



## Configuring Data Masking

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Intellicus Web-based Reporting Suite **Version 4.5**

-  Enterprise
-  Professional
-  Smart Developer
-  Smart Viewer

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## **Acknowledgements**

Intellicus acknowledges using of third-party libraries to extend support to the functionalities that they provide.

For details, visit: <http://www.intellicus.com/acknowledgements.htm> .

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## Securing Data (data masking)

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Use this feature to restrict users from viewing the data they are not expected to.

A field can be completely masked, for example, Salary amount. A field can be masked partially, for example, Credit card number.

Data Masking related activities are carried out on **Secure Data** tab. Click Administration > Secure Data.

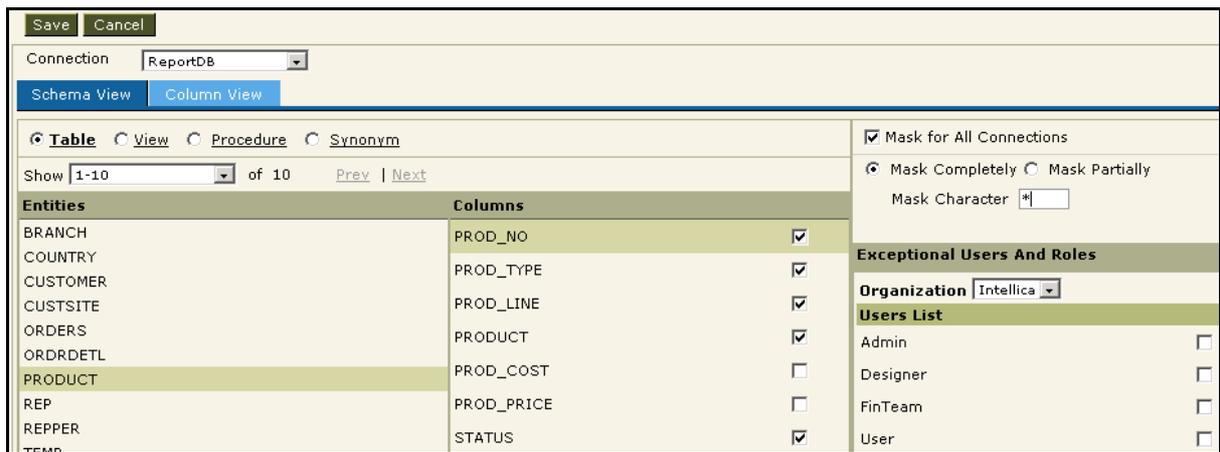


Figure 1: Setting Column Masking

General steps to mask a column,

1. Select a database connection.
2. Select a data object.
3. Select an Entity.
4. Select column to mask.
5. Specify masking details.
6. Apply exceptions if any.

Here are the detailed steps.

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## To get entities list

1. While on **Schema** view, select a connection from **Connection** dropdown box.
2. Select a database object. To do this, select the required database object from (select) **Table, View, Procedure and Synonym**. Entities list will appear.

At a time, the list displays a pre-set number of entities. If the entity you are looking for is not available in the list, use the drop-down box options to view another set of entities. To get next list, click **Next** link. To get previous list, click **Prev** link.

## Getting a list of columns of a table or view

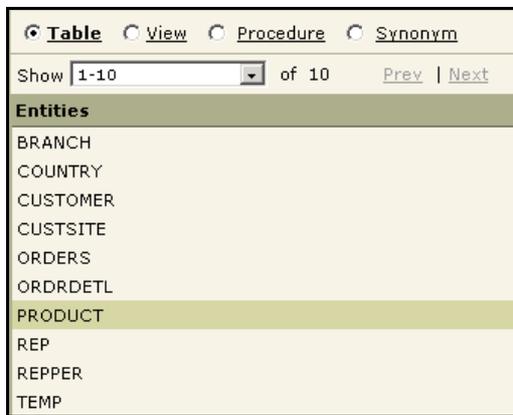


Figure 2: Selecting database objects

Columns in the selected object will appear in **Columns** list.

From **Entities** list, select a table or a view.

## Getting a list of columns from a procedure or a synonym of procedure

1. From **Entities** list, select a procedure or synonym.
2. Click **Get Columns** button. **Execute Procedure** dialog opens up.
3. Specify values for parameters and click **Ok**. List of columns returned by Procedure / synonym appears.

## How to mask columns

1. From **Columns** list, check the check-boxes to apply masking.

The checked columns are masked for all the users.

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## To disable this masking for selected user(s) or role(s)

1. Select the column of the entity.
2. From **Exceptional Users And Roles** list, select an organization. Users and Roles in that organization are listed.
3. Select user(s) or role(s).
4. Click **Save** button.

## To remove masking

1. Select the column of the entity. Select (check) the column, followed by clearing the check box. Click **Save** to save the changes.

## The Mask character

Specify a mask character in **Mask Character** entry box. This character will be used to mask (hide) the actual data.

Any character supported by your repository database can be used as masking character. XML characters <, >, ", ' and & cannot be used as mask characters.

## Mask for All Connections

By default, masked columns are masked for all connections. This means, if that column name qualified by database entity name appears in an SQL for any data connection, that column will be masked.

To achieve connection-specific masking, clear (uncheck) **Mask for All Connections** checkbox.

## Mask completely

A column can be masked completely or partially.

To mask a column completely,

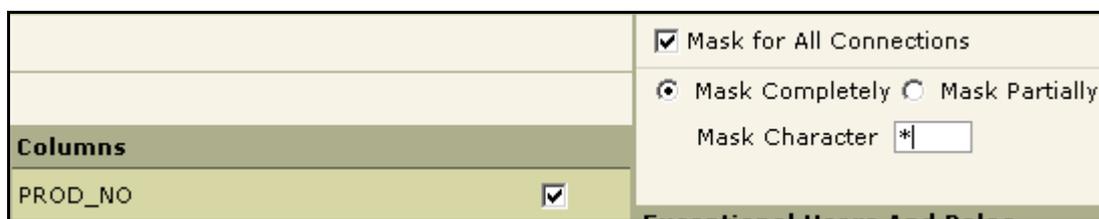


Figure 3: Masking completely

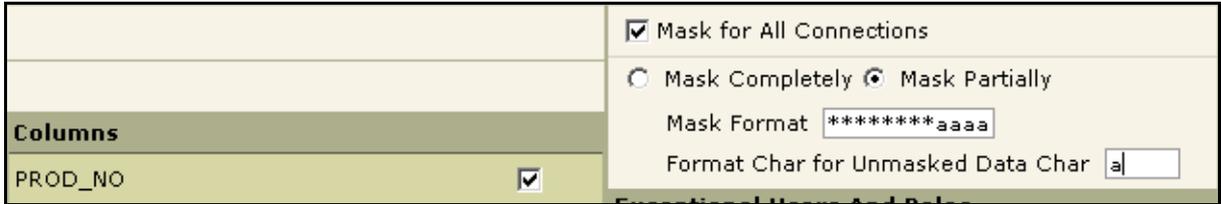
1. Select the column.
2. Select **Mask for All Connections** to mask the column for all the connections.
3. Select **Mask Completely** option.

- 
- Specify a **Mask Character**.

### Mask partially

Fields like Credit card number may be required to be masked partially.

To mask a column partially,



Columns	
PROD_NO	<input checked="" type="checkbox"/>

Mask for All Connections

Mask Completely  Mask Partially

Mask Format \*\*\*\*\*aaaa

Format Char for Unmasked Data Char a

Figure 4: Masking partially

- Select the column.
- Select **Mask for All Connections** to mask the column for all the connections.
- Select **Mask Partially** option.
- In **Mask Format**, specify pattern of mask character and unmask data character.
- In **Format Char for Unmasked Data Char**, specify the character used in pattern that represents unmasked data.

### Example

To mask a first 8 characters of a field with '\*' character and keep remaining 4 characters as unmasked characters, you need to specify following:

- Mask Format:** \*\*\*\*\*aaaa
- Format Char for Unmasked Data Char:** a

Here you can choose any other character in place of 'a'.



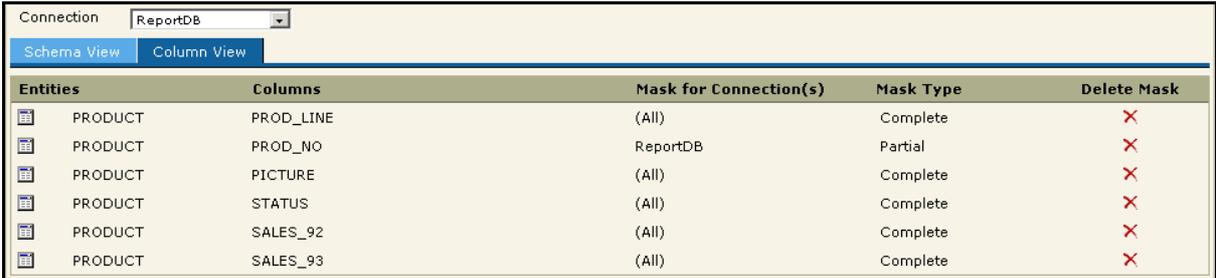
**Note:** Masking is applied from left to right. If a field has more characters than specified in **Mask Format**, they will continue to be unmasked.

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## To view a list of masked entities

List of masked entities can be viewed on **Column View**. This view lists:

- Entity name
- Masked columns
- Connections on which an entity is masked
- Mask type (partial or complete)



The screenshot shows a software interface with a 'Connection' dropdown set to 'ReportDB'. Below it are two tabs: 'Schema View' and 'Column View', with 'Column View' selected. The main area displays a table with the following data:

Entities	Columns	Mask for Connection(s)	Mask Type	Delete Mask
PRODUCT	PROD_LINE	(All)	Complete	✗
PRODUCT	PROD_NO	ReportDB	Partial	✗
PRODUCT	PICTURE	(All)	Complete	✗
PRODUCT	STATUS	(All)	Complete	✗
PRODUCT	SALES_92	(All)	Complete	✗
PRODUCT	SALES_93	(All)	Complete	✗

Figure 5: Column View

From this view, you can delete masks too. To delete a mask (to remove masking on an entity),

1. Select a **Connection**.
2. Click  icon in respective row in the list. A confirm delete dialog box appears.
3. Click **OK** to proceed with deletion.



