TBK Tracker Player Documentation
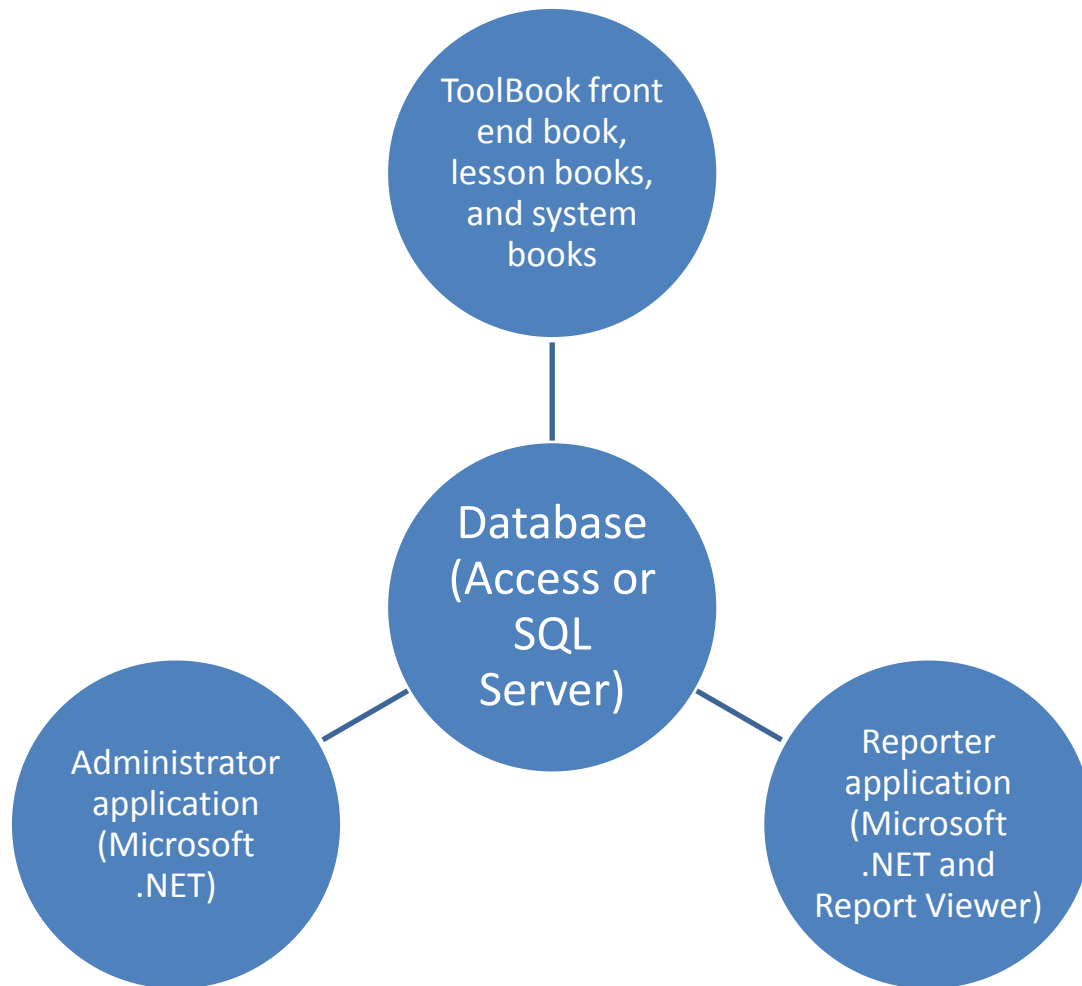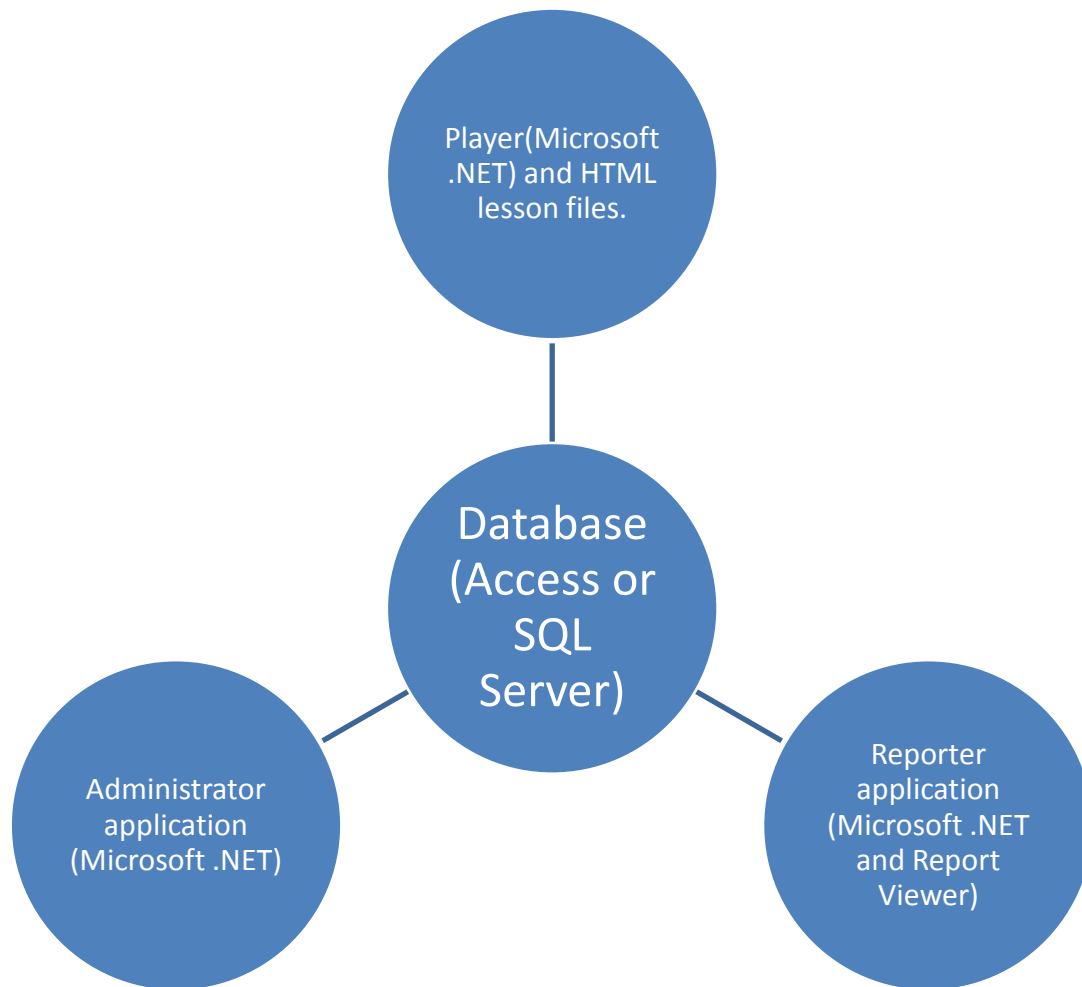
Table of Contents

This document describes the design and structure of the TBK Tracker Player and associated files.

Instruction

TBK Tracker was first released in 1998 as a Learning Management System (LMS) for native ToolBook® content and is still used for that purpose. The figure below shows the configuration for a ToolBook project.

The intent of the TBK Tracker Player product is to use the same database format, *Administrator* application, and *Reporter* application but to replace the ToolBook "front end book" and system books with a player running in .NET. The ToolBook "lesson books" are then replaced by HTML content written in *Training Studio™, Exam Engine™,* or another tool. The requirements for this HTML content are explained later in this document. There are some areas of the *Administrator* that are only applicable to ToolBook, but the bulk of the settings can be used for both configurations. The configuration for a Player project is shown below.

Player(Microsoft .NET) and HTML lesson files.

Database (Access or SQL Server)

Administrator application (Microsoft .NET)

Reporter application (Microsoft .NET and Report Viewer)

Architecture

The architecture of a TBK Tracker application using the player and HTML files is shown below. We will examine each part of the architecture in turn.

```
                    TBKTrackerPlayerr.exe


    tbksettg4.ini (Database
    info). Location from           StartingMovieName
    tbkSettingPath in .config     (used if UseTBKTracker is
           file.                           false)


       Database (from
     Training_DatabaseName
      in the .config file)


 Lesson 1 (HTML)        Lesson 2 (HTML)        Lesson 3 (HTML)
```
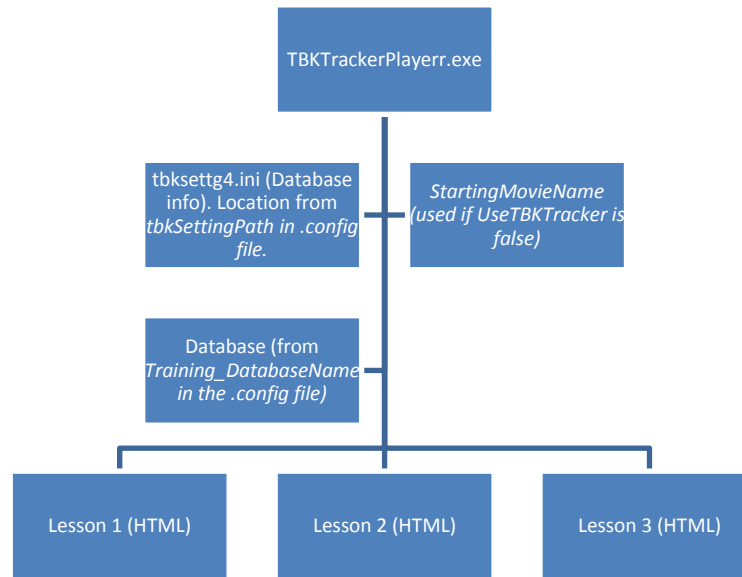
The user launches the *TBKTrackerPlayer.exe* file in order to start the training. The player first checks its *UseTBKTracker* setting (stored in *TBKTrackerPlayer.exe.config* along with the other settings).

If *UseTBKTracker* is false, then the player starts whatever file is in the *StartingMovieName* setting. This setting can be a complete path or a relative path. If it is a relative path, it must be relative to the location of the player. There is no tracking or navigation between HTML files in this case.

If the player is using TBK Tracker, then it looks at its *tbkSettingPath* setting in order to find the tbksettg4.ini file. This is often located in the user's "ToolBook Common Files" directory (such as *C:\Program Files\Common Files\ToolBook\TBSystem\tbksettg4.ini[1]*) so that ToolBook-based TBK Tracker files can run as well, but this is not required. If this setting is a relative path, then it must be relative to the location of the player. From there, the player displays a login screen, a course selection screen, an optional instructions screen (showing an HTML file), and a lesson selection screen. When the user selects a lesson, the lesson selection screen is hidden until the HTML file closes.

tbksettg4.ini

The tbksettg4.ini file contains information about database providers, locations, and connection settings. This information is used by the player as well as by the *TBK Tracker Administrator* and *TBK Tracker Reporter* programs.

Provider Sections

TBK Tracker allows you to use JET (Access database) or SQL (SQL Server database) as the provider. The tbksettg4.ini file has one or both of these sections:

---

[1] The Player will automatically change *Program Files* to *Program Files(x86)* if it detects a 64-bit operating system.

```
[JET]
Provider=Microsoft.Jet.OLEDB.4.0

[SQL]
Provider=SQLOLEDB
```

Databases Section

Each player must be associated with a unique database. This association is established using a Database ID and is stored as the *Training_DatabaseName* setting in the config file. This value must appear in the [Databases] section of tbksettg4.ini file as shown below. Its value is the selected provider option.

```
[Databases]
sportsSample=JET
TrainingStudioSample=JET
TrainingStudioSampleSQL=SQL
TrainingStudioTBKTracker_2000=SQL
gdtTrainer=JET
```

Note: to prevent end users from using a player with a different database than the one distributed by the developer, the *Training_DatabaseName_ID* setting must match the *Training_DatabaseName*. The key for creating this ID is stored as the *Training_DatabaseName_Key* and can be customized by each developer. Developers use the TBK Tracker Generator program to create a *Training_DatabaseName_ID* to match their database name.

[<Database ID>] Sections

Each Database ID that appears under the Databases section has its own section and items. The items will vary depending on the provider option for the corresponding application. Here are the relevant items:

Item	Explanation
JET_Source	This item is required when the provider option is JET. JET_Source is the path to the database file. The path can be complete or relative to the location of the tbksettg4.ini file. Example: `JET_Source=database\sportsSample.mdb`
SQL_Source	This item is required when the provider option is SQL. SQL_Source is the name of the server. This can be an actual name or an IP address. Example:

Item	Explanation
	`SQL_Source=PLATTE-2K1\SQLSERVER2005`
SQL_Initial Catalog	This item is required when the provider option is SQL. SQL_Initial Catalog is the name of the database within the server. Example: `SQL_Initial Catalog=TBKTracker_TrainingStudio`
<providerOption>_key1 <providerOption>_key2	These items store encrypted values corresponding to the database. They are written from the *TBK Tracker Administrator* and should not be modified directly.
description	Short description of database. Typically entered via *TBK Tracker Administrator*.

Database Default Section

The Database Default section is used by *TBK Tracker Administrator* and *TBK Tracker Reporter* programs to determine which database is selected when they open. Installation programs should set this value only if it is not already set by a previous program.

```
[Database Default]
default=TrainingStudioSample
```

Configuration Settings

Most of the functionality of the player is controlled by the *TBKTrackerPlayer.exe.config* file. This XML file must be distributed with your player.

Data Types

The table below describes the various data types used for the settings as well as valid values.

Data Type	Description	Example Value(s)
Boolean (True/False)	Some of the settings such as *ShowStudentReportButton* are Boolean, meaning that they are either True or False.	True
Color (FontColor, TransparentColor, BackColor)	This can be a named color (Black, Magenta, WhiteSmoke, etc.), an RGB value like 224, 224, 224 (notice that there is no # symbol), or a Windows system color (Control, ActiveCaption, etc.). Note that *Transparent* can be used but is not valid for all objects.	Black Magenta
Extension	This is used to designate the extension to be used for graphical buttons. Valid values are bmp, png, jpg, gif, etc.	bmp gif
Font	The name of the font, the size, and the style.	Arial, 14.25pt, style=Bold

Data Type	Description	Example Value(s)
		Verdana, 24pt, style=Bold, Italic
Graphic (BackGraphic)	This is the path (typically relative from the player) to the graphic. Leave blank if the graphic is not needed. Bitmaps, JPG, PNG, and GIF graphics are supported.	graphics\certificate.bmp graphics\oval2.BMP
ImageLayout	This controls how an image is displayed. For example, if the image is small and should be repeated to fill the screen, then this should be set to *Tile*. Valid values are Center, None, Stretch, Tile, and Zoom.	Center
Location	This is the pixel coordinates from the top, left of the window.	798, 23 20, 534
Number	Some of the settings such as *FrontEnd_LessonButtons_HorizontalOffset* must be a number, specifically an Integer (whole number without any decimals).	2 178
ParentObject	This is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent. So to have a label show up on top of a graphic, that graphic needs to be the label's *parent*.	Graphic1
Size	This is the width and height of the object in pixels.	798, 23 150, 40
Suffix	This is part of a naming scheme for the graphics that make up the graphical buttons. For example, if you a *FrontEnd_GraphicButtons_Suffix_Completed* of "Dn" and a *FrontEnd_GraphicButtons_Suffix_Normal* of "Normal," then the name of the original completed graphic for a lesson might be *lesson1DnNormal.bmp*.	Dn Invert
TextAlign	This is the alignment of text in a label. Valid values are: BottomCenter, BottomLeft, BottomRight, MiddleCenter, MiddleLeft, MiddleRight, TopCenter, TopLeft, TopRight.	TopCenter

Settings

The table below explains each of the settings within the config file. You may edit them in a simple text editor like Notepad.

Setting	Description
About_Title	This is the title/caption of either the window holding the *AboutMovie* (if that is a valid HTML file) or the title of the Message Box showing the *AboutText*.
AboutMovie	This is an optional HTML file or external file that can be shown when the user clicks the About button on the *Lesson Selection* screen or in response to an "About" call via JavaScript (*window.external.About)* from the Instructions file. The file can be a complete path or relative to the path of the player. If it is an HTML file, then the size of the file is set in the *AboutMovie_Size* property. If AboutMovie is blank, then the text shown in *AboutText* is displayed instead and no *AboutMovie_Size* value is

Setting	Description
	needed.
AboutMovie_Size	This is the size (width, height) in pixels of the HTML file set in AboutMovie. It is only relevant if AboutMovie is a valid HTML file.
AboutText	This is optional text that is displayed in a Message Box when the user clicks the About button on the *Lesson Selection* screen or in response to an "About" call via JavaScript (*window.external.About)* from the Instructions file. If there is a value for *AboutMovie*, that file or external files is shown instead of this text.
Certificate_CompletionDateLabel_Font	This is the font for the completion date label on the *Certificate* screen.
Certificate_CompletionDateLabel_FontColor	This is the font color for the completion date label on the *Certificate* screen.
Certificate_CompletionDateLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the completion date label on the *Certificate* screen.
Certificate_CompletionDateLabel_Size	This is the size (width, height) in pixels for the completion date label on the *Certificate* screen. Note that the text will be "top centered" in this area.
Certificate_CourseNameLabel_Font	This is the font for the course name label on the *Certificate* screen.
Certificate_CourseNameLabel_FontColor	This is the font color for the course name label on the *Certificate* screen.
Certificate_CourseNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the course name label on the *Certificate* screen.
Certificate_CourseNameLabel_Size	This is the size (width, height) in pixels for the course name label on the *Certificate* screen. Note that the text will be "top centered" in this area.
Certificate_CourseTimeLabel_Font	This is the font for the course time label on the *Certificate* screen.
Certificate_CourseTimeLabel_FontColor	This is the font color for the course time label on the *Certificate* screen.
Certificate_CourseTimeLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the course time label on the *Certificate* screen.
Certificate_CourseTimeLabel_Size	This is the size (width, height) in pixels for the course time label on the *Certificate* screen. Note that the text will be "top centered" in this area.
Certificate_Graphic	This is the relative path to the graphic to be used as the background of the *Certificate* screen. Include a subdirectory if the graphic is not in the same directory as the player. If you leave this blank, then the default Platte Canyon/TBK Tracker graphic will be used.
Certificate_PrintButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Print button on the *Certificate* screen. Note that this button is hidden automatically before the certificate is printed.
Certificate_UserNameLabel_Font	This is the font for the user/student name label on the Certificate screen.
Certificate_UserNameLabel_FontColor	This is the font color for the user/student name label on the *Certificate* screen.
Certificate_UserNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the user/student name label on the *Certificate* screen.
Certificate_UserNameLabel_Size	This is the size (width, height) in pixels for the user/student name label on the *Certificate* screen. Note that the text will be "top centered" in this area.
FrontEnd_AboutButton_Font	This is the font for the About button on the *Lesson Selection*

Setting	*Description*
	screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_AboutButton_FontColor	This is the font color for the About button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_AboutButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the About button on the *Lesson Selection* screen.
FrontEnd_AboutButton_Size	This is the size (width, height) in pixels for the About button on the *Lesson Selection* screen.
FrontEnd_AboutButton_Tooltip	This is the tooltip to display when the user hovers over this button. Leave blank if you don't want a tooltip.
FrontEnd_BackColor	This controls the background color of the *Lesson Selection* screen. You don't see this unless the *FrontEnd_BackGraphic* is blank.
FrontEnd_BackGraphic	This is the background graphic to display on the *Lesson Selection* screen. It needs to be relative to the location of the player. Whether it is stretched, tiled, etc. is controlled by the *FrontEnd_ImageLayout* setting. Leave this blank to have a colored background (set by *FrontEnd_BackColor*).
FrontEnd_CertificateButton_Font	This is the font for the Certificate button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button" and the *ShowCertificateButton* setting is true.
FrontEnd_CertificateButton_FontColor	This is the font color for the Certificate button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button" and the *ShowCertificateButton* setting is true.
FrontEnd_CertificateButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Certificate button on the *Lesson Selection* screen. It is only relevant if the *ShowCertificateButton* setting is true.
FrontEnd_CertificateButton_Size	This is the size (width, height) in pixels for the Certificate button on the *Lesson Selection* screen. It is only relevant if the *ShowCertificateButton* setting is true.
FrontEnd_CertificateButton_Tooltip	This is the tooltip to display when the user hovers over this button. Leave blank if you don't want a tooltip.
FrontEnd_CourseMenuButton_Font	This is the font for the Course Menu button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_CourseMenuButton_FontColor	This is the font color for the Course Menu button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_CourseMenuButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Course Menu button on the *Lesson Selection* screen.
FrontEnd_CourseMenuButton_Size	This is the size (width, height) in pixels for the Course Menu button on the *Lesson Selection* screen.
FrontEnd_CourseMenuButton_Tooltip	This is the tooltip to display when the user hovers over this button. Leave blank if you don't want a tooltip.
FrontEnd_CourseNameLabel_Font	This is the font for the course name label on the *Lesson Selection* screen.
FrontEnd_CourseNameLabel_FontColor	This is the font color for the course name label on the *Lesson Selection* screen.
FrontEnd_CourseNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the course name label on the *Lesson Selection* screen. If you do not want this label displayed, you can set the location to negative values so that it would be off the screen.
FrontEnd_CourseNameLabel_ParentObject	This setting is only needed if you need the course name label to be on top of and transparent to another object. In that case, this is the

Setting	Description
	name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_CourseNameLabel_Size	This is the size (width, height) in pixels for the course name label on the *Lesson Selection* screen.
FrontEnd_CourseNameLabel_TextAlign	This is the text alignment setting for the course name label on the *Lesson Selection* screen.
FrontEnd_ExitButton_Font	This is the font for the Exit button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_ExitButton_FontColor	This is the font color for the Exit button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_ExitButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Exit button on the *Lesson Selection* screen.
FrontEnd_ExitButton_Size	This is the size (width, height) in pixels for the Exit button on the *Lesson Selection* screen. Setting this even with the *FrontEnd_InterfaceMode* setting is "Graphic" or "LessonQuiz" helps get the button into exactly the right position.
FrontEnd_ExitButton_Tooltip	This is the tooltip to display when the user hovers over this button. Leave blank if you don't want a tooltip.
FrontEnd_Graphic1	This is the relative path to a graphic to be loaded onto the *Lesson Selection* screen. Include a subdirectory if the graphic is not in the same directory as the player. It is normally easier to include graphical elements on the image loaded for the *FrontEnd_BackGraphic* rather than to load a separate graphic.
FrontEnd_Graphic1_Location	This is the location (x, y) in pixels (measured from the top, left) for the Graphic1 on the *Lesson Selection* screen. It is only relevant if *FrontEnd_Graphic1* is a valid path to a graphic.
FrontEnd_Graphic1_TransparentColor	This is the transparent (or chromakey) color to be used for the corresponding graphic. You typically would only need this value if the graphic is a bitmap.
FrontEnd_Graphic2	This is the relative path to a graphic to be loaded onto the *Lesson Selection* screen. Include a subdirectory if the graphic is not in the same directory as the player. It is normally easier to include graphical elements on the image loaded for the *FrontEnd_BackGraphic* rather than to load a separate graphic.
FrontEnd_Graphic2_Location	This is the location (x, y) in pixels (measured from the top, left) for the Graphic2 on the *Lesson Selection* screen. It is only relevant if *FrontEnd_Graphic2* is a valid path to a graphic.
FrontEnd_Graphic2_TransparentColor	This is the transparent (or chromakey) color to be used for the corresponding graphic. You typically would only need this value if the graphic is a bitmap.
FrontEnd_Graphic3	This is the relative path to a graphic to be loaded onto the *Lesson Selection* screen. Include a subdirectory if the graphic is not in the same directory as the player. It is normally easier to include graphical elements on the image loaded for the *FrontEnd_BackGraphic* rather than to load a separate graphic.
FrontEnd_Graphic3_Location	This is the location (x, y) in pixels (measured from the top, left) for the Graphic3 on the *Lesson Selection* screen. It is only relevant if *FrontEnd_Graphic3* is a valid path to a graphic.
FrontEnd_Graphic3_TransparentColor	This is the transparent (or chromakey) color to be used for the corresponding graphic. You typically would only need this value if the graphic is a bitmap.
FrontEnd_Graphic4	This is the relative path to a graphic to be loaded onto the *Lesson Selection* screen. Include a subdirectory if the graphic is not in the

Setting	Description
	same directory as the player. It is normally easier to include graphical elements on the image loaded for the *FrontEnd_BackGraphic* rather than to load a separate graphic.
FrontEnd_Graphic4_Location	This is the location (x, y) in pixels (measured from the top, left) for the Graphic4 on the *Lesson Selection* screen. It is only relevant if *FrontEnd_Graphic4* is a valid path to a graphic.
FrontEnd_Graphic4_TransparentColor	This is the transparent (or chromakey) color to be used for the corresponding graphic. You typically would only need this value if the graphic is a bitmap.
FrontEnd_GraphicButtons_Extension	This is the file extension to be used by the various graphics that make up the states for the lesson buttons on the *Lesson Selection* screen as well as for the Course Menu, Exit, Help, and Student Information buttons. It is needed because the graphics are loaded from the *graphics* subdirectory based on this naming scheme: <lesson name><completed><state>.<extension> or <button name><state>.<extension> Note that _ is substituted for any illegal characters such as / in the <lesson name>. So the name of a normal graphic when the lesson is not completed is: <lesson name><FrontEnd_GraphicButtons_Suffix_NotCompleted><FrontEnd_GraphicButtons_Suffix_Normal>.<FrontEnd_GraphicButtons_Extension> For a completed, inverted graphic, it would be: <lesson name><FrontEnd_GraphicButtons_Suffix_Completed><FrontEnd_GraphicButtons_Suffix_Inverted>.<FrontEnd_GraphicButtons_Extension> This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."
FrontEnd_GraphicButtons_Suffix_Completed	This is the designator of a completed lesson graphic used by the various graphics that make up the states for the lesson buttons on the *Lesson Selection* screen. For example, if this value is *Dn*, the name of completed, disabled graphic for a lesson named *Basketball Quiz* might be: Basketball QuizDnDisabled.BMP This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."
FrontEnd_GraphicButtons_Suffix_Disabled	This is the designator of the disabled state of a lesson graphic for the lesson buttons on the *Lesson Selection* screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is *Disabled*, the name of completed,

Setting	Description
	disabled graphic for a lesson named *Basketball Quiz* might be: Basketball QuizDnDisabled.BMP This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."
FrontEnd_GraphicButtons_Suffix_Inverted	This is the designator of the inverted state of a lesson graphic for the lesson buttons on the *Lesson Selection* screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is *Invert*, the name of completed, inverted graphic for a lesson named *Basketball Quiz* might be: Basketball QuizDnInvert.BMP This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."
FrontEnd_GraphicButtons_Suffix_Normal	This is the designator of the normal state of a lesson graphic for the lesson buttons on the *Lesson Selection* screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is *Normal*, the name of completed, normal graphic for a lesson named *Basketball Quiz* might be: Basketball QuizDnNormal.BMP This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."
FrontEnd_GraphicButtons_Suffix_NotCompleted	This is the designator of an incomplete lesson graphic used by the various graphics that make up the states for the lesson buttons on the *Lesson Selection* screen. For example, if this value is *NotDn*, the name of incomplete, disabled graphic for a lesson named *Basketball Quiz* might be: Basketball QuizNotDnDisabled.BMP This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."
FrontEnd_GraphicButtons_Suffix_Rollover	This is the designator of the rollover state of a lesson graphic for the lesson buttons on the *Lesson Selection* screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is *Checked*, the name of completed, normal graphic for a lesson named *Basketball Quiz* might be: Basketball QuizDnChecked.BMP This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."
FrontEnd_GraphicButtons_TransparentColor	This is the transparent (or chromakey) color to be used for the all the lesson graphics for the *Lesson Selection* screen as well as for the Course Menu, Exit, Help, and Student Information buttons. You typically would only need this value if the *FrontEnd_GraphicButtons_Extension* is bmp. This value is only relevant if *FrontEnd_InterfaceMode* is "Graphic."

Setting	Description
FrontEnd_HelpButton_Font	This is the font for the Help button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_HelpButton_FontColor	This is the font color for the Help button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_HelpButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Help button on the *Lesson Selection* screen.
FrontEnd_HelpButton_Size	This is the size (width, height) in pixels for the Help button on the *Lesson Selection* screen. Setting this even with the *FrontEnd_InterfaceMode* setting is "Graphic" or "LessonQuiz" helps get the button into exactly the right position.
FrontEnd_HelpButton_Tooltip	This is the tooltip to display when the user hovers over this button. Leave blank if you don't want a tooltip.
FrontEnd_ImageLayout	This is the layout (Center, None, Stretch, Tile, or Zoom) of the background image loaded via the *FrontEnd_BackGraphic* setting.
FrontEnd_InstructionsButton_Font	This is the font for the Instructions button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button." This button is only displayed if *UseInstructionsPage* is true and *Instructions_MovieName* is a valid path to an HTML file.
FrontEnd_InstructionsButton_FontColor	This is the font for the Instructions button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button." This button is only displayed if *UseInstructionsPage* is true and *Instructions_MovieName* is a valid path to an HTML file.
FrontEnd_InstructionsButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Instructions button on the *Lesson Selection* screen. This button is only displayed if *UseInstructionsPage* is true and *Instructions_MovieName* is a valid path to an HTML file.
FrontEnd_InstructionsButton_Size	This is the size (width, height) in pixels for the Instructions button on the *Lesson Selection* screen. Setting this even with the *FrontEnd_InterfaceMode* setting is "Graphic" or "LessonQuiz" helps get the button into exactly the right position. This button is only displayed if *UseInstructionsPage* is true and *Instructions_MovieName* is a valid path to an HTML file.
FrontEnd_InstructionsButton_Tooltip	This is the tooltip to display when the user hovers over this button. Leave blank if you don't want a tooltip.
FrontEnd_InterfaceMode	This value controls whether the buttons on the *Lesson Selection* screen are going to be normal buttons, graphics, or a special "LessonQuiz" mode where the lesson names are shared and you start the lesson/quiz by clicking the status graphics. Valid values are: Button Graphic LessonQuiz If graphics, the lesson buttons need to have graphics for the various states. For that and "LessonQuiz" mode, the Exit, Course Menu, Help, and Student Information buttons need to have graphics for the various states as well. The naming is: <button name><state>.<extension> So the name of the normal graphic would be:

Setting	Description
	<button name><FrontEnd_GraphicButtons_Suffix_Normal>.< FrontEnd_GraphicButtons_Extension> For example, the normal graphic of the Help button might be: HelpBtnNormal.BMP The button names are: AboutBtn, CertificateBtn, CourseMenuBtn, ExitBtn, HelpBtn, and StudentInfoBtn.
FrontEnd_Label1_CourseNameDisplayList	This is a pipe ("|")-delimited list of course names IF the label should only be displayed via those particular courses. For example, to only show the text for Engineering and Physics, the value would be: Engineering|Physics If the label should be visible all the time, leave this setting blank.
FrontEnd_Label1_Font	This is the font for the optional Label1 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label1_Text* has a value and if *FrontEnd_Label1_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label1_FontColor	This is the font color for the optional Label1 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label1_Text* has a value and if *FrontEnd_Label1_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label1_Location	This is the location (x, y) in pixels (measured from the top, left) for the optional Label1 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label1_Text* has a value and if *FrontEnd_Label1_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label1_ParentObject	This setting is only needed if you need the optional Label1 to be on top of and transparent to another object. In that case, this is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_Label1_Size	This is the size (width, height) in pixels for the optional Label1 on the *Lesson Selection* screen.
FrontEnd_Label1_Text	This is the text of optional Label1 on the *Lesson Selection* screen. The label is only displayed if this setting has a value and if *FrontEnd_Label1_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label1_TextAlign	This is the text alignment setting for the optional Label1 on the *Lesson Selection* screen.
FrontEnd_Label2_CourseNameDisplayList	This is a pipe ("|")-delimited list of course names IF the label should only be displayed via those particular courses. For example, to only show the text for Engineering and Physics, the value would be: Engineering|Physics If the label should be visible all the time, leave this setting blank.
FrontEnd_Label2_Font	This is the font for the optional Label2 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label2_Text* has a value and if *FrontEnd_Label2_CourseNameDisplayList* is either

Setting	Description
	blank or has the name of the current course in it.
FrontEnd_Label2_FontColor	This is the font color for the optional Label2 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label2_Text* has a value and if *FrontEnd_Label2_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label2_Location	This is the location (x, y) in pixels (measured from the top, left) for the optional Label2 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label2_Text* has a value and if *FrontEnd_Label2_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label2_ParentObject	This setting is only needed if you need the optional Label2 to be on top of and transparent to another object. In that case, this is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_Label2_Size	This is the size (width, height) in pixels for the optional Label2 on the *Lesson Selection* screen.
FrontEnd_Label2_Text	This is the text of optional Label2 on the *Lesson Selection* screen. The label is only displayed if this setting has a value and if *FrontEnd_Label2_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label2_TextAlign	This is the text alignment setting for the optional Label2 on the *Lesson Selection* screen.
FrontEnd_Label3_CourseNameDisplayList	This is a pipe ("|")-delimited list of course names IF the label should only be displayed via those particular courses. For example, to only show the text for Engineering and Physics, the value would be: Engineering|Physics If the label should be visible all the time, leave this setting blank.
FrontEnd_Label3_Font	This is the font for the optional Label3 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label3_Text* has a value and if *FrontEnd_Label3_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label3_FontColor	This is the font color for the optional Label3 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label3_Text* has a value and if *FrontEnd_Label3_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label3_Location	This is the location (x, y) in pixels (measured from the top, left) for the optional Label3 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label3_Text* has a value and if *FrontEnd_Label3_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label3_ParentObject	This setting is only needed if you need the optional Label3 to be on top of and transparent to another object. In that case, this is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_Label3_Size	This is the size (width, height) in pixels for the optional Label3 on the *Lesson Selection* screen.
FrontEnd_Label3_Text	This is the text of optional Label3 on the *Lesson Selection* screen. The label is only displayed if this setting has a value and if *FrontEnd_Label3_CourseNameDisplayList* is either blank or has

Setting	Description
	the name of the current course in it.
FrontEnd_Label3_TextAlign	This is the text alignment setting for the optional Label3 on the *Lesson Selection* screen.
FrontEnd_Label4_CourseNameDisplayList	This is a pipe ("|")-delimited list of course names IF the label should only be displayed via those particular courses. For example, to only show the text for Engineering and Physics, the value would be:

Engineering|Physics

If the label should be visible all the time, leave this setting blank. |
FrontEnd_Label4_Font	This is the font for the optional Label4 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label4_Text* has a value and if *FrontEnd_Label4_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label4_FontColor	This is the font color for the optional Label4 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label4_Text* has a value and if *FrontEnd_Label4_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label4_Location	This is the location (x, y) in pixels (measured from the top, left) for the optional Label4 on the *Lesson Selection* screen. This label is only displayed if *FrontEnd_Label4_Text* has a value and if *FrontEnd_Label4_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label4_ParentObject	This setting is only needed if you need the optional Label4 to be on top of and transparent to another object. In that case, this is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_Label4_Size	This is the size (width, height) in pixels for the optional Label4 on the *Lesson Selection* screen.
FrontEnd_Label4_Text	This is the text of optional Label4 on the *Lesson Selection* screen. The label is only displayed if this setting has a value and if *FrontEnd_Label4_CourseNameDisplayList* is either blank or has the name of the current course in it.
FrontEnd_Label4_TextAlign	This is the text alignment setting for the optional Label4 on the *Lesson Selection* screen.
FrontEnd_LessonButton_BackColor	This is the background color of the lesson buttons on the *Lesson Selection* screen. It is only relevant if *FrontEnd_InterfaceMode* is "Button."
FrontEnd_LessonButtons_Font	This is the font of the lesson buttons on the *Lesson Selection* screen. It is only relevant if *FrontEnd_InterfaceMode* is "Button."
FrontEnd_LessonButtons_FontColor	This is the font color of the lesson buttons on the *Lesson Selection* screen. It is only relevant if *FrontEnd_InterfaceMode* is "Button."
FrontEnd_LessonButtons_HorizontalOffset	This is the horizontal distance in pixels between each column of lesson buttons on the *Lesson Selection* screen.
FrontEnd_LessonButtons_Location	This is the location (x, y) in pixels (measured from the top, left) for the <u>first</u> lesson button on the *Lesson Selection* screen. Subsequent lesson buttons first go down the screen (based on the *FrontEnd_LessonButtons_NumLessonsPerColumn*, *FrontEnd_LessonButtons_Size* and the *FrontEnd_LessonButtons_VerticalOffset*) and then to a new column (based on the *FrontEnd_LessonButtons_Size* and the *FrontEnd_LessonButtons_HorizontalOffset*).

Setting	Description
FrontEnd_LessonButtons_NumLessonsPerColumn	This is the number of lessons to have in a column before wrapping to a new column (with the next location being based on the *FrontEnd_LessonButtons_Size* and the *FrontEnd_LessonButtons_HorizontalOffset*). For example, if you anticipated a maximum of six lessons in any of your courses, you might set this value to 2. With four lessons, there would be two columns of two buttons each. With six lessons, there would be three columns of two buttons each.
FrontEnd_LessonButtons_Size	This is the size (width, height) in pixels for the lesson buttons on the *Lesson Selection* screen. Setting this even with the *FrontEnd_InterfaceMode* setting is "Graphic" or "LessonQuiz" helps get the button into exactly the right position.
FrontEnd_LessonButtons_VerticalOffset	This is the vertical distance in pixels between each lesson button within a column on the *Lesson Selection* screen.
FrontEnd_LessonDescriptionLabel_Font	This is the font for the lesson description label on the *Lesson Selection* screen.
FrontEnd_LessonDescriptionLabel_FontColor	This is the font color for the lesson description label on the *Lesson Selection* screen.
FrontEnd_LessonDescriptionLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the lesson description label on the *Lesson Selection* screen. If you do not want this label displayed, you can set the location to negative values so that it would be off the screen.
FrontEnd_LessonDescriptionLabel_ParentObject	This setting is only needed if you need the lesson description label to be on top of and transparent to another object. In that case, this is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_LessonDescriptionLabel_Size	This is the size (width, height) in pixels for the lesson description label on the *Lesson Selection* screen.
FrontEnd_LessonDescriptionLabel_TextAlign	This is the text alignment setting for the lesson description label on the *Lesson Selection* screen.
FrontEnd_LessonNameLabel_Font	This is the font for the Lesson buttons on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_LessonNameLabel_FontColor	This is the font for the Lesson buttons on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button."
FrontEnd_LessonNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the lesson name label on the *Lesson Selection* screen. If you do not want this label displayed, you can set the location to negative values so that it would be off the screen.
FrontEnd_LessonNameLabel_ParentObject	This setting is only needed if you need the lesson name label to be on top of and transparent to another object. In that case, this is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_LessonNameLabel_Size	This is the size (width, height) in pixels for the lesson name label on the *Lesson Selection* screen.
FrontEnd_LessonNameLabel_TextAlign	This is the text alignment setting for the lesson name label on the *Lesson Selection* screen.
FrontEnd_StudentInfoButton_Font	This is the font for the Student Information button on the *Lesson Selection* screen. It is only used if the *FrontEnd_InterfaceMode* setting is "Button." This button is only displayed if *ShowStudentReportButton* is set to true.
FrontEnd_StudentInfoButton_FontColor	This is the font color for the Student Information button on the *Lesson Selection* screen. It is only used if the

Setting	Description
	FrontEnd_InterfaceMode setting is "Button." This button is only displayed if *ShowStudentReportButton* is set to true.
FrontEnd_StudentInfoButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Student Information button on the *Lesson Selection* screen. This button is only displayed if *ShowStudentReportButton* is set to true.
FrontEnd_StudentInfoButton_Size	This button is only displayed if *ShowStudentReportButton* is set to true.
FrontEnd_StudentInfoButton_Tooltip	This is the tooltip to display when the user hovers over this button. Leave blank if you don't want a tooltip.
FrontEnd_UserNameLabel_Font	This is the font for the user/student name label on the *Lesson Selection* screen.
FrontEnd_UserNameLabel_FontColor	This is the font color for the user/student name label on the *Lesson Selection* screen.
FrontEnd_UserNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the user/student name label on the *Lesson Selection* screen. If you do not want this label displayed, you can set the location to negative values so that it would be off the screen.
FrontEnd_UserNameLabel_ParentObject	This setting is only needed if you need the user/student name label to be on top of and transparent to another object. In that case, this is the name of the object that is the *parent* of the object. This is needed since in .NET an object is transparent relative to its parent.
FrontEnd_UserNameLabel_Size	This is the size (width, height) in pixels for the user/student name label on the *Lesson Selection* screen.
FrontEnd_UserNameLabel_TextAlign	This is the text alignment setting for the user/student name label on the *Lesson Selection* screen.
Instructions_DictionaryMovie	This is an optional HTML file or external file that can be shown in response to a "DDD" call via JavaScript (*window.external.DDD)* from the Instructions file. The HTML file or external file can be a complete path or relative to the path of the player. If it is an HTML file, then the size of the file is set in the *Instructions_DictionaryMovie_Size* property.
Instructions_DictionaryMovie_Size	This is the size (width, height) in pixels of the HTML file set in *Instructions_DictionaryMovie*. It is only relevant if *Instructions_DictionaryMovie* is a valid HTML file.
Instructions_DictionaryMovie_Title	This is the title/caption of the window holding the *Instructions_DictionaryMovie* if that is an HTML file.
Instructions_MovieName	This is full or relative path (from the directory of the player) to an HTML file that provides instructions about the training. This HTML file can have various commands as explained later in this document. This setting is only relevant if *UseInstructionsPage* is true.
Instructions_Size	This is the size (width, height) in pixels of the HTML file set in *Instructions_MovieName*. It is only relevant if *UseInstructionsPage* is true.
Instructions_StartingFrameNumber	This is the frame number to jump to when returning to the HTML file set in *Instructions_MovieName* when clicking on the Instructions button on the *Lesson Selection* screen. This is intended for the situation where the file has an introductory section which is then skipped when returning to that file.
Instructions_TutorialMovie	This is an optional HTML file or external file that can be shown in response to a "Tutorial" call via JavaScript (*window.external.Tutorial)* from the Instructions file. The HTML file or external file can be a complete path or relative to the path of

Setting	*Description*
	the player. If it is an HTML file, then the size of the file is set in the *Instructions_TutorialMovie_Size* property.
Instructions_TutorialMovie_Size	This is the size (width, height) in pixels of the HTML file set in *Instructions_TutorialMovie*. It is only relevant if *Instructions_TutorialMovie* is a valid HTML file.
Instructions_TutorialMovie_Title	This is the title/caption of the window holding the *Instructions_TutorialMovie* if that is an HTML file.
LessonQuiz_GraphicBase	This is the base file name for the Lesson and Quiz graphics when the *FrontEnd_InterfaceMode* is "LessonQuiz." For example, the normal graphic when the lesson is completed might be LessonStatusDnNormal.gif when this value is "LessonStatus," the *FrontEnd_GraphicButtons_Suffix_Completed* is "Dn," and the *FrontEnd_GraphicButtons_Suffix_Normal* is "Normal."
LessonQuiz_LessonLabel_DisabledFontColor	This is the text color when both of the lessons associated with the label are disabled. This will occur when lessons are set to be taken in sequence and the previous lesson has not been completed. It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
LessonQuiz_LessonLabel_Font	This is the font to be used for the lesson label. It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
LessonQuiz_LessonLabel_FontColor	This is the text color when either of the lessons associated with the label is enabled. It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
LessonQuiz_LessonLabel_Location	This is the location of the lesson label relative to its panel. In other words, it is relative to the lesson graphic. The Y coordinate is used to position the label to match your graphics. It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
LessonQuiz_LessonLabel_Size	This is the size of the lesson label. This drives the wrapping of the text as well as the overall width used for the lesson(s). It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
LessonQuiz_QuizGraphic_Width	This is the width reserved for the quiz graphic. It is used to help calculate the width needed for the lesson group as a whole. It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
LessonQuiz_QuizGraphic_XOffset	This is the distance from the left of the lesson group to position the quiz graphic. It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
Message_ExitTraining	This is the message that is displayed when the student tries to close any of the forms associated with the training or when he or she clicks an Exit button.
SeminarModeKeyword	This is the keyword to look for in the lesson name to distinguish between a normal *FrontEnd_InterfaceMode* of "LessonQuiz" where there is a column for lessons and quizzes and a "Seminar" mode where there is only a column for lessons. It is only relevant if the *FrontEnd_InterfaceMode* is "LessonQuiz."
ShowCertificateButton	Setting this to true displays a Certificate button on the *Student Information* screen when the course has been completed. It also shows a Certificate button on the *Lesson Selection* screen. However, you can hide this button and still have a Certificate button on the *Student Information* screen by setting the *FrontEnd_CertificateButton_Location* to a negative X or Y value sufficient to move it off the screen.
ShowStudentReportButton	Setting this to true displays a Student Report button on the *Student Information* screen when the course has been completed.
StartingMovieName	This is the complete or relative (from either the player or the *tbkSettingPath*) path to a starting file. This setting is only relevant

Setting	Description
	if *UseTBKTracker* is false. Otherwise, the content is controlled by which course the user selects.
tbkSettingPath	This is the complete or relative (from the location of the player) path to the TBK Tracker configuration file, normally named tbksettg4.ini. This setting is only relevant if *UseTBKTracker* is true.
Title_ExitTraining	This is the title of the dialog that is displayed when the student tries to close any of the forms associated with the training or when he or she clicks an Exit button.
Training_AllowResize	Setting this to True allows the user to resize the training itself and the *Lesson Selection* screen. Be sure to test your application after resizing your application in this case.
Training_DatabaseName	This is the *Database ID* used to look up the database connection information in the configuration file set in *tbkSettingPath*. For security reasons, it must match the *Training_DatabaseName_ID* and the *Training_DatabaseName_Key*. Use the *TBK Tracker Generator* program to create the *Training_DatabaseName_ID* for a given *Training_DatabaseName* and *Training_DatabaseName_Key*.
Training_DatabaseName_ID	This is the security ID to prevent end users from using a player with a different database. This ID must match the *Training_DatabaseName* and the *Training_DatabaseName_Key*. Use the *TBK Tracker Generator* program to create the *Training_DatabaseName_ID* for a given *Training_DatabaseName* and *Training_DatabaseName_Key*.
Training_DatabaseName_Key	This is the key used to generate the Training_DatabaseName_ID used to prevent to prevent end users from using a player with a different database. This ID must match the *Training_DatabaseName* and the *Training_DatabaseName_Key*. Use the *TBK Tracker Generator* program to create the *Training_DatabaseName_ID* for a given *Training_DatabaseName* and *Training_DatabaseName_Key*.
Training_Graphic	This is a complete or relative path (to the location of the player) for a "splash" graphic to be shown on initial startup.
Training_Icon	This is a complete or relative path (to the location of the player) for an icon to be displayed in the training window.
Training_Size	This is the size (width, height) in pixels of the training window. This should match the dimensions of your HTML content.
Training_Title	This is the title to be displayed in the caption of the training window.
UseInstructionsPage	Set this to true to display an HTML file that provides instructions about the training. The file is set in the *Instructions_MovieName*.
UseTBKTracker	Set this to true to use TBK Tracker to track the training content. Otherwise, the player will start the file set in *StartingMovieName*.

Lesson Movie HTML Settings

TBK Tracker is optimized for use with the Platte Canyon® Training Studio™ and the Platte Canyon® Exam Engine™ but can be used with any HTML content as long as that content can make the appropriate JavaScript (*window.external.<function name>*) calls.

Training Studio Settings

For Training Studio content, the only change in your starting files is to enable the *Student Information* link from the Options button if desired. This allows you to bring up Student Information from within a lesson. To do this, open *TSCommon.as* and change set *includeTBKTrackerStudentInfoLink* to true as show below:

```
var includeTBKTrackerStudentInfoLink = true; // use if running via TBK Tracker and want to have a link to the Student Information for the lesson
```

The resulting menu is shown to the right.

When using the *Training Studio Publisher*, select "CD/None" for the publishing option. Using SCORM 1.2 is fine too.
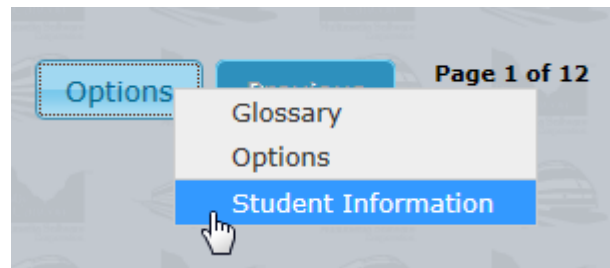
Exam Engine Settings

There are no specific Exam Engine changes that need to be made. If you want to include a *Student Information* link, you could create a button or other interface and use this JavaScript to display the Student Information screen.

```
window.external.ShowStudentInfo;
```

JavaScript Calls

If you are not using Training Studio or Exam Engine, then you need to use JavaScript (*window.external.<function Name>)* to make the calls shown below.

Function Name	Explanation and Code
ExitTraining or confirmClose	Displays the message from the exitMessage parameter. If the user clicks "Yes," then the training closes and the *Lesson Selection* screen is displayed. `window.external.ExitTraining(exitMessage);`

GetValue GetValue12	This call is used to retrieve data from TBK Tracker for use within the lesson. The following values are supported:
	
	• AudioOn (can be set from Instructions file)
	• completionStatus (sent as "" or "completed")
	• location
	• masteryScore (TBK Tracker lesson passing score [0 to 100] sent)
	• studentName (sent as <First Name> <Last Name> is in Jeff Rhodes)
	• suspendData
	
	`lessonLoc = window.external.GetValue("location");`
	
	`masteryScore = parseFloat(window.external.GetValue(`
	`"masteryScore"));`

SetValue	This call is used to send completion and other data to TBK Tracker. The following values and data types are supported: • SetInteractionValue

Function Name	*Explanation and Code*
	``
window.external.SetInteractionValue(qText, intData,
reportedScoreId);
```
qText is the question text.
intData is standard learning objects interaction data as in this code from the Flash Multiple Choice interaction object:
```
var intData = this.dateStamp + ";" + this.timeStamp + ";" +
this.interaction_id + ";" + this.objective_id + ";" +
this.interaction_type + ";" + this.correct_response + ";" +
this.student_response + ";" + this.result + ";" + this.weighting +
";" + this.latency;
```
reportedScoreId is the normalized overall test score (between 0 and 100).

    •   SetHiddenFieldValue
        o  LessonLocation
        o  SuspendData
        o  LessonStatus
        o  LessonTime

*LessonLocation* is typically the page number but can be any other desired value.
```
returnVal = window.external.SetHiddenFieldValue("LessonLocation",
pgNum);
```
*SuspendData* is any string of data needed by the lesson.
```
returnVal = window.external.SetHiddenFieldValue("SuspendData",
susData.join("_"));
```
A *LessonStatus* of "complete" or "passed" will result in the lesson being marked as complete in TBK Tracker. Any other value is ignored.
```
returnVal = window.external.SetHiddenFieldValue("LessonStatus",
completionStatus);
```
*LessonTime* must be in the format HH:MM:SS.
```
returnVal = window.external.SetHiddenFieldValue("LessonTime",
timeString);
``` |
| SetValue12 | This call is also used to send completion and other data to TBK Tracker. The arguments are normal SCORM calls in this case. The data element and the data value are separated by \| as in: cmi.core.lesson_status\|passed. The following values and data types are supported:

    • cmi.core.lesson_location
    • cmi.core.lesson_status
    • cmi.core.session_time

The values are the ones defined in the SCORM 1.2 specification. |
| ShowExternalWindow | This launches an external link or file. TBK Tracker will start whatever program is associated with that file extension. For example, if you link to an HTML page, it will launch the user's default browser. The parameter is the relative path to the content (must be from a \media directory below the location of the lesson file) or a complete URL. |

Function Name	Explanation and Code
	`window.external.ShowExternalWindow(moviePath, "ExternalMedia");` Note that the "ExternalMedia" parameter is not used by TBK Tracker.
ShowStudentInfo	This displays the TBK Tracker *Student Information* screen. `window.external.ShowStudentInfo;`
showAlert	The displays a standard message box with the information passed as the argument. `window.external.showAlert("This is a test.");`

SendJs	This handles an entire set of SCORM interaction information. The argument looks like this:
	
	apiPointer12.LMSSetValue('cmi.interactions.0.id', 'Led_Zeppelin_Stairway_to_Heaven');
	apiPointer12.LMSSetValue('cmi.interactions.0.objectives.0.id', 'Led_Zeppelin_Info');
	apiPointer12.LMSSetValue('cmi.interactions.0.time', '16:08:49');
	apiPointer12.LMSSetValue('cmi.interactions.0.type', 'choice');
	apiPointer12.LMSSetValue('cmi.interactions.0.correct_responses.0.pattern', 'A');
	apiPointer12.LMSSetValue('cmi.interactions.0.weighting', '1');
	apiPointer12.LMSSetValue('cmi.interactions.0.student_response', 'A');
	apiPointer12.LMSSetValue('cmi.interactions.0.result', '1');
	apiPointer12.LMSSetValue('cmi.interactions.0.latency', '00:00:01');
	
	apiPointer12.LMSSetValue('cmi.interactions.1.id', 'Led_Zeppelin_Keith_Moon');
	apiPointer12.LMSSetValue('cmi.interactions.1.objectives.0.id', 'Led_Zeppelin_Info');
	apiPointer12.LMSSetValue('cmi.interactions.1.time', '16:08:38');
	apiPointer12.LMSSetValue('cmi.interactions.1.type', 'true-false');
	apiPointer12.LMSSetValue('cmi.interactions.1.correct_responses.0.pattern', 'true');
	apiPointer12.LMSSetValue('cmi.interactions.1.weighting', '1');
	apiPointer12.LMSSetValue('cmi.interactions.1.student_response', 'true');
	apiPointer12.LMSSetValue('cmi.interactions.1.result', '1');
	apiPointer12.LMSSetValue('cmi.interactions.1.latency', '00:00:00');

FindApi12 or InitSCORM12	These calls return true.

Introduction Movie HTML Calls

If desired, the Introduction file can be used as a type of menu. The following calls via *ExternalInterface* or *FSCommand* are supported.

Call	Explanation
About	Displays the HTML file or external file stored in the *AboutMovie* setting. If this setting is blank, then the text stored in the *AboutText* setting is displayed in a Message Box.
AudioOn	This is not a message but rather a variable that can be queried from the training. The value of the AudioOn variable comes from a *sound* variable of the Instructions file. Here is the Visual Basic code to give you the idea: `AudioOn = (audioVal <> "0")`

Call	Explanation
C_Menu	Displays the *Course Selection* screen.
Course	This is not a message but rather a variable that is set based on the current course the user has selected. This allows you to display the course name in the Introduction file if desired. Here is the Visual Basic code to give you the idea: `.Document.InvokeScript("setCourse", New String() {courseName})`
DDD	Displays the file or external file stored in the *Instructions_DictionaryMovie* setting.
LsnIndex	Displays the *Lesson Selection* screen.
QPrompt	Displays the Exit Message and, if yes, exits the training.
Tutorial	Displays the file or external file stored in the *Instructions_TutorialMovie* setting.

System Requirements

Student (Player and Lessons)

The player itself is a Microsoft .NET 4.0 application, meaning that it needs the .NET Framework 4.0 installed on the client machine. This is often included with your installer but can also be downloaded via Windows Update if it is not already loaded on the client machine. The player uses the .NET *Web Browser* control which in turn has dependencies on Internet Explorer. By default the *Web Browser* defaults to Internet Explorer 7 mode. This mode prevents HTML 5 media, since that was introduced in Internet Explorer 9. To default to Internet Explorer 9, make these registry changes:

32 bit:

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Internet Explorer\MAIN\FeatureControl\FEATURE_BROWSER_EMULATION

Value Key: TBKTrackerPlayer.exe

64 bit:

HKEY_LOCAL_MACHINE\SOFTWARE\Wow6432Node\Microsoft\Internet Explorer\MAIN\FeatureControl\FEATURE_BROWSER_EMULATION

Value Key: TBKTrackerPlayer.exe

Here is the InstallShield script for making these changes.

```
   // Write Web Browser Control to make sure it renders as latest version (e.g., IE9
or later)
   nType = REGDB_NUMBER;
   RegDBSetDefaultRoot (HKEY_LOCAL_MACHINE);
   if (SYSINFO.bIsWow64 != 0) then //OS is a 64-bit platform
      RegDBSetKeyValueEx ("SOFTWARE\\Wow6432Node\\Microsoft\\Internet
Explorer\\MAIN\\FeatureControl\\FEATURE_BROWSER_EMULATION", "TBKTrackerPlayer.exe",
nType, "9000", -1);
      RegDBSetKeyValueEx ("SOFTWARE\\Wow6432Node\\Microsoft\\Internet
Explorer\\MAIN\\FeatureControl\\FEATURE_BROWSER_EMULATION",
"TBKTrackerPlayer.vshost.exe", nType, "9000", -1); // if run from Visual Studio
   else
      RegDBSetKeyValueEx ("SOFTWARE\\Microsoft\\Internet
Explorer\\MAIN\\FeatureControl\\FEATURE_BROWSER_EMULATION", "TBKTrackerPlayer.exe",
nType, "9000", -1);
      RegDBSetKeyValueEx ("SOFTWARE\\Microsoft\\Internet
Explorer\\MAIN\\FeatureControl\\FEATURE_BROWSER_EMULATION",
"TBKTrackerPlayer.vshost.exe", nType, "9000", -1); // if run from Visual Studio
   endif;
```

This article discusses these registry entries further:

http://www.west-wind.com/weblog/posts/2011/May/21/Web-Browser-Control-Specifying-the-IE-Version

To summarize, the student requirements are:
- Windows XP and later
- .NET Framework 4.0
- Internet Explorer 7 or later (9 or later preferred)

Administrator and Reporter

The *Administrator* and *Reporter* applications require the .NET Framework 4.0 as well. The *Reporter* also requires the Microsoft Report Viewer 2010 control. These are installed, if not already on the computer, as part of the respective installation programs.