VETLib Future

Video Elaboration & Transmission Library

This list refers to VETLib 1.0.2.25,
items are sorted by priority, five icons mean
that implementation is very complex, one icon
means it may be developed by a newbie.

Framework Update

- *vetProcess* (requires *vetThread*)
  Manage a single dataflow as a thread;
  Exceptions and Error control;
  Control Color-space and format (error management);
  Callback events (some are really required because of threading);
  Serialization;
- *vetProcessEx* (require *vetProcess*)
  Manage multiple *vetProcess* objects, support tree flows.
- CVS (some depth knowledge about library is required, some clever choices might be taken)
- Project may be hosted on sourceforge.net (..subscription, but keeping and external website), they also provide a CVS server.

Components Update

- *vetThread*: Testing and Debugging + Windows implementation;
- *vetFrameT* update: preset for common colorspaces (pixel access, conversion, ..)
- Debug and update Color-Space Conversions (move from *vetUtility*, create a standalone class, update *vetFrames* conversions);
- *vetCoder_XVID* debugging, encoding (using same lib);
- *vetMultiplexer* update and optimize for *vetProcess*.

Required Components

- *vetInputDXMovie* for loading any supported movie through DirectShow;
- Some common filters, WS plugins and sample applications;
- vetMath components (DCT, Matrix Math);
- Image Statistics (Count, Mean, Norm, Moments, in regions);
- *vetBufferSequential* (Array Queque);
- vetCoder component for MPEG2-4 encoding (through *FFMPEG*);
- vetNetworking implementation (through *MPEG4IP*);
- vetInput component for FireWire on Linux (*libraw1394*, *libdv*, *libavc1394*).

Applications Update

WORKSHOP

- Debug..
- More logging everywhere..
- WorkShop Plugin System Update:
  .NET DLL support (with integrated graphical interface);
- Application Help (Windows style + pure HTML);

Updates based on *vetProcess* (so update VETLib first..)

1. Dataflow will be managed by *vetProcess*, build a GUI for this class;
2. Remove stream control box from filters, create a custom component;
- MultiThreading Support (Application Thread + *vetProcess*' Threads);
- Assuming *vetProcess* serializable, Workshop may save and load sessions;

PKGSTUDIO

- Debug..
- More logging everywhere..
- Application Help (Windows style + pure HTML);
- Ability to open and edit existing components;
- Ability to validate packages;

Cool Wishes

A new internal I/O system, based on new interfaces: *vetInput2*, *vetOutput2*, *vetFilter2*, *vetProcess2*, (or updating old classes), components interacts through a *vetLink* component, defining input and output *Pins, vetProcess2* would manage connections and the dataflow.
It should be a simplified version of DirectShow system;

Events support;

For windows users VETLib may provide an access to classes and methods similar to Java / .NET frameworks, using namespaces (composition) and some static classes (for fast calls and presets);

Networking in VETLib is still absent! Plan and class design;

An interface to the Intel Open source Computer Vision Library;

A bridge component for sharing filters with DirectShow (first target is to use a *vetFilter* in a DirectShow graph);

New component for *Video4Linux2*;

New component for *DirectX 10* (not released jet);

Driver modules (data source and renderer) for *DirectX* and *VideoForWindow*;

Scripting System for demonstration and teaching;

.NET and Java interaction (for multimedia contents on PDA);

Simple access to I/O on RS-232 and USB;

WorkShop may generate C++ source code of a process.