

# Crystal Enterprise 8 – Report Viewer

## DHTML Viewer Modifications

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### Overview

This document demonstrates how the Crystal Enterprise 8 DHTML report viewer may be customized.

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# Introduction

## Background

Crystal Enterprise (CE) 8.0 ships with a number of sample web clients that may be deployed “out of the box”. These samples demonstrate many features of CE and may be easily modified by a web developer, as the samples consist of DHTML web pages (HTML and JavaScript) and Crystal Server Pages (CSP).

CE’s DHTML report viewer and the ePortfolio web application are two of the highly customizable sample web clients that ship with CE.

## Objectives

The objectives of this white paper are to:

- Outline how to modify the default “look and feel” user interface of CE’s DHTML report viewer.
- Demonstrate how ePortfolio may be modified to support multiple “look and feel” user interfaces for the DHTML report viewer.
- Demonstrate how to change the default report viewer for ePortfolio.

## Intended audience

In order to effectively use this document, the reader should be comfortable with:

- Writing web pages in HTML,
- Reading client-side scripting code (like JavaScript in web pages), and
- Reading server-side scripting code (like VBScript in Active Server Pages).

## General

### Changing the Look and Feel of the DHTML Report Viewer

**Level of difficulty: medium**

#### About the DHTML viewer

The DHTML viewer is comprised of several framesets. When fully rendered, there is a horizontal frame that lies across the top of the viewer containing a toolbar of buttons to control the viewer, a left vertical frame that contains a tree for drill-down navigation, and a main frame that displays the contents of the report. In this tutorial, “skinning” the DHTML viewer will involve changing the look of the toolbar.

The default CE installation places the DHTML viewer files in [..]\Program Files\Seagate Software\Viewers\Html\En.

## The DHTML viewer's toolbar images

The images used in the DHTML viewer's toolbar are located in the \Images subdirectory. By replacing these default images with your own, you can change the look of the toolbar.

Typically, each button has three states and hence, is represented by three images: active, inactive and mouse over. The active state provides the basic name for all three images. For example, "Next.gif" is the basic name that represents the active state for the "next" action, while "Nextgrey.gif" represents its inactive state and "Nextover.gif" represents its mouse over state.

Other images that are used in the DHTML viewer's toolbar include: "Toolbg.gif" (background), "Separator.gif" and "Calendar.gif".

# ePortfolio

## Supporting Multiple Skins for the DHTML Report Viewer

**Level of difficulty: hard**

### Summary of work

To enable multiple skins support in the ePortfolio, the following work is required:

- Each set of skin images needs to be stored in separate folders.
- Changes need to be made to "Settings.csp" to provide users with the additional setting for skins, and to provide a mechanism for temporary and persistent storage of the setting.
- Changes need to be made to "Reportviewer.csp" to check for the skin setting and to call the viewer using the corresponding set of skin images.

### Each set of skin images requires a separate folder

Changing the DHTML viewer's toolbar images skins the viewer. For more details on skinning the DHTML viewer, see "Changing the Look and Feel of the DHTML Report Viewer". Hence, to support multiple skins, multiple sets of images must be supported, and one way to achieve this is to store each set of images in their own subfolder.

In this tutorial, we suggest that a subfolder be created for each skin and that all DHTML viewer files be copied into the new subfolder. For example, create a new subfolder called "New\_skin" in the default viewer subfolder (e.g., the default CE installation location is [..]\Program Files\Seagate Software\Viewers\Html\En), then copy the three subfolders (excluding "New\_skin", of course) and the seven HTML files into it. Finally, replace the images in the new skin's subfolder (i.e., [..]\New\_skin\Images).

In order to retain the default skin as one of the choices for the end user to select, it is suggested that all DHTML viewer files be copied into a new subfolder called "Default".

## Changes to “Settings.csp”

1. Add declaration for new variable (**bold**):

```
Dim cbr
Dim vwr
Dim skn
```

2. Add this block (**bold**) to write cookie value:

```
'IF THE COOKIE DOESN'T EXIST
If( Request.Cookies("ePortfolio_vwr") = "" ) Then
    vwr = 0
    Response.Cookies("ePortfolio_vwr") = vwr
    Response.Cookies("ePortfolio_vwr").Path = "/"
'ELSE GET vwr VALUE FROM COOKIE
Else
    vwr = CInt(Request.Cookies("ePortfolio_vwr"))
End If
```

```
'IF THE COOKIE DOESN'T EXIST
If( Request.Cookies("ePortfolio_skn") = "" ) Then
    skn = 0
    Response.Cookies("ePortfolio_skn") = skn
    Response.Cookies("ePortfolio_skn").Path = "/"
'ELSE GET skn VALUE FROM COOKIE
Else
    skn = CInt(Request.Cookies("ePortfolio_skn"))
End If
```

3. Add this block (**bold**) to add the setting to the user’s ProfileString:

```
'ASSIGN vwr VALUE
vwr = Request.QueryString("vwr")
Response.Cookies("ePortfolio_vwr") = vwr
Response.Cookies("ePortfolio_vwr").Path = "/"
strDesktopSettings = strDesktopSettings &
"&ePortfolio_vwr=" & vwr

'ASSIGN skn VALUE
skn = Request.QueryString("skn")
Response.Cookies("ePortfolio_skn") = skn
Response.Cookies("ePortfolio_skn").Path = "/"
strDesktopSettings = strDesktopSettings &
"&ePortfolio_skn=" & skn
```

4. Add this block (bold) to display the choices of skins to the user; place it ahead of the 'Time Zone selection' section:

```

<!-- CUSTOMIZATION TABLE .. REPORT VIEWER SKIN ... VARIABLE
"skn" -->

<%
ReDim strChk(1)
For i = 0 to 1
    If( CInt(skn) = i ) Then
        strChk(i) = " checked"
    Else
        strChk(i) = ""
    End If
Next
%>
<tr>
    <td class="main" width="164" rowspan="2">Skin my viewer
using this theme ...<br>(for DHTML viewer only)</td>
<%
Response.Write "    <td><input type='radio' name='skn' " &
-
"style='font-family:verdana;font-size:8pt;color:black;' " &
-
"value='0'" & strChk(0) & ">default</td>" & vbCrLf
%>
</tr>
<tr>
<%
Response.Write "    <td><input type='radio' name='skn' " &
-
"style='font-family:verdana;font-size:8pt;color:black;' " &
-
"value='1'" & strChk(1) & ">new skin</td>" & vbCrLf
%>
</tr>
<tr>
    <td colspan="2"><hr size="0"></td>
</tr>
<!-- Time Zone selection ... VARIABLE "zone" -->
<tr>

```

## Changes to “Reportviewer.csp”

5. Add declarations for new variables (**bold**):

```
Dim vwr
Dim strViewer
Dim ExportType
Dim skn
Dim strSkin
```

6. Delete the following block (**bold**) of JavaScript code and the <body> tag, but leave the closing </head> tag:

```
<script language="javascript">
//BRING REPORT VIEWER WINDOW TO THE TOP WHEN LAUNCHED
self.focus();
</script>
</head>
<body>
```

7. Add this new function, which matches the cookie value with the name of the subfolder that contains the skin’s images. The new function should be placed after the GetExportType function:

```
*****
*** FUNCTION: GetSkin() ***
*****
Function GetSkin()
    'GET SKIN FROM COOKIES
    skn = Request.Cookies("ePortfolio_skn")
    Select Case skn
        Case 0
            'folder name of skin
            strSkin = "default"
        Case 1
            'folder name of skin
            strSkin = "new_skin"
    End Select
End Function
```

8. Delete the following block (**bold**):

```
'DISPLAY THE REPORT VIEWER
Dim url
If( vwr = "" And ExportType = "" ) Then
```

```

        url = url & "viewrpt.cwr?id=" & reportNumber &
"&init=" & Server.URLEncode("html_frame:connect") &
ExportType
    ElseIf ( ExportType = "" ) Then
        url = url & "viewrpt.cwr?id=" & reportNumber &
"&init=" & strViewer & Server.URLEncode(":connect")
    Else
        url = url & "viewrpt.cwr?id=" & reportNumber &
ExportType
    End If
Response.Write "<script language='javascript'" & vbCRLF
Response.Write "function init() {
document.forms['viewForm'].submit(); }" & vbCRLF
Response.Write "</script>" & vbCRLF
Response.Write "<form name='viewForm' method='post'
action='" & url & "'>" & vbCRLF
Response.Write "<input type='hidden' name='apstoken'
value='" & strToken & "'>" & vbCRLF
Response.Write "</form>" & vbCRLF

```

**9.** Add this line (**bold**) to call the new function:

```

'GET LOGON TOKEN
Set iStore = Session("IStore")
If( Err.Number = 0 ) Then
    Set ltm = iStore.EnterpriseSession.LogonTokenMgr
    strToken = ltm.CreateLogonToken("", 1, 20)
    If( iStore.EnterpriseSession.UserInfo.UserId <>
GUEST_ID ) Then
        If( Err.Number = 0 ) Then
            GetViewer()
            Call GetSkin()
        End If
    End If
    GetExportType()
End If

```

**10.** Add this line (**bold**) to call the new function:

```

'*****
'*** FUNCTION: GetViewer() ***
'*****
Function GetViewer()
    'GET VIEWER FROM COOKIES
    vwr = Request.Cookies("ePortfolio_vwr")

```

```

Select Case vwr
  Case 0
    strViewer = "actx"
  Case 1
    strViewer = "html_frame"
    Call GetSkin()
  Case 2
    strViewer = "html_page"
  Case 3
    strViewer = "java"
  Case 4
    strViewer = "java_plugin"
  Case 5
    strViewer = "nav_plugin"
End Select
...

```

11. Replace the end </body> tag with the following code (**bold**) to create the initial frameset that contains the toolbar:

```

<SCRIPT src="/viewer/html/en/js/htmlviewer.js"></SCRIPT>
<script language="javascript">

```

```

var nAppVersion = parseInt(navigator.appVersion);
var Nav4plus    = ((navigator.appName == "Netscape") &&
nAppVersion >= 4);
var Nav5plus    = ((navigator.appName == "Netscape") &&
nAppVersion >= 5);
var IE4plus     = ((navigator.userAgent.indexOf("MSIE") !=
-1) && nAppVersion >=4);

```

```

//BRING REPORT VIEWER WINDOW TO THE TOP WHEN LAUNCHED
self.focus();

```

```

<%

```

```

Response.Write "strEscapeToken = escape('" & strToken &
"');" & vbCrLf

```

```

If( strViewer = "html_frame" ) Then

```

```

  Response.Write "if ( IE4plus || Nav5plus )" & vbCrLf

```



```

    Response.Write " document.write ('<frameset
frameborder=" & Chr(34) & "0" & Chr(34) & " rows=" &
Chr(34) & "48,*" & Chr(34) & ">');" & vbCrLf

    Response.Write "else" & vbCrLf

    Response.Write "    document.write ('<frameset
frameborder=" & Chr(34) & "0" & Chr(34) & " rows=" &
Chr(34) & "64,*" & Chr(34) & ">');" & vbCrLf

    Response.Write "</script>" & vbCrLf

    Response.Write "<frame name='CrystalViewerToolbar' " &
"src='/viewer/html/en/" & strSkin & "/toolbar.html'" >" &
vbCrLf

    Response.Write "<frame name='CrystalViewerPreview'
src='/crystal/enterprise/ePortfolio/en/viewrpt.cwr?cmd=prev
iew_page&incomplete_page_count=1&viewer=html_frame&vfmt=htm
l_frame&page=1&brch=&drillname=&subrpt=&id=" & reportNumber
& "&apstoken=" & Server.URLEncode(strToken) & "'>" & vbCrLf

    Response.Write "</frameset>" & vbCrLf

Else

    'DISPLAY THE REPORT VIEWER

    If( vwr = "" ) Then

        Response.Write "document.location = " &
"'viewrpt.cwr?id=" &
            reportNumber & "&apstoken=" + strEscapeToken +
' " & ExportType & "';"

        ElseIf ( ExportType = "" ) Then

            Response.Write "document.location = " &
"'viewrpt.cwr?id=" &
                reportNumber & "&apstoken=" + strEscapeToken +
' " & "&init=" &
                    strViewer & Server.URLEncode(":connect")& "';" &
vbCRLF

            Else

                Response.Write "document.location = " &
"'viewrpt.cwr?id=" & reportNumber &
"&apstoken=" + strEscapeToken + ' " & ExportType &
'";" & vbCRLF

            End If

            Response.Write "</script>" & vbCrLf

        End If

    End If

%>

```

## Change the default report viewer for a newly created user

Level of difficulty: easy

### Changes to “Logon.csp”

12. Locate this line of code:

```
strDesktopSettings = "ePortfolio_view=-
1&ePortfolio_csn=0&ePortfolio_vwm=0&ePortfolio_dv0=1&ePortf
olio_dv1=1&ePortfolio_dv2=1&ePortfolio_dv3=1&ePortfolio_dv4
=1&ePortfolio_cbr=1&ePortfolio_vwr=0&ePortfolio_rpp=6&ePort
folio_expo=0&ePortfolio_zone=0"
```

13. Change the default viewer from:

```
ePortfolio_vwr=0
```

- To:

```
ePortfolio_vwr=X
```

- Where X = 0 for ActiveX viewer, 1 for DHTML viewer, etc.

## Change the default report viewer for the guest user

Level of difficulty: medium

### Changes to “Reportviewer.csp”

- Add lines (**bold**) as follows to use the DHTML viewer as the default viewer:

```
'GET LOGON TOKEN
Set iStore = Session("IStore")
If( Err.Number = 0 ) Then
    Set ltm = iStore.EnterpriseSession.LogonTokenMgr
    strToken = ltm.CreateLogonToken("", 1, 20)
    If( iStore.EnterpriseSession.UserInfo.UserId <>
GUEST_ID ) Then
        If( Err.Number = 0 ) Then
            GetViewer()
        End If
    End If
'SET DEFAULT VIEWER FOR GUEST USERS
Else
vwr = 1
strViewer = "html_frame"
    End If
    GetExportType()
End If
```

## Contacting Crystal Decisions for Technical Support

We recommend that you refer to the product documentation and that you visit our Technical Support web site for more resources.

**Self-serve Support:**

<http://support.crystaldecisions.com/>

**Email Support:**

<http://support.crystaldecisions.com/support/answers.asp>

**Telephone Support:**

<http://www.crystaldecisions.com/contact/support.asp>

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