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SAS[®] Customer Link Analytics 6.5: Upgrade and Migration Guide

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SAS® Customer Link Analytics 6.5: Upgrade and Migration Guide

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Contents

PART 1 Migration Guide 1

Chapter 1 / Pre-Migration Tasks	3
Migrating to SAS Customer Link Analytics 6.5	3
Prerequisites	4
Pre-Migration Steps	6
Chapter 2 / Migration Tasks	7
Create a Migration Package on the Source Machine	7
Install SAS Customer Link Analytics 6.5 on the Target Machine	7
Chapter 3 / Post-Migration Tasks for 5.5 to 6.5 Migration	9
Migrating Metadata	9
Migrating Data	11
Update the SAS Enterprise Miner Project Workspace Path	14
Prerequisite for Running Community Segmentation	14
Grant Read, Write, and Execute Permissions	15
Chapter 4 / Post-Migration Tasks for 5.6 to 6.5 Migration	17
Migrating Metadata	17
Migrating Data	19
Update the SAS Enterprise Miner Project Workspace Path	22
Configure the SAS Server for SAS Enterprise Miner Project Location	22
Prerequisite for Running Community Segmentation	23
Grant Read, Write, and Execute Permissions	23
Chapter 5 / Post-Migration Tasks for 6.5 to 6.5 Migration	25
Migrating Metadata	25
Migrating Data	26
Update the SAS Enterprise Miner Project Workspace Path	28
Configure the SAS Server for SAS Enterprise Miner Project Location	29
Grant Read, Write, and Execute Permissions	30
Chapter 6 / Validation Instructions	31
Validating the Migration	31

PART 2 Upgrade Guide 33

Chapter 7 / Upgrade Tasks	35
Upgrading an Existing SAS Customer Link Analytics Deployment	35
Upgrade to SAS Customer Link Analytics 6.5	37
Deploy SAS Customer Link Analytics LASR Analytic Server	38
Apply License for SAS High-Performance Data Mining	38

Chapter 8 / Post-Upgrade Tasks for 5.5 to 6.5	39
Select the Server Context for Customer Link Analytics LASR Library	39
Upgrade the Metadata	39
Moving SAS Tables after the Upgrade	40
Update the SAS Enterprise Miner Project Workspace Path	43
Configure the SAS Server for SAS Enterprise Miner Project Location	44
Prerequisite for Running Community Segmentation	44
Chapter 9 / Post-Upgrade Tasks for 5.6 to 6.5	45
Select the Server Context for Customer Link Analytics LASR Library	45
Upgrade the Metadata	45
Moving SAS Tables after the Upgrade	46
Update the SAS Enterprise Miner Project Workspace Path	49
Configure the SAS Server for SAS Enterprise Miner Project Location	49
Restart the Middle Tier Servers	50
Prerequisite for Running Community Segmentation	50
Chapter 10 / Validation Instructions	51
Validating the Upgrade	51
Recommended Reading	53

Part 1

Migration Guide

<i>Chapter 1</i>	
<i>Pre-Migration Tasks</i>	3
<i>Chapter 2</i>	
<i>Migration Tasks</i>	7
<i>Chapter 3</i>	
<i>Post-Migration Tasks for 5.5 to 6.5 Migration</i>	9
<i>Chapter 4</i>	
<i>Post-Migration Tasks for 5.6 to 6.5 Migration</i>	17
<i>Chapter 5</i>	
<i>Post-Migration Tasks for 6.5 to 6.5 Migration</i>	25
<i>Chapter 6</i>	
<i>Validation Instructions</i>	31

1

Pre-Migration Tasks

<i>Migrating to SAS Customer Link Analytics 6.5</i>	3
Overview of SAS Customer Link Analytics 6.5 Scenarios	3
Migrate to SAS Customer Link Analytics 6.5	4
<i>Prerequisites</i>	4
<i>Pre-Migration Steps</i>	6

Migrating to SAS Customer Link Analytics 6.5

Overview of SAS Customer Link Analytics 6.5 Scenarios

The migration guide explains how to migrate to SAS Customer Link Analytics 6.5 from a source system to a target system. The current machine on which the SAS Customer Link Analytics release is installed is called the *source machine*. Similarly, the machine on which you will install and configure the release that you are migrating to is called the *target machine*.

SAS Customer Link Analytics 6.5 supports the following migration scenarios. Therefore, make sure that you perform the tasks that are applicable to your migration scenario.

Table 1.1 Migration Scenarios

Migration Scenario	Current Release on The Source Machine	Release That You Are Migrating To on The Target Machine
5.5 to 6.5 migration	5.5 (SAS 9.4)	6.5 (SAS 9.4)
5.6 to 6.5 migration	5.6 (SAS 9.4)	6.5 (SAS 9.4)
6.5 to 6.5 migration	6.5 (SAS 9.4)	6.5 (SAS 9.4)

Migrate to SAS Customer Link Analytics 6.5

This section assumes that you are familiar with the SAS 9.4 installation and configuration processes.

The process of migrating to SAS Customer Link Analytics 6.5 involves the following steps:

- 1 Using the SAS Migration Utility, create a migration package of your current release on the source machine. This step is common for all migration scenarios. For more information, see “[Create a Migration Package on the Source Machine](#)” on page 7.
- 2 Install SAS Customer Link Analytics 6.5 (using the migration package) on the target machine. This step is common for all migration scenarios. For more information, see “[Install SAS Customer Link Analytics 6.5 on the Target Machine](#)” on page 7.
- 3 Complete the post-migration tasks. The post migration tasks differ depending on your migration scenario. Refer to the appropriate chapter of this guide to complete these tasks.

Note: Any customizations that you have made to the SAS Customer Link Analytics configuration outside of the `<SAS configuration directory>` are not automatically migrated. You must manually make these customizations after migration. These customizations include any SAS code modifications, user-defined macros, custom scenarios, and database changes.

Prerequisites

Before you migrate to SAS Customer Link Analytics 6.5, complete the following tasks:

- Read *SAS Intelligence Platform: Installation and Configuration Guide*, which is available at the following location: <http://support.sas.com/documentation/cdl/en/biig/62611/PDF/default/biig.pdf>
- Review the <http://support.sas.com/documentation/installcenter/index.html> page.
This page has the most up-to-date installation and configuration documentation for SAS software. The documentation on this site is grouped by SAS release, installation, and configuration type.
- SAS Customer Link Analytics is installed through the SAS Deployment Wizard. For more information, see *SAS Customer Link Analytics: Administrator’s Guide*, which is available at the following location: <http://support.sas.com/documentation/solutions/clac/index.html>.
- Review the checklist that is generated with your plan file. This checklist lists the user accounts that you will need to create in your environment.
- You will need a plan file to install SAS Intelligence Platform and SAS Customer Link Analytics. Plan files can be obtained in the following ways:

- Your SAS consultant can provide a plan file for your installation.
- You can create a plan file using the planning tool, which is available at the following location: https://www3.sas.com/apps/cpi/admincenter_planning_login.jsp.
- From the target machine, if you are using a database other than SAS, verify that you can access that third-party database (available on the data server) by using the database client.
- For complete information about the migration steps, refer to the relevant topics in *SAS 9.4 Intelligence Platform: Migration Guide*. This guide is available at the following location: <http://support.sas.com/documentation/cdl/en/bimig/63853/PDF/default/bimig.pdf>.

Pre-Migration Steps

Complete the following steps before you run the SAS Migration Utility on the source machine:

- 1 Make sure that all the SAS services are running.
- 2 Edit the `smu.properties.template` file. For more information, see “Develop a Common SAS Migration Utility Properties File” in *SAS 9.4 Intelligence Platform: Migration Guide*.
- 3 Verify whether you want to exclude any directory (that is within the `<SAS configuration directory>\LevX` directory) from the migration package.

Exclude directories that contain large files. Exclusion can be useful if your site has a large amount of data and you do not want to migrate all of it. The paths that you specify for exclusion can be absolute or relative to the SAS configuration directory.

2

Migration Tasks

<i>Create a Migration Package on the Source Machine</i>	7
<i>Install SAS Customer Link Analytics 6.5 on the Target Machine</i>	7

Create a Migration Package on the Source Machine

For more information about how to perform the steps that are listed here, see “Create the Migration Package” in *SAS 9.4 Intelligence Platform: Migration Guide*.

To create a migration package:

- 1 On the source machine, run the SAS Migration Utility.
- 2 Review the migration analysis report that is generated with the migration package.
- 3 Make sure that the analysis report does not contain any errors. Resolve any errors, and then proceed further.
- 4 Copy the migration package to the target machine.

Install SAS Customer Link Analytics 6.5 on the Target Machine

You install SAS Customer Link Analytics 6.5 on the target machine by using the migration package.

To install SAS Customer Link Analytics 6.5:

- 1 On the target machine, run the SAS Deployment Wizard.
- 2 On the Migration Information page of the wizard, specify the path to the migration package. This path is the location of the directory in which you have copied the migration package on the target machine.

For more information about how to install a product by using the migration package, see Chapter 4, “Installing SAS 9.4 and Migrating Your SAS Content” in *SAS 9.4 Intelligence Platform: Migration Guide*.

3

Post-Migration Tasks for 5.5 to 6.5 Migration

<i>Migrating Metadata</i>	9
Deploy Loop Jobs	9
Delete Old Libraries	9
Migrate Stored Processes for Viral Effect Analysis	10
Verify User Role	10
<i>Migrating Data</i>	11
Migrate SAS Tables	11
Migrate Database Tables	13
<i>Update the SAS Enterprise Miner Project Workspace Path</i>	14
<i>Prerequisite for Running Community Segmentation</i>	14
<i>Grant Read, Write, and Execute Permissions</i>	15

Migrating Metadata

Deploy Loop Jobs

Complete the following steps in SAS Data Integration Studio:

- 1 Deploy the sialoopjob that is used for data enrichment.
- 2 Deploy the siascenloopjob that is used for viral effect analysis.

For more information about deploying the jobs, see *SAS Customer Link Analytics 6.5: Administrator's Guide*.

Delete Old Libraries

To delete the old libraries:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**.

A backup of all the pre-packaged libraries of SAS Customer Link Analytics 5.5 is displayed.

TIP Each 5.5 library has a suffix `_old` added to its name.

- 2 Select a library with suffix `_old` and perform the following steps:
 - a Right-click a table that is registered under the library and select **Properties**.
 - b On the **Physical Storage** tab, click **Library**. A list of available libraries is displayed. Select the corresponding library that does not have a suffix `_old`.
 - c Repeat steps 2a and 2b for all the other tables that are registered under the library.
- 3 Repeat step 2 and its substeps for the rest of the libraries that have a suffix `_old`.
- 4 After you have migrated all the table metadata to new the libraries, delete the libraries that have the suffix `_old`.

Migrate Stored Processes for Viral Effect Analysis

To migrate the stored processes that are used for viral effect analysis:

- 1 On the **Folders** tab of SAS Management Console, select **Products** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 6.5**. All the stored processes that are required for viral effect analysis are migrated to this folder.
- 2 (Optional) After migrating to SAS Customer Link Analytics 6.5, you can reuse the customizations that you have made to the 5.5 stored processes. If you want to do so, perform the following steps:
 - a Take a backup of the **Viral Effect Analysis** folder that is available within the **Cust Link Analytics 6.5** folder.
 - b Move all the stored processes from the **Viral Effect Analysis** folder of the 5.5 release to the **Viral Effect Analysis** folder of the 6.5 release.
- 3 Delete the **Cust Link Analytics 5.5** folder.

Verify User Role

In SAS Management Console, expand **User Manager** and confirm that a new role, **Cust Link Analytics: Business User** is created. This role enables users to perform the reporting tasks. Assign this role to the users who will be performing the reporting tasks in the migrated environment.

Migrating Data

Migrate SAS Tables

Scenario 1: Business Data Is Stored in SAS

If the business data is stored in SAS, then any one of the following scenarios is applicable in the source environment for the `sia_bdm_output`, `sia_bdm_intmtdt`, `sia_analytics_output`, and `sia_analytics_inmtdt` libraries.

Default library path is modified

You have modified the library path of these libraries. As a result, this path is not the default path with which the libraries are created. Moreover, this path is outside the configuration path of the SAS Customer Link Analytics Server. For example, this path can be `c:/XDR`.

Default library path is not modified

You have not modified the library path of the libraries. As a result, it points to the default path with which these libraries are created.

In both of these scenarios, after the migration is complete, the paths of these libraries point to 6.5 specific folders. For example, the path can be `<SAS configuration directory>/Levl/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmtdt`.

If you want to reuse the earlier paths that you had modified in the source environment, then remove the 6.5 specific paths and add the earlier paths. To do so, in SAS Management Console, for each library, right-click **Properties**, and then select the **Options** tab. Remove the existing paths from the **Selected Items** list and add the paths that you want the libraries to point to. Make sure that the corresponding folder structure is present in your migrated environment.

However, if you want to use the new paths that point to the 6.5 specific folders, then copy the content from the source folders to the target folders.

The following tables indicate the paths where the libraries were created and used with default paths.

Table 3.1 SAS Tables Migration for Business Data in SAS

Source Folder	Target Folder
<code><SAS configuration directory>/Levl/AppData/SASCustomerLinkAnalytics/CustLinkAnalytics5.5/projects/data</code>	<code><SAS configuration directory>/Levl/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmtdt</code>
<code><SAS configuration directory>/Levl/AppData/SASCustomerLinkAnalytics/CustLinkAnalytics5.5/projects/data/business_intrmtdt</code>	<code><SAS configuration directory>/Levl/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmtdt</code>

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Scenario 2: Business Data Is Stored in a Database Other Than SAS

Verify that the contents of the source folders listed in the table below are available in the corresponding target folders. If not, then copy the contents to the target folders.

Table 3.2 SAS Tables Migration for Business Data in Teradata

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Migrate Sample Data and Scenario Data

Verify that the contents of the following folders in the source environment are available in the corresponding folders in the target environment. If not, then copy the contents from the source folders to the respective target folders.

Table 3.3 Sample Data and Scenario Data Migration

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/sample	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/sample
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data

Migrate Database Tables

Migrate the database tables if both the conditions listed here are true:

- SAS Customer Link Analytics is deployed on a database other than SAS, such as Teradata or Hadoop.
- You have changed the database, schema, or server for the business data in the source environment.

Copy all the database tables that belong to libraries mentioned below from the earlier database, schema, or server to the new database, schema, or server.

Table 3.4 Database Migration

Database	Library
Teradata	sia_bdm_intmdt
Teradata	sia_bdm_output
Teradata	sia_analytics_inmdt
Teradata	sia_analytics_output

Update the SAS Enterprise Miner Project Workspace Path

In the pre-migrated environment, you might have created various SAS Rapid Predictive Modeler models for viral effect analysis. These models are created as SAS Enterprise Miner project workspaces. After the migration, if you move the SAS Enterprise Miner project workspace to another location, then make sure that the SAS Customer Link Analytics execution user has Read and Write permission for the new folder.

If the location of the project workspace differs from the one in the pre-migration environment, perform the following steps:

- 1 Connect to the PostgreSQL client.
- 2 Connect to the PostgreSQL database that is created for SAS Customer Link Analytics.
- 3 Open the public schema.
- 4 Open the scenario_param table.
- 5 Filter the data based on the following conditions:
Column = *scenario_param_id* and **Value** = *sia_project_location*. This filter condition displays a list of all the SAS Enterprise Miner project workspaces that are created in the source environment.
- 6 For each value of *sia_project_location*, edit the value of the *scenario_param_userdefined_value* column. Specify the new location in which the corresponding SAS Enterprise Miner project workspace is saved.
- 7 Save the changes.

Prerequisite for Running Community Segmentation

You migrate project data from the source environment to the target environment.

Assume that this project is in design mode. If you want to run community segmentation for this project, then make sure that you first run the Community Building workflow step. Otherwise, the Centrality Measures Computation workflow step will execute with errors. For more information about running community segmentation and the workflow steps, see *SAS Customer Link Analytics: User's Guide*.

Grant Read, Write, and Execute Permissions

If the migrated SAS Customer Link Analytics server tier resides in a LAX environment, grant the following folder-level permissions to the user or the user group for executing the workflow steps and enriching the data.

Table 3.5 Granting Permissions

Permissions	Folder
Read, Write, and Execute	<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt</code>

4

Post-Migration Tasks for 5.6 to 6.5 Migration

<i>Migrating Metadata</i>	17
Deploy Loop Jobs	17
Import Project-Specific Metadata	17
Delete Old Libraries	18
Migrate Stored Processes for Viral Effect Analysis	18
Set Up the Hadoop JAR and Configuration Path	19
<i>Migrating Data</i>	19
Migrate SAS Tables	19
Migrate Database Tables	21
<i>Update the SAS Enterprise Miner Project Workspace Path</i>	22
<i>Configure the SAS Server for SAS Enterprise Miner Project Location</i>	22
<i>Prerequisite for Running Community Segmentation</i>	23
<i>Grant Read, Write, and Execute Permissions</i>	23

Migrating Metadata

Deploy Loop Jobs

Complete the following steps in SAS Data Integration Studio:

- 1 Redeploy the sialoopjob that is used for data enrichment.
- 2 Deploy the siascenloopjob that is used for viral effect analysis.

For more information about deploying or redeploying the jobs, see *SAS Customer Link Analytics 6.5: Administrator's Guide*

Import Project-Specific Metadata

To import project-specific metadata:

- 1 On the **Folders** tab of SAS Data Integration Studio, expand **Shared Data** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 5.6** ► **Projects**.
- 2 Right-click **Projects**, and select **Export** ► **SAS Package** from the menu.

- 3 Create a SAS package and save the .spk file in a suitable location.
- 4 Delete the project folders that are available below the **Shared Data** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 5.6** ► **Projects**.
- 5 Expand **Shared Data** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 6.5** ► **Projects**.
- 6 Right-click **Projects**, and select **Import** ► **SAS Package** from the menu.
- 7 Import the SAS package file that you exported in step 3.

Delete Old Libraries

To delete the old libraries:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**.

A backup of all the pre-packaged libraries of SAS Customer Link Analytics 5.6 is displayed.

TIP Each 5.6 library has a suffix `_old` added to its name.

- 2 Select a library with suffix `_old` and perform the following steps:
 - a Right-click a table that is registered under the library and select **Properties**.
 - b On the **Physical Storage** tab, click **Library**. A list of available libraries is displayed. Select the corresponding library that does not have a suffix `_old`.
 - c Repeat steps 2 a and 2 b for all the other tables that are registered under the library.
- 3 Repeat step 2 and its substeps for the rest of the libraries that have a suffix `_old`.
- 4 After you have migrated all the table metadata to new the libraries, delete the libraries that have the suffix `_old`.
- 5 Delete the **Cust Link Analytics 5.6** folder.

Migrate Stored Processes for Viral Effect Analysis

To migrate the stored processes that are required for viral effect analysis:

- 1 On the **Folders** tab of SAS Management Console, select **Products** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 6.5**. All the stored processes that are required for viral effect analysis are migrated to this folder.
- 2 (Optional) After migrating to SAS Customer Link Analytics 6.5, you can reuse the customizations that you have made to the 5.6 stored processes. If you want to do so, perform the following steps:

- a Take a backup of the **Viral Effect Analysis** folder that is available within the **Cust Link Analytics 6.5** folder.
- b Move all the stored processes from the **Viral Effect Analysis** folder of the 5.6 release to the **Viral Effect Analysis** folder of the 6.5 release.

Set Up the Hadoop JAR and Configuration Path

Perform this task if the business data is stored in Hadoop and if you have changed the default configuration.

Make sure that you define the SAS_HADOOP_JAR_PATH and SAS_HADOOP_CONFIG_PATH variables in the appserver_autoexec_usermods.sas file that is located on the target machine. For example, this file is available in the following location: *<SAS configuration directory>/Lev1/SASApp*. Also, make sure that the jar files are available at the location that is mentioned as the value of these variables.

You can also define these paths as environment variables.

Migrating Data

Migrate SAS Tables

Scenario 1: Business Data Is Stored in SAS

If the business data is stored in SAS, then any one of the following scenarios is applicable in the source environment for the sia_bdm_output, sia_bdm_intmdt, sia_analytics_output, and sia_analytics_inmdt libraries.

Default library path is modified

You have modified the library path of these libraries. As a result, this path is not the default path with which the libraries are created. Moreover, this path is outside the configuration path of the SAS Customer Link Analytics Server. For example, this path can be *c:/XDR*.

Default library path is not modified

You have not modified the library path of the libraries. As a result, it points to the default path with which these libraries are created.

In both of these scenarios, after the migration is complete, the paths of these libraries point to 6.5 specific folders. For example, the path can be *<SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmdt*.

If you want to reuse the earlier paths that you had modified in the source environment, then remove the 6.5 specific paths and add the earlier paths. To do so, in SAS Management Console, for each library, right-click **Properties**, and then select the **Options** tab. Remove the existing paths from the **Selected Items** list and add the paths that you want the libraries to point to. Make sure that the corresponding folder structure is present in your migrated environment.

However, if you want to use the new paths that point to the 6.5 specific folders, then copy the content from the source folders to the target folders.

The following tables indicate the paths where the libraries were created and used with default paths.

Table 4.1 SAS Tables Migration for Business Data in SAS

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Scenario 2: Business Data Is Stored in a Database Other Than SAS

Verify that the contents of the source folders listed in the table below are available in the corresponding target folders. If not, then copy the contents to the target folders.

Table 4.2 SAS Tables Migration for Business Data in Hadoop or Teradata

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Migrate Sample Data and Scenario Data

Verify that the contents of the following folders in the source environment are available in the corresponding folders in the target environment. If not, then copy the contents from the source folders to the respective target folders.

Table 4.3 Sample Data and Scenario Data Migration

Source Folder	Target Folder
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/sample	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/sample
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data

Migrate Database Tables

Migrate the database tables if both the conditions listed here are true:

- SAS Customer Link Analytics is deployed on a database other than SAS, such as Teradata or Hadoop.
- You have changed the database, schema, or server for the business data in the source environment.

Copy all the database tables that belong to libraries mentioned below from the earlier database, schema, or server to the new database, schema, or server.

Table 4.4 Database Migration

Database	Library
Teradata	sia_bdm_intmdt
Teradata	sia_bdm_output
Teradata	sia_analytics_inmdt
Teradata	sia_analytics_output
Hadoop	sia_bdm_hive

Update the SAS Enterprise Miner Project Workspace Path

In the pre-migrated environment, you might have created various SAS Rapid Predictive Modeler models for viral effect analysis. These models are created as SAS Enterprise Miner project workspaces. After the migration, if you move the SAS Enterprise Miner project workspace to another location, then make sure that the SAS Customer Link Analytics execution user has Read and Write permission for the new folder.

If the location of the project workspace differs from the one in the pre-migration environment, perform the following steps:

- 1 Connect to the PostgreSQL client.
- 2 Connect to the PostgreSQL database that is created for SAS Customer Link Analytics.
- 3 Open the public schema.
- 4 Open the `scenario_param` table.
- 5 Filter the data based on the following conditions:
Column = `scenario_param_id` and **Value** = `sia_project_location`. This filter condition displays a list of all the SAS Enterprise Miner project workspaces that are created in the source environment.
- 6 For each value of `sia_project_location`, edit the value of the `scenario_param_userdefined_value` column. Specify the new location in which the corresponding SAS Enterprise Miner project workspace is saved.
- 7 Save the changes.

Configure the SAS Server for SAS Enterprise Miner Project Location

If the SAS Customer Link Analytics Server is not deployed on the default application server, the SASApp - Logical Workspace Server, then you must set up the appropriate SAS server for the SAS Enterprise Miner project location parameter.

To set up the SAS server for the SAS Enterprise Miner project location parameter:

- 1 Connect to SAS Management Console with administrative privileges.
- 2 On the **Folders** tab, expand **Products** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 6.5** ► **Viral Effect Analysis**.
- 3 In the right pane, right-click `sia_stp_update_scenario_param` and select **Properties**.

- 4 On the **Execution** tab, note the value of **Application server**.
- 5 On the **Parameters** tab, select **SAS Enterprise Miner project location**, and click **Edit**.
- 6 On the **Prompt Type and Values** tab, from the **SAS Server** list, select the same value that you noted for **Application server** in step 4.
- 7 Click **OK** to save the changes.

Prerequisite for Running Community Segmentation

You migrate project data from the source environment to the target environment.

Assume that this project is in design mode. If you want to run community segmentation for this project, then make sure that you first run the Community Building workflow step. Otherwise, the Centrality Measures Computation workflow step will execute with errors. For more information about running community segmentation and the workflow steps, see *SAS Customer Link Analytics: User's Guide*.

Grant Read, Write, and Execute Permissions

If the migrated SAS Customer Link Analytics server tier resides in a LAX environment, grant the following folder-level permissions to the user or the user group for executing the workflow steps and enriching the data.

Table 4.5 Granting Permissions

Permissions	Folder
Read, Write, and Execute	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt

5

Post-Migration Tasks for 6.5 to 6.5 Migration

Migrating Metadata	25
Deploy Loop Jobs	25
Set Up the Hadoop JAR and Configuration Path	25
Migrating Data	26
Migrate SAS Tables	26
Migrate Database Tables	28
Update the SAS Enterprise Miner Project Workspace Path	28
Configure the SAS Server for SAS Enterprise Miner Project Location	29
Grant Read, Write, and Execute Permissions	30

Migrating Metadata

Deploy Loop Jobs

Complete the following steps in SAS Data Integration Studio:

- 1 Redeploy the sialoopjob that is used for data enrichment.
- 2 Redeploy the siascenloopjob that is used for viral effect analysis.

For more information about deploying the jobs, see *SAS Customer Link Analytics 6.5: Administrator's Guide*

Set Up the Hadoop JAR and Configuration Path

Perform this task if the business data is stored in Hadoop and if you have changed the default configuration.

Make sure that you define the SAS_HADOOP_JAR_PATH and SAS_HADOOP_CONFIG_PATH variables in the appserver_autoexec_usermods.sas file that is located on the target machine. For example, this file is available in the following location: *<SAS configuration directory>/Lev1/SASApp*. Also, make sure that the jar files are available at the location that is mentioned as the value of these variables.

You can also define these paths as environment variables.

Migrating Data

Migrate SAS Tables

Scenario 1: Business Data Is Stored in SAS

If the business data is stored in SAS, then any one of the following scenarios is applicable in the source environment for the `sia_bdm_output`, `sia_bdm_intrmdt`, `sia_analytics_output`, and `sia_analytics_intrmdt` libraries.

Default library path is modified

You have modified the library path of these libraries. As a result, this path is not the default path with which the libraries are created. Moreover, this path is outside the configuration path of the SAS Customer Link Analytics Server. For example, this path can be `c:/XDR`.

Default library path is not modified

You have not modified the library path of the libraries. As a result, it points to the default path with which these libraries are created.

In both of these scenarios, after the migration is complete, the paths of these libraries point to 6.5 specific folders. For example, the path can be `<SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmdt`.

If you want to reuse the earlier paths that you had modified in the source environment, then remove the 6.5 specific paths and add the earlier paths. To do so, in SAS Management Console, for each library, right-click **Properties**, and then select the **Options** tab. Remove the existing paths from the **Selected Items** list and add the paths that you want the libraries to point to. Make sure that the corresponding folder structure is present in your migrated environment.

However, if you want to use the new paths that point to the 6.5 specific folders, then copy the content from the source folders to the target folders.

The following tables indicate the paths where the libraries were created and used with default paths.

Table 5.1 SAS Tables Migration for Business Data in SAS

Source Folder	Target Folder
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmdt</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmdt</code>
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_output</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_output</code>

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Scenario 2: Business Data Is Stored in a Database Other Than SAS

Verify that the contents of the source folders listed in the table below are available in the corresponding target folders. If not, then copy the contents to the target folders.

Table 5.2 SAS Tables Migration for Business Data in Hadoop or Teradata

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Migrate Sample Data and Scenario Data

Verify that the contents of the following folders in the source environment are available in the corresponding folders in the target environment. If not, then copy the contents from the source folders to the respective target folders.

Table 5.3 Sample Data and Scenario Data Migration

Source Folder	Target Folder
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/sample	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/sample
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data

Migrate Database Tables

Migrate the database tables if both the conditions listed here are true:

- SAS Customer Link Analytics is deployed on a database other than SAS, such as Teradata or Hadoop.
- You have changed the database, schema, or server for the business data in the source environment.

Copy all the database tables that belong to libraries mentioned below from the earlier database, schema, or server to the new database, schema, or server.

Table 5.4 Database Migration

Database	Library
Teradata	sia_bdm_intmdt
Teradata	sia_bdm_output
Teradata	sia_analytics_inmdt
Teradata	sia_analytics_output
Hadoop	sia_bdm_hive

Update the SAS Enterprise Miner Project Workspace Path

In the pre-migrated environment, you might have created various SAS Rapid Predictive Modeler models for viral effect analysis. These models are created as SAS Enterprise Miner project workspaces. After the migration, if you move the SAS Enterprise Miner project workspace to another location, then make sure that the SAS Customer Link Analytics execution user has Read and Write permission for the new folder.

If the location of the project workspace differs from the one in the pre-migration environment, perform the following steps:

- 1 Connect to the PostgreSQL client.
- 2 Connect to the PostgreSQL database that is created for SAS Customer Link Analytics.
- 3 Open the public schema.
- 4 Open the `scenario_param` table.
- 5 Filter the data based on the following conditions:
Column = `scenario_param_id` and **Value** = `sia_project_location`. This filter condition displays a list of all the SAS Enterprise Miner project workspaces that are created in the source environment.
- 6 For each value of `sia_project_location`, edit the value of the `scenario_param_userdefined_value` column. Specify the new location in which the corresponding SAS Enterprise Miner project workspace is saved.
- 7 Save the changes.

Configure the SAS Server for SAS Enterprise Miner Project Location

If the SAS Customer Link Analytics Server is not deployed on the default application server, the SASApp - Logical Workspace Server, then you must set up the appropriate SAS server for the SAS Enterprise Miner project location parameter.

To set up the SAS server for the SAS Enterprise Miner project location parameter:

- 1 Connect to SAS Management Console with administrative privileges.
- 2 On the **Folders** tab, expand **Products** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 6.5** ► **Viral Effect Analysis**.
- 3 In the right pane, right-click `sia_stp_update_scenario_param` and select **Properties**.
- 4 On the **Execution** tab, note the value of **Application server**.
- 5 On the **Parameters** tab, select **SAS Enterprise Miner project location**, and click **Edit**.
- 6 On the **Prompt Type and Values** tab, from the **SAS Server** list, select the same value that you noted for **Application server** in step 4.
- 7 Click **OK** to save the changes.

Grant Read, Write, and Execute Permissions

If the migrated SAS Customer Link Analytics server tier resides in a LAX environment, grant the following folder-level permissions to the user or the user group for executing the workflow steps and enriching the data.

Table 5.5 Granting Permissions

Permissions	Folder
Read, Write, and Execute	<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt</code>

6

Validation Instructions

<i>Validating the Migration</i>	31
Verify the Properties of Software Components	31
Verify the User Group and the Metadata User in SAS Management Console ..	31

Validating the Migration

Verify the Properties of Software Components

To verify the software component properties:

- 1 On the **Plug-ins** tab of SAS Management Console, select **SAS Management Console** ► **Application Management** ► **Configuration Manager**.
- 2 Right-click **Cust Link Analytics Svr Cfg 6.5**, and then select **Properties**.
- 3 In the Properties dialog box, select the **Advanced** tab. On this tab, you can see a list of the properties and their values. If the value of any software component property has been changed after deployment on the source machine, make sure that the corresponding change is also reflected on the target machine.
- 4 Check whether the values are correctly assigned.
- 5 Click **OK**.
- 6 Close SAS Management Console.

Verify the User Group and the Metadata User in SAS Management Console

Verify that all the operating system users who are configured in SAS Management Console have also been migrated to the metadata on the target environment. Also, verify that the roles and capabilities that are assigned to these users are retained in the target environment.

Part 2

Upgrade Guide

<i>Chapter 7</i>	
<i>Upgrade Tasks</i>	35
<i>Chapter 8</i>	
<i>Post-Upgrade Tasks for 5.5 to 6.5</i>	39
<i>Chapter 9</i>	
<i>Post-Upgrade Tasks for 5.6 to 6.5</i>	45
<i>Chapter 10</i>	
<i>Validation Instructions</i>	51

7

Upgrade Tasks

<i>Upgrading an Existing SAS Customer Link Analytics Deployment</i>	35
Overview of Upgrade Scenarios	35
Pre-Upgrade Task for SAS Library Paths	36
Upgrade from SAS Customer Link Analytics 5.5 or SAS Customer Link Analytics 5.6 with SAS Visual Analytics Administration and Reporting	36
Upgrade from SAS Customer Link Analytics 5.5 without SAS Visual Analytics Administration and Reporting	36
<i>Upgrade to SAS Customer Link Analytics 6.5</i>	37
<i>Deploy SAS Customer Link Analytics LASR Analytic Server</i>	38
<i>Apply License for SAS High-Performance Data Mining</i>	38

Upgrading an Existing SAS Customer Link Analytics Deployment

Overview of Upgrade Scenarios

The upgrade guide explains the tasks involved in upgrading an existing deployment of SAS Customer Link Analytics 5.5 or SAS Customer Link Analytics 5.6.

The current release of your deployment indicates your preupgraded environment and the release to which you are upgrading indicates your upgraded environment.

Table 7.1 Upgrade Scenarios

Current Release at Your Site	Release To Which You Are Upgrading
5.5 (SAS 9.4) with SAS Visual Analytics Administration and Reporting	6.5 (SAS 9.4) with SAS Visual Analytics Administration and Reporting
5.5 (SAS 9.4) without SAS Visual Analytics Administration and Reporting	6.5 (SAS 9.4) with SAS Visual Analytics Administration and Reporting
5.6 (SAS 9.4)	6.5 (SAS 9.4)

Pre-Upgrade Task for SAS Library Paths

If you are using SAS to store your business data, then note the physical paths of all the SAS libraries that are prefixed with `sia_`. In the upgraded environment, if you want the libraries to point to these same locations, then you can use this information.

Upgrade from SAS Customer Link Analytics 5.5 or SAS Customer Link Analytics 5.6 with SAS Visual Analytics Administration and Reporting

This upgrade scenario includes the following steps:

- 1 Create a depot and a plan that includes SAS Customer Link Analytics 6.5 and SAS Visual Analytics Administration and Reporting.
- 2 Upgrade to SAS Customer Link Analytics 6.5 with SAS Visual Analytics Administration and Reporting. For more information, see [“Upgrade to SAS Customer Link Analytics 6.5” on page 37](#).
- 3 Perform this step for 5.5 to 6.5 upgrade scenario. Using the plan file that you selected in step 1, complete the installation and configuration for an add-on deployment of SAS Customer Link Analytics LASR Analytic Server.

Note: When you run the SAS Deployment Wizard, make sure that the following options are selected:

- SAS Customer Link Analytics LASR Configuration
- SAS Customer Link Analytics Mid-Tier LASR Configuration

Note: You can install SAS Customer Link Analytics LASR Analytic Server on a separate machine.

Upgrade from SAS Customer Link Analytics 5.5 without SAS Visual Analytics Administration and Reporting

This upgrade scenario includes the following steps:

- 1 Create a depot and a plan that includes SAS Customer Link Analytics 6.5 and SAS Visual Analytics Administration and Reporting.
- 2 Upgrade to SAS Customer Link Analytics 6.5. For more information, see [“Upgrade to SAS Customer Link Analytics 6.5” on page 37](#).
- 3 Using the plan file that you selected in step 1, complete the installation and configuration for an add-on deployment of SAS Visual Analytics Administration and Reporting and SAS Customer Link Analytics LASR Analytic Server.

Note: When you run the SAS Deployment Wizard, make sure that the following options are selected:

- SAS Foundation
- VAAR Components

- SAS Customer Link Analytics LASR components:
 - **SAS Customer Link Analytics LASR Configuration**
 - **SAS Customer Link Analytics Mid-Tier LASR Configuration**

Note: While you are upgrading to SAS Customer Link Analytics 6.5, consider the following recommendations:

- Make sure that **Customer Link Analytics LASR Mid-Tier** and **Visual Analytics Mid-Tier** reside on the same machine. However, **Customer Link Analytics LASR Server Configuration** can reside on another server.
- When you run the SAS Deployment Wizard, make sure that you select **SAS Information Retrieval Studio** and **SAS Interface to SAS Content** for installation and configuration. For more information, see *SAS Visual Analytics: Administrator's Guide*.

Upgrade to SAS Customer Link Analytics 6.5

To upgrade to SAS Customer Link Analytics 6.5:

- 1 Stop all the SAS services that are installed on the machine.

Terminate all active SAS sessions, daemons, spawners, and servers, except for the SAS Deployment Agent running on each of your servers. It is important to stop the SAS servers in the reverse order that they were started. For more information, see “Overview of Server Operation” in Chapter 6, “Operating Your Servers,” of *SAS Intelligence Platform: System Administration Guide*. This guide is available at the following location: <http://support.sas.com/documentation/cdl/en/bisag/67481/PDF/default/bisag.pdf>.
- 2 Install and configure a software update.

For each machine in your deployment, start the SAS Deployment Wizard from the highest-level directory in your SAS Software Depot. If any product updates are required, the SAS Deployment Wizard operates in Update mode to install any product updates on that machine.
- 3 After the deployment is complete, in the SAS Deployment Wizard, click **Next**.
- 4 On the Select Configuration Directory/Level page of the SAS Deployment Wizard, select the configuration directories that you want to update, and then click **Start**. The SAS Deployment Manager opens to guide you through the configuration steps.
- 5 On the Specify Connection Information page of the SAS Deployment Manager, enter the user ID and password of an unrestricted administrative user. For example, you can enter the sasadm@saspw user ID.
- 6 Use the SAS Deployment Manager to update the configuration of your environment. The wizard pages appear depending on your deployment scenario.

Deploy SAS Customer Link Analytics LASR Analytic Server

Perform this task only if you are upgrading from 5.5 to 6.5.

Start the SAS Deployment Wizard. Complete the add-on deployment of SAS Customer Link Analytics LASR Analytic Server. On the wizard pages, select the appropriate products and components depending on the deployment topology of SAS Customer Link Analytics 6.5. For more information, see [“Upgrading an Existing SAS Customer Link Analytics Deployment”](#) on page 35.

Apply License for SAS High-Performance Data Mining

Perform this task when you upgrade to SAS Customer Link Analytics 6.5 in the distributed environment.

During the upgrade of the SAS Customer Link Analytics Server, the license for SAS High-Performance Data Mining is not updated automatically. You have to apply the license manually. To apply the license, use the SID files from the new order. For more information about how to apply the license on your system, see the document that is available at the following location: http://support.sas.com/documentation/installcenter/en/ikwinplannedri/66607/PDF/default/setinit_planned.pdf.

8

Post-Upgrade Tasks for 5.5 to 6.5

<i>Select the Server Context for Customer Link Analytics LASR Library</i>	39
<i>Upgrade the Metadata</i>	39
Deploy Loop Jobs	39
Upgrade Stored Processes for Viral Effect Analysis	40
Verify User Role	40
<i>Moving SAS Tables after the Upgrade</i>	40
Scenario 1: Business Data Is Stored in SAS	40
Scenario 2: Business Data Is Stored in a Database Other Than SAS	42
Move Sample Data and Scenario Data after the Upgrade	42
<i>Update the SAS Enterprise Miner Project Workspace Path</i>	43
<i>Configure the SAS Server for SAS Enterprise Miner Project Location</i>	44
<i>Prerequisite for Running Community Segmentation</i>	44

Select the Server Context for Customer Link Analytics LASR Library

To change the server context for the Customer Link Analytics LASR library:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**.
- 2 Right-click the **Customer Link Analytics LASR** library.
- 3 On the **Assign** tab, add the SAS application server context and the application server context for SAS Visual Analytics to the **Selected Servers** list.

Upgrade the Metadata

Deploy Loop Jobs

Complete the following steps in SAS Data Integration Studio:

- 1 Deploy the sialoopjob that is used for data enrichment.

- 2 Deploy the `siascenloopjob` that is used for viral effect analysis.

For more information about deploying the jobs, see the *SAS Customer Link Analytics 6.5: Administrator's Guide*.

Upgrade Stored Processes for Viral Effect Analysis

To upgrade the stored processes for viral effect analysis:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**. A list of libraries (prefixed with `sia_`) that are packaged with SAS Customer Link Analytics 6.5 is displayed.
- 2 Identify the tables that you registered in the libraries with prefix `sia_`. Identify whether these tables are used in any other applications such as SAS Enterprise Miner or SAS Visual Analytics. Determine whether you need these tables in the upgraded environment also. If not, then delete these tables.
- 3 On the **Folders** tab, select **Products** ► **SAS Customer Link Analytics** ► **Viral Effect Analysis Old**. All the stored processes that are required for viral effect analysis are migrated to this folder.
- 4 (Optional) You can reuse the customizations that you made to the 5.5 stored processes. If you want to do so, first back up the **Viral Effect Analysis** folder that is available within the **Cust Link Analytics 6.5** folder. Then move all the stored processes from the **Viral Effect Analysis Old** folder to the 6.5 folder.
- 5 Delete the **Viral Effect Analysis Old** folder.

Verify User Role

In SAS Management Console, expand **User Manager** and note that a new role, **Cust Link Analytics: Business User**, has been created. This role enables users to perform reporting tasks. Assign this role to the users who will be performing the reporting tasks in the upgraded environment.

Moving SAS Tables after the Upgrade

Scenario 1: Business Data Is Stored in SAS

If the business data is stored in SAS, then any one of the following scenarios is applicable in the preupgraded environment for the `sia_bdm_output`, `sia_bdm_intmdt`, `sia_analytics_output`, and `sia_analytics_inmtdt` libraries:

Default library path is modified

You have modified the library path of these libraries. As a result, this path is not the default path with which the libraries are created. Moreover, this path is outside the configuration path of the SAS Customer Link Analytics Server. For example, this path can be `c:/xdr`.

Default library path is not modified

You have not modified the library path of the libraries. As a result, it points to the default path with which these libraries are created.

In both of these scenarios, after the upgrade is complete, the paths of these libraries point to 6.5 specific folders. For example, the path can be `<SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmdt`.

If you want to reuse the earlier paths that you modified in the pre-upgraded environment, then remove the 6.5 specific paths and add the earlier paths that you noted as part of the pre-upgrade tasks. For more information, see [“Pre-Upgrade Task for SAS Library Paths” on page 36](#). To update the paths, in SAS Management Console, for each library, right-click **Properties**, and then select the **Options** tab. Remove the existing paths from the **Selected Items** list and add the paths that you want the libraries to point to. Make sure that the corresponding folder structure is present in your upgraded environment.

However, if you want to use the new paths that point to 6.5 specific folders, then copy the content from the source folders to the target folders.

The following tables indicate the paths where the libraries were created and used with default paths.

Table 8.1 Migrating Tables for Business Data in SAS

Source Folder	Target Folder
<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data</code>	<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt</code>
<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_intrmdt</code>	<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt</code>
<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_output</code>	<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output</code>
<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt</code>	<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt</code>
<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output</code>	<code><SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output</code>

Scenario 2: Business Data Is Stored in a Database Other Than SAS

Perform this task if the business data is stored in a database other than SAS.

Verify that the contents of the source folders listed in the following table are available in the corresponding folders of the upgraded environment. If not, then copy the contents to the target folders.

Table 8.2 SAS Tables Migration for Business Data in Teradata

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Move Sample Data and Scenario Data after the Upgrade

Verify that the contents of the following folders in the preupgraded environment are available in the corresponding folders of the upgraded environment. If not, then copy the contents from the source folders to the respective target folders.

Table 8.3 Sample Data and Scenario Data Migration

Source Folder	Target Folder
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/projects/ data/sample	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/sample
<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/ CustLinkAnalytics5.5/scenario/ data	<SAS configuration directory>/ Lev1/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data

Update the SAS Enterprise Miner Project Workspace Path

In the pre-upgraded environment, you might have created various SAS Rapid Predictive Modeler models for viral effect analysis. These models are created as SAS Enterprise Miner project workspaces. After the upgrade, if you move the SAS Enterprise Miner project workspace to another location, then make sure that the SAS Customer Link Analytics execution user has Read and Write permission for the new folder.

If the location of the project workspace differs from the one in the pre-upgraded environment, perform the following steps:

- 1 Connect to the PostgreSQL client.
- 2 Connect to the PostgreSQL database that is created for SAS Customer Link Analytics.
- 3 Open the public schema.
- 4 Open the scenario_param table.
- 5 Filter the data for the following conditions:

Column = *scenario_param_id* and **Value** = *sia_project_location*. These filter conditions display a list of all the SAS Enterprise Miner project workspaces that are created in the preupgraded environment.
- 6 For each value of *sia_project_location*, edit the value of the *scenario_param_userdefined_value* column. Specify the new location in which the corresponding SAS Enterprise Miner project workspace is saved in the upgraded environment.
- 7 Save the changes.

Configure the SAS Server for SAS Enterprise Miner Project Location

If the SAS Customer Link Analytics Server is not deployed on the default application server, the SASApp - Logical Workspace Server, then you must set up the appropriate SAS server for the SAS Enterprise Miner project location parameter.

To set up the SAS server for the SAS Enterprise Miner project location parameter:

- 1 Connect to SAS Management Console with administrative privileges.
- 2 On the **Folders** tab, expand **Products** ▶ **SAS Customer Link Analytics** ▶ **Cust Link Analytics 6.5** ▶ **Viral Effect Analysis**.
- 3 In the right pane, right-click **sia_stp_update_scenario_param** and select **Properties**.
- 4 On the **Execution** tab, note the value of **Application server**.
- 5 On the **Parameters** tab, select **SAS Enterprise Miner project location**, and click **Edit**.
- 6 On the **Prompt Type and Values** tab, from the **SAS Server** list, select the same value that you noted for **Application server** in step 4.
- 7 Click **OK** to save the changes.

Prerequisite for Running Community Segmentation

You copy project data from the source environment to the upgraded environment.

Assume that this project is in design mode. If you want to run community segmentation for this project, then make sure that you first run the Community Building workflow step. Otherwise, the Centrality Measures Computation workflow step will execute with errors. For more information about running community segmentation and the workflow steps, see *SAS Customer Link Analytics: User's Guide*.

9

Post-Upgrade Tasks for 5.6 to 6.5

<i>Select the Server Context for Customer Link Analytics LASR Library</i>	45
<i>Upgrade the Metadata</i>	45
Deploy Loop Jobs	45
Upgrade Stored Processes for Viral Effect Analysis	46
Set Up the Hadoop JAR and Configuration Path	46
<i>Moving SAS Tables after the Upgrade</i>	46
Scenario 1: Business Data Is Stored in SAS	46
Scenario 2: Business Data Is Stored in a Database Other Than SAS	48
Move Sample Data and Scenario Data after the Upgrade	48
<i>Update the SAS Enterprise Miner Project Workspace Path</i>	49
<i>Configure the SAS Server for SAS Enterprise Miner Project Location</i>	49
<i>Restart the Middle Tier Servers</i>	50
<i>Prerequisite for Running Community Segmentation</i>	50

Select the Server Context for Customer Link Analytics LASR Library

To change the server context for the Customer Link Analytics LASR library:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**.
- 2 Right-click the **Customer Link Analytics LASR** library.
- 3 On the **Assign** tab, add the SAS application server context and the application server context for SAS Visual Analytics to the **Selected Servers** list.

Upgrade the Metadata

Deploy Loop Jobs

Complete the following steps in SAS Data Integration Studio:

- 1 Redeploy the sialoopjob that is used for data enrichment.
- 2 Deploy the siascenloopjob that is used for viral effect analysis.

For more information about deploying the jobs, see the *SAS Customer Link Analytics 6.5: Administrator's Guide*.

Upgrade Stored Processes for Viral Effect Analysis

To upgrade the stored processes for viral effect analysis:

- 1 On the **Plug-ins** tab of SAS Management Console, select **Data Library Manager** ► **Libraries**. A list of libraries (prefixed with `sia_`) that are packaged with SAS Customer Link Analytics 6.5 is displayed.
- 2 Identify the tables that you registered in the libraries with the prefix `sia_`. Identify whether these tables are used in any other applications such as SAS Enterprise Miner or SAS Visual Analytics. Determine whether you need these tables in the upgraded environment also. If not, then delete these tables.
- 3 On the **Folders** tab, select **Products** ► **SAS Customer Link Analytics** ► **Viral Effect Analysis Old**. All the stored processes that are required for viral effect analysis are migrated to this folder.
- 4 (Optional) You can reuse the customizations that you made to the 5.6 stored processes. If you want to do so, first back up the **Viral Effect Analysis** folder that is available within the **Cust Link Analytics 6.5** folder. Then move all the stored processes from the **Viral Effect Analysis Old** folder to the 6.5 folder.
- 5 Delete the **Viral Effect Analysis Old** folder.

Set Up the Hadoop JAR and Configuration Path

Perform this task if the business data is stored in Hadoop and if you have changed the default configuration.

Make sure that you define the `SAS_HADOOP_JAR_PATH` and `SAS_HADOOP_CONFIG_PATH` variables in the `appserver_autoexec_usermods.sas` file that is located on the target machine. This file is available in the following location: `<SAS configuration directory>/Lev1/SASApp`. You can also define these paths as environment variables.

Moving SAS Tables after the Upgrade

Scenario 1: Business Data Is Stored in SAS

If the business data is stored in SAS, then any one of the following scenarios is applicable in the preupgraded environment for the `sia_bdm_output`, `sia_bdm_intmdt`, `sia_analytics_output`, and `sia_analytics_inmdt` libraries:

Default library path is modified

You have modified the library path of these libraries. As a result, this path is not the default path with which the libraries are created. Moreover, this path is outside the configuration path of the SAS Customer Link Analytics Server. For example, this path can be `c:/XDR`.

Default library path is not modified

You have not modified the library path of the libraries. As a result, it points to the default path with which these libraries are created.

In both of these scenarios, after the upgrade is complete, the paths of these libraries point to 6.5 specific folders. For example, the path can be `<SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmdt`.

If you want to reuse the earlier paths that you modified in the pre-upgraded environment, then remove the 6.5 specific paths and add the earlier paths that you noted as part of the pre-upgrade tasks. For more information, see [“Pre-Upgrade Task for SAS Library Paths” on page 36](#). To update the paths, in SAS Management Console, for each library, right-click **Properties**, and then select the **Options** tab. Remove the existing paths from the **Selected Items** list and add the paths that you want the libraries to point to. Make sure that the corresponding folder structure is present in your upgraded environment.

However, if you want to use the new paths that point to 6.5 specific folders, then copy the content from the source folders to the target folders.

The following tables indicate the paths where the libraries were created and used with default paths.

Table 9.1 Migrating Tables for Business Data in SAS

Source Folder	Target Folder
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/projects/data/business_intrmdt</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_intrmdt</code>
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/projects/data/business_output</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/projects/data/business_output</code>
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/scenario/data/analytics_intrmdt</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/scenario/data/analytics_intrmdt</code>
<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/5.6/scenario/data/analytics_output</code>	<code><SAS configuration directory>/Lev1/AppData/SASCustomerLinkAnalytics/6.5/scenario/data/analytics_output</code>

Scenario 2: Business Data Is Stored in a Database Other Than SAS

Perform this task if the business data is stored in a database other than SAS.

Verify that the contents of the source folders listed in the following table are available in the corresponding folders of the upgraded environment. If not, then copy the contents to the target folders.

Table 9.2 SAS Tables Migration for Business Data in Hadoop or Teradata

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/business_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/business_output
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_intrmdt	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_intrmdt
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data/analytics_output	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data/analytics_output

Move Sample Data and Scenario Data after the Upgrade

Verify that the contents of the following folders in the preupgraded environment are available in the corresponding folders of the upgraded environment. If not, then copy the contents from the source folders to the respective target folders.

Table 9.3 Sample Data and Scenario Data Migration

Source Folder	Target Folder
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ projects/data/sample	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ projects/data/sample
<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/5.6/ scenario/data	<SAS configuration directory>/ Levl/AppData/ SASCustomerLinkAnalytics/6.5/ scenario/data

Update the SAS Enterprise Miner Project Workspace Path

In the pre-upgraded environment, you might have created various SAS Rapid Predictive Modeler models for viral effect analysis. These models are created as SAS Enterprise Miner project workspaces. After the upgrade, if you move the SAS Enterprise Miner project workspace to another location, then make sure that the SAS Customer Link Analytics execution user has Read and Write permission for the new folder.

If the location of the project workspace differs from the one in the pre-upgraded environment, perform the following steps:

- 1 Connect to the PostgreSQL client.
- 2 Connect to the PostgreSQL database that is created for SAS Customer Link Analytics.
- 3 Open the public schema.
- 4 Open the `scenario_param` table.
- 5 Filter the data for the following conditions:
Column = `scenario_param_id` and **Value** = `sia_project_location`. These filter conditions display a list of all the SAS Enterprise Miner project workspaces that are created in the preupgraded environment.
- 6 For each value of `sia_project_location`, edit the value of the `scenario_param_userdefined_value` column. Specify the new location in which the corresponding SAS Enterprise Miner project workspace is saved in the upgraded environment.
- 7 Save the changes.

Configure the SAS Server for SAS Enterprise Miner Project Location

If the SAS Customer Link Analytics Server is not deployed on the default application server, the SASApp - Logical Workspace Server, then you must set up the appropriate SAS server for the SAS Enterprise Miner project location parameter.

To set up the SAS server for the SAS Enterprise Miner project location parameter:

- 1 Connect to SAS Management Console with administrative privileges.
- 2 On the **Folders** tab, expand **Products** ► **SAS Customer Link Analytics** ► **Cust Link Analytics 6.5** ► **Viral Effect Analysis**.

- 3 In the right pane, right-click **sia_stp_update_scenario_param** and select **Properties**.
- 4 On the **Execution** tab, note the value of **Application server**.
- 5 On the **Parameters** tab, select **SAS Enterprise Miner project location**, and click **Edit**.
- 6 On the **Prompt Type and Values** tab, from the **SAS Server** list, select the same value that you noted for **Application server** in step 4.
- 7 Click **OK** to save the changes.

Restart the Middle Tier Servers

After you complete the upgrade process in the target environment, restart the Platform Services Middle-Tier Server, the SAS Customer Link Analytics Middle-Tier Server, and the SAS Visual Analytics Middle-Tier Server. Otherwise, you will not be able to view the community report or the community segmentation report in SAS Visual Analytics Viewer. For more information about the reports, see the *SAS Customer Link Analytics: User's Guide*.

Prerequisite for Running Community Segmentation

You copy project data from the source environment to the upgraded environment.

Assume that this project is in design mode. If you want to run community segmentation for this project, then make sure that you first run the Community Building workflow step. Otherwise, the Centrality Measures Computation workflow step will execute with errors. For more information about running community segmentation and the workflow steps, see *SAS Customer Link Analytics: User's Guide*.

10

Validation Instructions

<i>Validating the Upgrade</i>	51
Verify the Properties of the Software Components	51
Verify the User Group and the Metadata User in SAS Management Console ..	51

Validating the Upgrade

Verify the Properties of the Software Components

To verify the software component properties:

- 1 On the **Plug-ins** tab of SAS Management Console, select **SAS Management Console** ► **Application Management** ► **Configuration Manager**.
- 2 Right-click **Cust Link Analytics Svr Cfg 6.5**, and then select **Properties**.
- 3 In the Properties dialog box, select the **Advanced** tab. On this tab, you can see a list of the properties and their values. If the value of any software component property has been changed before the upgrade, make sure that the corresponding change is also reflected after the upgrade.
- 4 Check whether the values are correctly assigned.
- 5 Click **OK**.
- 6 Close SAS Management Console.

Verify the User Group and the Metadata User in SAS Management Console

Verify that all the operating system users who are configured in SAS Management Console have also been migrated to the metadata in the updated environment. Also, verify that the roles and capabilities that are assigned to these users are retained in the upgraded environment.

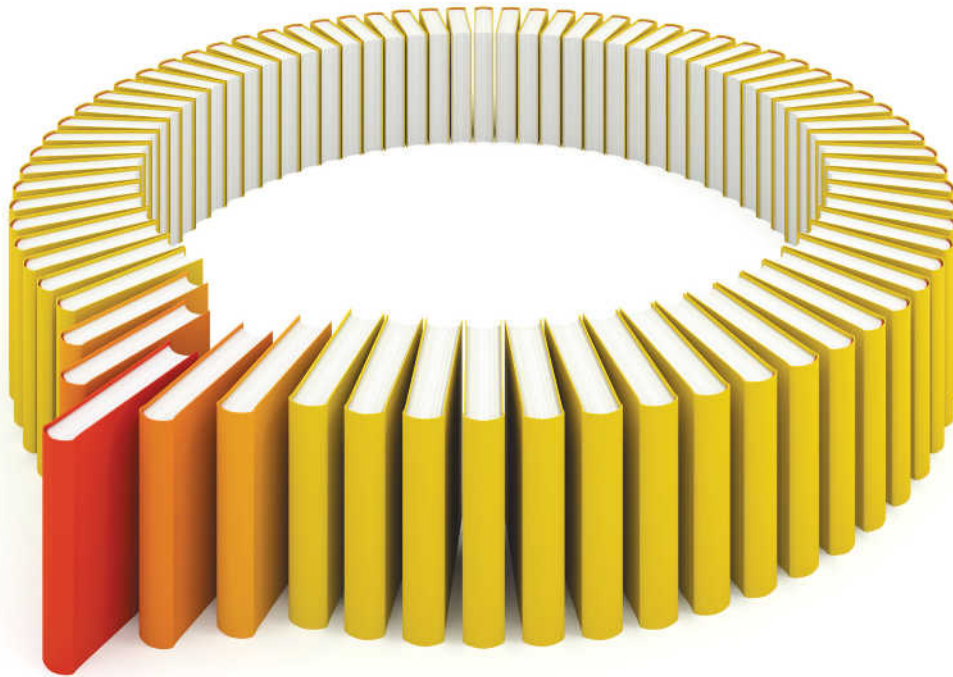
Recommended Reading

When you read this document, you could refer to the following documents:

- *SAS Customer Link Analytics: Administrator's Guide*
- *SAS Customer Link Analytics: User's Guide*

For a complete list of SAS publications, go to sas.com/store/books. If you have questions about which titles you need, please contact a SAS Representative:

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