

GenICam meeting Zürich, October 2005

Attendandts

Company	Name
Atmel	Frederic Mathieu
Basler	Fritz Dierks Alexander Happe
Dalsa/Coreco	Bruno Ménard Peifang Zhou
JAI	Michael Krag Ole Krogh Jorgensen Toshiya Shiba
Leutron Vision	Jan Becvar Stefan Thommen
MVTec	Christoph Zierl Milan Rueder
Stemmer Imaging	Rupert Stelz Sascha Dorenbeck

Agenda

First Day (Monday, 10.10.05)

- < 11:00 Arrival everyone
- 11:00 Review and refine the agenda
 - Collecting everyone's meeting goals
 - General feedback
- 11:30 Report from the GigE Vision committee's meeting in Chicago (Fritz)
 - Discussing if to adopt the AiA's policy for IP
 - Discussing joint-committees with AiA and IIDC for feature/type lists
- 12:00 Review homework
 - ATMEL homework : Validator / TLCCorecoCL
 - Basler homework: GenApi / TLCBcam
- 13:00 Lunch
- 14:00 Review homework
 - Dalsa: ASCII protocol support
 - Leutron : Website
 - MVTec : GUI control / CVS
- 16:00 Break
- 16:15 Review homework
 - Leutron : Camera Link Discovery
- 18:00 Finish

Second Day (Tuesday, 11.10.05)

- 08:30 Preparing the Vision Show Stuttgart.
Some ideas:
 - Common way to show the logo (GenICam banner?)
 - GenICam flyer with common base text + company specific extensions?
 - News to the Website
 - VDAM / EMVA press conference
 - Presentation on the Industrial Vision days (Fritz)
 - Meeting on the show to celebrate the launch and get more members
 - Inviting other OEMs (camera, FG, SW) to the meeting
- 10:15 Break
- 10:30 Mr. Schwarzkopf, secretary of the EMVA will join the meeting
 - Introduction
 - Short presentation EMVA
 - Formal member roll (i.e. collecting business cards ☺)
 - www.genicam.org
 - access to EMVA publishing system, permanent link
 - GenICam trademark
 - TOP preparing the show continues
 - "Member of GenICam" banner
- 11:45 Prepare release of GenApi
 - CVS problems
 - Bug tracking
 - License re-visited
- 12:15 Lunch
 - Mr. Schwarzkopf will have to leave after lunch
- 13:15 Prepare release of GenApi
 - Setup contents
 - Building the setup (wix?)
- 15:15 Review homework
 - JAI/Pulnix : Tests / TCLGigE
- 15:30 Break
- 15:45 Review homework
 - Leutron : Trigger stuff
 - Stemmer : Factory / TLSystem / TLCDummy
 - Discussion of open topics
- 17:30 Finish
- 18:15 Meeting in the lobby
- 19:30 Dinner

Third Day (Wednesday, 12.10.05)

- 08:45 Review of open issues, assigning new homework.
- 10:00 Discussing the contents of the GenICam presentation
- 10:30 Break

- 11:00 Prepare release of GenApi
 - Documentation
 - Further discussion of the data stream information and extracting it
- 12:10 Road map / wish-list
- 12:15 Lunch
- 13:30 Discussion registry structure / glue.dll / grab interface (Stemmer)
- 14:10 Discussion on extending the list of features / types - postponed to next meeting.
- 14:15 Wrap-up
 - Accepting individual homeworks
 - Update GenICam roadmap
- 14:20 Any open points remaining?
- 15:00 Finish

Agenda points: details and conclusions

GigE committee report

- See presentation.
- GenICam committee will wait until the legal text in the GigE standard is fixed and consider using a copy of that text. The decision will be made at the Vision Show.

Atmel homework

- No discussion, see presentation.

Basler homework

- See presentation.
- Static use case: implementation details will become private in the header file. Implementation will be precompiled into a library -> user receives a header file, a lib file and the XML file (look at the presentation).
- Deliver only dynamic, multithreaded versions of the libraries.
- Discussion of various DLL-versioning problems. Conclusion: the DLL name will contain the version number (e.g. genicam1_1.dll) and thus applications linking different DLL versions can reside on the same system. A bug-fix must never change the interface.
- If someone needs to support another compiler (Borland, Intel, etc.), he should take GenICam source code and recompile it himself without modifying it. The makefiles and other related stuff has to be made available for everyone.
- Allocating/deallocating across boundaries: let's introduce typedefs for STL strings/lists with custom allocators specified. The allocator stuff will be compiled in a GenICamBase.dll assuring consistent allocation/deallocation behaviour across all GenICam modules.
- GenApi code architecture document.

Dalsa/Coreco homework

- See presentation.
- In the beginning only commands with single parameter will be implemented (covering also binary protocols). Commands with multiple parameters will be discussed later. The idea is to have a transaction node (has to be reviewed).
- Open point: should some of the proposed functionality be shifted from the XML to the Command Protocol Driver?

- Dalsa will prepare a new version of the proposal (with help of others through the mailing list) for the next meeting.

Leutron homework, web page

- Access to EMVA publishing system is a must. TODO: permanent link for download.

MVTec homework

- No discussion, see presentation.

Leutron homework, Camera Link enumeration

- See presentation.
- Let's drop the generic approach, use Command Protocol Driver for enumeration.
- In the beginning, however, do not implement enumeration at all, to all the connection (port/camera type/XML) manually ensuring the interface enables implementing the discovery in future.

Preparing Vision Stuttgart (and other marketing events)

- Mr. Schwarzkopf, general secretary of EMVA, joined the meeting.
- Get manufacturers on board, prepare release candidate of the standard and GenApi, give ideas about other parts of GenICam.
- Meet GigEVision and IIDC members.
- Flyers in each company's style but with part of the content common.
- Banner "Member of GenICam" (EMVA).
- FTP download for invited members with presentation, standard, invitations to other events, and other stuff.
- Presentations: ten minutes overview for managers, then in-depth explanations and discussions for technicians.
- Vision Press Lunch: EMVA will speak about GenICam. GenICam members will be answering questions afterwards during the lunch.
- EMVA: one page press release.
- Industrial Vision Days presentations: Basler, Stemmer, MVTec, JAI, Dalsa?
- EMVA will find out costs and procedures to get trade mark in Europe, USA and Asia.
- Everybody has to send a fax with GenICam registration to EMVA.
- EMVA will give access to their publishing system soon to Jan.

GenApi release

- CVS: use only add/edit/commit/update commands, never import/export.
- Bug tracking: Stemmer will prepare a HOWTO document about using Mantis.
- License: should we make it legally sound -> no, at least for now.
- Delete chapter "1 Overview" from the license.
- Put BSD-like license to all public header files.
- Setup scenarios: 1. CVS access, 2. developer version, 3. runtime version, 4. runtime binary version. Runtime binary contains DLLs (optionally configurator and GUI). Runtime version contains additionally simple examples and optionally static use case support. Development version also sources and validator. In the beginning only stable developer snapshots will be distributed as ZIP files.
- Discussion of DLL hell and GENICAM_ROOT. Result: only a single GENICAM_ROOT will be used. More than one GenICam installations on a single system is possible.

JAI homework

- GigEVision transport layer sample (Winsock based) almost finished, tests delivered next time.

Leutron homework, trigger stuff

- See presentation.
- Add also timestamps for trigger and exposure.
- Instead of simple flags use flag history (count) to make sure the client does not miss the flag. Each flag history variable can have different bit-width.
- Need to define interface for accessing the stamp-like flags (GUID per flag). The interface will allow to add custom flags. It is up to transport layer how the interface will be implemented.
- Leutron will prepare a proposal for the chapters 3.6.1-2 of the standard, including drawings to make things clear.

Stemmer homework

- See presentation.

Next meeting

- When: Week 6 year 2006?
- Where: NI? Coreco? To be decided when we know about new members.
- When arranged, discuss which companies should join us.

Road map, wish list

- Maintain the wish list at Mantis.

Registry, glue, grab interface discussion

- See the original proposal.
- All paths in the registry will be absolute, including replacement for the GenICam_Root.
- The registry XML resides in $\$(GENICAM_ROOT)/Xml/Registry$.
- Interface to the registry will be use-case based.
- It will hand out list of strings only.
- At the moment only manual configuration. Later GUI-based. configurator and automatic configurator.
- The sequence of finding an XML is the factory will ask the TL and if there no XML is available, the registry is asked. All other mechanisms will be wrapped in the registry.
- There are transport layer types that can come with default XML file.
- Windows registry is omitted.

Homeworks

- All accepted, current list of contributing members is equal to the list of attendants of the meeting.

Feedback from the meeting

- Everybody is tired, but big amount of work was done and if we manage to fulfil all the desired goals for the Vision Show, it will be very good progress. We have to do our best to launch GenICam successfully and attract other companies.

New homework

Atmel

- Transportation layer for Camera Link (week 43).
- Camera Link demo for Vision Show.
- Proposal for Command Protocol Driver, considering future enumeration stuff.
- Proposal for inquiry of transport layer capabilities.

Basler

- GenApi: string/vector stuff, IConfigurator, pIsLocked, transfer of static lib to dynamic lib, load XML file from stream (draft end of week 42, release end of week 43).
- Marketing: presentation of GenApi for managers for Industrial Vision Days and short version for GenICam meeting.
- 1394 demo for Vision Show.
- Put BSD-like license to the header files, including posting a template for header file disclaimers.
- Alexander meets with Michael to discuss the test concepts.
- Discuss with GigEVision and IIDC subcommittees for feature list.
- Proposal how to use GenApi for extracting information (time stamps etc.) from data streams.
- Discuss with EMVA how the database of associated members will be maintained, EMVA will send the welcome e-mail to the subscriber.

Dalsa/Coreco

- Prepare a new version of the proposal (with help of others through the mailing list) for the next meeting. Make a short official answer to Pleora comments.

JAI

- GigE Vision demo for Vision Show.
- Extending the GenApi tests using the CppUnit project.
- Michael meets with Alexander to discuss the test concepts.
- Marketing department will make a proposal for the common part of the flyer and press release (end of week 42). The flyer contains a link to the presentation download.
- Upload GigEVision transport layer (end of week 42).

Leutron Vision

- Glue demo for Vision Show.
- Proposal for Trigger flags/stamps (chapters 3.6.1-2 of the standard) including drawings.
- Make sure www.genicam.org works and that Vision Stuttgart news including the presentation is there in time (before the show).

MVTec

- Live demo for Vision Show based on Halcon.
- Adapt existing GUI to new interfaces for use at the Vision Show.
- Proposal how to proceed with the GUI (for the next meeting).
- Provide first developer ZIP file for the Vision Show.
- Post a template for cpp file disclaimers.

Stemmer Imaging

- Check in dummy client and factory, make sure it compiles (end of week 42), synchronize with Basler (week 43).
- Live display demo for Vision Show based on CVB.
- Provide string and vector implementation (beginning of week 42).
- Transport layer architecture document.
- Implement basic registry as discussed. First basic version in middle of week 42, XML version later.
- Prepare a HOWTO document about using Mantis.
- Create a wish-list module at Mantis.
- Put Adimec at mailing list and contact them.

Everybody

- Put new disclaimers to all header and cpp files.

GenICam launching presentation

- 10' presentation for the managers (Basler)
- 10' concept of feature, feature type (Stemmer)
- 10' standardizing feature names and types (Leutron)
- 10' SW module GenApi with GUI (MVTec)
- 10' transport layer (Stemmer)
- 10' current status and roadmap (JAI)
- post drafts until end of week 43, Fritz posts the presentation template as soon as possible, place for each company's logo
- beginning of presentation: introduce members, end of presentation: point to booths

EMVA

- Banner "Member of GenICam".
- Give access to www.genicam.org soon.