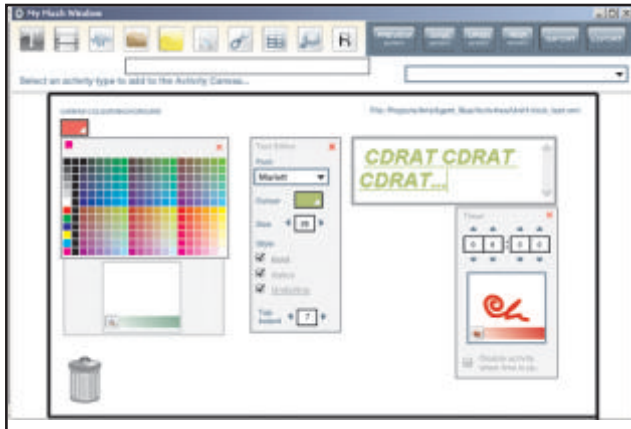


CDRAT



Project: CDRAT

Duration: 1 month



Need

The client's need was to develop a Generic Activity Builder software that would enable creation of any learning activity through its built-in features. The proposed solution was to develop an Authoring Tool that would enable editorial teams with limited technical knowledge to build multipurpose learning material enriched with content, audio, and video.

Challenge

The application had many specifications that were to be considered and understood clearly before starting work. One of the key challenges was to attain the objective within a short span of time. The team was required to extend its knowledge capacity to develop certain unique functionalities and features for the first time. The software authoring experience was to be modular and all common functionality across the range of activity types were to be available from the Generic Activity Builder software. The Activity Builders were to enable users to create interactive Flash-based activities from a range of

functional template types. The technologies to be used were Action Script 2 and Flash MX 2004. Apart from reducing development time, cost was also a major factor that was taken into consideration.

Solution

The solution was a remarkable software that allowed the end user to create attention-grabbing learning activities even if he had limited technical expertise. Using the resultant application one could easily create a specific activity type with feedback and could also load the relevant Activity Builder type into this parent software. By extracting the functionality of an activity type and separating it from the actual content, the same authoring template type could be applied to multiple software pieces that could be used for very different projects made by the same engine.

Listed are some notable features and functionalities:

The application contained 2 modes: Composer and Player.

- The Composer was to be split into 3 sections: common activity tools (for example, Add file, Preview etc), specific activity tools (for example, audio and video editing etc.) and the activity canvas.
- In the Composer mode, keyboarders/users could make changes and additions to their software piece by using a range of authoring tools.
- The Player mode was a Live Preview Mode that allowed keyboarders/users to preview their software piece and interact in the same way, as the end user

CDRAT

would while experiencing the software.

- Incorporation of all external media assets like audio and video files.
- Asset Manager: backend developer interface allowing design assets like images, audio, and video to be added.
- Navigation Builder: Navigation and design authoring engine to add customize navigation to a learning activity.
- Drag 'n' Drop Tool Panels and Assets to enable the user to layout the workspace according to personal preferences.
- Time Based activities to play an activity within a specified time range and to enable the user to navigate automatically to the specified section after a video, audio, or a section of the training or learning is over.

The application consisted of series of activity authoring tools:

- a). Text Editor for editing content as per requirement.
- b). Sound Editor for editing audio files.
- c). Video Editor for editing video clips.
- d). Audio Playback Tool for playing audio.
- e). Video Playback Tool for playing video.
- f). Rubric builder for creating customized help screens for learning activities.
- g). Insert Image Functionality for inserting images relevant to the content for a better understanding of concepts.

h). Adding Hyperlinks and Tables for reference.

- i). Asset Library allowing the user to store images, audio, and video files for developing learning activities.
- j). Score Recorder to keep count of the learner's performance.

Technologies Used

- Programming languages: Action Script 2
- Platform: Windows
- IDE: Flash MX 2004
- Documentation: Microsoft Word

Benefits

- Easy to use and user-friendly interface.
- Keyboarders were allowed to add multimedia assets by dragging and dropping.
- Thumbnails could either be jpgs or swfs.
- The learning activity could be easily edited and customized.
- Comprised of several interesting features.
- Dockable toolbars for all tools such as text editor, sound editor etc.
- External media assets could be incorporated such as Flash movies (swf), videos (flv), pictures (jpg), and sounds (mp3).
- The user could preview his activity for a better outlook.