Modify Alert Notifications using AlertTemplates.xml in SharePoint 2007

By Brett Lonsdale, MCSD.NET , MCT
Combined Knowledge
www.combined-knowledge.com
brett@combined-knowledge.com

This 'How to' guide will teach you how to change the style of the Alert Notifications in Windows SharePoint Services v3.0 and Microsoft Office SharePoint Server 2007.

My server topology for this guide was as follows:

Server Name	Role	Products Installed
DCEXA	Domain Controller	Windows server 2003 SP1 Microsoft Exchange Server 2003
SQL	Database server	SQL 2000 SP4
MOSS2007	MOSS2007 Server	MOSS2007 Enterprise Microsoft Office 2007 Enterprise Visual Studio 2005 Professional

Alerts in SharePoint

An Alert is a subscription to a List item, Document, List, Document Library, Search or Custom. We create an Alert when we want to be notified about changes to an object without having to physically check the object. For example, if we had a 'Book' Team site with several Authors writing chapters, the Publisher may want to be notified when an Author has made a change to a document. Alerts are not new to SharePoint 2007. They have however been improved upon since SharePoint 2003. We can now set up Alerts for other users, and use several new triggers that avoid us being notified of our own changes to objects.

The WSS Object model gives us plenty of classes for manipulating Alerts (See 'Developers Guide to the Windows SharePoint Services v3 Platform' book by Todd Bleeker) which covers the Alerts classes in detail.

SharePoint also provides us with a new file called AlertTemplates.xml which lives in the 12-hive under the XML folder. (you can find the 12-hive by navigating to the 'localdrive:\program files\common files\microsoft shared\web server extensions\12' folder). The AlertTemplates.xml file allows us to configure Filters, Properties, and Format for each List Type within SharePoint.

Filters Element

The Filters Element allows us to create new triggers for an Event such as 'When a meeting Location changes or the date of the meeting changes in the Calendar list', or 'A task become 100% complete in a tasks list'. We can change these triggers or create our own using CAML (Collaborative Application Markup Language) queries. The table below shows some examples of the CAML query operators.

- Eq – equals

- Neq – not equals

- Lt – less than (numbers only)

- Gt – greater than (numbers only)

- Leq – less than or equal to (numbers only)

- Geq – greater than or equal to (numbers only)

- BeginsWith – begins with (strings only)

- Contains – contains (strings only)

The following query is used in a Calendar list to setup the meeting date or location changing:

```
<FilterDefinition>
  <FriendlyName>$Resources:Alerts_4_filter;</FriendlyName>
  <ShortName>$Resources:Alerts_4_filter_shortname;</ShortName>
  <Query>
  <Or>
    <Or>
      <Neq><FieldRef name="EventDate/New"/>
      <FieldRef name="EventDate/Old"/></Neq>
      <Neq><FieldRef name="EndDate/New"/>
      <FieldRef name="EndDate/Old"/></Neq>
    </Or>
      <Neq><FieldRef name="Location/New"/>
```
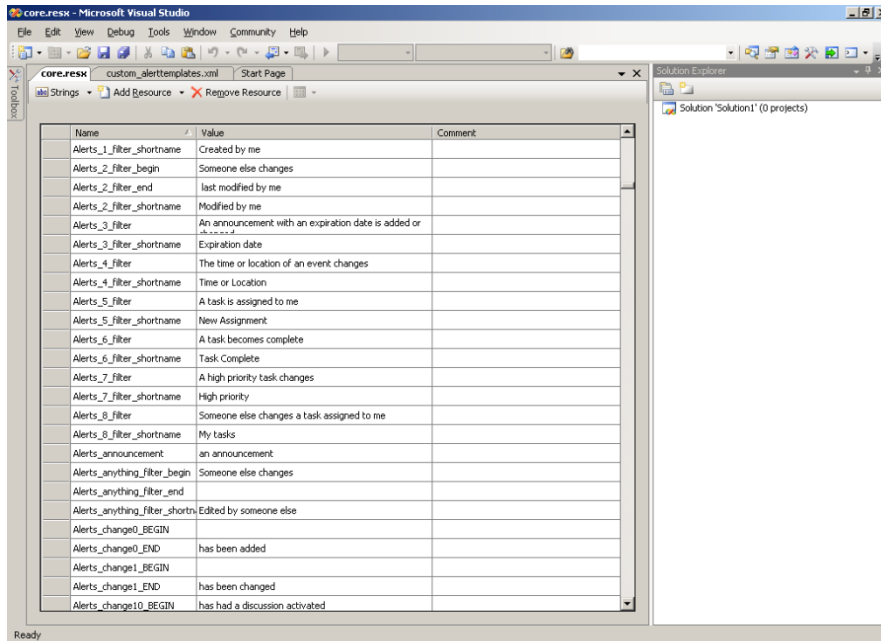
```
      <FieldRef name="Location/Old"/></Neq>

   </Or>

   </Query>

</FilterDefinition>
```
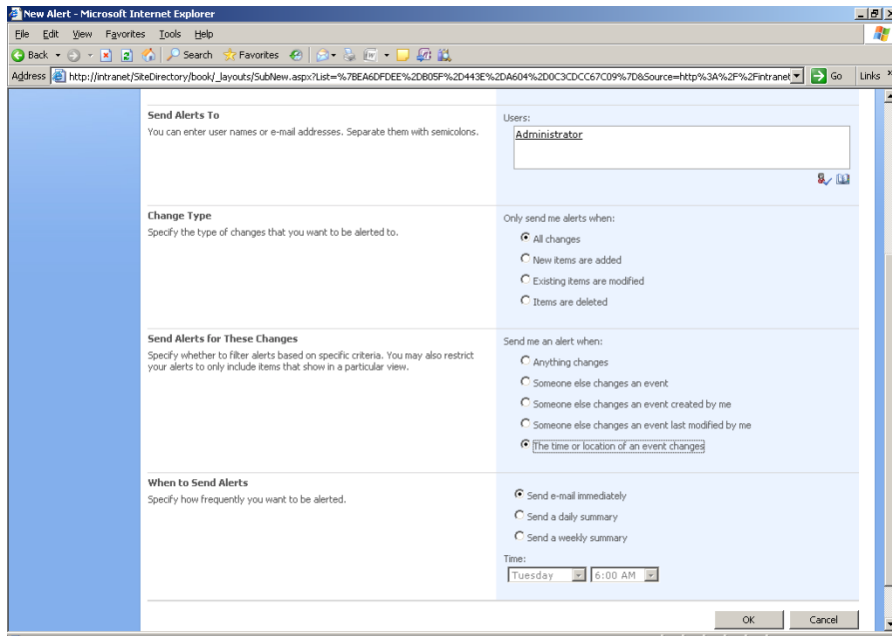
A resource file called core.resx is used for Site Definitions and many XML files in SharePoint 2007. A screen shot below shows the above friendly name (Alerts_4_filter_shortname) and its corresponding value of 'Time or Location' in the resources file.

Another screen shot shows this trigger being used on the New Alerts page.

Properties Element

The properties element allows including and excluding of fields from the list that would be shown in the notification. The example below customises the fields for Immediate and Digest notifications:

```
<Properties>


<ImmediateNotificationExcludedFields>ID;Author;Editor;Modified_x0020_By;Cr
eated_x0020_By;_UIVersionString;ContentType;TaskGroup;IsCurrent;Attachment
s;NumComments;</ImmediateNotificationExcludedFields>


<DigestNotificationExcludedFields>ID;Author;Editor;Modified_x0020_By;Creat
ed_x0020_By;_UIVersionString;ContentType;TaskGroup;IsCurrent;Attachments;N
umComments;</DigestNotificationExcludedFields>

</Properties>
```
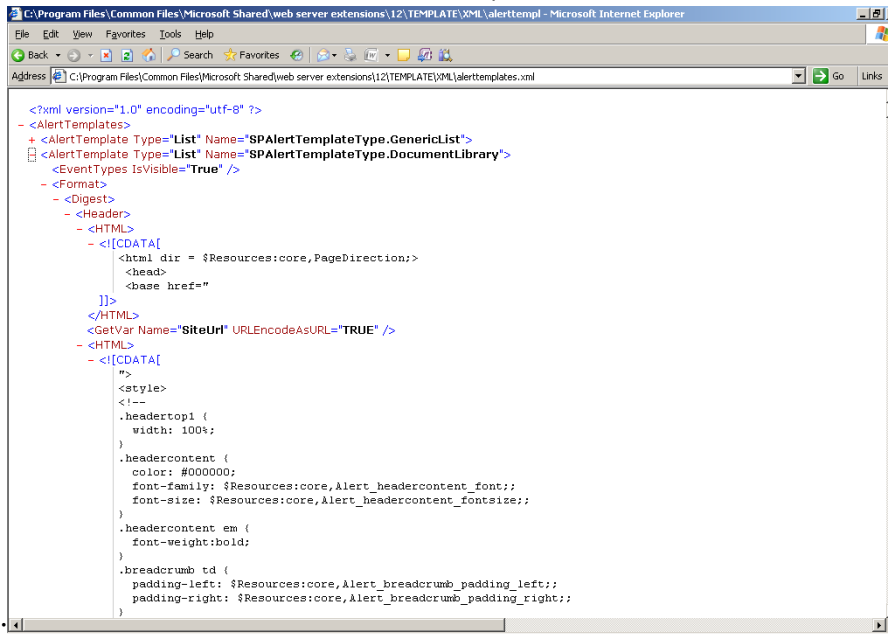
Format Element

The format element provides us with the ability to make visual changes to the email notification that gets sent to the subscriber of the Alert. Using an imbedded set of styles you can customise the formatting of every part of text in the email notification for each

List. The screen shot below shows an example of the Format

element:

You may want to change the look and feel of the Alert Notification so that the Email received matches your corporate look and feel of the Portal. Remember this can be changed for a specific list and you can publish your changes to a specific URL allowing two Web Applications to have two different sets of Alert Notification Styles.

## Follow these Steps to Modify the Alert Notifications

Take a Copy of the AlertTemplates.xml file.

We don't want Microsoft changing the AlertTemplates.xml file during the install of a Service Pack, so let's take a copy before we make changes.

1. Browse to the following folder: c:\program files\common files\microsoft shared\web server extensions\12\xml.

2. Copy AlertTemplates.xml and paste it into the same folder changing its filename to Custom_AlertTemplates.xml

3. Edit Custom_AlertTemplates.xml using Microsoft Visual Studio.NET 2005 or an equivalent XML Editor tool.

Change a Style for all List types within a Web Application.

Each List type has its own AlertTemplate element inside the Custom_AlertTemplates.xml file. The first AlertTemplate is for a Generic List. The other Lists inherit from the Generic List. Below is a screen shot of the AlertTemplates in the AlertTemplates.xml file.
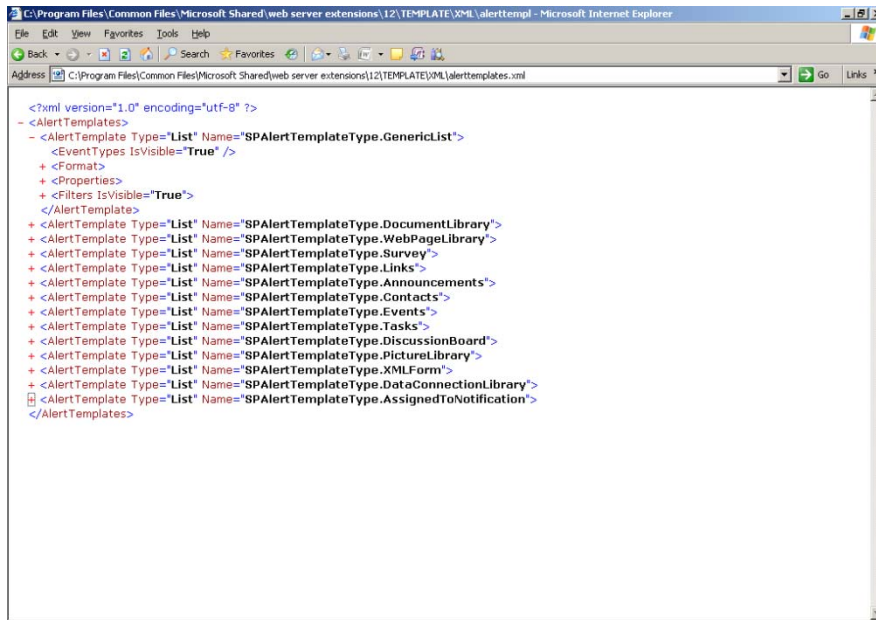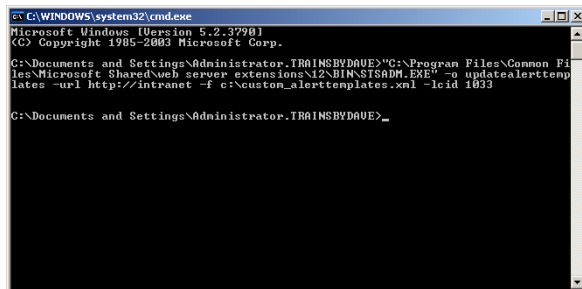
1. Expand the Generic List AlertTemplate Element and then expand the Format Element. You will see the Styles as shown in the Screen shot above.

2. Find the style called .formbody and the .headercontent and change the color from black #000000 to a nice subtle red using #CD0000. (Here is a good guide to colour values when using Hexidecimal values for colours: http://www.december.com/html/spec/color1.html) Use a find and replace if you like to speed things up.

3. Save your changes to the Custom_AlertTemplates.xml file.
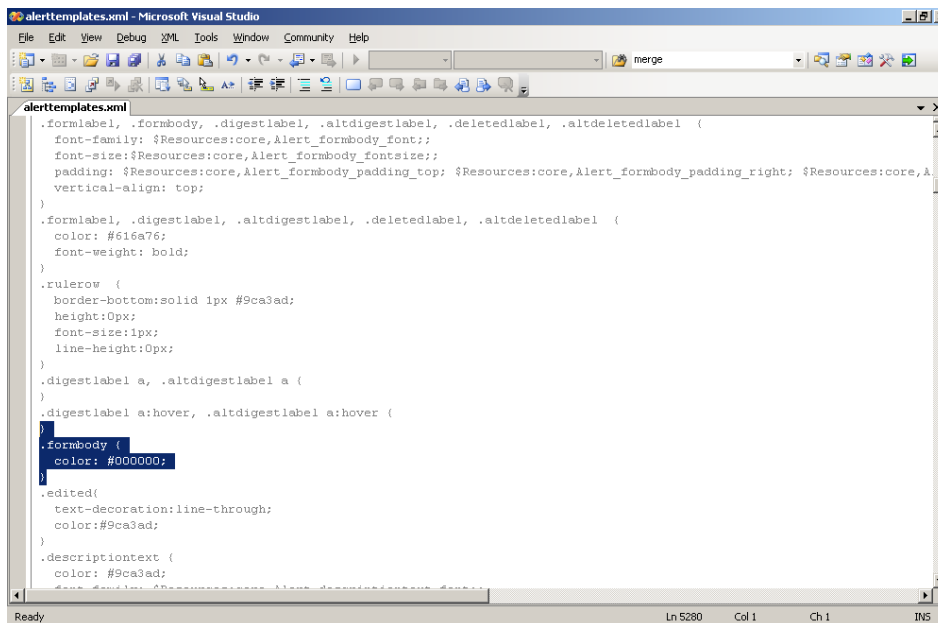
Publishing your changes

To publish your changes to the Web Applications content database, we need to use the SharePoint STSADM tool.

1. Open the Command prompt by choosing Start, Run, CMD on the SharePoint Server.

2. Navigate to the bin directory of the 12-hive. (A simple way to do this is to create a 12 toolbar, expand bin, and then drag the stsadm.exe file into the command prompt window).

3. Type the following command: stsadm –o updatealerttemplates –url http://urlname –f *[fullpathtoCustom_AlterTemplates.xml]* –LCID *LocaleCultureID* (When submitting this command, you do not get the usual 'Operation Successful message!') An Example is shown below:

Test your Changes

Test your changes by subscribing to a document in document library. Setup an alert and then make a change to the file.

1. Navigate to a Team Site within the Web Application you specified above.

2. Open a Document Library

3. Choose Actions, Alert
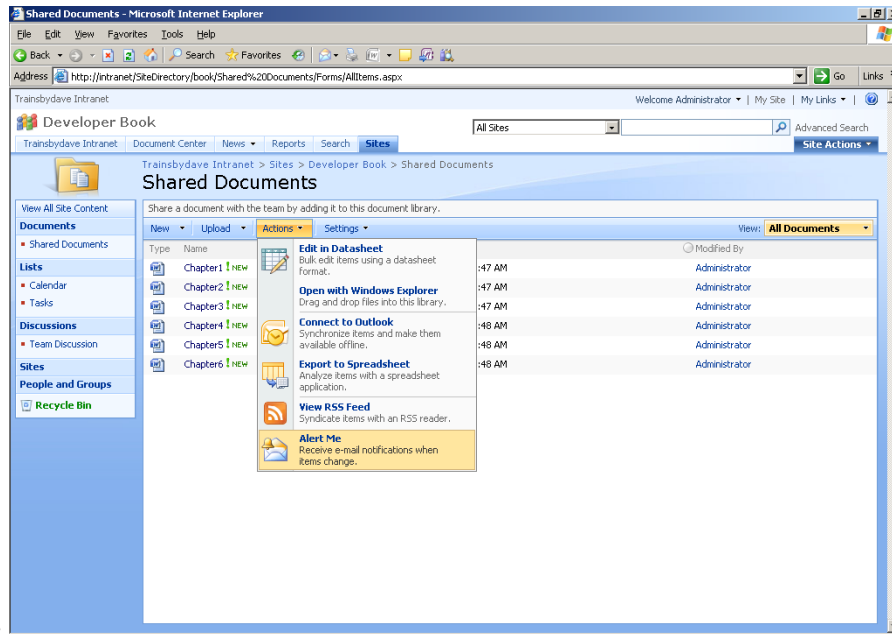
Me.

4. Subscribe to all Changes and leave the default of Immediate for message delivery.

5. Make a change to the document.

6. Normally the Alert will take approx 10 minutes to arrive. This is changed by modifying the Index settings in the SSP using SharePoint Central Admin.

7. View your changes in the email. (See below before and after screenshot.)
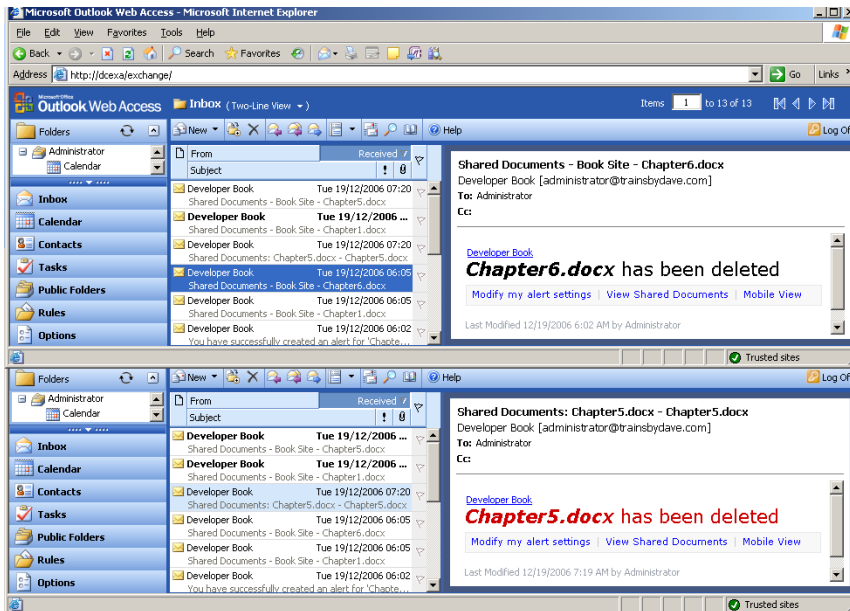
I hope you found this White Paper useful, I would be grateful for any comments you may have and whether it was useful or not.

Brett Lonsdale

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