



Custom Fields

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Netaphor SiteAudit™ allows for users to create their own named columns of data through the use of a feature called Custom Fields. Users will be able to name and use columns for string, dates, and integer columns that are tailored for their specific needs. These fields will then behave similarly to the built-in Netaphor SiteAudit™ fields, including allowing users to set up notifications conditions involving these fields. The use of custom fields requires some SQL interaction, so some SQL experience is recommended.

Feature Overview

Custom fields store application-specific data associated with a printer. There are fifteen columns available that hold custom field data: six string columns, three date columns, and six integer columns. Although the columns are a fixed set their appearance to the user is determined by a translation table. The translation table is used to make the generic columns accessible to users, specifically labeled with the desired information. The translation table determines which custom fields are available to edit and view, and how each is labeled.

Using the Translations Table

The `dbo.customfieldtranslations` table in the database holds the translations of the custom fields. By default there are no rows in the translation table and so no custom fields are available for editing or viewing. When a row is added to the translation table for a custom field then it will be available for editing and viewing. This is the list of the columns available for custom field configuration:

Column	Type	Purpose
nss_string_0	nvarchar(1024)	General purpose string
nss_string_1	nvarchar(1024)	General purpose string
nss_string_2	nvarchar(1024)	General purpose string
nss_string_3	nvarchar(1024)	General purpose string
nss_string_4	nvarchar(1024)	General purpose string
nss_string_5	nvarchar(1024)	General purpose string
nss_date_0	DATETIME	General purpose date, time
nss_date_1	DATETIME	General purpose date, time

nss_date_2	DATETIME	General purpose date, time
nss_integer_0	INT	General purpose integer
nss_integer_1	INT	General purpose integer
nss_integer_2	INT	General purpose integer
nss_integer_3	INT	General purpose integer
nss_integer_4	INT	General purpose integer
nss_integer_5	INT	General purpose integer

A translation table row contains the following data:

Column name	Data type	Purpose
column_name	varchar(20)	The column from the dbo.staticuserdata table. For example, "nss_string_0".
translated_name	nvarchar(100)	The name to use to label this custom field for editing and viewing.
display_format	nvarchar(20)	The C# data format to use in views and reports. This only applies to date and integer fields.
category	nvarchar(100)	The category to use for grouping this field when editing.
description	nvarchar(1024)	The description for this field to supply when editing.

There may be no more than one row in the translation table for each of the custom field columns. To avoid confusion a translated name shouldn't be used more than once in the custom field columns and shouldn't be the same as one of the column names in the Netaphor SiteAudit™ views. Although some symbols may well work in translated names, it is safest and best practice to use only letters, digits, spaces, dashes, and underscores in translated names. A custom field translation is added or modified using the dbo.nsp_addtranslation stored procedure. Here is an example:

```
EXECUTE dbo.nsp_addtranslation
```

```

    @columnName='nss_date_0'
, @translatedName=N'ServiceDate'
, @displayFormat=N'yyyy MMM d'
, @category=N'Service'
```

```
,@description=N'The date of last service.'
```

This translation will be associated with the "nss_date_0" column. The field name that appears to Netaphor SiteAudit™ users when editing or viewing will be "ServiceDate". The format to be used when showing values for this field in views is "yyyy MM d". The category to use for grouping when editing this field is "Service". The description to be shown when editing this field is, "The date of last service."

The dbo.nsp_addtranslation stored procedure may be used to add new translations and to update existing translations. The column name is always required. If the column name isn't already in use in the table then calling dbo.nsp_addtranslation will add a new translation. In this case it is best practice to supply all of the other values to the stored procedure, as shown in the example above.

If the column name is already in use in the table then calling dbo.nsp_addtranslation will modify an existing translation. In this case, the supplied values will replace the existing values and the rest will remain unchanged. For example:

```
EXECUTE dbo.nsp_addtranslation  
  
    @columnName='nss_date_0'  
  
    ,@translatedName=N'Service Date'
```

This will change the translated name of the custom field translation, but leave the other values of the translation unchanged.

There is no user interface for configuring the custom field translations. It must be done using the dbo.nsp_addtranslation stored procedure or other SQL queries.

Editing Custom Field Values

The set of custom fields is shared by all printers, but each printer has its own custom field values associated with it. Custom field values are edited from the Custom Fields tab of the Details dialog of a printer:

Purchasing	
Purchase Date	2/3/2011
Service	
Service Calls	100
Service Date	9/3/2011
Service Person	George

Service Date
The date of last service.

Web Page Save Discard Close

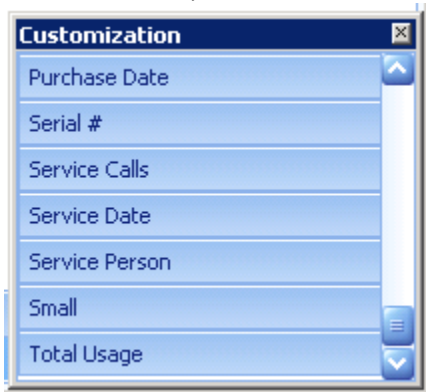
If there are no custom field translations (no rows in the `dbo.customfieldtranslations` table), then the Custom Fields tab will not appear on the Details dialog. It will be hidden.

In the screen shot of the Details dialog shown above, four custom fields are shown in the Custom Fields tab. This means there are four custom field translations defined. The identifying label for each custom field is the translated name from the custom field translation. Two categories, Purchasing and Service, are used to group the custom fields. The Service Date field is selected and its description is shown.

Date and integer fields are formatted for editing using the default format of the local computer. They must be valid for their type. In other words, a date must be a valid date and an integer must be a valid integer. Multiline editing is provided for string fields.

Viewing Custom Field Values

Custom field columns may be shown in the Inventory, Assessment Details, Volume Analysis, Lifetime Counters, Host Analysis, Job Analysis, Incident History, Problem Analysis, SLA Analysis, and Consumables views. By default, no custom field columns are shown in any view. Any custom fields with translations will appear in the Column Chooser. For example, "Service Calls", "Service Date", and "Service Person" are custom fields:



Custom fields are identified in the Column Chooser by their translated name. If a custom field has no translation, it won't appear in the list. Dragging a custom field from the Column Chooser to the grid will cause it to be added to the columns shown in the grid in the same manner as other columns. Here Service Date has been dragged to the grid:

Drag a column header here to group by that column					
Printer N...	IP Address	Connection	Service Date	B/W Copy	B/W All
TallyGeni...	10.0.0.19	Networked	2011 Sep 3		348
Lexmark ...	10.0.0.69	Networked	2011 Jun 1	66	135
Phaser 6...	10.0.0.20	Networked	2011 May 17		
Laser Prin...	10.0.0.83	Networked			
BRN_F12...	10.0.1.132	Networked			140

The format for "Service Date" in the view is determined by the display format from the custom field translation.

When custom fields appear in a view they will also appear in a report produced from the view:

Printer Name	IP Address	Connection	Service Date	B/W Copy	B/W All	B/W
TallyGeni	10.0.0.19	Networke	2011 Sep 3		348	
Lexmark	10.0.0.69	Networke	2011 Jun 1	66	135	
Phaser 61	10.0.0.20	Networke	2011 May 1			
Laser Prin	10.0.0.83	Networke				5
BRN_F12	10.0.1.13	Networke			140	
EPSON59	10.0.1.12	Networke				
HP2600n	10.0.0.12	Networke			189	
Samsung	10.0.1.4	Networke			41	
LXKEBED	10.0.0.68	Networke			42	
KMN001B	10.0.1.19	Networke			23	
Lex	10.0.0.85	Networke			440	
SEC00159	10.0.1.14	Networke				
Count: 12						

Custom Field Change Events

An event is produced whenever the value of one of the 15 custom field columns changes value. These events will show up in the Incident History view. In order to be notified of them a notification rule is needed. The built-in "Custom Field Change Events" rule can be used as an example:

Rule 'Custom Field Change Events'

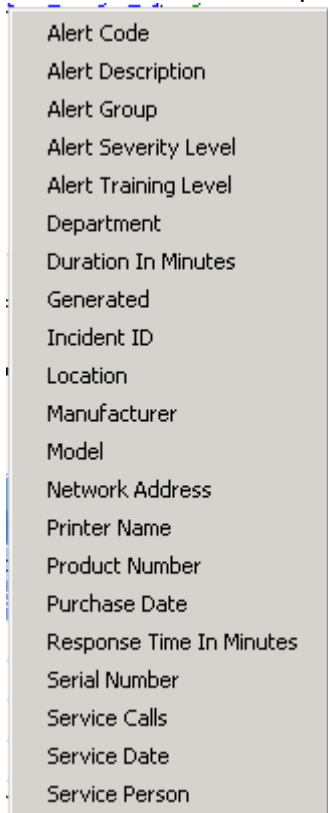
Or +

- [Alert Code] Equals MAC Threshold - Service Person Change (SA-20100) ✕
- [Alert Code] Equals 20101 ✕
- [Alert Code] Equals 20102 ✕
- [Alert Code] Equals 20103 ✕
- [Alert Code] Equals 20104 ✕
- [Alert Code] Equals 20105 ✕
- [Alert Code] Equals MAC Threshold - Service Date Change (SA-20200) ✕
- [Alert Code] Equals MAC Threshold - Purchase Date Change (SA-20201) ✕
- [Alert Code] Equals 20202 ✕
- [Alert Code] Equals MAC Threshold - Service Calls Change (SA-20300) ✕
- [Alert Code] Equals 20301 ✕
- [Alert Code] Equals 20302 ✕
- [Alert Code] Equals 20303 ✕
- [Alert Code] Equals 20304 ✕
- [Alert Code] Equals 20305 ✕

Each of the custom field columns has its own alert code for change events. The "Custom Field Change Events" rule reacts to all of them. Since changes to custom field columns are caused by editing a value from the UI, under most circumstances the only events produced will be for custom field columns with translations. In that case the bare alert code will be replaced by a description. This can be seen for alert codes 20100, 20200, 20201, and 20300, in the screen shot above.

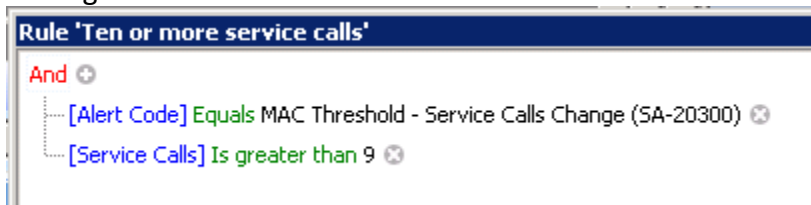
Custom Fields in Notification Rules

Custom fields with translations are included among the columns available for use in notification rules. Here is an example of the columns available for notification rules:

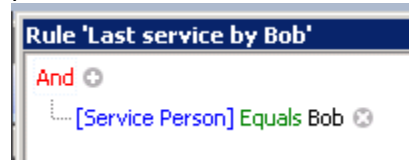


The custom fields "Purchase Date", "Service Calls", "Service Date", and "Service Person" have translations and so the translated name of each appears in the list above. Changing the translated name of a custom field translation shouldn't break any notification rules that use that custom field.

Here is an example of a notification rule to fire when the number of Service Calls changes to a value greater than nine:



Another example, is receiving a notification for any alert on a printer last serviced by a specific person:



Custom Fields in Notification XML

Any custom fields with translations will appear in the XML version of alert notifications. However, the default style sheet (SiteAuditAlertNotification.xsl) used to convert the XML into HTML ignores custom fields. To include custom fields in the HTML of an alert notification you will need to create a custom style sheet. Here is an example of what the XML might look like:

```
<Notification>
  <AlertRule>Ten or more service calls</AlertRule>
  <PrinterName>Phaser 6180DN-9D91C2</PrinterName>
  <DNSName>10.0.0.20</DNSName>
  <NetworkAddress>10.0.0.20</NetworkAddress>
  <SerialNumber></SerialNumber>
  <Manufacturer>Xerox</Manufacturer>
  <Model>Xerox Phaser 6180N; Net 10.66,ESS 200702021156,IOT 05.06.00</Model>
  <ProductNumber></ProductNumber>
  <Location>Storage Lab Hallway</Location>
  <Contact>RM</Contact>
  <Total>381</Total>
  <BWAll></BWAll>
  <ColorAll></ColorAll>
  <AlertIndex>-8</AlertIndex>
  <AlertLocation>20300</AlertLocation>
  <AlertCode>20300</AlertCode>
  <AlertTime>787029800</AlertTime>
  <AlertSeverityLevel>Other</AlertSeverityLevel>
  <AlertTrainingLevel>Other</AlertTrainingLevel>
  <AlertGroup>Other</AlertGroup>
  <AlertGroupIndex>0</AlertGroupIndex>
  <AlertDescription>Printer Service Calls changed from '3' to '12'</AlertDescription>
  <Generated>12/7/2011 10:44:32 AM</Generated>
  <Duration>00:10:01</Duration>
  <DurationInMinutes>10</DurationInMinutes>
  <IncidentID>41</IncidentID>
  <ResponseTimeInMinutes></ResponseTimeInMinutes>
  <Department>MyCompany</Department>
  <Company>MyCompany</Company>
  <AssetTag>CustomerAsset#1234</AssetTag>
  <Urgent>False</Urgent>
  <PrinterEKey>3</PrinterEKey>
  <DepartmentAddress1></DepartmentAddress1>
  <DepartmentAddress2></DepartmentAddress2>
  <DepartmentCity></DepartmentCity>
  <DepartmentState></DepartmentState>
  <DepartmentZip></DepartmentZip>
  <DepartmentCountry></DepartmentCountry>
  <DepartmentPhone></DepartmentPhone>
```

```
<DepartmentFax></DepartmentFax>
<DepartmentEmail></DepartmentEmail>
<DepartmentContact></DepartmentContact>
<DepartmentContactEmail></DepartmentContactEmail>
<DepartmentNumberOfUsers>-1</DepartmentNumberOfUsers>
<DepartmentComment></DepartmentComment>
<DepartmentNotes></DepartmentNotes>
<Resolved>False</Resolved>
<CustomField NAME="Service Date">12/6/2011</CustomField>
<CustomField NAME="Purchase Date">2/13/2011</CustomField>
<CustomField NAME="Service Calls">12</CustomField>
<CustomField NAME="Service Person">Jill</CustomField>
</Notification>
```

The custom fields that have translations appear as "CustomField" elements. Each element has a "NAME" attribute that holds the translated name of the custom field. The value of the element is the custom field value.