

CLIPFLAIR Foreign Language Learning Through Interactive Revoicing and Captioning of Clips

LIFELONG LEARNING PROGRAMME - KEY ACTIVITY 2
LANGUAGES, MULTILATERAL PROJECT

519085-LLP-1-2011-1-ES-KA2-KA2MP

D3.1

System Specification and Design Document

| | |
|--|---|
| WP No. | WP3 |
| WP Title | Web Platform Design and Development |
| Activity description | This document constitutes the technical design and implementation documentation of the web platform components. It describes the functional specifications, based on the educational specifications as described in the first release of the Conceptual Framework (D2.1a) |
| Authors | Per company, if more than one company provide it together. Georgios Birmpilis, Vasilios Delis, Theodoros Komninos (CTI) |
| Reviewers | MariLuz Guenaga (UD) |
| Status (D: draft; RD: revised draft; F: final) | F |
| File Name | D3.1SystemSpecificationAndDesign.docx |
| Date | March 2012 |

Executive Summary

This document constitutes the technical design and implementation documentation of the web platform components. It describes the functional specifications, based on the educational specifications as described in the first release of the Conceptual Framework (D2.1a)

Table of Contents

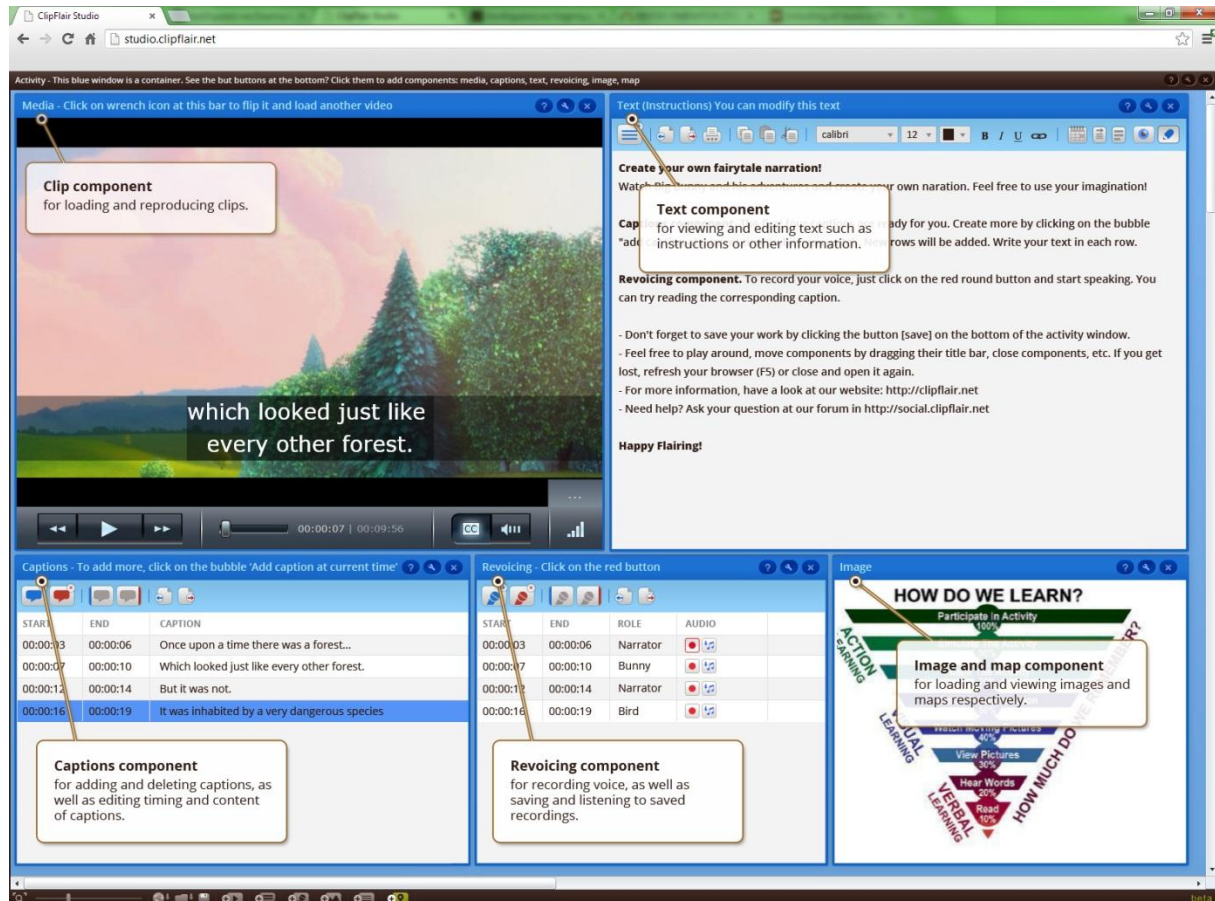
| | | |
|-----|---|----|
| 1 | Introduction..... | 4 |
| 2 | System Specifications | 4 |
| 2.1 | High level design features | 9 |
| 2.2 | Class Diagrams | 14 |
| 3 | Appendices..... | 20 |
| 3.1 | Classification – Market Research | 20 |
| 3.2 | Developer Links | 29 |
| 3.3 | Developer Resources | 29 |
| 3.4 | Developer Blog Posts | 30 |
| 3.5 | Contribution to Microsoft developer platform | 34 |
| 3.6 | Contribution to MonoX platform | 35 |

List of Figures

| | | |
|-----------|--|----|
| Figure 1 | Class Diagram - Windows.Views.Interfaces | 14 |
| Figure 2 | Class Diagram - Windows.Views.ViewModels | 15 |
| Figure 3 | Class Diagram – Windows | 16 |
| Figure 4 | Class Diagram – Base component | 17 |
| Figure 5 | Class Diagram – Activity container/component | 18 |
| Figure 6 | Class Diagram – Media component..... | 18 |
| Figure 7 | Class Diagram - Captions component..... | 19 |
| Figure 8 | Class Diagram - Text component | 19 |
| Figure 9 | Class Diagram - Image component | 20 |
| Figure 10 | Class Diagram - Map component | 20 |

1 Introduction

ClipFlair Studio is the web-based application (based on [Microsoft Silverlight](#)) that has been developed for Revoicing and Captioning FLL activities in the context of ClipFlair.



It currently features an Activity Container and Media (Clip), Captions (can also do Revoicing), Text, Image and Map components. The Activity Container has been implemented as a component itself too, based on the ClipFlair Base component like the rest of ClipFlair components, so that Activities could also be nested into other activities in future releases.

2 System Specifications

The system specifications were based on the pedagogical specifications outlined in the Conceptual Framework and Pedagogical Methodology (D2.1). Use case scenarios (Chapter 5 of D2.1 Conceptual Framework) were taken into consideration to produce the following use case diagrams

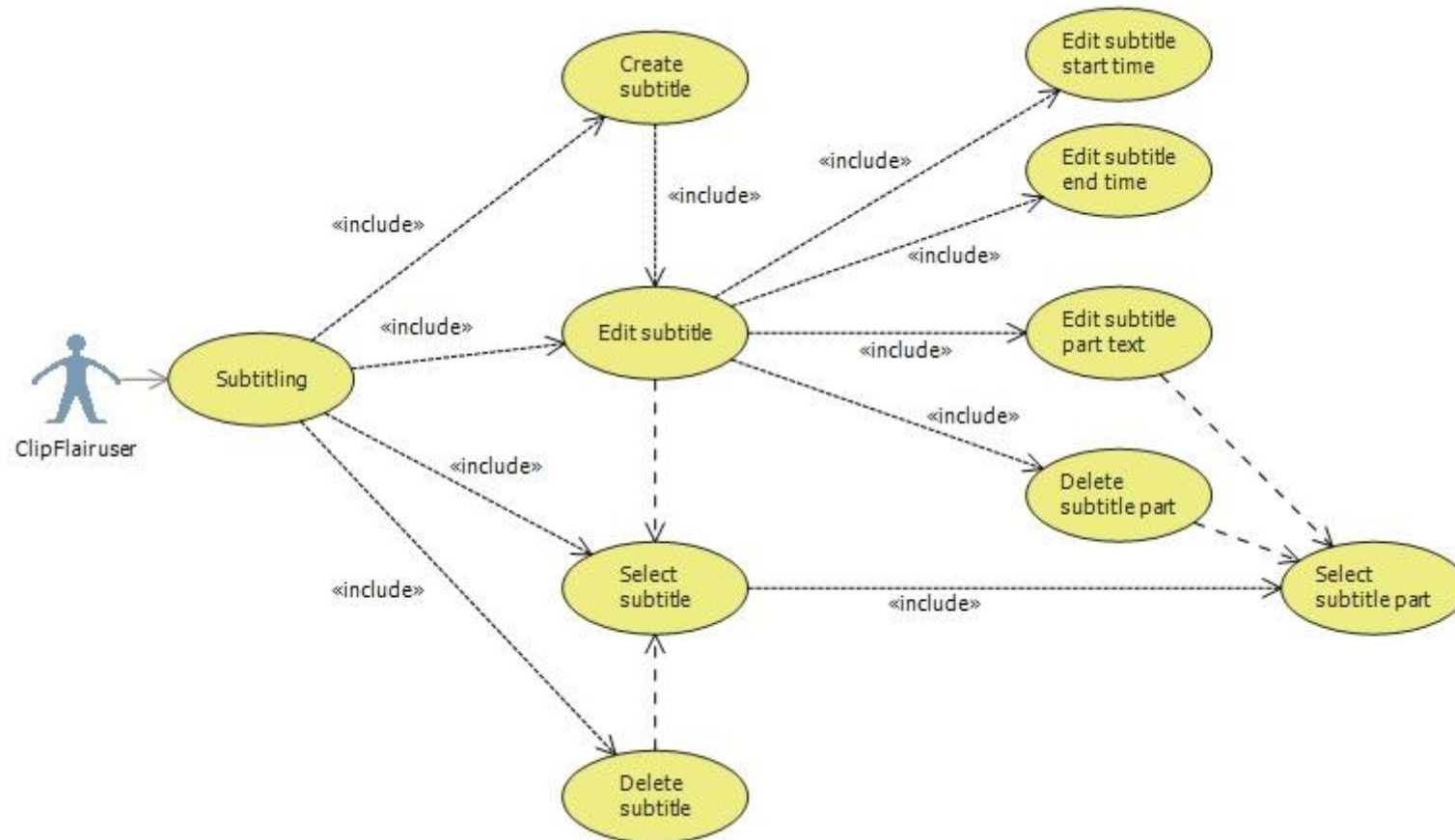


Figure 1. Use Case for Subtitling

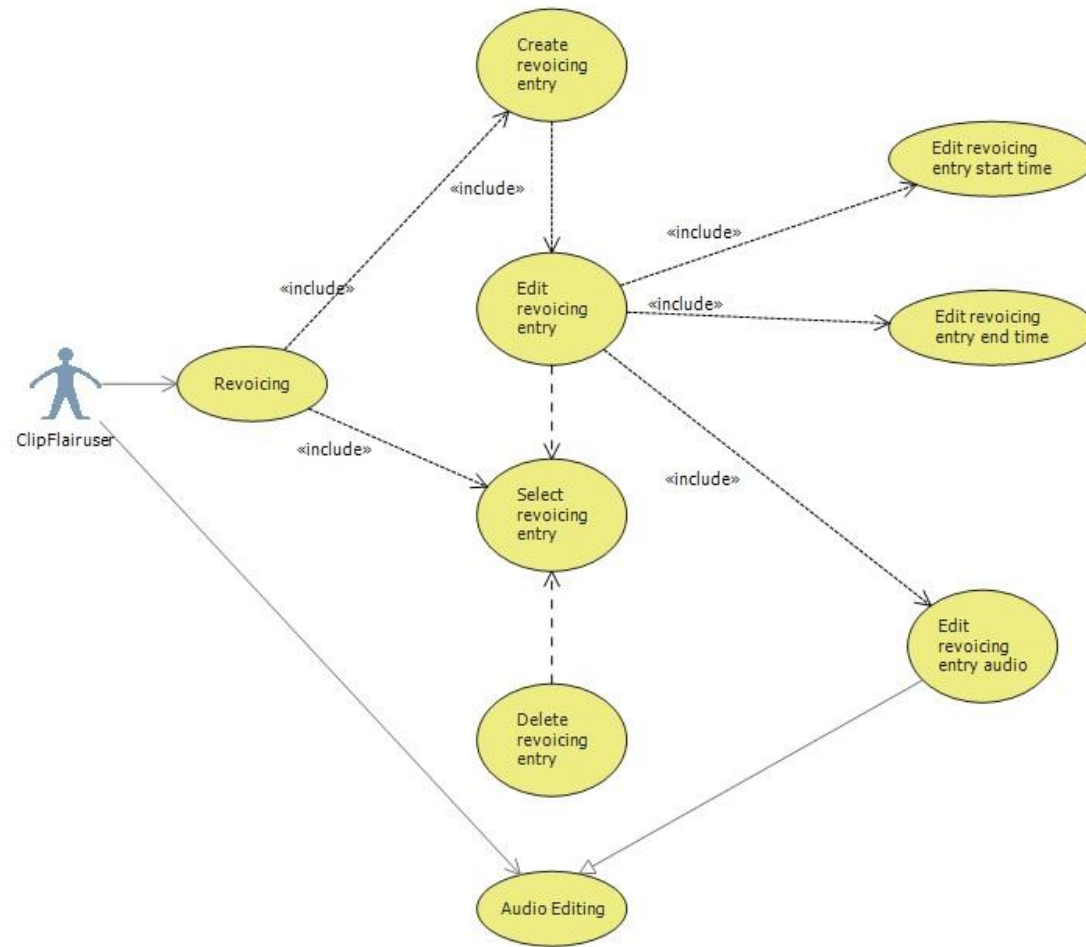


Figure 2. Use Case for Revoicing

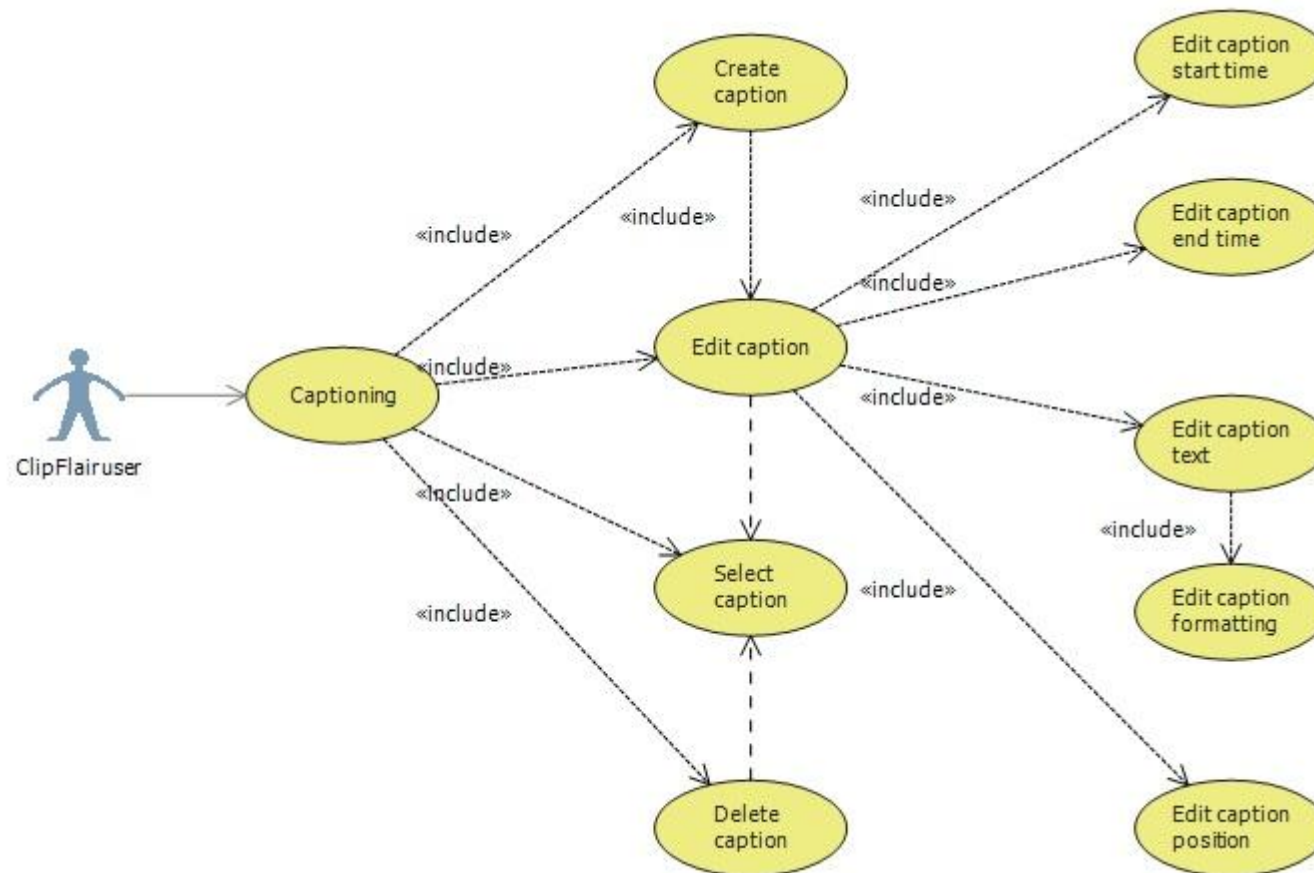


Figure 3. Use case for Captioning

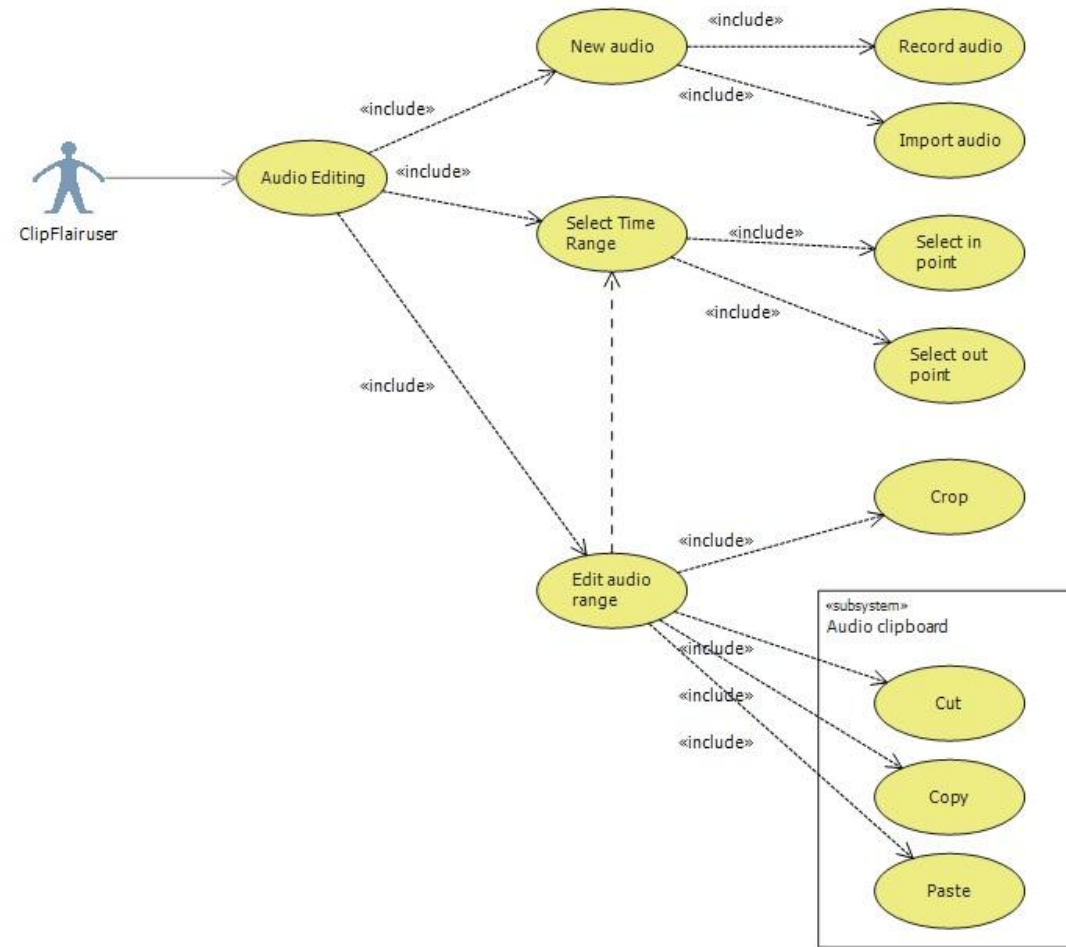


Figure 4. Use Case for Audio Editing

2.1 High level design features

The following high level design features were taken into consideration when designing the ClipFlair Studio

Features for Foreign Language Learning

Features for both captioning and revoicing:

- Printing feature
- Feature for learning instructions and guidelines (task-based template)
- Feature for activity assessment (quantitative & qualitative)
- Teacher blog or notepad for comments on the activities
- Connection to Facebook, Twitter, Youtube (the teacher would be the only one authorized to publish it)
- Comments area for teachers and students
- Area for deliverables to teacher
- Area to save activities – tracking of activities
- Rating
- A feature to write short essays related to the captioning or revoicing exercise.
- Links to dictionaries.

Features only in captioning:

- Feature for adding, editing, modifying and deleting subtitles (individual and collaborative)
- Feature for adding, editing, modifying and deleting text bubbles (individual and collaborative)
- Allow for the creation of speech bubbles and intertitles
- Video & Audio feature.
- Export feature for the subtitles.
- Export feature to export the activity (video and subtitles) and send it to Youtube.
- Feature to allow for long subtitles.

Proposal for buttons for subtitles:

- Add subtitle button – Key might be A (add) for example. The button should become active only when the Sub/In and Sub/Out are marked. Then the subtitle goes between the marked in/out time.
- Remove subtitle button – Key might be D (delete). This option comes active only when you have something to delete and it is important that the software asks for confirmation.

- Screen area for information/comments - There should be an area which is used for instructions and for commenting. With different buttons it can all be in one part of the window. In here the use of shortcut keys gives no actual advantage and therefore only buttons can be used.
- Three buttons - Instructions/Student Comments/Teacher Comments – the text editing options that are available in LvS are adequate.

Proposal for buttons/keys for controlling video and audio:

- Play/pause button – there is no need for two separate buttons, one is enough. Usually it is space key in editing programs.
- Sub/In and Sub/Out buttons – with those buttons you can mark the beginning and end of the subtitle. When translating audio it is also good to listen only a part at a time.
- For example: I (for IN) on O (for OUT) key. It is important feature because it makes it a lot easier to mark in and out for a subtitle and if done correctly it can be used to prevent subtitle overlapping.
- Replay button – it would play the selected part of the video between Sub/In and Sub/Out. It can be R (replay) key.
- Left/Right Arrow key – would move the cursor on the timeline one frame (1/25th of a second) at a time. This helps to improve the selection of subtitle beginning and ending on the timeline.
- Full screen view button – it would be an option to see the video full screen. It might be F key.
- Volume control – is usually in every program that is using audio in some form. Usually the shortcut key is + and - .
- Mute button – It should be next to the volume for sound control. In shortcut it can be M.
- Time figures – like in LvS there should be two figures that show the overall length of the video and the actual cursor time.

Features for only for revoicing

- Dubbing feature
- Audio wave
- Video & Audio feature
- Export the recorded audio
- Role play scenarios

Features for the library of activities

- Activities bank
- Showing the level of linguistic competence (CERFL)

Features to create activities:

- The teacher could give rights to students
- Import from Youtube, etc.
- Permission to learners to create & upload their own videos and activities. Sense of ownership.
- Custom flows, Gallery of teaching flows, Automated flow generation maybe too. Suggestive flows & locked areas till you get some specific achievements, suggestive clustering & flow of clusters.
- Flow with timing suggestions
- timeline of user activities logged with user comment etc. in between to show phases of work (entered while performing the actions or injected later in the timeline) and comments on timeline items themselves (work items)
- Continuous evaluation
- Scoreboard listing all learners' points (encourage competition).

Social features

Social interaction

Feedback from teacher - tutoring

Feedback from other learners

Calendar (activity planning)

Forum to comment activities

Instant Messaging

Connection to e-mail application of student/teacher

The teachers creates virtual groups

Collaboration in teams

Semantic web

Rich metadata to look for activities

A tag called "type of learning"

Create a table of "learner types" and use it for tagging of activities.

The learner has limited access to the activities depending on his/her level of linguistic competence (ex. a B2 learner can't access the activities of a C1 learner) or depending

on the language he/she studies (ex. a learner of Romanian can't access the activities for Chinese).

User experience

On the learner's role:

- Able to create activities
- Able to write
- Able to record speak
- Able to assess other learners' work
- Able to assess their own work (via blog, for instance)
- We can offer a "test" to tell them & direct them to the relevant tagged activities.
- Planning features: a calendar, an area for deliverables, a list for deadlines, a task management tool, etc.

On the teacher's role:

- Same of student
- Create groups of students and give permissions
- Area to publish instruction, deadlines, news,

We could give the option to enforce or not sequential completion of each task within an activity (i.e.; Choose between completing all tasks in sequence or skip some)

Have versions of the environment with restricted functionality, such as: only 'authorized' activities can be loaded; the interface language is only available in the 'target' language; no subtitling, but only voice-over is offered etc.

- Able to be used asynchronously from home and synchronous in class.
- Clear site navigation categories
- User-friendly
- Clear and simple user guide
- Chat feature
- Wiki feature
- Test the level of students before doing activities
- The platform remembers the user

Create a User Registration Form with few simple questions. This will give us information on our users' profile: who is using the platform, what type of learner (s)he is, etc.

Short podcasts could be included with "How to...?" instructions.

Environment and activity styling (by user), Layout, Flow customizable on a Zoomable Canvas supporting also styling, template load/save/store/share

Save & continue, Group video+subtitles and share URL for others to see, comment with rights set on how can see and what can do, integrate/connect to asset libs, exporting, unique URLs (possibly DOI too) for published items, metadata localization schema and collaborative localization (metadata and UI)

Chat, see which friends are online, which peers (classmates) are online, who are in the same activity context. Nested circles diagram with Activity in the middle, Class(es), School, Friends as growing outer circles with icons in them for friends and maybe coloured subsections for more trusted "friends" like instructors, Filter to see only contributions from certain people/contexts. Icon based feedback (like in LeViS)

Planning features: Zoomable flows with vector design & templates

Customizable learning environment.(the learner controls and personalises the learning environment depending on the type of learning he/she feels comfortable with.)

Learner can suggest the activities of their interest.

Provide simple and clear guidelines for any video material uploaded by students and other third parties: ranking, level, etc.

Virtual Teacher (agent), Calculate Student learner progress, more LMS style when having automated drills, can't do with any content, need human teacher to judge real progress & self-assesment as "need easier" and "need tougher" drills feedback UI.

Include this in software guidelines: "see suggested 2-axis for the skills. Tools for dialogue, dictation, copying (write), research (read), expression of thoughts (essay), reading aloud. Consume media (etc.) and Produce, tools for viewers/consumers (incl. search) & authors/producers.

- Big buttons
- Shortcut keys and logic inside the program
- The application must look modern
- Free access to people who create an account

Addressing issues on intellectual rights

Mention clips are for education purposes

Easy to select

Clear indication

Moderation, Report social abuse. Education on Creative Commons and Intellectual Rights and easy assigning such rights to content and reporting abuse of rights

2.2 Class Diagrams

The ClipFlair Studio is designed as a [Microsoft Silverlight](http://www.microsoft.com/silverlight/) based web application in Microsoft Visual Studio 2010. A selected part of its architecture design is presented below in the form of class diagrams authored with Visual Studio's two-way class diagramming tolos and exported as images.

- ClipFlair architecture diagrams (20130228): <http://clipflair.codeplex.com/releases/view/102674>

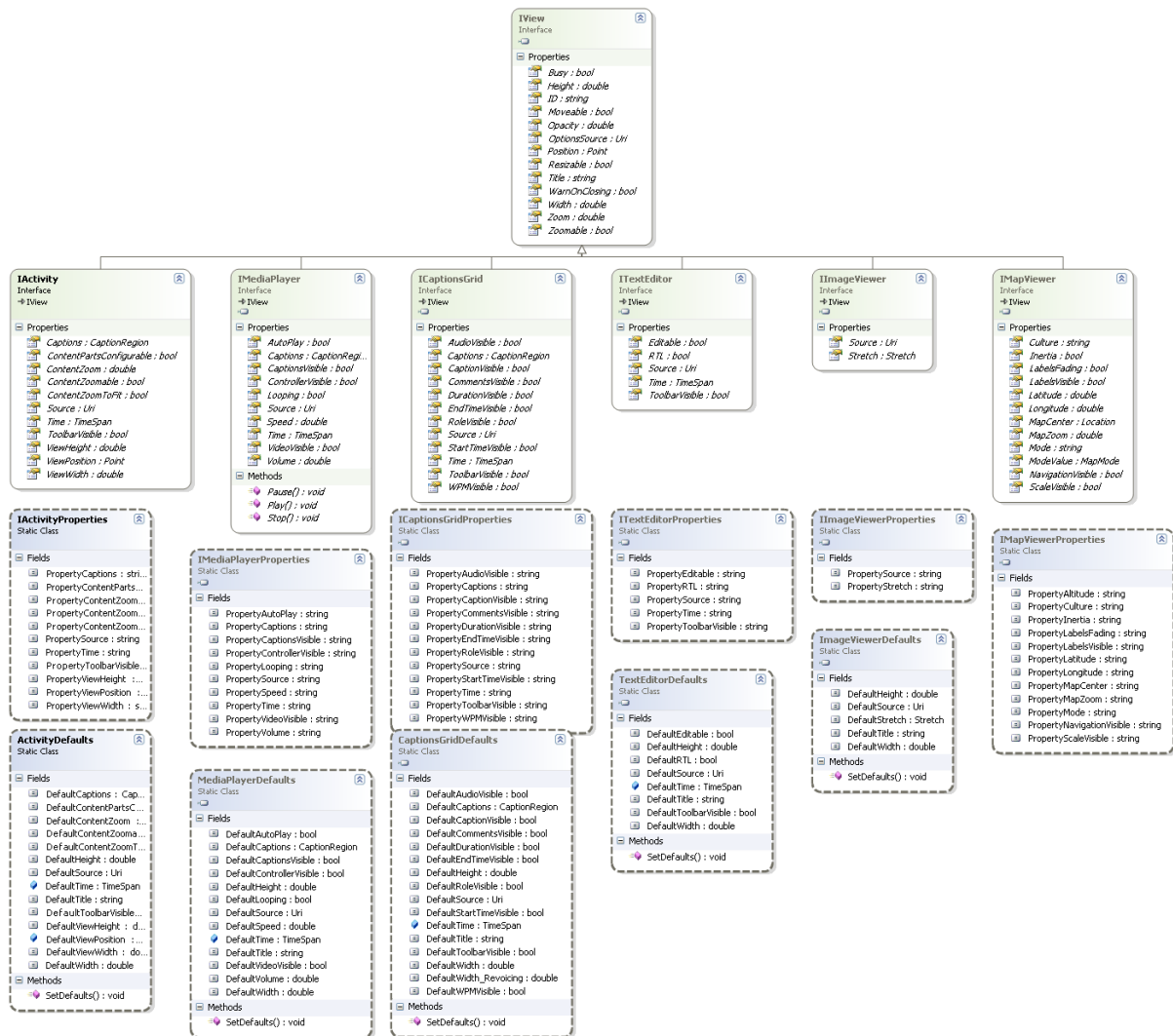


Figure 1 Class Diagram - Windows.Views.Interfaces

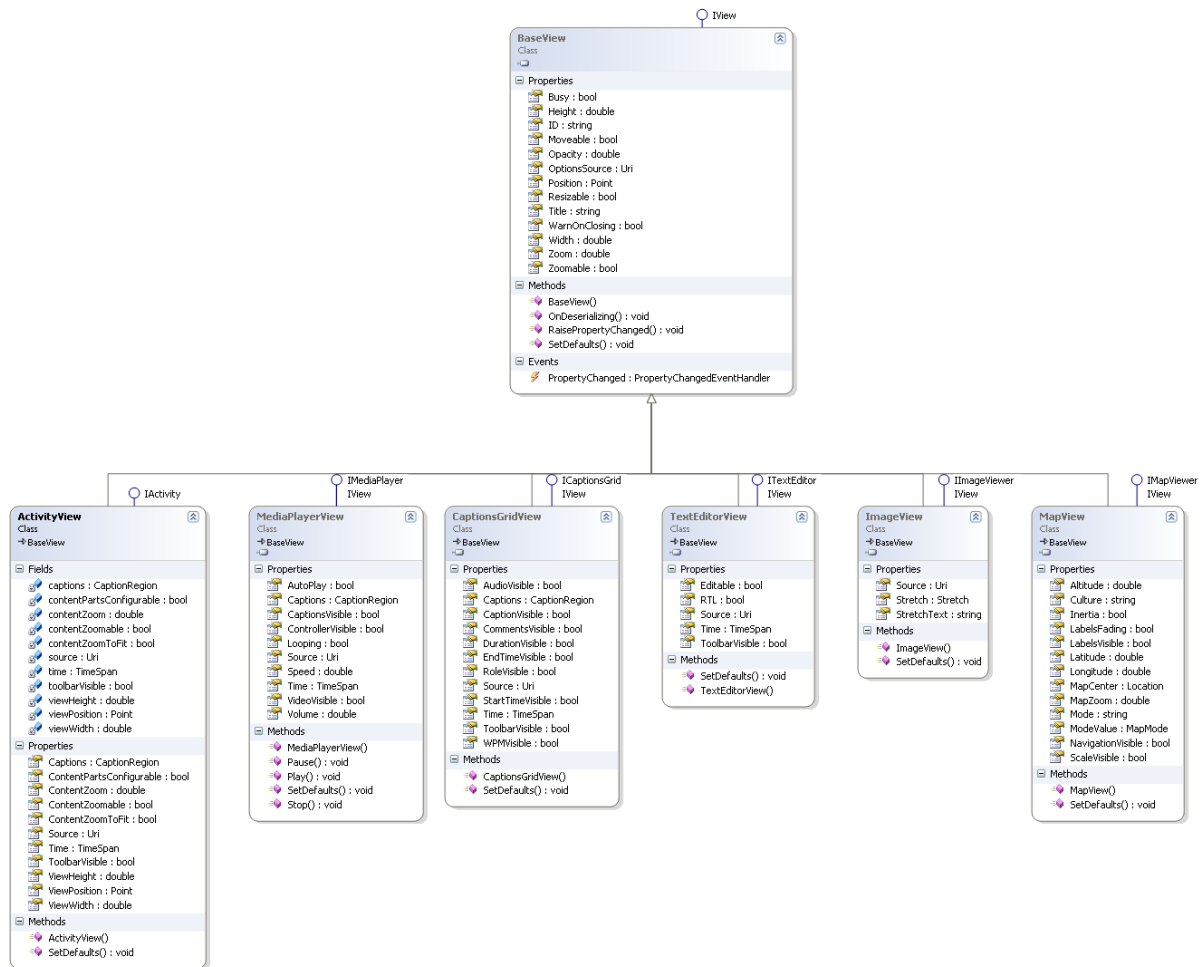


Figure 2 Class Diagram - Windows.Views.ViewModels

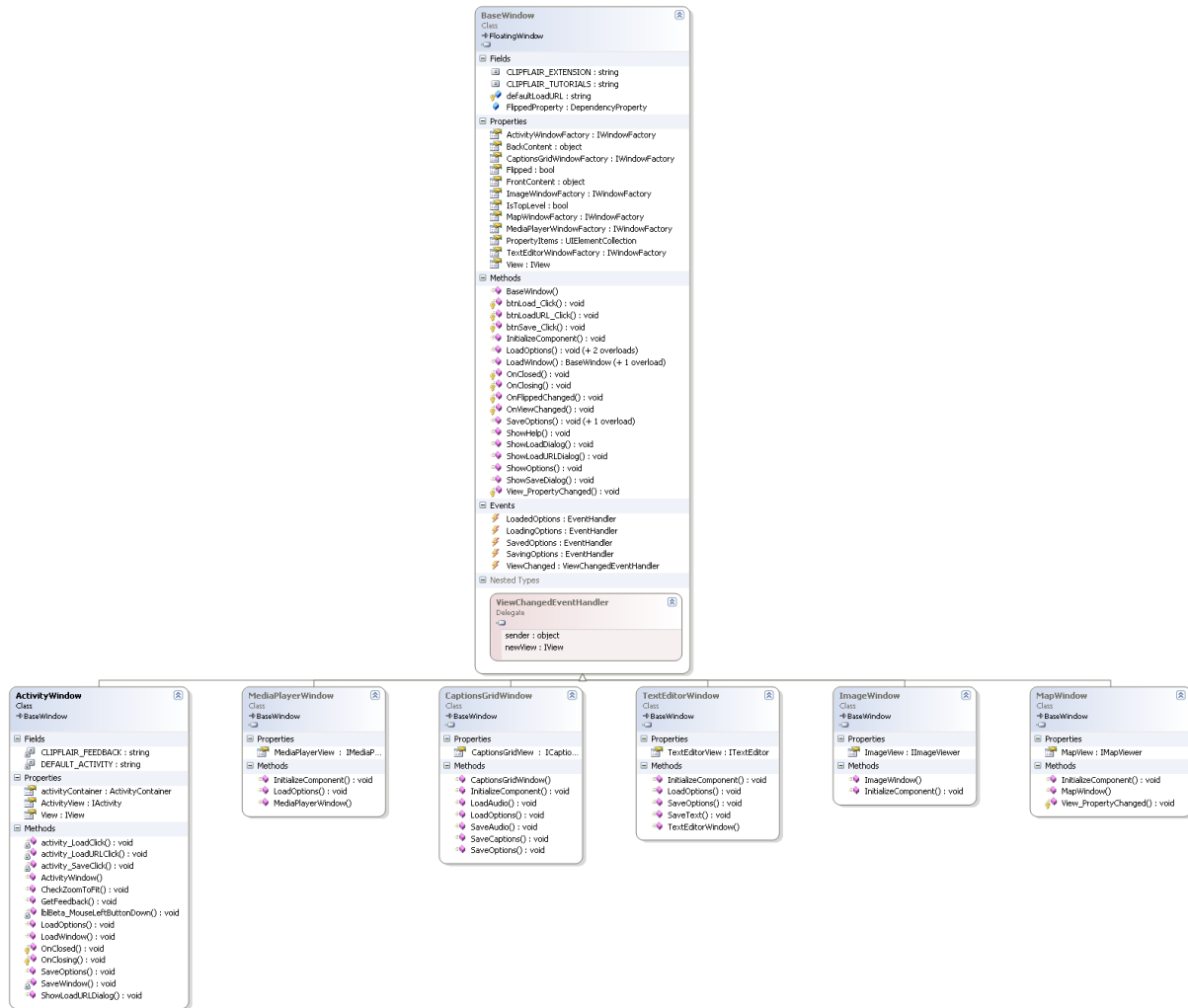


Figure 3 Class Diagram – Windows

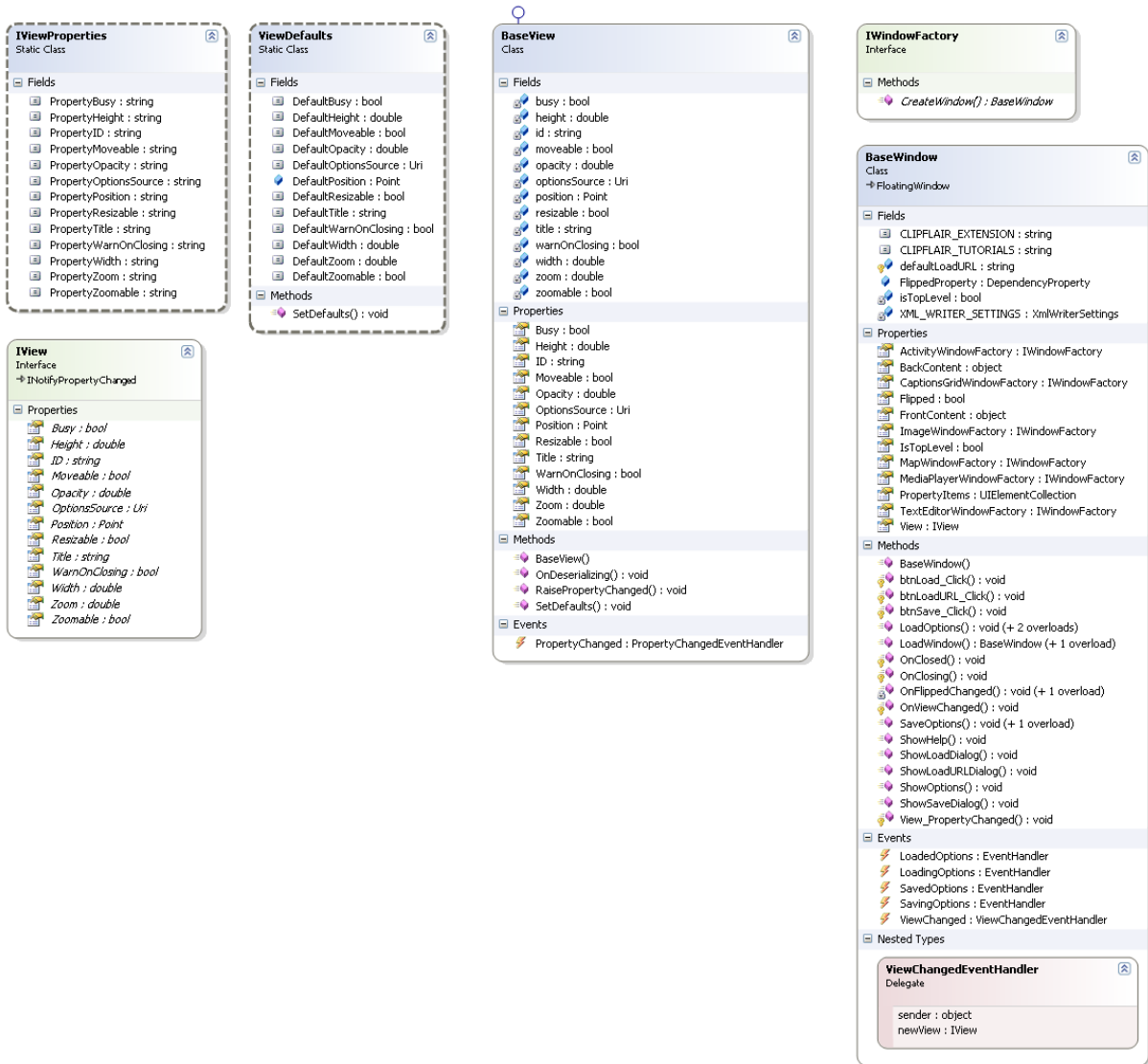


Figure 4 Class Diagram – Base component

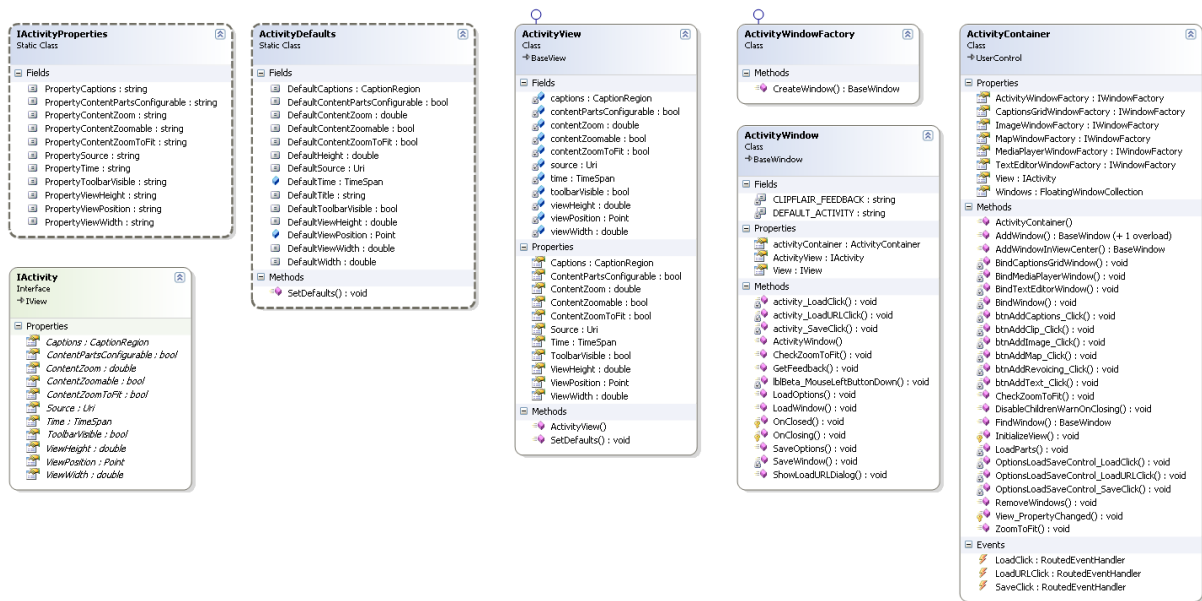


Figure 5 Class Diagram – Activity container/component

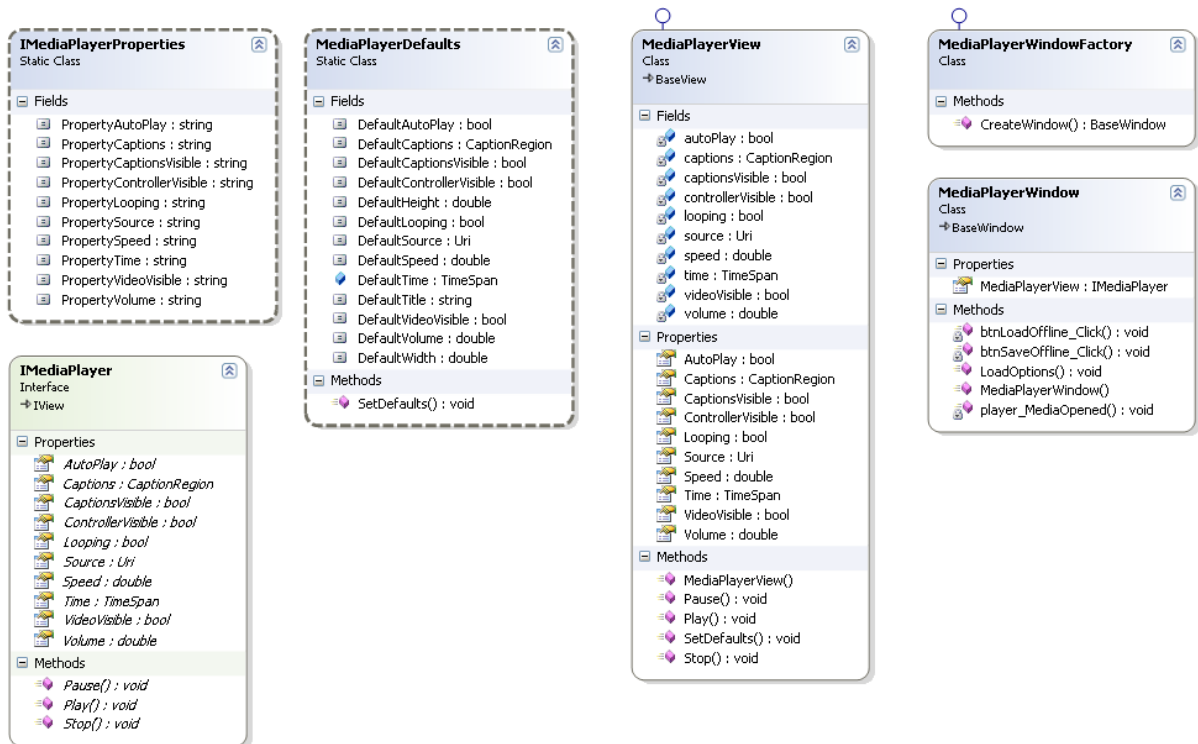


Figure 6 Class Diagram – Media component

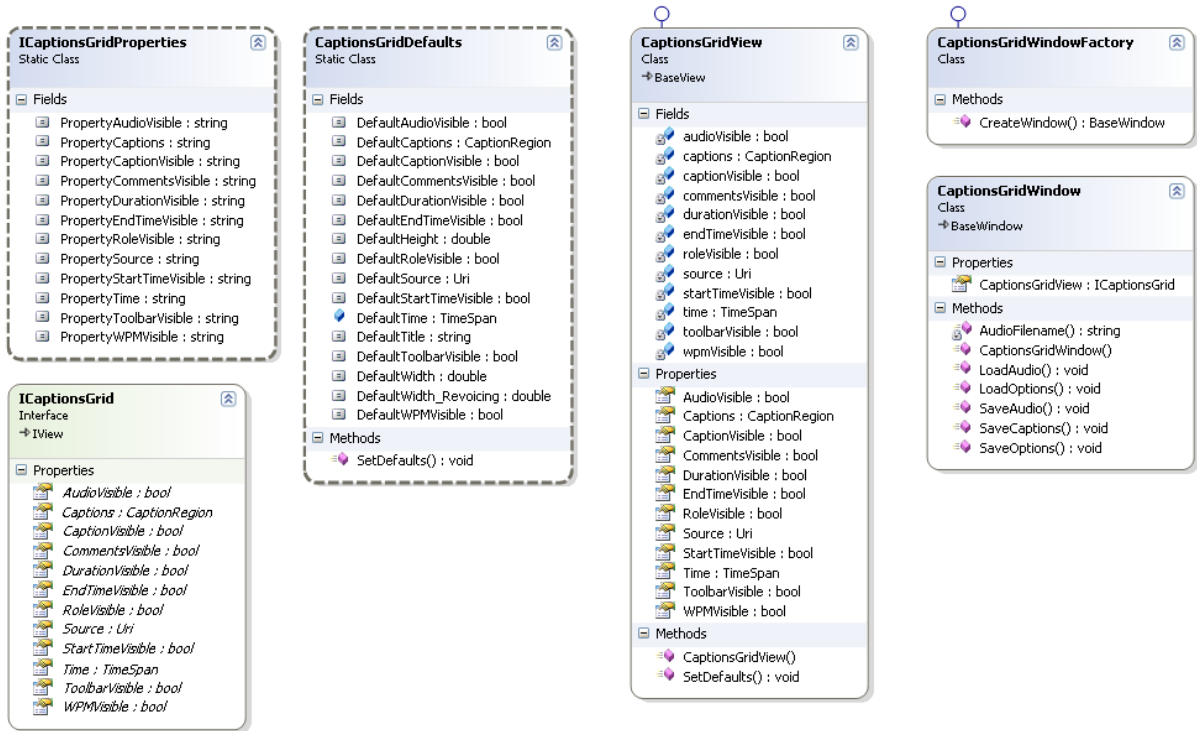


Figure 7 Class Diagram - Captions component

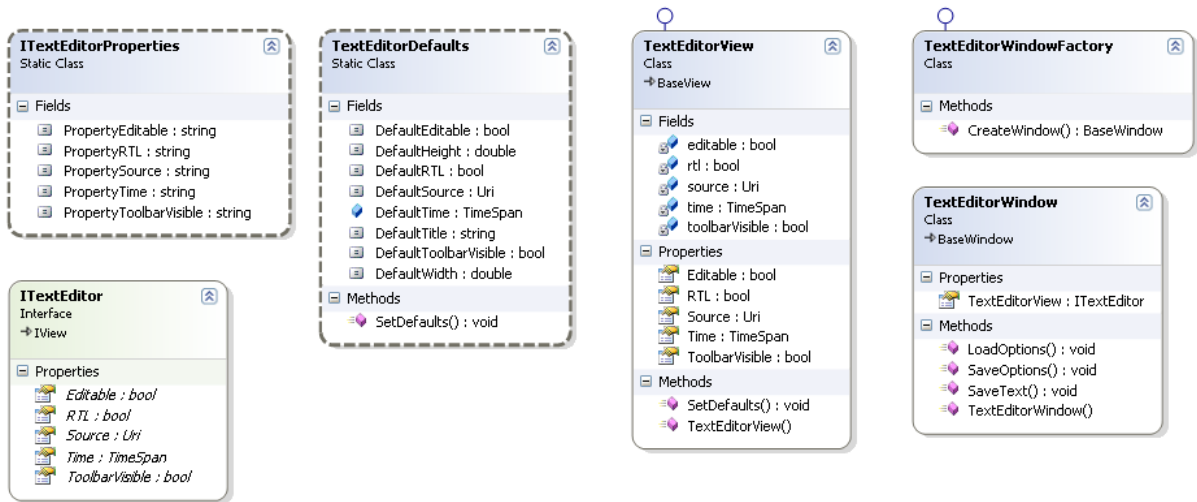


Figure 8 Class Diagram - Text component

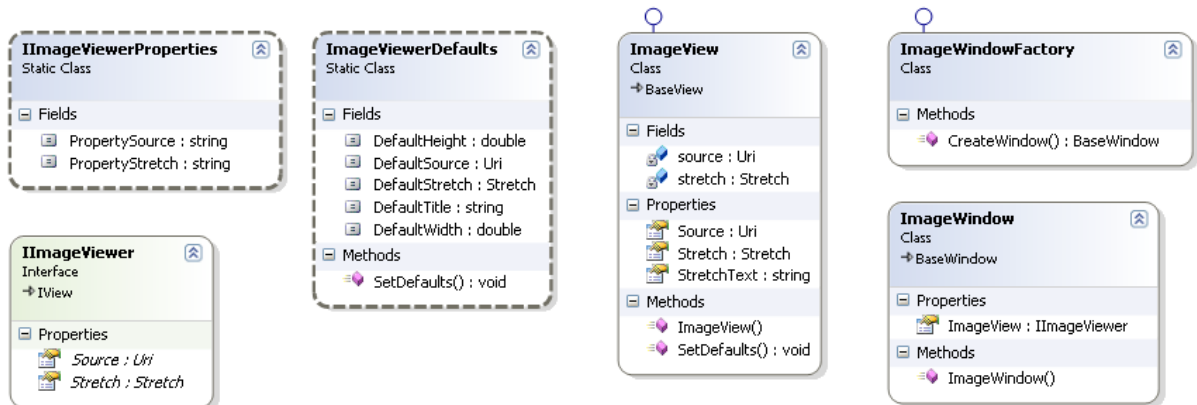


Figure 9 Class Diagram - Image component

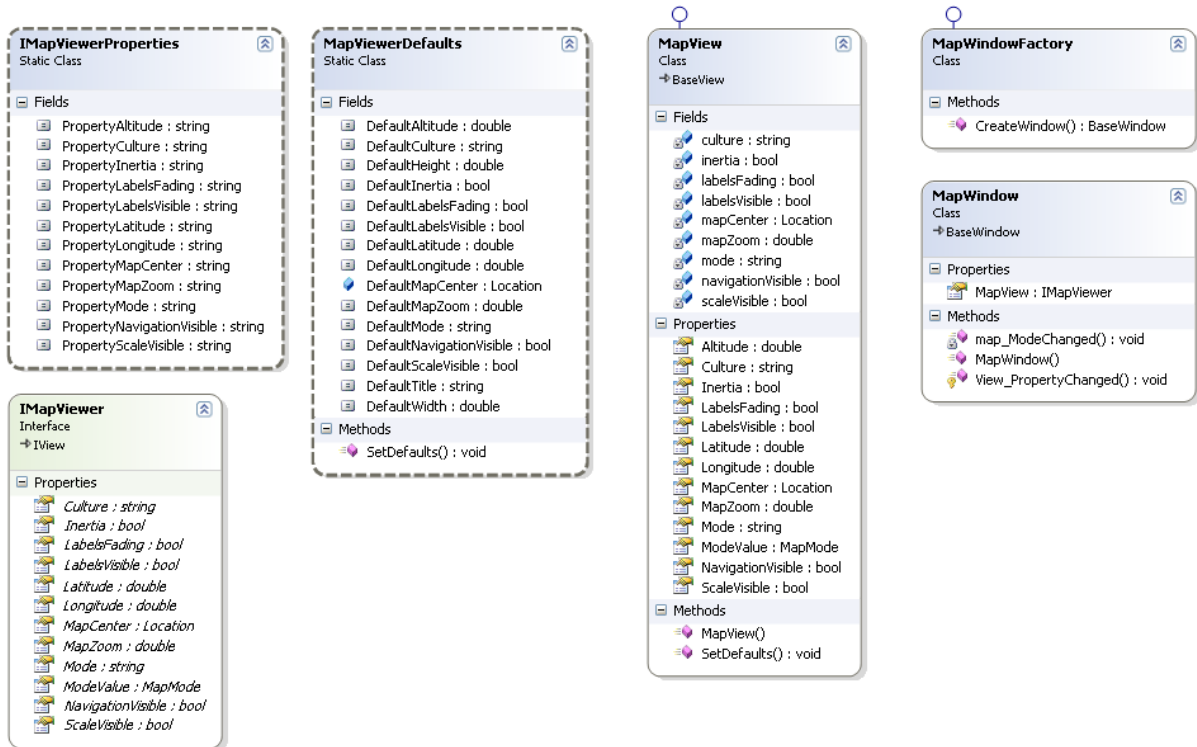


Figure 10 Class Diagram - Map component

3 Appendices

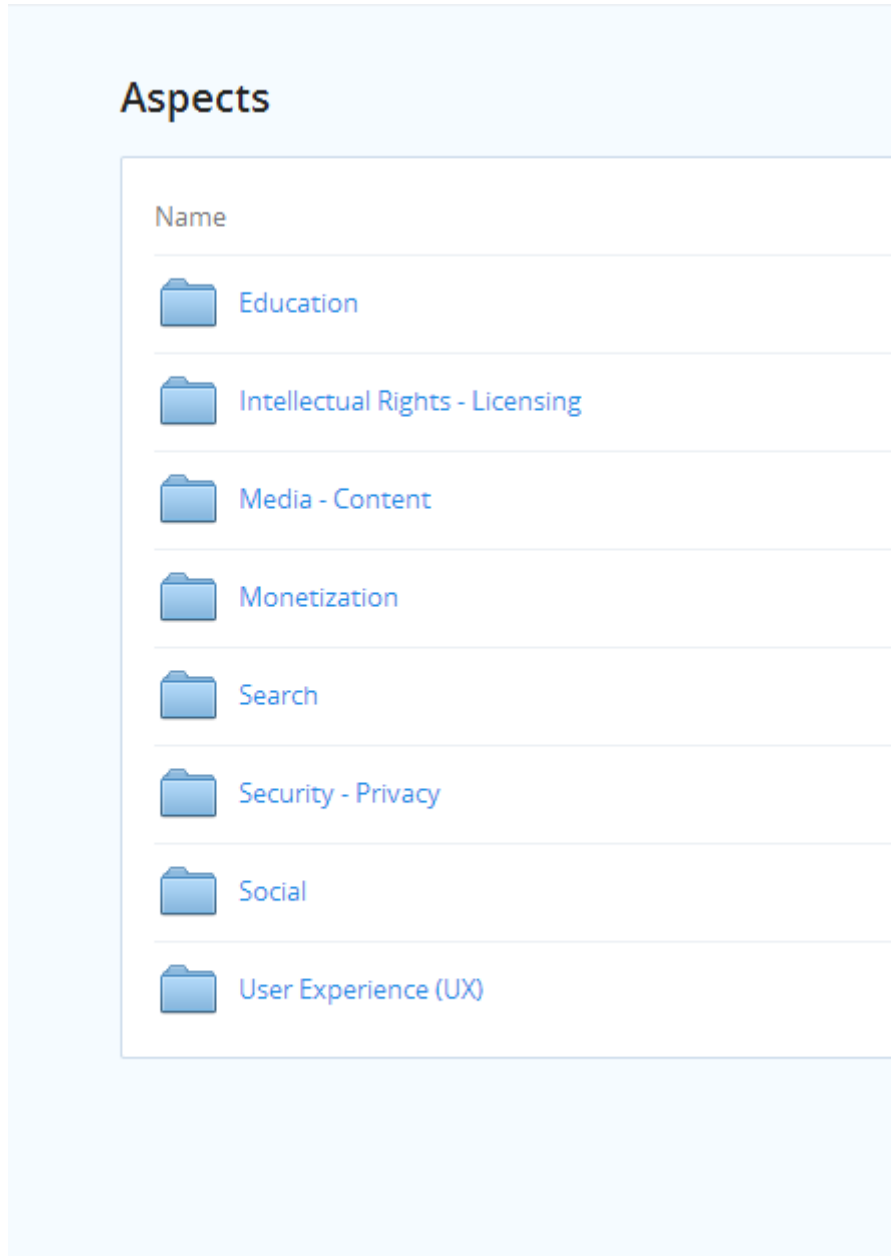
3.1 Classification – Market Research

A large collection of organized links and screenshots from related websites, software, technologies:


- ClipFlair Classification – Market Research (20130228):


<http://clipflair.codeplex.com/releases/view/102679>


- Latest ClipFlair Classification – Market Research:
https://www.dropbox.com/sh/t975jb693ch6fbs/C9ZuaS_2Jb





Education [Grid] [List]


 [Activities](#)


 [Books](#)


 [Challenges](#)


 [Citations](#)


 [Edutainment - Serious Games](#)


 [Flip Learning](#)


 [Flows](#)


 [Functions](#)


 [Language Learning](#)


 [Learning Objects](#)


 [Libraries - Repositories](#)


 [LMS](#)












 [Mindmaps](#)

 [Peer Review](#)

 [Skills](#)

 [Storytelling](#)



| | | |
|--|-----------|--------------|
|  About Languages on Screen.url | 136 bytes | 3 months ago |
|  Bloom's Taxonomy - Wikipedia, the free encyclopedia.url | 136 bytes | 3 months ago |
|  EACEA The Education, Audiovisual and Culture Executive A...n Union EACEA.url | 127 bytes | 7 months ago |
|  Educational Video The Top Cultural & Educational Video Si...s Open Culture.url | 132 bytes | 3 months ago |
|  eLearning Transforming education through technology.url | 121 bytes | 3 months ago |
|  Google Drive and Docs for Teachers 2012.url | 163 bytes | 2 months ago |
|  Latest news MEDEAnet.url | 112 bytes | 7 months ago |
|  MEDEA Awards 2012 MEDEA Awards 2012.url | 117 bytes | 7 months ago |
|  Media & Learning Brussels 2012 Media and Learning.url | 126 bytes | 7 months ago |
|  Objectives ROLE.url | 129 bytes | 4 months ago |
|  Peer instruction - Wikipedia, the free encyclopedia.url | 134 bytes | 3 months ago |

User Experience (UX)

Name



[Accessibility](#)



[Design guidelines](#)



[Localization](#)



[Stream-Flow](#)



[Visualization](#)



[ZUI \(Zoomable UI\)](#)



[-cognetics.url](#)



[Bret Victor - Inventing on Principle on Vimeo.url](#)



[cognetics.url](#)



[Design Staff - How to choose the right UX metrics for your product.url](#)



[Designing UX for apps.url](#)



[Free UX Research Tools by ZURB - Actual Insights.url](#)



[Information Architecture.url](#)



[LukeW Mobilism Mobile & UX A Perfect Storm.url](#)



[Magic Ink Information Software and the Graphical Interface.URL](#)



[Our User eXperience \(UX\) Reading List UX Passion - UX design agency.URL](#)



[persona-cheat-sheet.url](#)



[Personas.url](#)























[Usability Glossary.url](#)



[Usability: Testing Methods.url](#)










Social

Name

-  _Concerns
-  _Examples
-  Abuse
-  Abuse - Terms of Use
-  Bridging (Interoperability)
-  Collaboration
-  Feedback
-  Following
-  History
-  Invitations
-  Notifications-Alerts
-  Organizing (Structuring - Taxonomies)
-  Personalization
-  Preview
-  Publishing - Updates
-  Recommendations - Suggestions
-  Reference
-  Rewards
-  Sharing
-  Tracking

















Security - Privacy

Name

-  Audience-Privacy
-  Authentication
-  Authorization
-  Cookies
-  Exploits
-  Guidance - Best Practices
-  Kids
-  Ratings
-  Spam





















Search

Name

-  [Audio search](#)
-  [Federated search](#)
-  [Filter - Refine](#)
-  [Image search](#)
-  [Metadata search](#)
-  [Personalized results](#)
-  [Shared search](#)
-  [Social Search](#)
-  [Structured data](#)
-  [Subtitles search](#)
-  [Video search](#)
-  [Google commerce search features.url](#)
-  [Google free site search.url](#)
-  [Home - OpenSearch.url](#)
-  [memcached - a distributed memory object caching system.url](#)
-  [Sphinx Open Source Search Server.url](#)





















Media - Content

Name

-  Accessibility
-  Analytics
-  Broadcasting
-  Captioning
-  Capture
-  Codec - Package
-  Cueing - Segmentation
-  Descriptions
-  E-Books
-  Editing
-  File Sharing
-  Gallery
-  Images
-  Infographics
-  Organizing
-  Playback
-  Producing
-  Referencing
-  Revoicing
-  Sitings

Intellectual Rights - Licensing

Name

| | |
|---|--|
|  | Copyright market |
|  | Creative Commons |
|  | DRM |
|  | Fair Use |
|  | Reporting infringement |
|  | Audiovisual Copyright Frequently Asked Questions JISC Digital Media.url |
|  | Chilling Effects Clearinghouse.url |
|  | Copyright and Neighbouring Rights - European Commission.url |
|  | Copyright Infringement Notification dotSUB.url |
|  | Copyright law of the United States - Wikipedia, the free encyclopedia.url |
|  | Copyright Limbo incompetech.URL |
|  | Copyright Watch Global Transparency in Copyright Law.url |
|  | Copyright.url |
|  | CopyrightNotice — MIS Subject Area Web.url |
|  | Definition of Free Cultural Works.url |
|  | Directory of Intellectual Property Offices.url |
|  | DMCA Scratch Documentation Site.url |
|  | dotSUB Terms Of Use.url |
|  | DVD Intelligence - Half of UK internet users unsure if the c...y access is legal.url |
|  | EC Audiovisual Service - Copyright.url |

3.2 Developer Links

A large collection of organized developer links collected during R&D is provided:

- ClipFlair Developer Links (20130228) - <http://clipflair.codeplex.com/releases/view/102670>
- Latest ClipFlair Developer Links - https://www.dropbox.com/sh/8fjegg06xn7eog/FDC_VU8A7N

3.3 Developer Resources

Collection of useful sample code and code libraries downloaded from developer links:

- Latest ClipFlair Developer Resources - <https://www.dropbox.com/sh/4t9hajsvehdsn3dp/Ng225zniXi>

3.4 Developer Blog Posts

Developer blog (<http://zoomicon.wordpress.com>) posts related to ClipFlair:

1. Dissemination vs Impact -
<http://zoomicon.wordpress.com/2012/02/16/dissemination-vs-impact/>
2. Workaround: Silverlight Rect class missing bool ContainsRect method -
<http://zoomicon.wordpress.com/2012/04/29/workaround-silverlight-rect-class-missing-bool-containsrect-method/>
3. Troubleshoot WCF HTTP error 404 Not-found
<http://zoomicon.wordpress.com/2012/05/21/troubleshoot-wcf-http-error-404not-found/>
4. Fix: WordPress Media Uploads not working on IIS -
<http://zoomicon.wordpress.com/2012/05/29/fix-wordpress-media-uploads-not-working-on-iis/>
5. Fix: Compile CSpeex Audio codec at Silverlight 4 RC and Silverlight 5 -
<http://zoomicon.wordpress.com/2012/06/09/fix-compile-cspeex-audio-codec-at-silverlight-4-rc-and-silverlight-5/>
6. What to do if generic XAML doesn't get loaded for WPF control -
<http://zoomicon.wordpress.com/2012/06/10/what-to-do-if-generic-xaml-doesnt-get-loaded-for-wpf-control/>
7. HowTo: Load a XML ResourceDictionary from a .NET assembly
<http://zoomicon.wordpress.com/2012/06/11/howto-load-a-xaml-resourcedictionary-from-a-net-assembly/>
8. IsolatedStorageSettings for WPF -
<http://zoomicon.wordpress.com/2012/06/18/isolatedstoragesettings-for-wpf/>
9. InitializeError Message failed to load a platform extension in Silverlight -
<http://zoomicon.wordpress.com/2012/06/18/initializeerror-message-failed-to-load-a-platform-extension-in-silverlight/>
10. Zoom and Pan Control for WPF and Silverlight via WPF compatibility layer -
<http://zoomicon.wordpress.com/2012/06/18/zoom-and-pan-control-for-wpf-and-silverlight-via-wpf-compatibility-layer/>
11. HowTo: Set UI language CurrentUICulture in Silverlight -
<http://zoomicon.wordpress.com/2012/06/20/howto-set-ui-language-currentuiculture-in-silverlight/>
12. Fix: The tag xxx does not exist in XML namespace clr:namespace yyy -
<http://zoomicon.wordpress.com/2012/07/02/fix-the-tag-xxx-does-not-exist-in-xml-namespace-clr-namespacyyy/>
13. Why I don't see static extension support for constructors in C# coming -
<http://zoomicon.wordpress.com/2012/07/02/why-i-dont-see-static-extension-support-for-constructors-in-c-coming/>
14. HowTo: compile code that uses WPF decorator type in Silverlight -
<http://zoomicon.wordpress.com/2012/07/04/how-to-compile-code-that-uses-wpf-decorator-type-in-silverlight/>
15. C# using alias directive, namespace alias qualifer and a sad story -
<http://zoomicon.wordpress.com/2012/07/04/c-using-alias-directive-namespace-alias-qualifier-and-a-sad-story/>

16. Collection of useful links for .NET, Silverlight, WPF etc. development - <http://zoomicon.wordpress.com/2012/07/05/collection-of-useful-links-for-net-silverlight-wpf-etc-development/>
17. HowTo: space stackpanel items in XAML, has no padding property - <http://zoomicon.wordpress.com/2012/07/11/how-to-space-stackpanel-items-in-xaml-has-no-padding-property/>
18. HowTo: Crash Visual Studio 2010 via Silverlight XAML recursion bug - <http://zoomicon.wordpress.com/2012/07/12/how-to-crash-visual-studio-2010-via-silverlight-xaml-recursion-bug/>
19. Set default document for IIS via web.config at Silverlight web project - <http://zoomicon.wordpress.com/2012/07/13/set-default-document-for-iis-via-web-config-at-silverlight-web-project/>
20. Fix: The tag TimeUpDown does not exist in XML namespace - Silverlight Toolkit - <http://zoomicon.wordpress.com/2012/07/14/fix-the-tag-timeupdown-does-not-exist-in-xml-namespace-silverlight-toolkit/>
21. Gotcha: Silverlight's URI class constructor eats up part after last slash - <http://zoomicon.wordpress.com/2012/07/22/gotcha-silverlights-uri-class-constructor-eats-up-part-after-last-slash/>
22. ASP.net WebPartZone skins and CSS - <http://zoomicon.wordpress.com/2012/08/03/asp-net-webpartzone-skins-and-css/>
23. Vertical Centering with CSS - <http://zoomicon.wordpress.com/2012/08/03/vertical-centering-with-css/>
24. HowTo: Compress speech audio using CSpeex codec at Silverlight apps - <http://zoomicon.wordpress.com/2012/08/04/howto-compress-speech-audio-using-cspeex-codec-at-silverlight-apps/>
25. Gotcha: Silverlight DependencyProperty metadata - 0d not 0 for double - <http://zoomicon.wordpress.com/2012/08/09/gotcha-silverlight-dependencyproperty-metadata-0d-not-0-for-double/>
26. Single statement ScaleTransform initialization in both WPF and SL - <http://zoomicon.wordpress.com/2012/08/11/single-statement-scaletransform-initialization-in-both-wpf-and-sl/>
27. HowTo: Bind to a DataContext property named source in XAML - <http://zoomicon.wordpress.com/2012/08/14/howto-bind-to-a-datacontext-property-named-source-in-xaml/>
28. HowTo: Scale control around its center using a RenderTransform - <http://zoomicon.wordpress.com/2012/08/15/howto-scale-control-around-its-center-using-a-render-transform/>
29. HowTo: Load CaptionElements into Silverlight Media Framework player - <http://zoomicon.wordpress.com/2012/09/03/howto-load-captionelements-into-silverlight-media-framework-player/>
30. Collection of Smooth Streaming Video URLs - <http://zoomicon.wordpress.com/2012/09/23/collection-of-smooth-streaming-video-urls/>
31. HowTo: hide video area of Silverlight Media Framework player - <http://zoomicon.wordpress.com/2012/10/03/howto-hide-video-area-of-silverlight-media-framework-player/>

32. HowTo: Check MSDN Subscriber Downloads for tampering via SHA-1 key - <http://zoomicon.wordpress.com/2012/10/24/howto-check-msdn-subscriber-downloads-for-tampering-via-sha-1-key/>
33. HowTo: Multi-row captions and wrapping at Silverlight Media Framework - <http://zoomicon.wordpress.com/2012/11/19/howto-multi-row-captions-and-wrapping-at-silverlight-media-framework/>
34. HowTo: Tell AddThis to not append tracking suffix on address bar - <http://zoomicon.wordpress.com/2012/11/20/howto-tell-addthis-to-not-append-tracking-suffix-on-addressbar/>
35. HowTo: Clear contents of Silverlight's RichTextBox control - <http://zoomicon.wordpress.com/2012/11/23/howto-clear-contents-of-silverlights-richtextbox-control/>
36. HowTo: Write directly into a ZIP stream using DotNetZip - <http://zoomicon.wordpress.com/2012/11/23/howto-write-directly-into-a-zip-stream-using-dotnetzip/>
37. HowTo: Use DotNetZip - IonicZip library in Silverlight - <http://zoomicon.wordpress.com/2012/11/25/howto-use-dotnetzip-ionic-zip-library-in-silverlight/>
38. HowTo: Bind cell to row data in DataGrid DataTemplate for MVVM control - <http://zoomicon.wordpress.com/2012/11/25/howto-bind-cell-to-row-data-in-datagrid-datatemplate-for-mvvm-control/>
39. HowTo: Make project linker extensions VSIX install at Visual Studio 2012 - <http://zoomicon.wordpress.com/2012/11/27/howto-make-project-linker-extensions-vsix-install-at-visual-studio-2012/>
40. PivotViewer for a rich search experience - <http://zoomicon.wordpress.com/2012/11/28/pivotviewer-for-a-rich-search-experience/>
41. Can't step through Silverlight file dialogs with Visual Studio Debugger - <http://zoomicon.wordpress.com/2012/12/02/cant-step-through-silverlight-file-dialogs-with-visual-studio-debugger/>
42. HowTo: Troubleshoot MSI installations - <http://zoomicon.wordpress.com/2012/12/09/howto-troubleshoot-msi-installations/>
43. Fix: Transform Manager ignoring media files added to watch folders - <http://zoomicon.wordpress.com/2012/12/14/fix-transform-manager-ignoring-media-files-added-to-watch-folders/>
44. Gotcha: Image Component not loading remote URLs during debugging - <http://zoomicon.wordpress.com/2012/12/18/gotcha-image-component-not-loading-remote-urls-during-debugging/>
45. Fix: Visual Studio opens class diagram in XML editor with double click - <http://zoomicon.wordpress.com/2013/02/10/fix-visual-studio-opens-class-diagram-in-xml-editor-with-double-click/>
46. Fix: Silverlight Media Framework player VolumeElement out-of-sync - <http://zoomicon.wordpress.com/2013/02/11/fix-silverlight-media-framework-player-volumeelement-out-of-sync/>
47. HowTo: Format XML output of DataContractSerializer - <http://zoomicon.wordpress.com/2013/02/22/howto-format-xml-output-of-datacontractserializer/>

48. IIS FTP login fails after Windows Platform Update for Server 2008 R2 - <http://zoomicon.wordpress.com/2013/02/27/iis-ftp-login-fails-after-windows-platform-update-for-server-2008-r2/>

3.5 Contribution to Microsoft developer platform

Contribution to Microsoft developer platform evolution via feedback at Microsoft Connect website – <http://connect.microsoft.com>:

1. Uml Views don't have export image action
<https://connect.microsoft.com/VisualStudio/feedback/details/725674/uml-views-dont-have-export-image-action>
2. Copying a UML file in Solution Explorer doesn't change internal item names
<https://connect.microsoft.com/VisualStudio/feedback/details/725702/copying-a-uml-file-in-solution-explorer-doesnt-change-intenal-item-names>
3. Can remove mscorlib reference from Silverlight Project but can't add it again
<https://connect.microsoft.com/VisualStudio/feedback/details/749606/can-remove-mscorlib-reference-from-silverlight-project-but-cant-add-it-again>
4. Removing file from project and trying to add it again as a link from other folder fails
<https://connect.microsoft.com/VisualStudio/feedback/details/752322/removing-file-from-project-and-trying-to-add-it-again-as-a-link-from-other-folder-fails>
5. XAML editor window fails with catastrophic failure when a style tries to set style property
<https://connect.microsoft.com/VisualStudio/feedback/details/753211/xaml-editor-window-fails-with-catastrophic-failure-when-a-style-tries-to-set-style-property>
6. TimedTextElementStyle constructor shouldn't use Cell-based FontSize
<http://smf.codeplex.com/workitem/23287>
7. OrderedScriptableObservableCollection doesn't implement Insert method
<http://smf.codeplex.com/workitem/23308>
8. VolumeElement getting out of sync with Volume
<http://smf.codeplex.com/workitem/23897>
9. If you open with XML editor a class diagram then it opens up as XML from then on
<https://connect.microsoft.com/VisualStudio/feedback/details/779680/if-you-open-with-xml-editor-a-class-diagram-then-it-opens-up-as-xml-from-then-on>

3.6 Contribution to MonoX platform

Contribution to MonoX Social CMS platform development via feedback at:

- MonoX Support forum - <http://www.mono-software.com/support/mono/>
 - MonoX Roadmap forum - <http://www.mono-software.com/Mono/Pages/Discussion/dboard/oPCcyo0aUUue0qC-ANa6fg/MonoX-Roadmap/>
1. Sharing a forum topic shows OpenGraph metadata about the whole discussion board, not the topic - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/y5oB-YOF2kaP76EEAQDy8w/Sharing-a-forum-topic-shows-OpenGraph-metadata-about-the-whole-discussion-board-not-the-topic/>
 2. Items per page dropdown at DataGrid pagers - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/Y5LG1fnqg0SPSqD9ANdxwA/Items-per-page-dropdown-at-DataGrid-pagers/>
 3. Sticky posts - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/qTup9iQoIUOjc6D9ANliTA/Sticky-posts/>
 4. Rating Boosting Factor - http://www.mono-software.com/Mono/Pages/Discussion/dtopic/oSw8b2StZkCv_KD9AN3QtA/Rating-Boosting-Factor/
 5. Social Tagging and Tag Clouds - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/MspoCrNP7EuOV6D9AN7ljw/Social-Tagging-and-Tag-Clouds/>
 6. Move topics between boards - http://www.mono-software.com/Mono/Pages/Discussion/dtopic/QzsnNfo8V0S_AaD9AOPPIA/Move-topics-between-boards/
 7. Suggested modification of Groups page to jump to All Groups view - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/a-VhcZm030SXBaD9ASN1XQ/Suggested-modification-of-Groups-page-to-jump-to-All-Groups-view/>
 8. Make signature at e-mails settable in web.config - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/IDD-JNBc306s7aEBAZFxqg/Make-signature-at-e-mails-settable-in-web-config/>
 9. Blogs-Group-People search GO button at Social dashboard should show all items if no criteria entered - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/qJYkEdy9006pVaEDAL1rWA/Blogs-Group-People-Search-GO-button-at-Social-dashboard-should-show-all-items-if-no-criteria-entered/>
 10. Add friend button - http://www.mono-software.com/Mono/Pages/Discussion/dtopic/pb_S_n87_EmBcKEEAN03vg/Add-friend-button/
 11. Invitation e-mail usability - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/IKhMu8xu5kOSjqEEAOjOfg/Invitation-e-mail-usability/>

12. Uploading items to wall - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/T8sglYcvHkKtx6EHAWrLZw/Upl
oading-items-to-wall/](http://www.mono-software.com/Mono/Pages/Discussion/dtopic/T8sglYcvHkKtx6EHAWrLZw/Upl
oading-items-to-wall/)
13. Editing Wall Posts - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/yNhXyqdLq06ZI6EHAXGOQg/E
diting-Wall-Posts/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/yNhXyqdLq06ZI6EHAXGOQg/E
diting-Wall-Posts/)
14. Show pagers above and below lists - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/8kz70wmHs0GxOaEIAJVkew/S
how-pagers-above-and-below-lists/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/8kz70wmHs0GxOaEIAJVkew/S
how-pagers-above-and-below-lists/)
15. Privacy settings overview - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/Hdq4lG6WF0aB8qEIAUi-
dw/Privacy-settings-overview/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/Hdq4lG6WF0aB8qEIAUi-
dw/Privacy-settings-overview/)
16. Renaming forum discussion board topics - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/Q6vLq1nBEU61J6EJATBfNA/R
enaming-forum-discussion-board-topics/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/Q6vLq1nBEU61J6EJATBfNA/R
enaming-forum-discussion-board-topics/)
17. Can't unmark an answer - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/8GL0hGkExU6ZLqEEAP189w/C
an-39-t-unmark-an-answer/?dmsglD=A77i5cgBe0SAa6EOARe7KQ](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/8GL0hGkExU6ZLqEEAP189w/C
an-39-t-unmark-an-answer/?dmsglD=A77i5cgBe0SAa6EOARe7KQ)
18. Propose as answer - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/oG1uH2ubaUSlnaEOARibcg/Pr
opose-as-answer/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/oG1uH2ubaUSlnaEOARibcg/Pr
opose-as-answer/)
19. PivotViewer search via CXML metadata - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/yx_qUdRDEUe3HKEXATbaxw/
PivotViewer-search-via-CXML-metadata/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/yx_qUdRDEUe3HKEXATbaxw/
PivotViewer-search-via-CXML-metadata/)
20. Enable users to publish blog posts without giving full editor rights - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/PoVuNYbzF0uCdqEjAJJi9w/Ena
ble-users-to-publish-blog-posts-without-giving-full-editor-
rights/?dmsglD=OKeBb1mWLkWVCKEjANIJ6w#PostOKeBb1mWLkWVCKEj
ANIJ6w](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/PoVuNYbzF0uCdqEjAJJi9w/Ena
ble-users-to-publish-blog-posts-without-giving-full-editor-
rights/?dmsglD=OKeBb1mWLkWVCKEjANIJ6w#PostOKeBb1mWLkWVCKEj
ANIJ6w)
21. Emoticons - [http://www.mono-software.com/Mono/Pages/Discussion/dtopic/O-
euSusR4ESRL6EkAQRCwQ/Emoticons/](http://www.mono-software.com/Mono/Pages/Discussion/dtopic/O-
euSusR4ESRL6EkAQRCwQ/Emoticons/)
22. Issues with forum post attachments - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/XCruHYoezEGmi6EmAlmStA/Is
sues-with-forum-post-attachments/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/XCruHYoezEGmi6EmAlmStA/Is
sues-with-forum-post-attachments/)
23. Sort action, unanswered on top - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/3hTMdGMpwkigGqEsAXwG2g/
Sort-action-unanswered-on-top/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/3hTMdGMpwkigGqEsAXwG2g/
Sort-action-unanswered-on-top/)
24. Collapsed Related topics section - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/OmhNgYWcBUqOpqEsAX3w4w
/Collapsed-Related-topics-section/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/OmhNgYWcBUqOpqEsAX3w4w
/Collapsed-Related-topics-section/)
25. Quote action at forum topic reply text editor - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/cmjoRCYUheCRmKEsAYaN4w/
Quote-action-at-forum-topic-reply-text-editor/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/cmjoRCYUheCRmKEsAYaN4w/
Quote-action-at-forum-topic-reply-text-editor/)
26. Search provider for tags - [http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/ZY_OY425AEirAKEtAQYCOg/S
earch-provider-for-tags/](http://www.mono-
software.com/Mono/Pages/Discussion/dtopic/ZY_OY425AEirAKEtAQYCOg/S
earch-provider-for-tags/)

27. Confirmation before leaving a page while editing some text - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/xtEOJtljQEy5VaFIASKkPA/Confirmation-before-leaving-a-page-while-editing-some-text/>
28. Annotations for pages and blog posts - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/pTwzqCo9402BoqFUAODB9g/Annotations-for-pages-and-blog-posts/>
29. Pager usability - <http://www.mono-software.com/Mono/Pages/Discussion/dtopic/D4LK6NZ6Akm7Y6FwARXGiw/Pager-usability/>