

TBK Tracker Projector Documentation

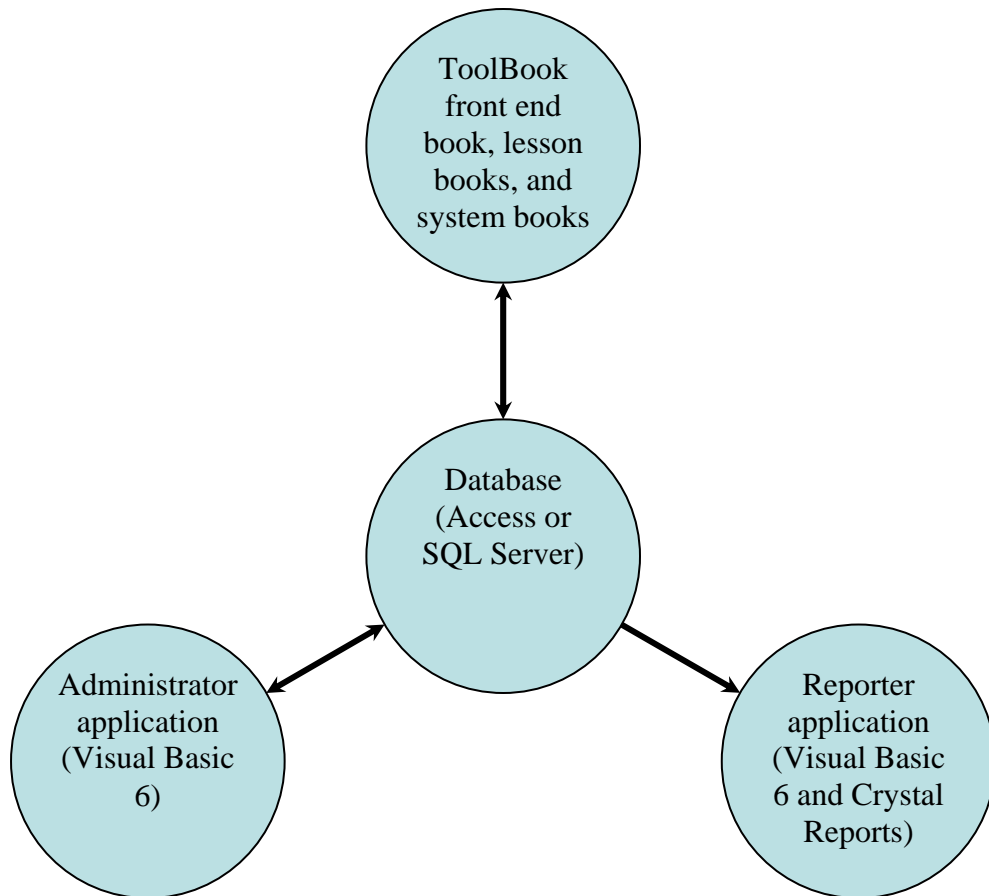
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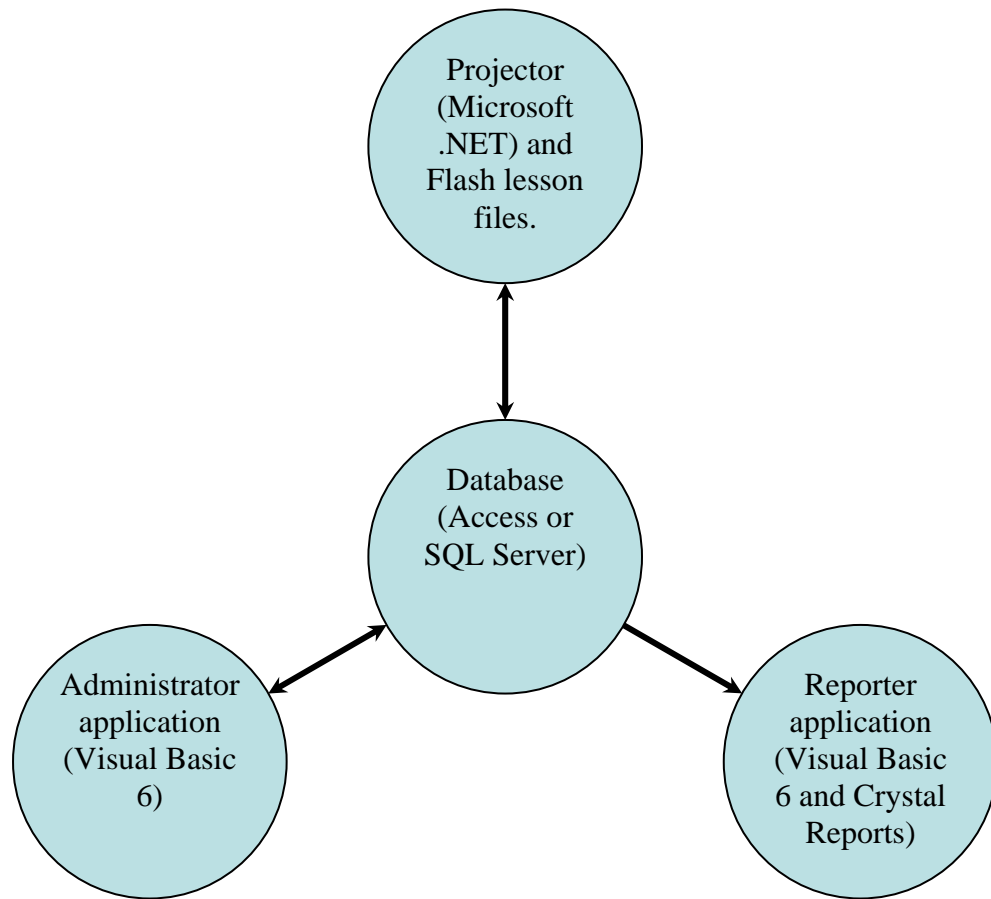
This document describes the design and structure of the TBK Tracker Projector and associated files.

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.

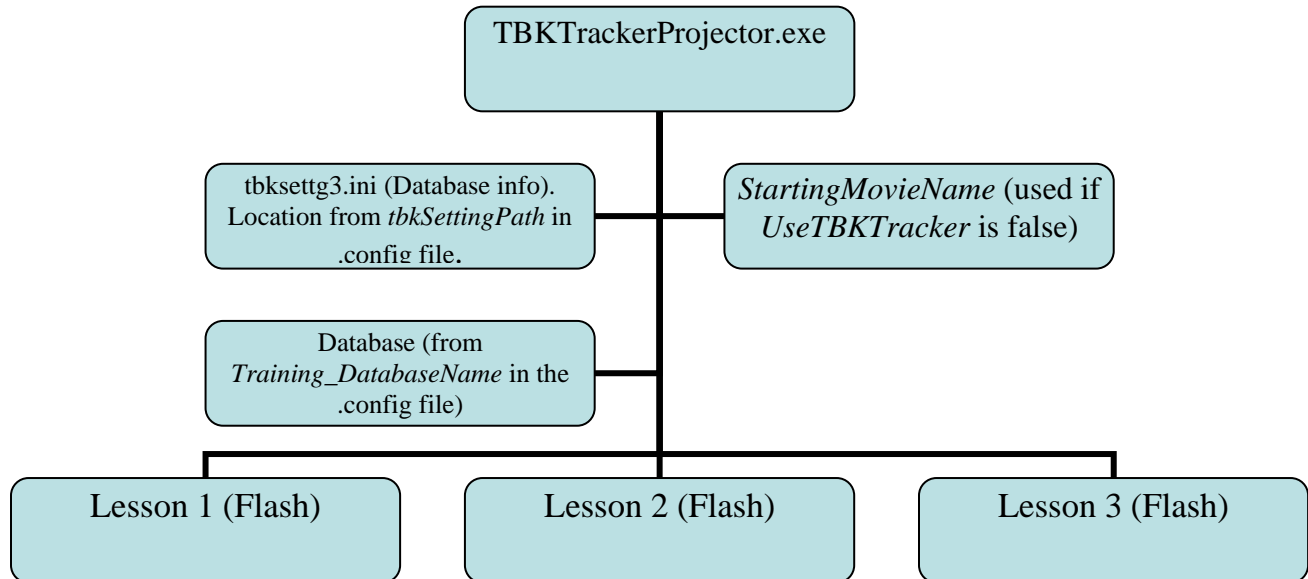


The intent of the TBK Tracker Projector product is to use the same database format, *Administrator* application, and *Reporter* application but to replace the ToolBook “front end book” and system books with a projector running in .NET. The ToolBook “lesson books” are then replaced by Flash content written in *Training Studio*™, *Exam Engine*™, or another tool. The requirements for this Flash 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 Projector project is shown below.



Architecture

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



The user launches the *TBKTrackerProjector.exe* file in order to start the training. The projector first checks its *UseTBKTracker* setting (stored in *TBKTrackerProjector.exe.config* along with the other settings).

If *UseTBKTracker* is false, then the projector 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 projector. There is no tracking or navigation between Flash movies in this case.

If the projector is using TBK Tracker, then it looks at its *tbkSettingPath* setting in order to find the *tbksettg3.ini* file. This is often located in the user's "ToolBook Common Files" directory (such as *C:\Program Files\Common Files\ToolBook\TBSystem\tbksettg3.ini*) 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 projector. From there, the projector displays a login screen, a course selection screen, an optional instructions screen (showing a Flash movie), and a lesson selection screen. When the user selects a lesson, the lesson selection screen is hidden until the Flash movie closes.

tbksettg3.ini

The *tbksettg3.ini* file contains information about database providers, locations, and connection settings. This information is used by projector 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 *tbksettg3.ini* file has one or both of these sections:

[JET]

Provider=Microsoft.Jet.OLEDB.4.0

[SQL]

Provider=SQLOLEDB

Databases Section

Each projector 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 tbksettg3.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 projector 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:

<i>Item</i>	<i>Explanation</i>
JET_Source	<p>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 tbksettg3.ini file.</p> <p>Example:</p> <p>JET_Source=database\sportsSample.mdb</p>
SQL_Source	<p>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.</p> <p>Example:</p>

<i>Item</i>	<i>Explanation</i>
	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 <i>TBK Tracker Administrator</i> and should not be modified directly.
description	Short description of database. Typically entered via <i>TBK Tracker Administrator</i> .

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 projector is controlled by the *TBKTrackerProjector.exe.config* file. This XML file must be distributed with your projector.

Data Types

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

<i>Data Type</i>	<i>Description</i>	<i>Example Value(s)</i>
Boolean (True/False)	Some of the settings such as <i>ShowStudentReportButton</i> 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 <i>Transparent</i> 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 Verdana, 24pt, style=Bold,

<i>Data Type</i>	<i>Description</i>	<i>Example Value(s)</i>
		Italic
Graphic (BackGraphic)	This is the path (typically relative from the projector) 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 <i>Tile</i> . 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 <i>FrontEnd_LessonButtons_HorizontalOffset</i> 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 <i>parent</i> 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 <i>parent</i> .	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 <i>FrontEnd_GraphicButtons_Suffix_Completed</i> of "Dn" and a <i>FrontEnd_GraphicButtons_Suffix_Normal</i> of "Normal," then the name of the original completed graphic for a lesson might be <i>lesson1DnNormal.bmp</i> .	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.

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

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<i>Setting</i>	<i>Description</i>
	value is needed.
AboutMovie_Size	This is the size (width, height) in pixels of the Flash movie set in AboutMovie. It is only relevant if AboutMovie is a valid Flash movie.
AboutText	This is optional text that is displayed in a Message Box when the user clicks the About button on the <i>Lesson Selection</i> screen or in response to an "About" call via <i>ExternalInterface</i> or <i>FSCommand</i> from the Instructions movie. If there is a value for <i>AboutMovie</i> , that movie or external files is shown <u>instead</u> of this text.
Certificate_CompletionDateLabel_Font	This is the font for the completion date label on the <i>Certificate</i> screen.
Certificate_CompletionDateLabel_FontColor	This is the font color for the completion date label on the <i>Certificate</i> screen.
Certificate_CompletionDateLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the completion date label on the <i>Certificate</i> screen.
Certificate_CompletionDateLabel_Size	This is the size (width, height) in pixels for the completion date label on the <i>Certificate</i> 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 <i>Certificate</i> screen.
Certificate_CourseNameLabel_FontColor	This is the font color for the course name label on the <i>Certificate</i> screen.
Certificate_CourseNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the course name label on the <i>Certificate</i> screen.
Certificate_CourseNameLabel_Size	This is the size (width, height) in pixels for the course name label on the <i>Certificate</i> 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 <i>Certificate</i> screen.
Certificate_CourseTimeLabel_FontColor	This is the font color for the course time label on the <i>Certificate</i> screen.
Certificate_CourseTimeLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the course time label on the <i>Certificate</i> screen.
Certificate_CourseTimeLabel_Size	This is the size (width, height) in pixels for the course time label on the <i>Certificate</i> 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 <i>Certificate</i> screen. Include a subdirectory if the graphic is not in the same directory as the projector. 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 <i>Certificate</i> 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 <i>Certificate</i> screen.
Certificate_UserNameLabel_FontColor	This is the font color for the user/student name label on the <i>Certificate</i> 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 <i>Certificate</i> screen.
Certificate_UserNameLabel_Size	This is the size (width, height) in pixels for the user/student name label on the <i>Certificate</i> 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 <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i>

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<i>Setting</i>	<i>Description</i>
	setting is false.
FrontEnd_AboutButton_FontColor	This is the font color for the About button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.
FrontEnd_AboutButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the About button on the <i>Lesson Selection</i> screen.
FrontEnd_AboutButton_Size	This is the size (width, height) in pixels for the About button on the <i>Lesson Selection</i> screen.
FrontEnd_BackColor	This controls the background color of the <i>Lesson Selection</i> screen. You don't see this unless the <i>FrontEnd_BackGraphic</i> is blank.
FrontEnd_BackGraphic	This is the background graphic to display on the <i>Lesson Selection</i> screen. It needs to be relative to the location of the projector. Whether it is stretched, tiled, etc. is controlled by the <i>FrontEnd_ImageLayout</i> setting. Leave this blank to have a colored background (set by <i>FrontEnd_BackColor</i>).
FrontEnd_CertificateButton_Font	This is the font for the Certificate button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false and the <i>ShowCertificateButton</i> setting is true.
FrontEnd_CertificateButton_FontColor	This is the font color for the Certificate button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false and the <i>ShowCertificateButton</i> 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 <i>Lesson Selection</i> screen. It is only relevant if the <i>ShowCertificateButton</i> setting is true.
FrontEnd_CertificateButton_Size	This is the size (width, height) in pixels for the Certificate button on the <i>Lesson Selection</i> screen. It is only relevant if the <i>ShowCertificateButton</i> setting is true.
FrontEnd_CourseMenuButton_Font	This is the font for the Course Menu button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.
FrontEnd_CourseMenuButton_FontColor	This is the font color for the Course Menu button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.
FrontEnd_CourseMenuButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Course Menu button on the <i>Lesson Selection</i> screen.
FrontEnd_CourseMenuButton_Size	This is the size (width, height) in pixels for the Course Menu button on the <i>Lesson Selection</i> screen.
FrontEnd_CourseNameLabel_Font	This is the font for the course name label on the <i>Lesson Selection</i> screen.
FrontEnd_CourseNameLabel_FontColor	This is the font color for the course name label on the <i>Lesson Selection</i> screen.
FrontEnd_CourseNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the course name label on the <i>Lesson Selection</i> 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 name of the object that is the <i>parent</i> 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 <i>Lesson Selection</i> screen.
FrontEnd_CourseNameLabel_TextAlign	This is the text alignment setting for the course name label on the <i>Lesson Selection</i> screen.

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<i>Setting</i>	<i>Description</i>
FrontEnd_ExitButton_Font	This is the font for the Exit button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.
FrontEnd_ExitButton_FontColor	This is the font color for the Exit button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.
FrontEnd_ExitButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Exit button on the <i>Lesson Selection</i> screen.
FrontEnd_ExitButton_Size	This is the size (width, height) in pixels for the Exit button on the <i>Lesson Selection</i> screen. Setting this even with the <i>FrontEnd_UseGraphicalButtons</i> setting is true helps get the button into exactly the right position.
FrontEnd_Graphic1	This is the relative path to a graphic to be loaded onto the <i>Lesson Selection</i> screen. Include a subdirectory if the graphic is not in the same directory as the projector. It is normally easier to include graphical elements on the image loaded for the <i>FrontEnd_BackGraphic</i> 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 <i>Lesson Selection</i> screen. It is only relevant if <i>FrontEnd_Graphic1</i> 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 <i>Lesson Selection</i> screen. Include a subdirectory if the graphic is not in the same directory as the projector. It is normally easier to include graphical elements on the image loaded for the <i>FrontEnd_BackGraphic</i> 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 <i>Lesson Selection</i> screen. It is only relevant if <i>FrontEnd_Graphic2</i> 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 <i>Lesson Selection</i> screen. Include a subdirectory if the graphic is not in the same directory as the projector. It is normally easier to include graphical elements on the image loaded for the <i>FrontEnd_BackGraphic</i> 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 <i>Lesson Selection</i> screen. It is only relevant if <i>FrontEnd_Graphic3</i> 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 <i>Lesson Selection</i> screen. Include a subdirectory if the graphic is not in the same directory as the projector. It is normally easier to include graphical elements on the image loaded for the <i>FrontEnd_BackGraphic</i> 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 <i>Lesson Selection</i> screen. It is only relevant if <i>FrontEnd_Graphic4</i> is a valid path to a graphic.
FrontEnd_Graphic4_TransparentColor	This is the transparent (or chromakey) color to be used for the

<i>Setting</i>	<i>Description</i>
	<p>corresponding graphic. You typically would only need this value if the graphic is a bitmap.</p>
<p>FrontEnd_GraphicButtons_Extension</p>	<p>This is the file extension to be used by the various graphics that make up the states for the lesson buttons on the <i>Lesson Selection</i> screen as well as for the Course Menu, Exit, Help, and Student Information buttons. It is needed because the graphics are loaded from the <i>graphics</i> subdirectory based on this naming scheme:</p> <p><lesson name><completed><state>.<extension></p> <p>or</p> <p><button name><state>.<extension></p> <p>Note that <i>_</i> is substituted for any illegal characters such as <i>/</i> in the <lesson name>.</p> <p>So the name of a normal graphic when the lesson is not completed is:</p> <p><lesson name><FrontEnd_GraphicButtons_Suffix_NotCompleted><FrontEnd_GraphicButtons_Suffix_Normal>.<FrontEnd_GraphicButtons_Extension></p> <p>For a completed, inverted graphic, it would be:</p> <p><lesson name><FrontEnd_GraphicButtons_Suffix_Completed><FrontEnd_GraphicButtons_Suffix_Inverted>.<FrontEnd_GraphicButtons_Extension></p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_GraphicButtons_Suffix_Completed</p>	<p>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 <i>Lesson Selection</i> screen. For example, if this value is <i>Dn</i>, the name of completed, disabled graphic for a lesson named <i>Basketball Quiz</i> might be:</p> <p>Basketball QuizDnDisabled.BMP</p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_GraphicButtons_Suffix_Disabled</p>	<p>This is the designator of the disabled state of a lesson graphic for the lesson buttons on the <i>Lesson Selection</i> screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is <i>Disabled</i>, the name of completed, disabled graphic for a lesson named <i>Basketball Quiz</i> might be:</p> <p>Basketball QuizDnDisabled.BMP</p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_GraphicButtons_Suffix_Inverted</p>	<p>This is the designator of the inverted state of a lesson graphic for</p>

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<i>Setting</i>	<i>Description</i>
	<p>the lesson buttons on the <i>Lesson Selection</i> screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is <i>Invert</i>, the name of completed, inverted graphic for a lesson named <i>Basketball Quiz</i> might be:</p> <p>Basketball QuizDnInvert.BMP</p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_GraphicButtons_Suffix_Normal</p>	<p>This is the designator of the normal state of a lesson graphic for the lesson buttons on the <i>Lesson Selection</i> screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is <i>Normal</i>, the name of completed, normal graphic for a lesson named <i>Basketball Quiz</i> might be:</p> <p>Basketball QuizDnNormal.BMP</p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_GraphicButtons_Suffix_NotCompleted</p>	<p>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 <i>Lesson Selection</i> screen. For example, if this value is <i>NotDn</i>, the name of incomplete, disabled graphic for a lesson named <i>Basketball Quiz</i> might be:</p> <p>Basketball QuizNotDnDisabled.BMP</p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_GraphicButtons_Suffix_Rollover</p>	<p>This is the designator of the rollover state of a lesson graphic for the lesson buttons on the <i>Lesson Selection</i> screen as well as for the Course Menu, Exit, Help, and Student Information buttons. For example, if this value is <i>Checked</i>, the name of completed, normal graphic for a lesson named <i>Basketball Quiz</i> might be:</p> <p>Basketball QuizDnChecked.BMP</p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_GraphicButtons_TransparentColor</p>	<p>This is the transparent (or chromakey) color to be used for the all the lesson graphics for the <i>Lesson Selection</i> screen as well as for the Course Menu, Exit, Help, and Student Information buttons. You typically would only need this value if the <i>FrontEnd_GraphicButtons_Extension</i> is bmp.</p> <p>This value is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is true.</p>
<p>FrontEnd_HelpButton_Font</p>	<p>This is the font for the Help button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.</p>
<p>FrontEnd_HelpButton_FontColor</p>	<p>This is the font color for the Help button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.</p>
<p>FrontEnd_HelpButton_Location</p>	<p>This is the location (x, y) in pixels (measured from the top, left)</p>

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<i>Setting</i>	<i>Description</i>
	for the Help button on the <i>Lesson Selection</i> screen.
FrontEnd_HelpButton_Size	This is the size (width, height) in pixels for the Help button on the <i>Lesson Selection</i> screen. Setting this even with the <i>FrontEnd_UseGraphicalButtons</i> setting is true helps get the button into exactly the right position.
FrontEnd_ImageLayout	This is the layout (Center, None, Stretch, Tile, or Zoom) of the background image loaded via the <i>FrontEnd_BackGraphic</i> setting.
FrontEnd_InstructionsButton_Font	This is the font for the Instructions button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false. This button is only displayed if <i>UseInstructionsPage</i> is true and <i>Instructions_MovieName</i> is a valid path to a Flash movie.
FrontEnd_InstructionsButton_FontColor	This is the font for the Instructions button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false. This button is only displayed if <i>UseInstructionsPage</i> is true and <i>Instructions_MovieName</i> is a valid path to a Flash movie.
FrontEnd_InstructionsButton_Location	This is the location (x, y) in pixels (measured from the top, left) for the Instructions button on the <i>Lesson Selection</i> screen. This button is only displayed if <i>UseInstructionsPage</i> is true and <i>Instructions_MovieName</i> is a valid path to a Flash movie.
FrontEnd_InstructionsButton_Size	This is the size (width, height) in pixels for the Instructions button on the <i>Lesson Selection</i> screen. Setting this even with the <i>FrontEnd_UseGraphicalButtons</i> setting is true helps get the button into exactly the right position. This button is only displayed if <i>UseInstructionsPage</i> is true and <i>Instructions_MovieName</i> is a valid path to a Flash movie.
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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label1_Text</i> has a value and if <i>FrontEnd_Label1_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label1_Text</i> has a value and if <i>FrontEnd_Label1_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label1_Text</i> has a value and if <i>FrontEnd_Label1_CourseNameDisplayList</i> 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 <i>parent</i> 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

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<i>Setting</i>	<i>Description</i>
	the <i>Lesson Selection</i> screen.
FrontEnd_Label1_Text	This is the text of optional Label1 on the <i>Lesson Selection</i> screen. The label is only displayed if this setting has a value and if <i>FrontEnd_Label1_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label2_Text</i> has a value and if <i>FrontEnd_Label2_CourseNameDisplayList</i> is either 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label2_Text</i> has a value and if <i>FrontEnd_Label2_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label2_Text</i> has a value and if <i>FrontEnd_Label2_CourseNameDisplayList</i> 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 <i>parent</i> of the object. This is needed since in .NET an object is transparent relative to its <i>parent</i> .
FrontEnd_Label2_Size	This is the size (width, height) in pixels for the optional Label2 on the <i>Lesson Selection</i> screen.
FrontEnd_Label2_Text	This is the text of optional Label2 on the <i>Lesson Selection</i> screen. The label is only displayed if this setting has a value and if <i>FrontEnd_Label2_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label3_Text</i> has a value and if <i>FrontEnd_Label3_CourseNameDisplayList</i> 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 <i>Lesson</i>

<i>Setting</i>	<i>Description</i>
	<i>Selection</i> screen. This label is only displayed if <i>FrontEnd_Label3_Text</i> has a value and if <i>FrontEnd_Label3_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label3_Text</i> has a value and if <i>FrontEnd_Label3_CourseNameDisplayList</i> 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 <i>parent</i> 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 <i>Lesson Selection</i> screen.
FrontEnd_Label3_Text	This is the text of optional Label3 on the <i>Lesson Selection</i> screen. The label is only displayed if this setting has a value and if <i>FrontEnd_Label3_CourseNameDisplayList</i> is either blank or has the name of the current course in it.
FrontEnd_Label3_TextAlign	This is the text alignment setting for the optional Label3 on the <i>Lesson Selection</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label4_Text</i> has a value and if <i>FrontEnd_Label4_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label4_Text</i> has a value and if <i>FrontEnd_Label4_CourseNameDisplayList</i> 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 <i>Lesson Selection</i> screen. This label is only displayed if <i>FrontEnd_Label4_Text</i> has a value and if <i>FrontEnd_Label4_CourseNameDisplayList</i> 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 <i>parent</i> 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 <i>Lesson Selection</i> screen.
FrontEnd_Label4_Text	This is the text of optional Label4 on the <i>Lesson Selection</i> screen. The label is only displayed if this setting has a value and if <i>FrontEnd_Label4_CourseNameDisplayList</i> 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

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<i>Setting</i>	<i>Description</i>
	<i>Lesson Selection</i> screen.
FrontEnd_LessonButton_BackColor	This is the background color of the lesson buttons on the <i>Lesson Selection</i> screen. It is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is false.
FrontEnd_LessonButtons_Font	This is the font of the lesson buttons on the <i>Lesson Selection</i> screen. It is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is false.
FrontEnd_LessonButtons_FontColor	This is the font color of the lesson buttons on the <i>Lesson Selection</i> screen. It is only relevant if <i>FrontEnd_UseGraphicalButtons</i> is false.
FrontEnd_LessonButtons_HorizontalOffset	This is the horizontal distance in pixels between each column of lesson buttons on the <i>Lesson Selection</i> 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 <i>Lesson Selection</i> screen. Subsequent lesson buttons first go down the screen (based on the <i>FrontEnd_LessonButtons_NumLessonsPerColumn</i> , <i>FrontEnd_LessonButtons_Size</i> and the <i>FrontEnd_LessonButtons_VerticalOffset</i>) and then to a new column (based on the <i>FrontEnd_LessonButtons_Size</i> and the <i>FrontEnd_LessonButtons_HorizontalOffset</i>).
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 <i>FrontEnd_LessonButtons_Size</i> and the <i>FrontEnd_LessonButtons_HorizontalOffset</i>). 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 <i>Lesson Selection</i> screen. Setting this even with the <i>FrontEnd_UseGraphicalButtons</i> setting is true 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 <i>Lesson Selection</i> screen.
FrontEnd_LessonDescriptionLabel_Font	This is the font for the lesson description label on the <i>Lesson Selection</i> screen.
FrontEnd_LessonDescriptionLabel_FontColor	This is the font color for the lesson description label on the <i>Lesson Selection</i> screen.
FrontEnd_LessonDescriptionLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the lesson description label on the <i>Lesson Selection</i> 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 <i>parent</i> 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 <i>Lesson Selection</i> screen.
FrontEnd_LessonDescriptionLabel_TextAlign	This is the text alignment setting for the lesson description label on the <i>Lesson Selection</i> screen.
FrontEnd_LessonNameLabel_Font	This is the font for the Lesson buttons on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.
FrontEnd_LessonNameLabel_FontColor	This is the font for the Lesson buttons on the <i>Lesson Selection</i>

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<i>Setting</i>	<i>Description</i>
	screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false.
FrontEnd_LessonNameLabel_Location	This is the location (x, y) in pixels (measured from the top, left) for the lesson name label on the <i>Lesson Selection</i> 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 <i>parent</i> 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 <i>Lesson Selection</i> screen.
FrontEnd_LessonNameLabel_TextAlign	This is the text alignment setting for the lesson name label on the <i>Lesson Selection</i> screen.
FrontEnd_StudentInfoButton_Font	This is the font for the Student Information button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false. This button is only displayed if <i>ShowStudentReportButton</i> is set to true.
FrontEnd_StudentInfoButton_FontColor	This is the font color for the Student Information button on the <i>Lesson Selection</i> screen. It is only used if the <i>FrontEnd_UseGraphicalButtons</i> setting is false. This button is only displayed if <i>ShowStudentReportButton</i> 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 <i>Lesson Selection</i> screen. This button is only displayed if <i>ShowStudentReportButton</i> is set to true.
FrontEnd_StudentInfoButton_Size	This button is only displayed if <i>ShowStudentReportButton</i> is set to true.
FrontEnd_UseGraphicalButtons	<p>This value controls whether the buttons on the <i>Lesson Selection</i> screen are going to be graphics or normal buttons. If graphics, both the lesson buttons and the Exit, Course Menu, Help, and Student Information buttons needs to have graphics for the various states as well. The naming is:</p> <p><button name><state>.<extension></p> <p>So the name of the normal graphic would be:</p> <p><button name><FrontEnd_GraphicButtons_Suffix_Normal>.<FrontEnd_GraphicButtons_Extension></p> <p>For example, the normal graphic of the Help button might be:</p> <p>HelpBtnNormal.BMP</p> <p>The button names are: AboutBtn, CertificateBtn, CourseMenuBtn, ExitBtn, HelpBtn, and StudentInfoBtn.</p>
FrontEnd_UserNameLabel_Font	This is the font for the user/student name label on the <i>Lesson Selection</i> screen.
FrontEnd_UserNameLabel_FontColor	This is the font color for the user/student name label on the <i>Lesson Selection</i> 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 <i>Lesson Selection</i> screen. If you do not want this label displayed, you can set the location to

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<i>Setting</i>	<i>Description</i>
	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 <i>parent</i> 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 <i>Lesson Selection</i> screen.
FrontEnd_UserNameLabel_TextAlign	This is the text alignment setting for the user/student name label on the <i>Lesson Selection</i> screen.
Instructions_DictionaryMovie	This is an optional Flash movie or external file that can be shown in response to a "DDD" call via <i>ExternalInterface</i> or <i>FSCCommand</i> from the Instructions movie. The movie or file can be a complete path or relative to the path of the projector. If it is a Flash movie, then the size of the movie is set in the <i>Instructions_DictionaryMovie_Size</i> property.
Instructions_DictionaryMovie_Size	This is the size (width, height) in pixels of the Flash movie set in <i>Instructions_DictionaryMovie</i> . It is only relevant if <i>Instructions_DictionaryMovie</i> is a valid Flash movie.
Instructions_DictionaryMovie_Title	This is the title/caption of the window holding the <i>Instructions_DictionaryMovie</i> if that is a Flash movie.
Instructions_MovieName	This is full or relative path (from the directory of the projector) to a Flash movie that provides instructions about the training. This Flash movie can have various commands as explained later in this document. This setting is only relevant if <i>UseInstructionsPage</i> is true.
Instructions_Size	This is the size (width, height) in pixels of the Flash movie set in <i>Instructions_MovieName</i> . It is only relevant if <i>UseInstructionsPage</i> is true.
Instructions_StartingFrameNumber	This is the frame number to jump to when returning to the Flash movie set in <i>Instructions_MovieName</i> when clicking on the Instructions button on the <i>Lesson Selection</i> screen. This is intended for the situation where the movie has an introductory section which is then skipped when returning to that movie.
Instructions_TutorialMovie	This is an optional Flash movie or external file that can be shown in response to a "Tutorial" call via <i>ExternalInterface</i> or <i>FSCCommand</i> from the Instructions movie. The movie or file can be a complete path or relative to the path of the projector. If it is a Flash movie, then the size of the movie is set in the <i>Instructions_TutorialMovie_Size</i> property.
Instructions_TutorialMovie_Size	This is the size (width, height) in pixels of the Flash movie set in <i>Instructions_TutorialMovie</i> . It is only relevant if <i>Instructions_TutorialMovie</i> is a valid Flash movie.
Instructions_TutorialMovie_Title	This is the title/caption of the window holding the <i>Instructions_TutorialMovie</i> if that is a Flash movie.
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.
ShowCertificateButton	Setting this to true displays a Certificate button on the <i>Student Information</i> screen when the course has been completed. It also shows a Certificate button on the <i>Lesson Selection</i> screen. However, you can hide this button and still have a Certificate button on the <i>Student Information</i> screen by setting the <i>FrontEnd_CertificateButton_Location</i> to a negative X or Y value sufficient to move it off the screen.

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<i>Setting</i>	<i>Description</i>
ShowStudentReportButton	Setting this to true displays a Student Report button on the <i>Student Information</i> screen when the course has been completed.
StartingMovieName	This is the complete or relative (from either the projector or the <i>tbkSettingPath</i>) path to a starting movie. This setting is only relevant if <i>UseTBKTracker</i> 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 projector) path to the TBK Tracker configuration file, normally named <i>tbksettg3.ini</i> . This setting is only relevant if <i>UseTBKTracker</i> 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 <i>Lesson Selection</i> screen. Be sure to test your application after resizing your application in this case.
Training_DatabaseName	This is the <i>Database ID</i> used to look up the database connection information in the configuration file set in <i>tbkSettingPath</i> . For security reasons, it must match the <i>Training_DatabaseName_ID</i> and the <i>Training_DatabaseName_Key</i> . Use the <i>TBK Tracker Generator</i> program to create the <i>Training_DatabaseName_ID</i> for a given <i>Training_DatabaseName</i> and <i>Training_DatabaseName_Key</i> .
Training_DatabaseName_ID	This is the security ID to prevent end users from using a projector with a different database. This ID must match the <i>Training_DatabaseName</i> and the <i>Training_DatabaseName_Key</i> . Use the <i>TBK Tracker Generator</i> program to create the <i>Training_DatabaseName_ID</i> for a given <i>Training_DatabaseName</i> and <i>Training_DatabaseName_Key</i> .
Training_DatabaseName_Key	This is the key used to generate the <i>Training_DatabaseName_ID</i> used to prevent to prevent end users from using a projector with a different database. This ID must match the <i>Training_DatabaseName</i> and the <i>Training_DatabaseName_Key</i> . Use the <i>TBK Tracker Generator</i> program to create the <i>Training_DatabaseName_ID</i> for a given <i>Training_DatabaseName</i> and <i>Training_DatabaseName_Key</i> .
Training_Graphic	This is a complete or relative path (to the location of the projector) for a “splash” graphic to be shown on initial startup.
Training_Icon	This is a complete or relative path (to the location of the projector) 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 Flash content.
Training_Title	This is the title to be displayed in the caption of the training window.
UseInstructionsPage	Set this to true to display a Flash movie that provides instructions about the training. The movie is set in the <i>Instructions_MovieName</i> .
UseTBKTracker	Set this to true to use TBK Tracker to track the training content. Otherwise, the projector will start the movie set in <i>StartingMovieName</i> .

Lesson Movie Flash 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 Flash content as long as that content can make the appropriate *ExternalInterface* or *FSCCommand* calls.

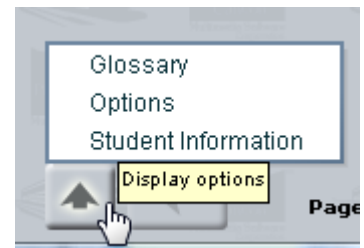
Training Studio Settings

For Training Studio content, the only change in your starting movies 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 *TSCCommon.as* and change set `includeTBKTrackerStudentInfoLink` to true as show below:

```
static var includeTBKTrackerStudentInfoLink:Boolean = false;
```

The resulting menu is shown to the right.

When using the *Training Studio Publisher*, select “CD/None” for the publishing option. You can then discard the .htm and .js files.



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 ActionScript to display the Student Information screen.

```
ExternalInterface.call("ShowStudentInfo");
```

ExternalInterface Calls

If you are not using Training Studio or Exam Engine, then you need to use either *ExternalInterface* or *FSCCommand* to make the calls shown below. As it is newer and recommended approach, the examples below use *ExternalInterface*.

Call	Explanation and Code
ExitTraining or confirmClose	Displays the message from the <code>exitMessage</code> parameter. If the user clicks “Yes,” then the training closes and the <i>Lesson Selection</i> screen is displayed. <pre>ExternalInterface.call("ExitTraining", exitMessage);</pre>
GetValue GetValue12	This call is used to retrieve data from TBK Tracker for use within the lesson. The following values are supported: <ul style="list-style-type: none"> • AudioOn (can be set from Instructions movie) • 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 <pre>lessonLoc = String(ExternalInterface.call("GetValue", "location")); masteryScore = parseFloat(String(ExternalInterface.call("GetValue",</pre>

<i>Call</i>	<i>Explanation and Code</i>
SetValue	<pre>"masteryScore"));</pre> <p>This call is used to send completion and other data to TBK Tracker. The following values and data types are supported:</p> <ul style="list-style-type: none"> • SetInteractionValue <pre>ExternalInterface.call("SetInteractionValue", qText, intData, reportedScoreId);</pre> <p>qText is the question text. intData is standard Flash learning objects interaction data as in this code from the Multiple Choice interaction object:</p> <pre>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;</pre> <p>reportedScoreId is the normalized overall test score (between 0 and 100).</p> <ul style="list-style-type: none"> • SetHiddenFieldValue <ul style="list-style-type: none"> ○ LessonLocation ○ SuspendData ○ LessonStatus ○ LessonTime <p><i>LessonLocation</i> is typically the page number but can be any other desired value.</p> <pre>returnVal = String(ExternalInterface.call("SetHiddenFieldValue", "LessonLocation", pgNum));</pre> <p><i>SuspendData</i> is any string of data needed by the lesson.</p> <pre>returnVal = String(ExternalInterface.call("SetHiddenFieldValue", "SuspendData", susData.join("_")));</pre> <p>A <i>LessonStatus</i> of “complete” or “passed” will result in the lesson being marked as complete in TBK Tracker. Any other value is ignored.</p> <pre>returnVal = String(ExternalInterface.call("SetHiddenFieldValue", "LessonStatus", completionStatus));</pre> <p><i>LessonTime</i> must be in the format HH:MM:SS.</p> <pre>returnVal = String(ExternalInterface.call("SetHiddenFieldValue", "LessonTime", timeString));</pre>
SetValue12	<p>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:</p> <ul style="list-style-type: none"> • cmi.core.lesson_location • cmi.core.lesson_status • cmi.core.session_time <p>The values are the ones defined in the SCORM 1.2 specification.</p>

<i>Call</i>	<i>Explanation and Code</i>
ShowExternalWindow	<p>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 movie) or a complete URL.</p> <pre>flash.external.ExternalInterface.call("ShowExternalWindow", moviePath, "ExternalMedia");</pre> <p>Note that the "ExternalMedia" parameter is not used by TBK Tracker.</p>
ShowStudentInfo	<p>This displays the TBK Tracker <i>Student Information</i> screen.</p> <pre>flash.external.ExternalInterface.call("ShowStudentInfo");</pre>
showAlert	<p>The displays a standard message box with the information passed as the argument.</p> <pre>flash.external.ExternalInterface.call("showAlert", "This is a test.");</pre>
SendJs	<p>This handles an entire set of SCORM interaction information. The argument looks like this:</p> <pre>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');</pre>
FindApi12 or InitSCORM12	<p>These calls return true.</p>

Introduction Movie Flash Calls

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

<i>Call</i>	<i>Explanation</i>
About	<p>Displays the movie or external file stored in the <i>AboutMovie</i> setting. If this setting is blank, then the text stored in the <i>AboutText</i> setting is displayed in</p>

<i>Call</i>	<i>Explanation</i>
	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 <i>sound</i> variable of the Instructions movie. Here is the Visual Basic code to give you the idea: <pre>AudioOn = (playerId.GetVariable("sound") <> "0")</pre>
C_Menu	Displays the <i>Course Selection</i> 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 movie if desired. Here is the Visual Basic code to give you the idea: <pre>.SetVariable("course", courseName)</pre>
DDD	Displays the movie or external file stored in the <i>Instructions_DictionaryMovie</i> setting.
LsnIndex	Displays the <i>Lesson Selection</i> screen.
QPrompt	Displays the Exit Message and, if yes, exits the training.
Tutorial	Displays the movie or external file stored in the <i>Instructions_TutorialMovie</i> setting.

System Requirements

Student (Projector and Lessons)

The projector itself is a Microsoft .NET 2.0 application, meaning that it needs the .NET Framework 2.0 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 client will also require the Flash Player. If the Flash content uses the *ExternalInterface* class to communicate with the projector, then the Flash player must be version 8 or later. You can download Flash if needed at:

http://www.adobe.com/shockwave/download/download.cgi?P1_Prod_Version=ShockwaveFlash.

To summarize, the student requirements are:

- Windows 98 and later
- .NET Framework 2.0
- Adobe Flash Player 8.0 or later

Administrator and Reporter

The *Administrator* and *Reporter* applications require the Visual Basic 6 runtime and Microsoft Data Access Components (MDAC) 2.5 or later. The *Reporter* also requires various Crystal Reports runtime files. All of these files are installed, if not already on the computer, as part of the respective installation programs.