Windows environment, then use only the following procedure titled Deploy Stored Processes.

**Specify UNIX Path Directories**

The following stored processes require updates:

- `getActionableEntities.sas`
- `getMoreSocialNetworkNodesAndLinks.sas`
- `getSocialNetworkNodesAndLinks.sas`
- `getSubAlerts.sas`
Each stored process file contains a LIBNAME statement that points to a MAP file in the Microsoft Windows environment, as well as a commented-out LIBNAME statement that points to the same MAP file on the UNIX platform.

1. Locate the stored process files in the following UNIX directory:

   `<SASHome>/SASFoundation/9.3/sasstp/snamva`

2. For each of the stored processes listed previously, open the file, comment out the Microsoft Windows LIBNAME statement, and uncomment the UNIX-related LIBNAME statement.

   For example, in the `getActionableEntities.sas` file, comment out the following line:

   ```sas
   libname response xml92 xmlmap='!sasroot\snamva\sasmisc\xml\map\getActionableEntities.map';
   ```

   And uncomment this:

   ```sas
   libname response xml92 xmlmap='!sasroot/misc/snma/xml/map/getActionableEntities.map';
   ```

   **Display 10.4  Example Showing LIBNAME Statements That Require Attention**

3. Save your changes to complete the file update process.

**Deploy Stored Processes**

1. Use the **Folders** tab of SAS Management Console to navigate to the folder that was just imported to the `/System/Applications/SAS Social Network Analysis/Social Network Analysis 2.3` folder.

2. Select the **Template** folder, unless it has been renamed. If the folder has been renamed, select the renamed folder. The stored process icons appear in the right pane.

3. Deploy the alerts-related Web service. Hold down the CTRL key and click to select the following stored process icons:
   - `getActionableEntities`
   - `getChartSeries`
   - `getAlertTransactions`
   - `getSubAlerts`
   - `processAlertResponse`

4. Right-click one of the selected icons and select **Deploy As Web Service**. The Deploy As Web Service wizard starts.

5. On the Web Service Information page, confirm or set the following values:
   - Select the default value for **Web Service Maker URL** from the menu.
• Make sure that **New Web Service Name** is set to the value of **TemplateAlerts**. However, if the folder was renamed to a value such as **Healthcare**, then the **New Web Service Name** must be **HealthcareAlerts**.

• The choice of credentials to use does not matter.

Click Next.

6. On the Web Service Keywords and Namespace page, provide the following value for the **Namespace** field:

   `http://sas.com/sso/fraud/alerts`

   Click Next.

7. Confirm the settings and then click **Finish**.

8. Deploy the social network-related Web service using a method that is similar to deploying the alerts-related Web service. Hold down the CTRL key and click to select the following stored process icons:

   • `getSocialNetwork`
   • `getSocialNetworkNodeDetails`
   • `growSocialNetworkNode`

9. Right-click one of the selected icons and select **Deploy As Web Service**.

   The **Deploy As Web Service Wizard** starts.

10. On the Web Service Information page, confirm or set the following values:

    • Use the default value for **Web Service Maker URL**.
    • Make sure that **New Web Service Name** is set to the value of **TemplateSocialNetworkAnalysis**. However, if the folder was renamed to a value such as **Healthcare**, then the **New Web Service Name** must be **HealthcareSocialNetworkAnalysis**.
    • The choice of credentials to use does not matter.

    Click Next.

11. On the Web Service Keywords and Namespace page, provide the following value for the **Namespace** field:

    `http://sas.com/sso/fraud/sna`

    Click Next.

12. Confirm the settings and then click **Finish**.

If the deployment completes successfully, two new Web services (**TemplateAlerts** and **TemplateSocialNetworkAnalysis**) are deployed. You can confirm successful deployment by reviewing the entries under the Configuration Manager within SAS Application Infrastructure at the BI Webservices for Java 9.3 node.
Initialize Users and Groups

Investigators use the SAS Social Network Analysis Server to review, triage, or manage alerts. Administrators use the SAS Financial Crimes monitor to manage projects and scenarios. Access to the SAS Financial Crimes Monitor and to the SAS Social Network Analysis Server is controlled by SAS metadata permissions on metadata folders.

Add an Investigator Group and Investigators

Investigators access the SAS Social Network Analysis Server to view alerts. Access to the SAS Social Network Analysis Server is controlled with explicit ReadMetadata permission on a metadata folder. A metadata folder is created when a SAS package file (SPK file) is imported into metadata (or metadata folders can be created through the SAS Management Console for each analytic domain). The metadata folder contains metadata for the SAS Stored Processes that read the alerts generated by the alert generation process and display them through the SAS Social Network Analysis Server. Users can be added and removed from an investigator group at any time.

Note: Creation of the Investigator Group and the addition of investigator users enables the defined groups and investigators to log on to the SAS Social Network Analysis Server within the permissioned analytic domain. Perform this procedure to complete the installation and log on to the SAS Social Network Analysis Server. This enables you to verify successful installation and configuration. The logged-on user will not be able to perform alert disposition tasks. Rely on the information in the SAS Social Network Analysis Server: Administration Guide to set up and define true solution users.

1. Use the User Manager plug-in to SAS Management Console to create a group for the investigators. The group can be named according to the type of activity that the
group investigates, or perhaps by geographical location. For example, you might create a group named SNA Investigators.

2. Click the Folders tab and navigate to /System/Applications/SAS Social Network Analysis/Social Network Analysis 2.3/Template. If the folder was renamed when the Template.spk file was imported, then the folder name will be different.

3. Right-click the folder icon and select Properties.

4. Select the Authorization tab and click Add.

   The Add Users and Groups dialog box appears.

5. Select the group name, such as SNA Investigators, from the list, select the right-arrow icon, and click OK. The Add Users and Groups dialog box closes.

6. Select the group that you just added to the Users and Groups list.

7. In the Effective Permissions area, confirm that the ReadMetadata permission is set to Grant and click OK.

8. Select the Plug-ins tab and use the User Manager plug-in to add investigative users. As each user is added, use the Groups and Roles tab to make the user a member of the investigative group.

Investigative users can belong to more than one investigative group. For example, an investigator can be a member of a group that investigates check fraud and a member of a group that investigates wire fraud. However, when creating and assigning groups, do not nest groups because this might result in unpredictable results.

At the completion of the entire installation procedure, you can log on to the SAS Social Network Analysis Server (but you will not be able to disposition alerts). You log on by accessing a URL that is similar to the following examples:

<table>
<thead>
<tr>
<th>Application Server</th>
<th>URL</th>
</tr>
</thead>
<tbody>
<tr>
<td>JBoss Application Server</td>
<td><a href="http://hostname.example.com:8780/SASSNA">http://hostname.example.com:8780/SASSNA</a></td>
</tr>
<tr>
<td>Oracle WebLogic Server</td>
<td><a href="http://hostname.example.com:7801/SASSNA">http://hostname.example.com:7801/SASSNA</a></td>
</tr>
<tr>
<td>IBM WebSphere Application Server</td>
<td><a href="http://hostname.example.com:9087/SASSNA">http://hostname.example.com:9087/SASSNA</a></td>
</tr>
</tbody>
</table>

See “Installation, Configuration, and Post-Installation Results” on page 9 for a description of what to expect upon logging in to the solution for the first time.
Part 5

Optional Features

Chapter 11
Implement Optional Features .............................. 67
Chapter 11
Implement Optional Features

Comments Feature .............................................................. 67
Integrating with a Geographic Map Service ............................... 68
Extract EAR File Contents ................................................... 69
Re-create the EAR File ......................................................... 70

Comments Feature

For deployments that include the SAS Business Intelligence Server, a commenting feature can be enabled. Enabling this feature results in providing investigators with an opportunity to associate comments with the actionable entity for an alert and with nodes in a social network diagram. The comments are stored in the database that is used for SAS Shared Services.

The following display shows an example of the commenting feature and highlights the New Topic button that is used to add comments.

CAUTION:
Manual configurations can be overwritten. During an upgrade using the SAS Deployment Wizard, manual updates such as the one described here are overwritten and must be implemented again after the update.
To enable the commenting feature, perform the following steps:

1. Extract the sas.socialnetworkanalysis2.3.ear file to a temporary location. For more information, see “Extract EAR File Contents” on page 69.

2. Edit the `WEB-INF/classes/config.properties` file and add the following property:
   ```
   use.commentservices=true
   ```

3. Edit the config.xml file to enable this feature. Here is the code showing the feature enabled.
   ```
   <useCommentManager>true</useCommentManager>
   ```

4. Re-create the sas.socialnetworkanalysis2.3.ear file. For more information, see “Re-create the EAR File” on page 70.

**Note:** Do not use DEBUG-level logging for the SAS Social Network Analysis Web application when the commenting feature is enabled. If DEBUG-level logging is set, then attempting to add a comment results in an exception for the investigator in the user interface, and the comment is not stored.

---

**Integrating with a Geographic Map Service**

The SAS Social Network Analysis Server can integrate with a geographic map service. When this feature is enabled, a social network can be displayed with a background that is provided by the map service. The social network diagram can integrate with either Esri ArcGIS Online Map Service or a MAPNIK Open Street Map layer for OpenScales.

The following list identifies the requirements for integrating a geographic map service:

- You must provide a URL to the map service for deployments that use Esri ArcGIS Online Map Service.
- Latitude and longitude variables with coordinate values must be present in the data set that represents the social network diagram nodes.

**CAUTION:**

*Manual configurations can be overwritten.* During an upgrade using the SAS Deployment Wizard, manual updates such as the one described here are overwritten and must be implemented again after the update.

To enable the geographic map service feature, perform the following steps:

1. Extract the sas.socialnetworkanalysis2.3.ear file to a temporary location. For more information, see “Extract EAR File Contents” on page 69.

2. Edit the config.xml file to add information about the map service. The following code shows sample values:
   ```
   <mapService>
   <!-- Use <type>ESRI</type> for Esri ArcGIS Online Map Service -->
   <!-- Use <type>OpenScalesMap</type> for a MAPNIK OpenStreetMap Service -->
   <type>ESRI</type>
   <url>http://hostname.example.com/urlForMapService</url>
   </mapService>
   ```

**Note:** Do not use a URL element for an OpenScales deployment.
3. Re-create the sas.socialnetworkanalysis2.3.ear file. For more information, see “Re-create the EAR File” on page 70.

When this feature is enabled and investigators view social network diagrams that use data sets with latitude and longitude variables, the Map icon (🌍) is visible. Clicking the Map icon changes the social network diagram background to the map that is provided by the map service.

### Extract EAR File Contents

Several configuration or post-installation tasks call for you to extract the contents of either the sas.socialnetworkanalysis2.3.ear file or the sas.financialcrimesmonitor2.3.ear file to a temporary location so that the contents can be modified. Here are the general steps to accomplish this task.

1. Stop the SAS Social Network Analysis Server Web application or the SAS Financial Crimes Monitor Web application, as appropriate.
2. Undeploy the sas.socialnetworkanalysis2.3.ear file or the sas.financialcrimesmonitor2.3.ear file.
   
   **Note:** For JBoss Application Server installations, undeploying the EAR file can be done by moving the EAR file out of the sas_deploy directory. For Oracle WebLogic Server or IBM WebSphere Application Server, use the administrative console to undeploy the EAR file.

3. Make a backup copy of the EAR file.

4. Make a temporary directory and extract the EAR file. The following sample commands show Microsoft Windows syntax to extract the EAR file for the SAS Social Network Analysis Server.

   ```
   md eartemp
   cd eartemp
   jar -xf ..\sas.socialnetworkanalysis2.3.ear
   ```

   The WAR file is extracted to the temporary location. In this example, the sas.sso.snaserver.war file is extracted to the temporary location.

5. Return to the original temporary directory:

   ```
   cd ..
   ```

6. Make another temporary directory and extract the WAR file. The following sample commands show Microsoft Windows syntax to extract the WAR file for the SAS Social Network Analysis Server.

   ```
   md wartemp
   cd wartemp
   jar -xf ..\eartemp\sas.socialnetworkanalysis2.3.ear\sas.sso.snaserver.war
   ```
Re-create the EAR File

Several configuration or post-installation tasks call for you to re-create an EAR file, such as the sas.socialnetworkanalysis2.3.ear file or the sas.financialcrimesmonitor2.3.ear file, when needed. This is a common task after extracting an EAR file to a temporary location and performing a configuration or a post-installation task.

1. Re-create the WAR file.

Continuing from the instructions in the previous section, after modifications have been made to the files, return to your previously created \wartemp directory. The following sample commands show Microsoft Windows syntax for re-creating the SAS Social Network Analysis WAR file.

   `jar -cf ..\eartemp\sas.sso.snaserver.war *`

   *Note:* This will overwrite the existing WAR file in your temporary directory.

2. Re-create the EAR file.

   The following sample commands show Microsoft Windows syntax for re-creating the SAS Social Network Analysis EAR file.

   `cd ..`
   `cd eartemp`
   `jar -cf ..\sas.socialnetworkanalysis2.3.ear *`

   *Note:* This will overwrite the existing EAR file in your temporary directory.

3. Follow the instructions provided with your application server to redeploy the EAR file.

4. Restart the SAS Social Network Analysis Server Web application or the SAS Financial Crimes Monitor Web application, as appropriate.
Part 6

Appendix

Appendix 1

*Upgrading to The First Maintenance Release* .......................... 73
Appendix 1
Upgrading to The First Maintenance Release

Understanding SAS Software Updates ........................................ 73
Maintenance Release Update Preparation ................................ 74
  Gather Information from Existing Deployment ....................... 74
  Be Prepared to Restore Customizations ............................... 74
  Rename or Relocate Files .................................................... 75
Applying the Maintenance Release ............................................. 75

Understanding SAS Software Updates

The SAS Deployment Wizard is the mechanism through which SAS software updates are initiated. If product updates are required when the SAS Deployment Wizard is launched, the SAS Deployment Wizard goes into Update mode. This enables updates to be applied to installed software. New software is not installed during the update procedure. After the updates have been applied, the SAS Deployment Wizard allows selection of the configuration directory to which to apply the maintenance release.
Before you begin a SAS software update, read and make sure you understand the information in the following sources:

- the installation preparation sections of this document, specifically “Prepare for SAS Installation” on page 15. Make sure that you are familiar with requirements and any procedural changes needed as a result of the first maintenance release deployment.

Completing the installation and configuration procedure for the upgrade enables you to launch each application from the designated Web address. You might, however, have to perform post-installation procedures, as described in SAS Social Network Analysis Server: Administration Guide, to be able to use the solution without error.

---

Maintenance Release Update Preparation

To complete the upgrade to the maintenance release, you will have to resupply some information that was provided for the version 2.3 deployment. You might also have to reconfigure features that were customized for the version 2.3 installation (for example, re-implement geographic map services), and you might have to perform manual steps during the maintenance update if your environment requires manual configuration either during or after the SAS Deployment Wizard installation and configuration process. The following sections outline the considerations for preparing to update.

Gather Information from Existing Deployment

When you used the SAS Deployment Manager to install and configure version 2.3 of the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server, you either accepted the default schemas when prompted or you indicated your preferred schemas. To apply the maintenance update, you must specify the same schema information as you did in the version 2.3 installation and configuration.

Make sure you have this information available for the maintenance update.

**CAUTION:**

Incorrect specification of schemas results in a deployment failure. During the maintenance upgrade, if you do not specify the correct information during the installation and configuration, a deployment failure results and you will not be able to run the affected solution.

Be Prepared to Restore Customizations

You can customize the deployment of the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server to provide optimum solutions for your intended purpose. If the solutions were customized, it is possible that some of the customizations might be overwritten. For example, if your SAS Social Network Analysis Server 2.3 instance implemented the optional Comments or Geographic Map feature, then you will have to re-implement those features before they can be used again.
**Rename or Relocate Files**

With the first maintenance release of the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server, you can perform either an initial installation or you can upgrade from version 2.3. During the SAS Deployment Wizard installation and configuration process, directories are created and files are added to the directories. In some instances, if the files already exist, the new files will not overwrite the existing files. This will result in an unsuccessful upgrade. Therefore, before you begin the upgrade procedure, you must relocate or rename certain files as follows:

1. Navigate to the following directory:
   
   **UNIX Specifics**
   `<SASHome>/SASFoundation/9.3/sasstp/snamva/`
   
   **Windows Specifics**
   `<SASHome>\SASFoundation\9.3\snamva\sasstp`

2. Rename or relocate the following files:
   
   - `getSubAlerts.sas`
   - `getActionableEntities.sas`
   - `getMoreSocialNetworkNodesAndLinks.sas`
   - `getSocialNetworkNodesAndLinks.sas`

---

**Applying the Maintenance Release**

Applying the maintenance release for the SAS Financial Crimes Monitor and the SAS Social Network Analysis Server updates your current version of 2.3 to the first maintenance release of the offerings. To learn about the features provided by this update, see the “What’s New in the SAS Social Network Analysis Server 2.3” chapter in the *SAS Social Network Analysis Server: Administration Guide*.

To apply the maintenance release:

1. Review the documentation recommended in “Understanding SAS Software Updates” on page 73 and make a note of all relevant items pertaining to your deployment as directed in “Prepare for SAS Installation” on page 15.

2. Rename or relocate the appropriate files as directed in “Rename or Relocate Files” on page 75.


Keep the following in mind as you perform the installation and configuration for the maintenance release:

- During the process, the SAS Deployment Wizard launches in Update mode to facilitate performing any updates.
- The SAS Deployment Manager opens to guide you through the configuration steps for the maintenance update.
• As phases of the configuration procedure are completed for the maintenance application, updateinstructions.html files are presented and provide post-installation instructions that must be performed.

4. Perform all instructions indicated in the updateinstructions.html files.

5. Refer to SAS Social Network Analysis Server: Administration Guide to complete any additional post-installation (administration) steps, such as modifying UNIX directory and file permissions for the trusted user account or performing tasks specific to deployment using the WebSphere Application Server with IBM DB2 on AIX.

6. If necessary, restore any customizations, as described in “Implement Optional Features” on page 67.
Index

A
anonymous Web access 37
architecture, system 5
audience 3

C
comments feature 67
configuration
DB2 databases 24
Microsoft SQL Server 26
middle tier 40
MySQL databases 23
Oracle databases 21
overview 7, 33
post-installation for SAS 47
results 9
running SAS Deployment Wizard 36

D
data models 6
database administrator 3
databases
configuring DB2 databases 24
configuring Microsoft SQL Server 26
configuring MySQL databases 23
configuring Oracle databases 21
creating tables 50
JDBC drivers 28, 42
post-installation setup 49
DB2 databases
configuring 24

E
EAR files
extracting contents 69
re-creating 70
error, configuration
running SAS Deployment Wizard 44

F
FINCRMDB data model 6

G
geographic map service integration 68
groups
adding an investigator group 63
assigning to Financial Crimes Monitor:Admin role 54

I
IBM Websphere Application Server 16
installation
creating database user IDs 27
creating system user IDs 16
overview 7, 33
pre-installation requirements 15, 18
results 9
running SAS Deployment Wizard 35
SAS Intelligence Platform 19
investigator access 63

J
Java Development Kit (JDK) 16
JBoss Application Server 16
JDBC drivers 28, 42
JUnit 17

L
LIBNAME statement 53

M
Microsoft SQL Server
configuring 26
middle tier
configuration 40
MySQL databases
configuring 23

O
optional features
comments 67
geographic map service integration 68
Oracle databases
configuring 21
Oracle WebLogic Server 16

P
post-installation
creating database tables 50
databases 49
deploying stored processes 60
importing stored processes 58
initializing users and groups 54, 63
overview 7
results 9
SAS Social Network Analysis Server 58
tasks for SAS 47
verifying LIBNAME statement 53
pre-installation requirements 15, 18

R
re-creating EAR files 70
requirements for pre-installing SAS 15

S
SAS administrator 3
SAS Deployment Wizard
configuration error 44
running in configure mode 36
running in install mode 35
SAS Financial Crimes Monitor
system architecture 5
SAS Intelligence Platform 19
SAS Social Network Analysis Server
system architecture 5
SAS Technical Support 4
SASSNADS data model 6
stored processes
deploying as Web service 60
importing 58
support 4
system administrator 3
system architecture 5

tables
creating for databases 50

U
user IDs
See also users
creating for databases 27
creating for system 16
users
access for administrative users 54
access for investigator users 63

W
Web access, anonymous 37
Web application servers 16
Web service
deploying stored processes as 60