



AGL Roadmap

AGL Fall AMM 2016

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Community Manager, [AGL](#), [The Linx Foundation](#)

Before we start...

- Some schedule changes at the end of tomorrow
- SSID is “Holiday Inn Conference”

Before we start...

- We are an open source project which means:
 - Code, code, code
 - Commit Early, Commit Often
 - Everything we do is in the open and transparent

Git Commits BB and CC

Commits	Name	Company
458	Jose Bollo	IoT.BZH
341	NuoHan Qiao	Fujitsu Ten
70	Stephane Desneux	IoT.BZH
64	Ran Cao	Fujitsu Ten
59	Manuel Bachmann	IoT.BZH
58	Jan-Simon Moeller	Linux Foundation
55	Fulip Ar Foll	IoT.BZH
35	Yanhua GU	Fujitsu Ten
34	Christian Gromm	Microchip
27	Yannick Gicquel	IoT.BZH
20	Tadao Tanikawa	Panasonic
15	Leon Anavi	Konsulko
7	Kotaro Hashimoto	Mitsubishi Electric
6	Yuta Doi	Witz
5	Stephen Lawrence	Renesas

Commits	Name	Company
5	Andre Magalhaes	Collabora
4	Phong Tran	Renesas
3	Anton Gerasimov	Advanced Telematics
3	Jens Bockage	Mentor
2	Carlos Alberto Perez	Igalia
2	Tomoki Sekiyama	Hitachi
1	Wataru Natsume	ADIT
1	Philippe Coval	Samsung
1	Tasuku Suzuki	Qt Company
1	Damian Hobson-Garcia	Renesas

*Since 15 Jan 2016

1260 Total Commits
18 Companies

Schedule F2F Workshops

- Recommend at least every six weeks
- Jul 12 -14 Tokyo (ALS)
- Sep 7 – 8 Munich (AGL AMM)
- Oct 14 - Berlin after ELC-E
- Nov 17 – 18 – Yokohama (Finalized)
- Dec 15 – 17 Japan, TBD (Final CES integration)
- Ship demo to Las Vegas to arrive by Jan 3, 2017

Reference Apps for AGL App FW

- Show your app in the official AGL demo at CES
- Call for participation for CES 2017
- Check mail list next week for qualifications necessary to participate
- Selection by Steering Committee by 15 Oct

Methodology

- Project list started in 2014 maintained on wiki
 - https://wiki.automotivelinux.org/project_proposals
- Reviewed list with Expert Groups, System Architecture Team, and Advisory Board
- Rated projects from 1 to 5 Stars
- Roadmap is based on moving ahead with 4 and 5 Star Projects

Jira Usage

- Since last AMM – Roadmap moved to Jira
- Request new projects in Jira using issue type “Epic”

AGL Roadmap – Project Top Level

The screenshot shows the project details for 'IVI Audio Manager Project' (SPEC-122) in the AGL Development environment. The page includes a header with the project name and a navigation bar with buttons like 'Edit', 'Comment', 'Assign', 'More', 'Stop Progress', 'Resolve Issue', and 'Close Issue'. The 'Details' section shows the issue type as 'Epic', priority as 'Blocker', status as 'IN PROGRESS', and resolution as 'Unresolved'. The 'Description' section provides a brief overview of the project. The 'Issues in Epic' section lists three related issues: 'SPEC-139 Audio Manager Use Cases' (IN PROGRESS), 'SPEC-140 Update Audio Manager Spec' (OPEN), and 'SPEC-164 AudioManagerPlugins staging repo' (RESOLVED). Annotations with colored boxes and arrows explain key features: an orange box points to the 'Epic' type, a black box points to the 'Blocker' priority, a red box points to the 'EG-GraphicsUI' label, a blue box points to the 'IVI Audio Manager' epic name, and a purple box points to the list of issues in the epic.

AGL Development / SPEC-122
IVI Audio Manager Project

Edit Comment Assign More Stop Progress Resolve Issue Close Issue

Details

Type: Epic
Priority: Blocker
Status: IN PROGRESS (View Workflow)
Resolution: Unresolved
Affects Version/s: None
Fix Version/s: Blowfish
Component/s: None
Labels: EG-GraphicsUI
Epic Name: IVI Audio Manager

Description

A framework to manage audio in the IVI.
Background:
To support automotive specific usecase for audio management like handling interrupt voice guidance at an intersection.


Issues in Epic

Issue ID	Issue Title	Status	Assignee
SPEC-139	Audio Manager Use Cases	IN PROGRESS	Nobuhiko Tanibata
SPEC-140	Update Audio Manager Spec	OPEN	Unassigned
SPEC-164	AudioManagerPlugins staging repo	RESOLVED	Jan-Simon Moeller

Annotations:

- Epic issue type denotes Roadmap Project
- Priority assigned by AB
- "Label" indicates the EG that owns the project
- "Epic Name" is the Project Name as assigned by the System Architecture Team
- List of tasks to be completed for project

AGL Roadmap by Target Release

 AGL Development / [SPEC-122](#)
IVI Audio Manager Project

[Edit](#) [Comment](#) [Assign](#) [More ▾](#) [Stop Progress](#) [Resolve Issue](#) [Close Issue](#)

Details

Type:	Epic	Status:	IN PROGRESS (View Workflow)
Priority:	Blocker	Resolution:	Unresolved
Affects Version/s:	None	Fix Version/s:	Blowfish
Component/s:	None		
Labels:	EG-GraphicsUI		
Epic Name:	IVI Audio Manager		

People

Target AGL Release

Watchers: **3** [Stop watching this issue](#)

Description

A framework to manage audio in the IVI.

Background:
To support automotive specific usecase for audio management like handling interrupt voice guidance at

Issues in Epic

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Agile

[View on Board](#)

Click on version (e.g. "Blowfish") to see all projects assigned to the release

Expert Groups

- Four Current EGs
 - App Framework and Security
 - Connectivity
 - UI and Graphics
 - CI and Automated Test (CIAT)
- EGs focus on requirements and architecture
 - Kernel, Common Libs and OS are subsystem teams
- Scope defined for first three EGs are too broad
- Need to get more members before breaking up teams into more manageable scope

App Framework and Security EG

- *Application lifecycle (install, run, remove, applications)*
- *SDK and application developer experience both in security and APIs*
- *Security framework (SELinux, SMACK, AppArmor, etc.), policies, and strategy for the distribution*
- Network and vehicle firewalls in conjunction with the Connectivity EG
- Software Update and secure update
- Diagnostic log and trace
- Secure boot

App FW/ Security Project Backlog

ID	Rating	Title	Description	Status
SPEC-247	5	SDK for App Developers	Provide a SDK for AGL Application Developers	In-Progress
SPEC-118	5	AGL Security Blueprint	Create a blueprint for AGL security. What are the features that will be enforced and what are the limits of security within AGL. What security is provided for app developers "out of the box".	In-Progress
SPEC-116	5	Create the AGL App Framework	The AGL Application Framework requirements are included in version 1.0 of the System Requirements Spec. The UCB does not have an application framework that conforms to the requirements.	In-Progress
SPEC-131	3	Device APIs for HTML5 Application	Implement automotive extension device APIs which does not depend on specified HTML5 engine.	Not started
SPEC-138	2	Resource Control Project	Policy manager for cgroups and cpuset.	On-Hold

UI and Graphics EG

- *AGL Compositor, Layer Manager, and GPU interface*
- *Multimedia video manager (including multi-display and display sharing) and audio manager, and media manager/player.*
- Browser Engine
- Speech Recognition
- Navigation

<https://wiki.automotivelinux.org/eg-ui-graphics>

UI and Graphics EG Project Backlog

ID	Rating	Title	Description	Status
SPEC-120	5	Home screen with multi-display	Application that controls multiple displays for home screen.	Not started
SPEC-125	4	AGL Compositor Project	Define requirements for an AGL Compositor and create architecture based on those requirements.	On-Hold
SPEC-124	4	Media Player Project	Full media player, working with GENIVI. Including media management indexing.	Proposed
SPEC-127	3	Navigation Core Project	Create a reusable Navigation API that allows competing navi solutions to be plugged into AGL	In-Progress
SPEC-128	3	Browser Engine Project	Choose browser engine and implement in UCB.	Proposed
SPEC-129	2	Speech Recognition API Project	Create an open source API for speech services, including speech recognition and TTS, that allows different speech engines to be plugged into AGL	Proposed

Connectivity EG

- *Vehicle Connectivity (CAN, MOST, LIN, AMB)*
- *Network and vehicle firewalls*
- Cloud Connectivity (Iotivity)
- Connected Car
- Bluetooth, Wifi, NFC
- Smart Device Link (SDL)
- Remote Vehicle Interactions (RVI)

<https://wiki.automotivelinux.org/eg-connectivity>

Connectivity EG Project Backlog

ID	Rating	Title	Description	Status
SPEC-119	5	TCP/IP Network manager for AGL	With the all of the possible TCP/IP connections possible to the vehicle (Wifi, Bluetooth, LTE, 3G, etc) a solution is needed to manage which connections are permitted, firewall set up, VPN access. This project will evaluate ConnMan and other alternatives.	In-Progress
SPEC-158	4	OCF Framework Support	Integrate Iotivity and Open Connectivity Framework into AGL	In-Progress
SPEC-133	3	Smart Device Link (SDL)	Port Smart Device Link to AGL.	Proposed
SPEC-134	3	Automotive Bus privacy and security concerns	Vehicle bus isolation from applications	In-Progress
SPEC-135	2	Ethernet AVB	Select or build a complete open source Ethernet AVB solution.	On-Hold
SPEC-136	2	Open Telematics Architecture	Build out on board and offboard architecture for Remote Vehicle Interactions, Big Data and Software Updates.	On-Hold
SPEC-137	2	Vehicle Signal Simulator	Vehicle signal simulator to enable recordings to be made, and scripts to be run. Interfacing to AMB.	Not started

CI and Automated Test EG

- *Build and smoke test of Gerrit submissions on all hardware*
- *Daily snapshot build and testing*
- *Device tests on real hardware*
- *Test environments such as JTA and Lava*
- Test suites such as LTP
- UI testing (OpenQA)

<https://wiki.automotivelinux.org/eg-ciat>

CIAT EG Project Backlog

ID	Rating	Title	Description	Status
SPEC-126	5	AGL JTA Project	As the value of AGL, we should perform validation and provide test result to the public. This proposal is build automated system test framework for AGL components. This test can cover both kernel and userland. We can utilize existing test program and benchmark program as well as custom test script. We can use this facility for periodic test like nightly test and track performance trends.	In-Progress

Unassigned Project Backlog

ID	Rating	Title	Description	Status
SPEC-144	5	2017 CES Demo Apps	Demo applications to be shown during 2017 CES and released as part of Charming Chinook	In-Progress
SPEC-145	3	Create device profiles for telematics, instrument cluster, and ADAS.	AGL will be used in other vehicle systems as well as IVI. Determine the method for building a telematics system with no GUI from the same source tree as an IVI system.	Proposed
SPEC-147	3	Google Auto Link Integration	Integrate Google Auto Link into the AGL reference platform.	Not started
SPEC-146	2	GPS time and Monotonic time support	Develop a method structure for adjusting the Linux system time using GPS time. As a weak point of GPS, when cold start, it takes a long time to obtain the accurate time.	Not started
SPEC-148	2	Hypervisor	Developing and maintaining automotive grade hypervisor based on Xen project. Ability to run different type of guest OSes: Android, Tizen, QNX, Autosar, Linux. Support A15/A50 SoCs - TI J6, Renesas Car-M2, Qualcomm, Freescale i.MX 8	Not started
SPEC-149	2	Soft ADAS	Develop a framework for accessing ADAS sensors, especially video streams, and making them available to apps in real-time.	Defer to 2017

CHARMING CHINOOK

Charming Chinook



- Target December 15, 2016
- SDK for AGL App Developers
- Reference AGL Apps
- AGL Compositor
- AGL Home Screen Reference App in Qt and HTML5
- Device Profiles for Telematics, IC, ADAS
- IP Network Manager with WiFi and LTE

AGL Documentation

- MD with web publishing for all AGL documentation
- Use git/ gerrit for version control and reviews
- AGL Security Spec
- Move Requirements Spec from DOORS NG

SDK for App Developers

- Available for reference boards with published images that include graphics drivers
- Enables rapid AGL application development (download SDK and write “Hello World” in less than 1 hour)
- Support for Qt and HTML5
- IDE with debugging supported (optional for CC)
- Documentation
- No Yocto knowledge is needed or assumed for SDK users

AGL Compositor

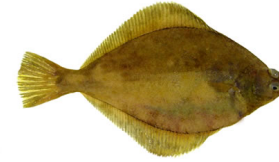
- Currently using Weston and IVI shell as the compositor.
 - Does not meet automotive requirements.
 - Modified from desktop environment
 - No good alternative for automotive is available as open source
- Other option considered was to use Qt compositor, but this is not desirable in the AGL core distribution
- Ideally a member company would donate a solution we can build upon

IP Network Manager with WiFi and LTE

- ConnMan made it into BB
- UI and device management is needed for CC
- Reference Application(s)

DARING DAB

Daring Dab



- Smart Device Link
- Navigation API
- Speech Services API
- Browser Engine API

FINAL THOUGHTS

Calls to Action

- Sending out emails over the course of this week
- Telematics Expert Group (BoF this week)
- Speech Recognition and TTS API (Short Talk/BoF)
- Navigation API (BoF this week)
- Security White Paper (Security Summit this week)

Dude, where's my car?

- YOU can move these projects forward
 - There are 3 Star Projects that will get done this year because someone or some group is passionate about it.
 - There are projects not on this list that will get done for the same reason
- Join the mail list
- Download the code
- Submit changes



THANK YOU