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# Stored Procedure Accelerator Guide for Sybase

Informatica Dynamic Data Masking Stored Procedure Accelerator Guide for Sybase
9.8.0
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# Preface

The *Stored Procedure Accelerator Guide for Sybase* contains information to help administrators use the stored procedure accelerator to implement Dynamic Data Masking for stored procedures in a Sybase ASE database. This guide assumes that you have knowledge of Dynamic Data Masking.

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CHAPTER 1

# Introduction to the Stored Procedure Accelerator for Sybase

This chapter includes the following topics:


- Stored Procedure Accelerator for Sybase Overview, 9
- Masking Stored Procedures, 9
- Stored Procedure Accelerator Components, 11
- Stored Procedure Accelerator Maintenance, 11
- Stored Procedure Accelerator Example, 11


## Stored Procedure Accelerator for Sybase Overview

Use the Stored Procedure Accelerator for Sybase to implement Dynamic Data Masking to mask stored procedures in a Sybase ASE database. The accelerator package contains predefined Dynamic Data Masking security rule templates and example rules.

The Stored Procedure Accelerator for Sybase is in the Dynamic Data Masking installation directory as an additional component that you can configure to mask stored procedures. You can define masking rules based on the stored procedures and sensitive data in the Sybase ASE database.

## Masking Stored Procedures

Dynamic Data Masking uses a Java Action security rule to determine whether an incoming statement is a call to a stored procedure. The Java Action rewrites the call to the stored procedure so that the masking rules can use the result set structures.

To mask stored procedure outputs, Dynamic Data Masking dynamically creates tables within the Sybase ASE database based on the structure of the result set. You define the temporary database and schema as symbols in the security rule set. Dynamic Data Masking creates tables in the temporary database and schema. Dynamic Data Masking then populates the table with data in the temporary database. Dynamic Data Masking names the tables in the temporary database in the following way:

```
DDM_<Procedure Name>_<unique long number for call>_<result set sequence number>
```

For example, a table in the temporary database might have the following name:

```
DDM_Proc_Dept_Emp_1426236444222_0
```

The unique long number for call and the result set sequence number are automatically generated numbers.

For each result set that the procedure returns, Dynamic Data Masking creates a new table in the temporary database and populates the table with data. Dynamic Data Masking then forms a select query for the table in the temporary database and masks the query based on the security rules. Dynamic Data Masking creates a temporary stored procedure in the temporary database that uses the masked select query. The client receives the results of the temporary stored procedure call.

**Note:** You must manually drop the tables and stored procedures from the temporary database periodically to save space.

### Stored Procedure Names with Semicolons

Sybase table names cannot contain a semicolon (;). If the stored procedure name contains a semicolon, Dynamic Data Masking changes the semicolon to an underscore (_) in the temporary database.

When you enter the table name to mask in the stored procedure masking rules, you must replace the semicolon in the stored procedure name to an underscore. For example, if you have a stored procedure with the following name:

```
GetEmployeeName;3
```

Dynamic Data Masking creates the following table in the temporary database:

```
DDM_GetEmployeeName_3_<unique long number for call>_<result set sequence number>
```

When you create masking rules for the stored procedure, you enter the following text in the Mask rule action Table Name parameter:

```
.* DDM_GetEmployeeName_3.*
```

## Parameter Data Types

The stored procedures that you mask with the Stored Procedure Accelerator for Sybase must have parameters with recognized data types.

You can use the accelerator to mask stored procedures that contain parameters with the following data types:

**Constant Arguments**

- char
- date
- integer

**Binding Arguments**

- char
- date
- integer

# Stored Procedure Accelerator Components

The accelerator contains .jar files and four security rule sets.

You can find the accelerator in the following directory:

```
<Dynamic Data Masking installation>\Accelerators\StoredProcedureMasking
```

Dynamic Data Masking uses the .jar files, MultipleStatementMasking.jar and StoredProcedureMasking.jar, in the Java Action security rule to mask stored procedures.

You must configure two security rule sets to use the accelerator. The accelerator contains template rule sets and sample HR security rule sets.

# Stored Procedure Accelerator Maintenance

Remove tables and temporary stored procedures from the temporary database to conserve space.

To mask stored procedures, Dynamic Data Masking dynamically creates tables and temporary stored procedures in the Sybase ASE temporary database. After the Rule Engine applies masking rules to the SQL statement, it creates a temporary stored procedure and sends the request to the tables in the temporary database. You must periodically manually drop the tables and temporary stored procedures in the temporary database.

# Stored Procedure Accelerator Example

You want to mask data called by a stored procedure.

You have a stored procedure named Proc_Dept_Emp. The stored procedure calls the following columns in the Dept_Emp table:

- EMPLOYEE_ID
- Last_Name
- FIRST_NAME
- JOB_ID
- Job_Title
- SALARY
- COMM
- DEPARTMENT_ID

You set up the stored procedure accelerator and create a masking rule set. You have a masking rule that masks the Proc_Dept_Emp stored procedure. The following table describes the columns and masking functions that you define in the masking rule:

| Column | Masking Function |
|---|---|
| .*SALARY | 999 |
| .*COMM | substring(convert(varchar,\(col),0),1,1) |
| .*Last_Name | substring(\(col),1,2) |
| When you create the masking rule, you must enter the column name preceded by .*. | |

You send the following request to the database:

```
EXEC Proc_Dept_Emp @manager_id = 25 , @dept_id = 10
```

The Dynamic Data Masking Java Action converts the request to the following statement:

```
SELECT EMPLOYEE_ID,
Last_Name, FIRST_NAME, JOB_ID, Job_Title, SALARY, COMM, DEPARTMENT_ID
FROM tempdb.dbo.DDM_Proc_Dept_Emp_1426236444222_0
```

**Note:** The name of the table is the table that Dynamic Data Masking created in the temporary database.

The masking rule then changes the request to the following statement:

```
SELECT EMPLOYEE_ID,
substring(Last_Name ,1,2) Last_Name, FIRST_NAME, JOB_ID, Job_Title, 999 SALARY,
substring(convert(varchar,COMM ,0),1,1) COMM, DEPARTMENT_ID
FROM tempdb.dbo.DDM_Proc_Dept_Emp_1426236444222_0
```

Dynamic Data Masking creates a temporary stored procedure in the temporary database that uses the masked select statement and sends the request to the following temporary stored procedure:

```
EXEC tempdb.dbo.DDM_MASKED_Proc_Dept_Emp_1426236444222 @manager_id=25 ,@dept_id = 10
```

CHAPTER 2

# Stored Procedure Accelerator Setup

This chapter includes the following topics:


- Stored Procedure Accelerator Setup Overview, 13
- Step 1. Verify Requirements, 14
- Step 2. Grant User Permissions, 14
- Step 3. Add the JDBC Driver, 14
- Step 4. Create a Database Connection, 15
- Step 5. Create a Connection Rule, 15
- Step 6. Import the Security Rule Sets, 17
- Step 7. Define Masking Rules, 21


## Stored Procedure Accelerator Setup Overview

Set up the Stored Procedure Accelerator for Sybase to mask stored procedure result sets in Sybase ASE.

To set up the accelerator, perform the following tasks:

1. Verify the setup requirements.
2. Grant user permissions.
3. Add the JDBC Driver.
4. Create a Sybase ASE database connection.
5. Create a connection rule.
6. Import the accelerator security rule sets and configure the rules.
7. Define masking rules for stored procedures.

# Step 1. Verify Requirements

Verify the following requirements before you use the Stored Procedure Accelerator for Sybase:

- You must have Dynamic Data Masking version 9.6.2 or later installed.
- You must have a Sybase ASE database that contains stored procedures. If the database does not contain a stored procedure, you can set up the accelerator and create rules, but the rules will not return a match and will not mask data.
- The client application that sends requests to the database must connect to Dynamic Data Masking with a jConnect 6.x or jConnect 7.x JDBC driver.

# Step 2. Grant User Permissions

Grant user access to the temporary database.

Every user that executes the stored procedures must have access to the temporary database. You must also grant access to the temporary database for the Dynamic Data Masking user that you use to create the database connection in the Management Console.

To grant access to the temporary database, run the following command:

```
use <temporary database name>
sp_adduser <user name>
```

# Step 3. Add the JDBC Driver

Add the Sybase jConnect 7.x JDBC driver to the Dynamic Data Masking installation directory.

1. Copy the Sybase jConnect 7.x JDBC driver and save the driver in the following location:

   ```
   <Dynamic Data Masking installation>/lib/ext
   ```

2. Open a Server Control window.
   - On Windows, run the following commands:

     - `server stop`

     - `server remove`

     - `server start`
   - On Linux, run the following commands:

     - `./server stop`

     - `./server start`

# Step 4. Create a Database Connection

Add the Dynamic Data Masking service for Sybase in the Management Console and connect to the database.

1. Log in to the Dynamic Data Masking Management Console.
2. Select the Dynamic Data Masking Server in the Management Console tree and click **Tree** > **Add DDM Services**.

   The **Add DDM Services** window appears.
3. Select DDM for Sybase and click **OK.**

   The DDM for Sybase node appears in the Management Console tree.
4. Select the Management Console tree root node and click **Tree** > **Add Database**.

   The **Add Database** window appears.
5. Select the Sybase database type and configure the database connection parameters.

   The following table describes the connection parameters:

| Parameters | Description |
|---|---|
| DDM Database Name | Name for the database in the Management Console tree. |
| Server Address | Server host name or TCP/IP address for the Sybase database.<br>**Note:** Verify that there is no firewall that prohibits the Dynamic Data Masking Server from connecting to the database server and port number. |
| Server Port | TCP/IP listener port for the Sybase database. |
| Optional Parameters | Additional parameters for the Informatica driver for Sybase. |
| DBA Username | User name for the database user account to log in to the Sybase database. |
| DBA Password | Password for the database user. |

6. Click **Test Connection** and verify that Dynamic Data Masking is connected to the database.
7. Click **OK**.

   The database node appears in the Management Console tree.

# Step 5. Create a Connection Rule

Create a connection rule that directs SQL requests to the StoredProcTmpl rule set.

1. Select the Dynamic Data Masking service node for Sybase that you created in the Management Console tree and click **Tree** > **Connection Rules**.

   The **Rule Editor** opens.
2. In the **Rule Editor**, select the DDM for Sybase node in the tree and select **Action** > **Append Rule**.

   The **Append Rule** window opens.

3. In the **Append Rule** window, configure the following parameters:

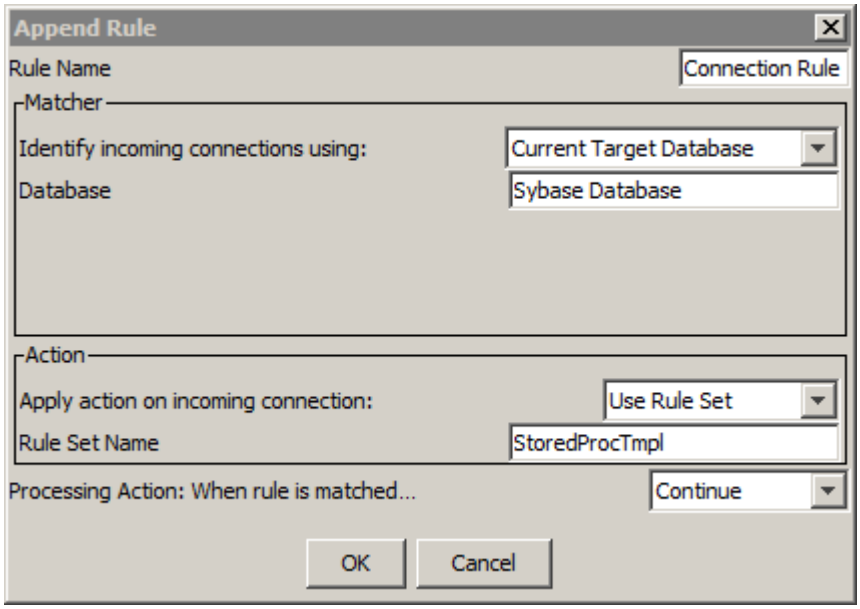
| Parameter | Description |
|---|---|
| Rule Name | The logical name of the rule that appears in the rule tree. Enter the name of the connection rule. |
| Rule Matcher | Defines the criteria that the Rule Engine uses to identify a match. Select Current Target Database. |
| Database | Defines the target database name. Enter the name of the database. |
| Rule Action | Defines the action that the Rule Engine applies to incoming connections. Select Use Rule Set. |
| Rule Set Name | Defines the rule set that the Use Rule Set rule action sends the request to. Enter the name of the rule set that you want to direct the request to. To use the template rule sets, enter StoredProcTmpl.<br>The Rule Set Name that you enter is the name of the rule set that contains the Define Symbol and Java Action security rules. If you want to use the HR example rule set, enter HRStoreProcRS. If you want to create your own rule set, enter the name of the rule set that you create. |
| Processing Action | Determines how the Rule Engine processes the connection after the Rule Engine applies the connection rule. Select Continue. |

4. Click **OK**.

   The rule appears in the **Rule Editor**.

5. Select **File** > **Update Rules** to save the connection rule.
6. Select **File** > **Exit** to close the **Rule Editor**.

The following image shows the connection rule:



# Step 6. Import the Security Rule Sets

Import the security rule sets and configure the rules to mask stored procedures.

You can import the security rule set templates and alter them based on the stored procedures in the database. You can import the HR rule sets to use as an example.

When you import the rule set that contains the masking rules, you must alter the rules based on the columns that the stored procedure accesses. Create a separate security rule in the rule set for each stored procedure.

## Importing the StoredProc Rule Set

Import the StoredProcTmpl security rule set into the Management Console.

1. Select the Management Console tree root node and click **Tree** > **Add Rule Set**.

   The **Add Rule Set** window opens.
2. Enter StoredProcTmpl as the rule set name and click **OK**.

   The StoredProcTmpl rule set node appears in the Management Console tree.

   **Note:** If you want to use the HR example rule sets and you directed the connection rule to the HRStoredProcRS rule set, you must enter HRStoredProcRS as the rule set name.
3. Select the StoredProcTmpl node and click **Tree** > **Security Rule Set**.

   The **Rule Editor** opens.
4. In the **Rule Editor**, click **Action** > **Import**.

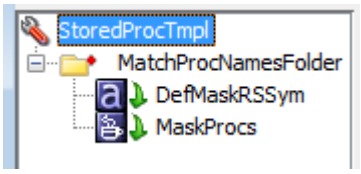
   The **Import** window opens.
5. Navigate to the following directory:

   `<Dynamic Data Masking installation>\Accelerators\StoredProcedureMasking\rules\Sybase`
6. Select the Sybase_StoredProcRSTmpl.xml file and click **Import**.

   The MatchProcNamesFolder rule folder appears in the **Rule Editor**.

   **Note:** If you want to use the HR example rule sets, select the Sybase_HRStoredProcRS.xml file.
7. Expand the MatchProcNamesFolder rule folder to view the DefMaskRSSym and MasProcs rules.

   The following image shows the security rule set rules:

   
   
8. Click **File** > **Update Rules** to save the security rules.

## Configuring the StoredProc Rules

Configure the StoredProc rules in the **Rule Editor**.

1. Select the MatchProcNamesFolder rule and click **Action** > **Edit**.

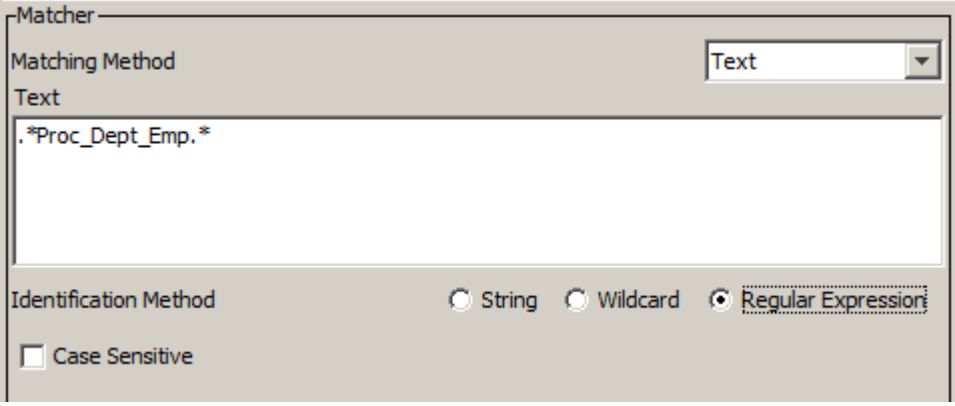
   The **Edit Rule** window opens.

2. In the Text field of the matcher, replace "proc name 1," "proc name 2," and "proc name 3" with stored procedure names.

   For example, you might enter the following text in the Text field:

   ```
   .*Proc_Dept_Emp.*
   ```

   The following image shows the MatchProcsNamesFolder rule matcher parameters:




3. Click **OK**.

   The **Rule Editor** closes.

4. Click **File** > **Update Rules** to save the security rule.

5. Select the DefMaskRSSym rule and click **Action** > **Edit**.

   The **Edit Rule** window opens.

6. Define the following symbols:

   **ExplicitRuleSet**

   Enter ExplicitRuleSet in the Symbol Name field and the name of the rule set that contains the masking rules in the Symbol Value field. For the template rule sets, enter StoredProcMasksTmpl. If you want to use the HR example rule set, enter HRStoredProcMasksRS.

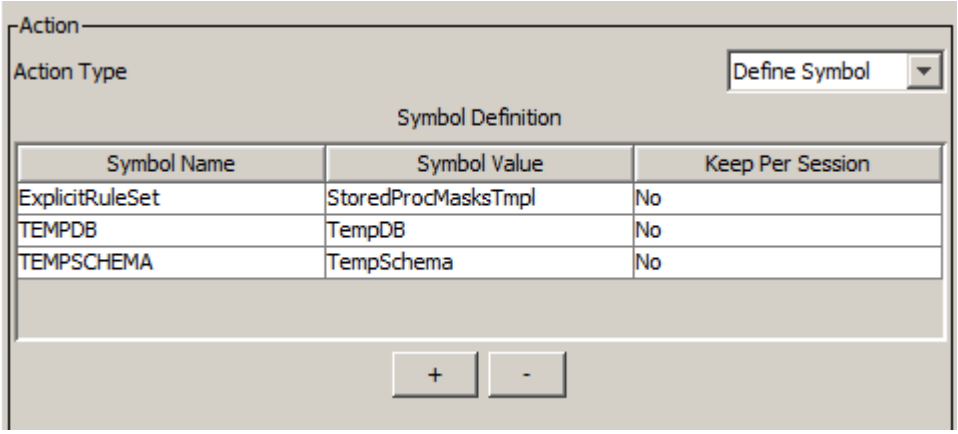
   **TEMPDB**

   Enter TEMPDB in the Symbol Name field and the name of the temporary database in the Symbol Value field, such as TempDB. If you do not define the TEMPDB symbol, Dynamic Data Masking uses the default value, tempdb.

   **TEMPSCHEMA**

   Enter TEMPSCHEMA in the Symbol Name field and the name of the temporary schema in the Symbol Value field, such as TempSchema. If you do not define the TEMPSCHEMA symbol, Dynamic Data Masking uses the default value, dbo.

   The following image shows the DefMaskRSSym rule action properties:




7. Click **OK**.

   The **Rule Editor** closes.

8. Click **File** > **Update Rules** to save the security rule.

9. Select the MaskProcs rule and click **Action** > **Edit**.

   The **Edit Rule** window opens.

10. In the rule action Class Path field, enter the file path of the stored procedure accelerator .jar files, separated by a semicolon (;).

    You can find the .jar files in the following directory:

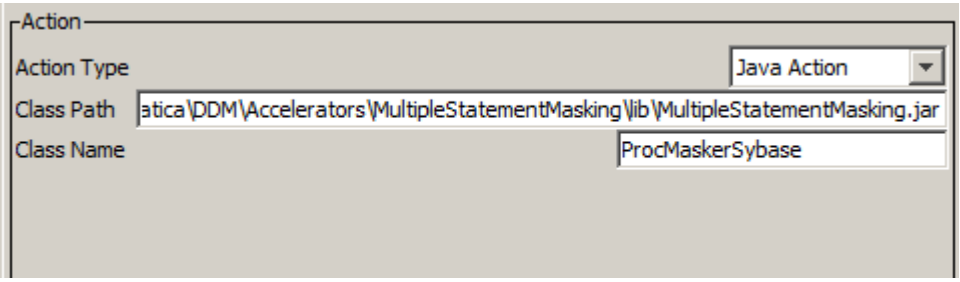
    ```
    <Dynamic Data Masking installation>\Accelerators\StoredProcedureMasking\lib
    ```

    For example, you might enter:

    ```
    C:\Program Files\Informatica\DDM\Accelerators\StoredProcedureMasking\lib
    \StoredProcedureMasking.jar;C:\Program Files\Informatica\DDM\Accelerators
    \StoredProcedureMasking\lib\MultipleStatementMasking.jar
    ```

    **Note:** The Class Name must be ProcMaskerSybase.

    The following image shows the MaskProcs rule action parameters:




11. Click **OK**.

    The **Rule Editor** closes.

12. Click **File** > **Update Rules** to save the security rules.

13. Click **File** > **Exit** to close the **Rule Editor**.

## Importing the StoredProcMasks Rule Set

Import the StoredProcMasks masking rule set into the Management Console.

1. Select the Management Console tree root node and click **Tree** > **Add Rule Set**.

   The **Add Rule Set** window opens.
2. Enter StoredProcMasksTmpl as the rule set name and click **OK**.

   The StoredProcMasksTmpl rule set node appears in the Management Console tree.

   **Note:** If you want to use the HR example rule sets, enter HRStoredProcMasksRS as the rule set name.
3. Select the StoredProcMasksTmpl node and click **Tree** > **Security Rule Set**.

   The **Rule Editor** opens.
4. In the **Rule Editor**, click **Action** > **Import**.

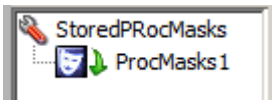
   The **Import** window opens.
5. Navigate to the following directory:

   `<Dynamic Data Masking installation>\Accelerators\StoredProcedureMasking\rules\Sybase`
6. Select the Sybase_StoredProcMasksRSTmpl.xml file and click **Import**.

   The ProcMasks1 rule appears in the **Rule Editor**.

   **Note:** If you want to use the HR example rules, select the Sybase_HRStoredProcMasksRS.xml file.

   The following image shows the StoredProcMasksTmpl rules:

7. Click **File** > **Update Rules** to save the security rules.

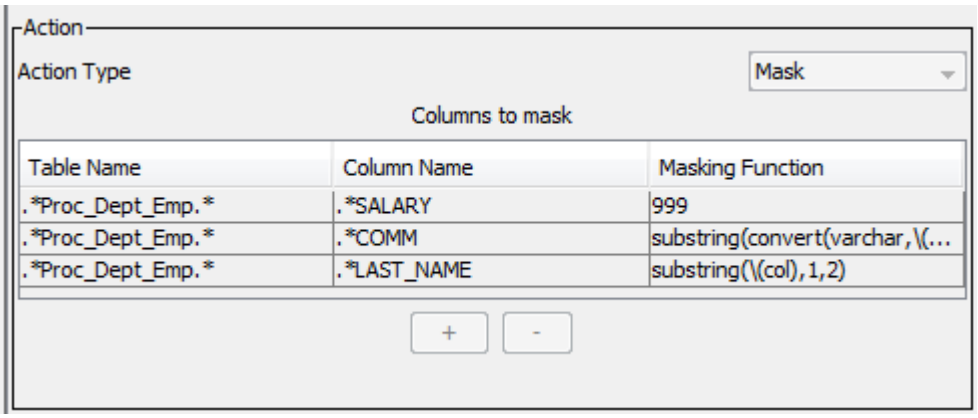
## Configuring the StoredProcMasks Rules

Configure the StoredProcMasks rules in the Rule Editor.

1. Select the ProcMasks1 rule and click **Action** > **Edit**.

   The **Edit Rule** window opens.
2. Edit the rule properties based on the stored procedure that you want to mask. For example, the HR rule set has a MaskProcDeptEmp rule with masking functions defined for each column.

   The following image shows the rule action parameters in the HR MaskProcDeptEmp example rule:




3. Click **OK**.

   The **Rule Editor** closes.

4. Click **File** > **Update Rules** to save the security rule.
5. Click **File** > **Exit** to close the **Rule Editor**.

# Step 7. Define Masking Rules

Define masking rules for each stored procedure.

For each stored procedure in the database, create a masking rule in the StoredProcMasks rule set. In the rule, you can add a row in the Mask rule action for each column that the stored procedure outputs. For information about masking rules, see the *Dynamic Data Masking User Guide*.

CHAPTER 3

# Stored Procedure Accelerator Rules

This chapter includes the following topics:


- Stored Procedure Accelerator Rules Overview, 22
- Connection Rule, 22
- StoredProc Rule Set, 23
- StoredProcMasks Rule Set, 25


## Stored Procedure Accelerator Rules Overview

The Stored Procedure Accelerator for Sybase contains template rules and sample rules that you can edit or copy to create rules based on the stored procedures in the database.

To use the accelerator, you must create a connection rule and two rule sets. The connection rule directs requests to the first rule set. The first rule set contains rules to set up the accelerator. The second rule set contains masking rules. You can import the accelerator rule sets and configure the rules based on the stored routines in the database.

You can find the .xml files that contain the accelerator rule sets in the following location:

```
<Dynamic Data Masking installation>\Accelerators\StoredProcedureMasking\rules\Sybase
```

The Sybase_StoredPRocMasksRSTmpl.xml and Sybase_StoredProcRSTmpl.xml files contain the template rule sets. You can import the template rule sets and configure the rules to mask stored procedures.

The Sybase_HRStoredProcRS.xml and Sybase_HRStoredPRocMasksRS.xml files contain the example HR rule sets. You can view the example rules to see how a complete rule set looks.

## Connection Rule

A Dynamic Data Masking connection rule directs the SQL request to the StoredProcTmpl security rule set.

You must create a connection rule in the Dynamic Data Masking Management Console to use the accelerator. Configure the connection rule to identify the incoming connection. For example, you can identify the incoming connection by the database type. Select the Use Rule Set action and define the StoredProcTmpl rule set name or the name of the rule set that you create that contains the accelerator setup rules. Select the

Stop if Applied processing action. If the client makes a request to the database, the Rule Engine applies the rule set.

# StoredProc Rule Set

The StoredProc rule set contains three rules that identify requests, define the ExplicitRuleSet symbol, and call the accelerator .jar files.

The StoredProc template rule set is the Sybase_StoredPRocRSTmpl.xml file in the accelerator directory. To use the template rules, create a rule set with the name StoredProcTmpl and import the rules into the rule set.

The StoredProc example HR rule set is the Sybase_HRStoredProcRS.xml file in the accelerator directory. To use the example rules, create a rule set with the name HRStoredProcRS and import the rules into the rule set.

You can also create a rule set with any name and create rules in the rule set based on the template rules and example rules.

## MatchProcNamesFolder Rule

The MatchProcNamesFolder rule identifies requests that call stored procedures and directs them through the rule set.

The first rule in the StoredProc rule set is the MatchProcNamesFolder rule. The rule identifies requests to restrict the number of requests that go through the masking rules, which improves performance. The database may have stored procedures that you do not want Dynamic Data Masking to affect the results of, such as maintenance stored procedures. Configure the MatchProcNamesFolder rule so that those stored procedures are not a match for the rule.

You can use any matcher to identify incoming requests that call stored procedures. For example, if the names of the stored procedures in the database begin with Proc_, you can use a regular expression to identify requests that contain Proc_.

The MatchProcNamesFolder has the following parameters:

**Rule Name**

The rule name is MatchProcNamesFolder.

**Matcher**

The rule uses the Text matcher. You can change the matcher based on how you want to identify stored procedures.

**Text**

You can use regular expressions in the Text parameter to identify stored procedures.

**Rule Action**

The rule uses the Folder action. The Folder action creates a rule folder.

**Processing Action**

The rule uses the Stop if Matched action.

## DefMaskRSSym Rule

The DefMaskRSSym rule creates the ExplicitRuleSet, TEMPDB, and TEMPSCHEMA symbols.

Use the ExplicitRuleSet, TEMPDB, and TEMPSCHEMA symbols to define the security rule set, the temporary database, and the temporary schema.

The DefMaskRSSym rule has the following properties:

**Name**

The name of the rule is DefMaskRSSym.

**Matcher**

The rule uses the Any matcher.

**Rule Action**

The rule uses the Define Symbol rule action. Do not change the rule action.

**Keep Per Session**

Enter No to create symbols that only exist during the current SQL request.

Define the following symbols in the rule action:

**ExplicitRuleSet**

The ExplicitRuleSet symbol defines the security rule set that contains the masking rules. The symbol value is the name of the rule set. If you want to use the template rules, enter StoredProcMasksTmpl in the Symbol Value field. If you want to use the HR example rule set, enter HRStoredProcMasksRS.

**TEMPDB**

The TEMPDB symbol defines the name of the temporary database where you want Dynamic Data Masking to create temporary tables and stored procedures. The symbol value is the name of the temporary database. If you do not define the TEMPDB symbol, Dynamic Data Masking uses the default value, tempdb.

**TEMPSCHEMA**

The TEMPSCHEMA symbol defines the name of the schema in the temporary database where you want Dynamic Data masking to create temporary tables and stored procedures. The symbol value is the name of the temporary schema. If you do not define the TEMPSCHEMA symbol, Dynamic Data Masking uses the default value, dbo.

## MaskProcs Rule

The MaskProcs rule specifies the location of the stored procedure accelerator .jar files.

The MaskProcs rule uses the Any matcher so that the rule applies to all requests. It uses the Java Action rule action to identify the Stored Procedure .jar files. The Class Name must be ProcMaskerSybase.

The MaskProcs rule has the following parameters:

**Name**

The name of the rule is MaskProcs.

**Matcher**

The rule uses the Any matcher so that the rule applies to all requests.

**Rule Action**

The rule uses the Java Action rule action. Do not change the rule action.

**Class Path**

Enter the file paths of the accelerator .jar files, separated by a semicolon (;). You can find the .jar files in the following location:

```
<Dynamic Data Masking installation>\Accelerators\StoredProcedureMasking\lib
```

For example, you might enter:

```
C:\Program Files\Informatica\DDM\Accelerators\StoredProcedureMasking\lib
\StoredProcedureMasking.jar;C:\Program Files\Informatica\DDM\Accelerators
\StoredProcedureMasking\lib\MultipleStatementMasking.jar
```

**Class Name**

The class name is ProcMaskerSybase. Do not change the class name.

**Processing Action**

The rule uses the Continue processing action.

# StoredProcMasks Rule Set

The StoredProcMasks rule set contains a masking rule for stored procedures.

You can add as many masking rules to the StoredProcMasks rule set as required. You must create a separate rule for each stored procedure. The predefined rule sets contains a rule that shows you how to mask a stored procedure.

The StoredProcMasks template rule set is the Sybase_StoredPRocMasksRSTmpl.xml file in the accelerator directory. To use the template rules, create a rule set with the name StoredProcMasksTmpl and import the rules into the rule set.

The StoredProcMasks example HR rule set is the Sybase_HRStoredProcRS.xml file in the accelerator directory. To use the example rules, create a rule set with the name HRStoredProcMasksRS and import the rules into the rule set.

You can also create a rule set with any name and create masking rules in the rule set based on the template rules and example rules.

**Note:** You must identify the StoredProcMasks rule set name in the DefMaskRSSym rule when you define the symbol value. If you change the name of the StoredProcMasks rule set, update the Value field in the DefMaskRSSym rule.

## ProcMasks1 Rule

The ProcMasks1 rule masks a stored procedure.

You can configure the ProcMasks1 rule to mask a stored procedure. Add a row in the rule action for each column that the procedure outputs. Create a rule for each stored procedure.

The ProcMasks1 rule has the following values:

**Name**

The name of the rule is ProcMasks1. You can change the name of the rule based on the name of the stored procedure.

**Matcher**

The rule uses the Any matcher.

**Rule Action**

The rule uses the Mask rule action.

**Table Name**

Enter the name of the stored procedure, preceded and followed by .*. For example, you might enter:

```
.*Proc_EMPLOYEE.*
```

If the stored procedure name contains a semicolon (;), replace the semicolon with an underscore (_) in the Table Name parameter. For example, if you have a stored procedure with the following name:

```
DDM_GetEmployeeName;3.
```

Enter the following text in the Table Name parameter:

```
.* DDM_GetEmployeeName_3.*
```

**Column Name**

The name of the column that you want to mask, preceded by .*. For example, you might enter:

```
.*SALARY
```

**Masking Function**

The masking function that you want to use to mask the column data.

**Processing Action**

The rule uses the Continue processing action.

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