Graphics Sharing and Distributed HMI Compositing
2017-12-07 Project Team Meeting
AGENDA

1. Roll Call and practicalities (5 min)
2. Project participants (survey/registration)
3. Project Lead
4. Project Wiki Page content
5. Waltham followup – future outlook.
6. RAMSES followup. Time plan, code, …
7. Evaluate Project Goals – feasibility, plans
8. Areas to explore & investigation methods
9. Demonstrators
10. Defining activities & actions (5 min)
1. Project participants (survey)  
2. Mail addresses – is anyone not registered?  
3. Appoint Project Lead
1. LINK
2. Fill in & complete the page
WALTHAM

1. Is it done? Future plans?
2. Deep dive presentation/investigation?
3. Demonstrations?
RAMSES

1. Time plan – code release
2. Deep dive presentation/investigation?
3. Demonstrations?
VIRTUALIZATION

1. How do we organize the discussion about hypervisor-specific solutions, (i.e. “GPU Sharing”)
2. Deep dive presentation?
3. What challenges remain to solve?
4. Demonstrations? Activities?
GSHA - areas to explore – investigations

(complete the slide)

1. Performance & Hard Data
   • CPU, Memory, Bandwidth

2. ...
Evaluation Methods (*if many choices)

• *In GSHA we have few technologies, in GPRO many. These are the methods discussed in GPRO – which ones are applicable here?

• Reading docs & presenting to the group
• Asking Questions / polls
  • Does your company use <topic> for in-car embedded systems?
    • Yes / No / Don’t know / (prefer not to answer?)
  • Does <company> use <topic> for communication to/from car?
  • Does <company> use <topic> for non-embedded (support / IT systems)
    • Uses today vs has used?
• Asking project group, then produce polls?
• Contacting standards organizations behind each choice for presentation/discussion
OUTREACH

• Are there standards organizations to talk to, or do we have all that we need? Khronos? Other?
• What other partners ought to be in the discussion?
PRACTICALITIES

• Need clear commitments from project participants
• A project to achieve results! Those willing to actually work will organize (or self-organize) around a functioning meeting schedule.
• Future meetings - time poll?
• This year <= 1 more meeting
• Mailing list: genivi-projects @lists.genivi.org

1. Questions? Philippe Robin
Actions

• Next steps
END OF MEETING
Supplementary material and Resources
Supporting ECU architecture picture (example)
Vehicle Domain Interaction Strategy - Resources

• Large interest since GENIVI first announced the Vehicle Domain Interaction Strategy – leading to many questions

• To meet the demand we have created a Frequently Asked Questions document for the most common questions: http://tinyurl.com/DIROFAQ

• Please refer to the FAQ for general questions about Vehicle Domain Interaction Strategy.

• Also: - **Strategy Home Page** (Wiki): http://tinyurl.com/DIROHOME
  - Strategy **KickOff Slides** and **Recorded Webinar** ^ links on Home page
  - **Project registration/survey** (fill in, to be kept informed)
Scope and definitions (discuss)

• **Graphics Sharing***
  
  “Graphics in the form of bitmap, scene graph or drawing commands generated on one ECU, transferred for display from another ECU (or between virtual machine instances)”

(*Detailed categories defined on project wiki page)

• We are concerned with over-the-network protocols, and Hypervisor facilitated solutions (GPU sharing), independently

• Not primarily focused on simple encoded video-distribution topics, although video compression might be part of the solutions. (But if it’s an appropriate candidate for general-purpose transfer, we should investigate/compare/clarify).
Scope and definitions #2 (first proposal)

• Distributed HMI Compositing =
  
  “Dealing with technologies and methods to turn a multi-ECU system into what appears and acts as a single user-experience”.

• Conceptually extends “graphics sharing” to the ability of requesting an “application HMI” to be shown on another ECU.

• Boundary might be a bit vague

• Relates to some common “application management”, details unknown?