GenICam Meeting Notes

Ottawa, September 2007

Francois Gobeil
Pleora Technologies Inc

GenICam Meeting Notes Index

Attendees

AVT	Holger Eddelbuettel
Basler	Friedrich Dierks
Basler	Thies Möller
DALSA	Eric Bourbonnais
DALSA	Insop Song
e2v	Frederic Devriere
e2v	Yves Delzoppo
Euresys	Jean-Michel Wintgens
IDS	Carsten Bienek
JAI	John H. Le
JAI	Shigehiro Matsuoka
Leutron	Jan Becvar
MATRIX VISION	Stefan Battmer
Matrox	Pierantonio Boriero
Matrox	Stephane Maurice
MVTec	Christoph Zierl
NI	Eric Gross
Pleora	Basma Musmar
Pleora	Francois Gobeil
Pleora	Geoff MacGillivray
Pleora	Mats Lindeberg
Pleora	Vincent Rowley
Stemmer	Martin Kersting
Stemmer	Sascha Dorenbeck
Toshiba TELI	Kazunari Kudo
Toshiba TELI	Koichi Yamakawa

In case of differences between this list and the official, ottawa_genicam_meeting_attendees_schedule_and_homework.xls, the latter is to be used as the reference.

GenICam Meeting, day 1

September 24, 2007
Delta Hotel, Ottawa

Welcome – Vincent Rowley

0900

- Welcomed participants
- Agenda review
- Established the list of the GenICam members that have voting rights
    - Some participants could not complete assigned homework due to other participant not providing required material to work with.
    - Participants that could do their homework due to someone else cannot be accounted for their failure to complete the homework. It is assumed that the work would have been done if the material was available.
    - The official list of the companies with voting rights is captured in ottawa_genicam_meeting_attendees_schedule_and_homework.xls .

GenICam Review – Fritz Dierks

0915

- Reviewed bug fixes
- Version Handling changes review
    - GENICAM_ROOT, GENICAM_ROOT_V1_1, GENICAM_CACHE
    - Side-by-Side Installation
        - Major – changes breaking backward compatibility
            - Vincent: A major release number increment doesn't necessarily breaks backward compatibility
        - Minor – interface extensions, backward compatible
        - Subminor – bug fixes not changing the interface
        - Different run time installations must reside in different folders
        - An installation is defined by
            - Installation folder
            - Different DLL names
            - Different GENICAM_ROOT
        - Details
            - One installation per system, per version
            - Common setup
            - Would require using InstallShield or WIX
            - Local installation still possible with delay loading
    - Problems caused by having two different versions of GenApi at the same time
- Linux32 / Linux64 Support

- o gcc 4.02 used
- o Will be 1.1, not an additional 1.0.x
- Win64 Support
  - o Private Xalan/Xerces port – for now
  - o Xerces officially available, still waiting on Xalan
  - o Will go back to mainstream once they are available
  - o Will be 1.1, not an additional 1.0.x
- Adding deployment validation to Ant scripts
  - o Linux build not currently automated
  - o Will eventually deploy to a x64 machine and run tests there
- Who still needs MFC 7.1?
  - o NI still needs it for some older OEM platforms not supporting MFC 8.0
- Old feature requests overview
  - o Trying to limit schematic changes as much as possible
  - o Changes to schematic could break compatibility with devices using new features with older versions of GenApi due to schema number increase
    - Applications using GenApi 1.0.x cannot cope with schema version change
  - o GenApi 1.1 new features
    - Blob upload
    - Side-by-side installation
    - Persisting the node tree
  - o Blob/file access in GenICam
    - Thies from Basler
    - API will be std::iostream
    - Introduces a new adapter type
      - Depends on correct of use standard naming convention
    - Structure review
    - Requires changes to the naming convention
    - Doesn't require modification to the GenICam XML schema file
    - Easiest implementation is full memory mapping of the file
    - Possible to use Swiss knives and floating nodes as well
  - o Persistence
    - Eric Gross from NI
    - Persistence order – discussed at last meeting, not needed (?)
    - Recommends disabling validation, not streaming
    - Selectors covered
    - Add persistence custom iterator to GenApi?
    - Saving from the Root down or all the nodes?
    - Traversal order needs to be defined, order needs to be deterministic
      - Could be used with an invisible category to solve out-of-order critical read/writes
    - Still missing, but easiest part: how will we persist it to a file?
  - o Features too hard to implement
    - Selector access with SmartPointers

- Make code from DllEntry lazy
    - o Pending features requests
        - Same list as in last meeting minus implemented features and the one that will not be implemented (see above)
    - o New feature requests
        - Extend GenApiTest for delay loading (event port bug fixed!)
        - Make GenApi and GenApiTest deal with multiple schema versions
        - Logging in release mode
        - Retrieve access mode depending on visibility
        - Unloading XML file leaks memory (~ 20 bytes per XML load)
        - Deprecated for nodes
        - Introduce IIntegerSet
        - Fine grained caching control for MaskedIntReg nodes
        - Vincent: selector with floating nodes instead of just pAddress
        - Stephane: have the pre-processed version in the cache – already (?)
    - o Next steps
        - V1.1 for end of October would be nice
        - Should be ready for Vision Stuttgart

GenICam Marketing Presentation – Mats Lindeberg

1152

- Marketing report
- Key facts about the current market
    - o GenTL not yet released
    - o Market is moving ahead with GigE Vision and GenICam
    - o No GenTL, but still works in a one-vendor environment
- Marketing options
    - o Go ahead and risk losing confidence in GenICam
    - o Slow down and risk losing momentum?
    - o Conclusion – proceed with caution
- GenICam logo
    - o Without GenTL, what does *GenICam compliant* means?
    - o Multiple logos to indicate what of the TL is included in the solution offered?
    - o GenICam TL
        - TL Producer
        - XML Producer
        - TL Consumer
        - XML Consumer
        - XML/TL Producer and Consumer
    - o Proposal
        - Until GenTL is **in** GenICam, separate them
        - GEN<i>CAM – can be introduced today
            - For producer and consumer

- ▪ **GEN<i>CAM** ^{TL} – can be introduced when ready
  - Only for those producing a TL interface
- Benefits for the end user
  - ▪ GenICam – available today
  - ▪ High value for end users
  - ▪ No technical details at the logo level
  - ▪ No differentiation would at the logo-level – differentiation in datasheet
  - o GenTL (once presented to the market)
    - ▪ Will in due time present additional value to end users
    - ▪ Will be easier to introduce in the market (follows GenICam)
- Logo matrix
  - o Cameras providing a GenICam XML file – **GEN<i>CAM**
  - o Driver exposing a GenTL interface – **GEN<i>CAM** ^{TL}
  - o Library interpreting XML , no TL – **GEN<i>CAM**
  - o SDK (Library + Driver), GenTL producer – **GEN<i>CAM** ^{TL}
  - o SDK (Library + Driver), interpreting GenICam XML file, not exposing GenTL – **GEN<i>CAM**
  - o Camera, no XML – none
  - o Driver – no GenTL interface – none
  - o SDK (Library + Driver), not interpreting GenICam XML file, not exposing GenTL – none
- Summary
  - o Separation in two versions
    - ▪ GenICam, today
    - ▪ GenTL, when it's ready
  - o Use consistent, non-confusing terminology
  - o Make GenICam 1-pager marketing document publicly available
- Challenges
  - o How is the use of logos validated?
  - o No enforcement, no standard.
  - o What about costs associated with enforcement?
  - o What is role will the EMVA play in it all?
- Discussion
  - o What is a driver, library, SDK?
  - o Terminology should be consistent across datasheets
  - o Why not a single logo?
  - o ...why not three logos?
  - o Two logos is a compromise
  - o The GenICam TL logo will show, once available, an addition to what is already available and expected of GenICam
- [**ACTION**] Think about the two logos approach...
- [**ACTION**] Vote on this issue before the end of the week!
- Quick survey on GenTL consuming intentions
  - o **Basler** – open
  - o **Stemmer** – open

- o **Matrox** – understandably not even interested in GenTL
- o **NI** – not sure what it would add to their offering to support GenTL
- o **MVTec** – yes, and open
- o **Euresys** – provider and consumer, open on two sides
- o **Matrix Vision** – open

GenTL High Level Presentation – Sascha Dorenbeck

- GenTL Modules – GenApi, GenTL, Factory, Registry
- GenTL
    - o Modular, extendable design
    - o Powerful hardware independent interface
    - o Easy yet variable (flexible?) usage
- Eric – how are objects, only defined by their interface imposing compatibility?
- Wholes in the specification should be filled with reference implementation TL
- Streaming – currently uses OS events
- Simple queue mechanism
- TLI Proposal
- The Factory and Registry are the "GenApi" of GenTL. They are still much present and need to be documented and part of the standard as they provide information on how the TL must behave
- Someone could, in theory, go without the Factory and/or Registry in order to create a TL consumer but it is not recommended, as it would mean re-coding a lot of the already existing Factory/Registry code.
- A TL is useless without a Factory-Registry-like environment
- Extensive discussion on ports, multiple point of access, caching
- Factory status
    - o Added to the factory implementation
    - o Extended event interface has to be added (glue like)
    - o Can be made public as soon as the TLI is frozen
- Registry
    - o Multiple revision of documents
    - o Retrieves documents
    - o Queries best matching document
    - o Extendable design
- Registry sections
    - o Files – file information and version
    - o Links – between a device (family) and files
    - o Bindings – link between a certain device (family) and a specific file
    - o Names – link between a name and a binding

GenTL Page-by-Page review, Sascha Dorenbeck

- Vincent – improve terminology
- Would need an architectural section – Francois
- Improvement document layout
- Add a description on how the registry works
- Split the specification?
    - o TL interface + naming convention could be standardized
    - o Factory and registry should remain a reference "consumer" application, should be pushed out of what needs to be standardized
- Refer to a specific version of the CHM
- If we confine the standard, it would be possible to better document it
- [**ACTION**] Clean up installation process
- [**ACTION**] ~~Francois to provide an architectural description of GenTL~~
- [**ACTION**] ~~Improve terminology~~
    - o Actions removed, spun off to standard text committee
- There seem to be an architectural flaw with bootstrap registers access
- TL Types: what are they for? Keep none, add custom
- Payload types should become pixel types
    - o Why is this part of the GenTL standard text?
- Do not call DLLs – should be platform independent
- Where are the XML files from? Loaded from a virtual node map
- 3.5: replace *five technologies* by *one of the supported technologies*

GenICam Meeting, day 2

September 25, 2007
Delta Hotel, Ottawa

Review of first day – Vincent Rowley

0900

- Continue the GenTL text review, but focus more on architecture issues
- A working group should be created to generate a first official draft of the standard text so that people can start prototyping on
- Should we work on the page-by-page review or on the architecture challenges?
- We do not want to re-re-re-postpone the approval of the TL interface
- It was proposed that a sub-committee could be formed to do the interface and page-by-page review soon after this meeting, before Stuttgart
- Open architecture issues
    - Bootstrap registers access
    - Two ways of doing the same thing
    - Portability?
    - Multicasting?
    - Synchronizing the device with the camera
    - Timeout
    - Line scan progressive notification on buffers

Review of architecture issues – Sascha Dorenbeck

0935

- Two ways of accessing the information
    - Currently, the ID-based interface is for RO quick access, a bit like the bootstrap registers of GigE Vision
    - Should the virtual register space be defined along the standard names?
    - ID-based interface should be kept to a minimum
    - Only RO parameters should be accessed by ID-based interface
    - It is called TLInfo, and should only hold **information**
- Bootstrap registers access
    - Fritz proposed an invalidation interface. Will be available in GenApi 1.1
    - What does the stream needs to access from the device? Identifying what needs to be accessed and how (RO? RW?) could help us define a better solution, or evaluate the current one
    - What about GigE Vision grabbers that do processing? In this case, the system is more akin to Camera Link than GigE Vision – the device and grabber can be configured independently

- o Plug-n-Play for Camera Link was a dream – Fritz
- o Fritz is proposing an XML file for the bootstrap registers alone – this would affect the GigE Vision specification
- o [**ACTION** (possible)] document bootstrap registers access for stream object. Which, what is the access mode and how will it be supported - unasigned
- o The glue will be required to connect grabber parameters to device parameters
- o The glue is not required for GigE Vision, unless a frame grabber is involved
- Multicasting
  - o [**ACTION**] ~~describe how multicasting works with GenTL~~
    - ▪ Will be handled by the standard text committee
- OS events vs. portability
  - o What about callbacks?
  - o WaitForMultipleObject does not exist on Linux
  - o Events do not even exist in Linux
  - o [**ACTION**] propose an Event library with WaitForMultipleObject that would be portable to Linux – this would solve the OS events vs. portability issue
- Buffer queuing with timeouts
  - o Blocking wait?
  - o Could be done with a special acquisition mode with events
  - o Acquisition mode feature from the node map
- Continuous acquisition notification (line scan)
  - o What if someone wants to be notified while the buffer is being filled, progressively in order to start processing before the frame is complete?
  - o This could be added in the node map as another mode (?)
  - o How would this type of event be defined or managed?
  - o What about non-complete frame acquisition with line scan?
  - o Stephane Maurice asked a question about queuing parameter change between frames. For GigE Vision, you would require a FIFO on the device, as it acts as the frame grabber.

Continued discussion on GenTL – Sascha Dorenbeck

1129

- Who tried developing a sample TL?
  - o IDS
  - o Pleora Technologies Inc – pretty rough and incomplete
  - o E2V
- Stemmer would like to propose to leave the names unchanged at the C interface level
- Inconsistencies in the C interface can be explained by which handle type is provided to each function
- Stephane Maurice mentioned that the core functions have no room for expansion, like void pointers as attributes of functions

- Stephane Maurice would like to see a standardization of the GenICam interfaces of GenTL to the naming convention – even if they are not parameters, names with similar meanings should be unique
- Acquisition modes
  - Input queue, output queue and processing – buffers allocated outside and needs to be cycled in the TL by the user
  - There is an acquisition mode where unclaimed buffers can be recycled by the streaming engine
  - **Acquisition mode 1 – mandatory**
    - Always delivers the oldest image in queue
    - Buffers in output queue are locked
    - Used if ever frame is acquired, processing time lower than acquisition
  - It was recommend to replace mode numbers with names
  - **Acquisition mode 2**
    - Always delivers oldest image in output queue
    - Oldest buffer in output queue is put in input queue if
      - Input queue is empty
      - Undelivered buffers are available
    - Used if
      - Not every frame is to be acquired and application may not fall behind
  - What about documenting limit cases?
  - **Acquisition mode 3**
    - Always returns the newest image in the output queue
    - Any buffer in the output queue is put in input queue if
      - Input queue is empty
      - Undelivered buffers are available after new image acq.
    - Used if not every frame is to be acquired and application may be out of sync
  - **Acquisition mode 4**
    - Always delivers the newest image being acquired
    - Any buffer in output queue is put in input queue if
      - Input queue is empty
      - Undelivered buffers are available after a new image was acquired
    - Used if not every frame is to be acquired and application may be out of sync
  - Any timeouts? No, an event is provided it is up to you to control how you wait on it
  - What is the procedure to add new modes?
    - Make a list, to be discussed in upcoming meetings
    - Mode names should be in the standard naming convention
    - The acquisition mode is a feature of the stream

Standard Naming Convention – Stephane Maurice

1336

- First release of the official feature list was done
- AIA logo was removed from the document
- Selector should only be used for feature selection, no side-effect
- 64 values should be returned/implemented as 64 bits features, even is spanning on multiple 32-bits registers
- Vincent added features proposed during the last meeting
- PixelFormat is now described in its own chapter
- Proposal to make the new version (current) of the document 1.0.1
- Vincent is proposing to use the same convention as GenICam, go to 1.1
- [**ACTION**] Add zero based to user bit – Stephane Maurice
- Visibility
    - Presentation of the work done by JAI
    - Review of the definition of the recommended visibility
    - No one reviewed (yet) this proposal
    - [**ACTION**] No invisible feature should be in the feature list, everything in this list should be Guru – Stephane Maurice
- Release process – Vincent Rowley
    - Vincent provided requests for feedback to other committee members
    - Vincent criticized how the bug life cycle
    - CVS access and how works on a module was discussed
    - Fritz – the bug should be put in Mantis, then broadcasted on the mailing list
    - Discussion on CVS edit mode to prevent multiple developers working on the same document concurrently
    - It was proposed to use a text-based document format to prevent clashes
    - Name of the document?
        - SFNC? Standard Feature Naming Convention
        - Would replace the SFL, Standard Feature List
        - [**ACTION**] To Stephane: get approval on new document name
    - Review of the bug fixing process proposal

Camera Link Naming Convention – Stephane Maurice

- Sensor and SensorDigitizationTaps
- Cl should be used as a prefix for Camera Link only features
- Review of the tap modes
- It would be interesting to have drawing of each modes, but not possible
- The proposal was reviewed by Camera Link committee and liked it without showing much interest
- Should we attempt to match the GEV and CL tap models or keep them separated?
- Review of the new Camera Link features in the SFNC

- Serial commands will be defined in a small DLL that would be shipped along the GenICam XML file describing its features

TCL CL Based from Yves and Frederic of E2V

1522

- Introduction of a DLL for presentation of a virtual register interface for serial commands: Command Protocol Driver (CPD?)
- Command Protocol Driver Description
  - o Enumerates camera on an interface
  - o Provide XML file for cameras
  - o Manages the camera protocol (register interface to serial)
- Command Protocol Driver Interface
  - o TL-like C interface
- Where are the DLLs installed or retrieved from?
- Win32 and Win64 should be provided...
- What about Linux?
- How about using a higher level language that would be portable?
- How about the good old proposal: supporting serial ports in GenICam?
- Stephane – if we work on integrating Camera Link in the SFNC, will the work on the CPD be performed, and in what time frame?
- Can we define an action from this?
- We should first accept the Cl features
- Note (question) from Eric of NI – this new DLL should not be restricted to GenTL, even though it is designed for GenTL.
- Feature level should be documented in the same table, current legend is good enough for features having the same level between Camera Link and GigE Vision. For features with different level, it would be mentioned separately in the same cell like "GEV:M CL:R".
- [**ACTION**] Stephane: Find a nomenclature for previous bullet
- [**ACTION**] Jan: Repost the proposal in order to bring it back on top of the stack...

Continuation of the Camera Link features – Stephane Maurice

1653

- No comments from the group on parameters
- Stephane propose to move forward with the inclusion of the parameters to the SNFC
- Would these new names be release in 1.1 or in the next release after 1.1?
- Eric – can the features be marked as Beta, but included in the upcoming release?
- Request on missing features in the naming convention? None for now, it seems
- We may need new features based on the GigE Vision new features discussion
- [**ACTION**] Release 1.1 SNFC ASAP, in its current form – Stephane Maurice

- [**ACTION**] Complete and review visibility for minor update of the SNFC (1.1.1) – Stephane Maurice
- What about GenTL? Standard feature names not yet reviewed/approved, cannot be included in a short-term 1.1
- Next update will include Camera Link and GenTL, this would be 1.2

GenICam streams naming convention – Thies Moeller

1703

- The blobs are just that – blobs. They do not convey any information for now, there is no mechanism in place to know how to interpret them.
- For now, we should leave it as is and open the door to improve after we start having some real word use cases
- Is talking about files in the SNFC confusing?
- For Basler and Coreco it **is** not confusing a as they have a file system (thus an OS) on the device
- Buffer, bloc, blob, chunk, or persistent buffer, chicken (it's all invisible anyway...)
- We have to remember that these features are invisible, they are only there to support the stream addition to GenApi
- Streams were really designed to avoid memory-mapping huge buffers by allowing windowed access
- Error message (codes) should be inspired by the C stdlib
- Vincent - is it the right forum for this review?

GenICam Meeting, day 3

September 26, 2007
Delta Hotel, Ottawa

Quick review – Vincent Rowley

0908

- Long day ahead of us
- We should discuss GenApi features priority
- Stephane would like to discuss schema evolution as part of the GenApi discusssions

GenTL – Sascha Dorenbeck

0910

- Wants a vote on the interface today

- Wants a vote within a month on the standard feature list
- 1.0 would be what we have today
- Glue would be added in 1.1 soon after
- Proposal from Francois
  - Have a subcommittee review and cleanup the standard document, leaving the door open for changes
  - Let the standard naming convention process follow its usual course (about a few months)
  - Have at least two consumers and two providers create modules and exchange for interoperability validation
  - Based on findings on the precedent step, improve the standard document
  - Go in full standard ratification mode, leading to a vote
  - Go live on a successful vote, with polished versions of step 3 ready for production
- Fritz – this would just be a confidence vote on the interface to allow people start working on the TL and not
- Sascha – not a vote on 1.0, a vote on a path to 1.0
- Francois – I see a much better message for the people outside to see that we have a roadmap to 1.0 than to have a technical vote on the interface and architecture now
- Proposal from Fritz, reworked by the committee
  - Current C interface (as described in the CHM) is a beta version which may be changed for version 1.0 only if there is a technical necessity
  - It does not include the naming convention, does not include the factory and registry
  - The GenICam standard feature names are not included in the milestone
  - The GenTL standard document is also not included
  - A GenTL sub committee will
    - Create the standard draft
    - Decides on technical changes
- [VOTE] previous bullet's proposal unanimously (almost) accepted
- Review of Vincent's breakdown on possible roadmap
- Vincent says roadmap ownerships and milestones should be discussed in the homework session
- Creation of the standard documentation committee
  - Stemmer
  - IDS
  - Pleora Technologies Inc
  - Leutron
  - MVTec
  - Matrix Vision
  - JAI – not sure, to be confirmed [ACTION] confirm within 1 week - JAI

Marketing – Mats Lindeberg

1018

- Proposal summary – GenICam, GenICam TL, consistent terminology, make GenICam 1-pager marketing document publicly available
- [**VOTE**] previous bullet's proposal unanimously accepted
- Mats working with the GenICam marketing subcommittee to release the 1-pager
- We will keep working and discussing the GenICam *nutrition facts*
- Mats needs to review the first paragraph of the 1-pager on GenApi
- Next steps, marketing subcommittee will keep working on strategy, GenICam meeting outcome, identify components of marketing campaign
- What about enforcement and validation? Should we create a subcommittee?
- Fritz proposing the GenICam (GenTL) plug fests should be held in parallel with the already existing GigE Vision plug fests.
- [**ACTION**] Marketing committee to study enforcement issue and make recommendations

GenApi features review – Fritz Dierks

1043

- Fritz to circulate priority vote ballot
- Review of last meeting's and new feature requests
- Proposal for v1.1
    - Schema stays 1.0
    - Bug fixes
    - Linux 32/64
    - Win64
    - Versioning
    - Side-by-side installation
- Not an official vote, but v1.1 proposal was approved by the committee
- Pre-release should happen soon, validation acceptance could take longer
- End of October for release candidate, hopefully end of November release
- Results of ballot in Feature Requests Ottawa document (PDF or XLS)

Homework time – Vincent Rowley

1154

- Refer to official homework document for more detailed information. The official homework document supersedes the information captured below.
- GenApi
    - Phar Lap changes to be merged in GenApi v.1.1
    - .NET wrappers CVS commit carried on, to be done by Stemmer by 2007/10
    - Test .NET layer with nUnit, JAI. Carried on targeting 2007/12
    - Borland Builder action removed

- o Review blob proposal, Matrox, Pleora Technologies Inc
- o Review the node tree persisting feature. Pleora Technologies Inc 2007/10
- o Include persistence code in GenApi, NI 2007/10
- o Finalize GenApi, Basler, 2007/10
- o Ant Scripts for Linux, IDS, 2007/10
- o Provide GenApi setup v1.1 Basler, 2007/10
- o Check test coverage, complete v1.1 test code, Leutron 2007/10
- o Evaluate v1.1 RC, everyone, when RC ready
- o Build, deploy, declare official release, Basler, 2007/11
- o Adapt versioning of TLIs environment variables, Stemmer, 2207/10
- o Investigation of other build systems, NI next meeting
- GenTL
  - o Test code for GenTL for 7 features, carried on to e2v, 2007/10
  - o Write test code for factory carried on to e2v, GenTL RC
  - o Test code for registry, carried on to GenTL RC
  - o Description of the registry behavior, carried on to Stemmer next meeting
  - o .NET wrapper for the factory, deferred after 1.0
  - o User interface for registry, carried on to MVTec, next meeting
  - o Create a GenTL standard reference document – new subcommittee lead by Stemmer. Build skeleton and approve within 2 weeks, shoot for a draft (review pending) for Stuttgart
  - o Platform independent GenTL architecture document
  - o GenTL specification for Windows – committee, draft, 2007/11
  - o Address GenTL architecture issues – GenICam committee, 2007/11
  - o SNFC for GenTL – GenTL committee, + Matrox, Vision 2007/11
  - o Propose events library, Dalsa, GenTL RC
  - o Commit GenTL reference implementation to CVS, Stemmer, October
  - o Have at least two TL producers: Pleora, Matrix Vision, IDS, Stemmer, Basler, one month before the next meeting
  - o Consumer: Stemmer, MVTec, one month before next GenICam meeting
  - o Platform interoperability testing: producers and consumers, one month before the next GenICam meeting
  - o Improve standard text based on interoperability testing, GenTL committee, before next GenICam meeting
  - o Release the GenTL standard, review discussions during next meeting, vote and release hopefully soon after
- Marketing, all assigned to marketing committee
  - o Create a proposal for logos, next meeting
  - o Finalize 1 pager, 2007/11
  - o Nutrition facts, included in the 1 pager
  - o Create press release for Vision 2007
  - o Study policing and make recommendations, next GenICam meeting
- Standard Naming Feature Convention
  - o Proposal on LUT/flat field, Matrox, next meeting
  - o Select a module name for SFNC and make sure all GenICam related documentation is consistent, marketing committee, 2007/11

- o   Complete building and release process document, Pleora, next meeting
- o   Release 1.1 of the SFNC, Matrox, 2007/10
- o   Release version 1.2 including the blob proposal, Matrix, 2007/10
- o   Release 1.2.1 of the SFNC, Matrox, next GenICam meeting
- o   Create a release candidate with Camera Link features
- o   Make Camera Link command driver proposal, e2v, before next meeting
- GenApi 1.1 RC, 2007/10
- GenApi 1.1, 2007/11
- Next GenICam meeting
  - o   6 months from now
  - o   Leutron, Czech Republic?
- GenTL RC

Meeting wrap up, 1258

Action items compilation

- [**ACTION**] Think about the two logos approach – marketing committee
- [**ACTION**] Stemmer will look into cleaning up installation process of GenTL reference implementation
- [**ACTION** (possible)] document bootstrap registers access for stream object – not assigned
- [**ACTION**] propose an Event library with WaitForMultipleObject that would be portable to Linux – this would solve the OS events vs. portability issue. Assigned in the homework
- [**ACTION**] Add zero based to user bit – Stephane Maurice
- [**ACTION**] No invisible feature should be in the feature list, everything in the list should be public – Stephane Maurice
- [**ACTION**] To Stephane: get approval on new document name
- [**ACTION**] Stephane: Find a nomenclature for previous bullet
- [**ACTION**] Jan: Repost the proposal in order to bring it back on top of the stack...
- [**ACTION**] Release 1.1 SNFC ASAP, in its current form – Stephane Maurice
- [**ACTION**] Complete and review visibility for minor update of the SNFC (1.1.1) –
- [**ACTION**] Marketing committee to study enforcement issue and make recommendations

This list only summarizes the action items captured in the meeting minutes. For the official list of homework discussed and assigned in Ottawa, please refer to the ottawa_genicam_meeting_attendees_schedule_and_homework.xls document.