Welcome to ALS + OSSJ - Tokyo 2018

900+ people across 289 companies and 43 countries!

Advanced Driver Information Technology

Advanced Telematic Systems

Aisin AW Co., Ltd.

ALPS

Continental

DENSO

Elektrobit

amazon

DENSO TEN

HARMAN

Hi Corp.

HIKING

HITACHI

Inspire the Next

Honda

Intel

irdeto

Konsulko Group

Linkmotion

Mazda

Mercedes-Benz

Mentor Automotive

Microchip

Micware

Mitsubishi Electric

Mitsubishi Motors

Mediatek

NXP

OpenSynergy

openInnovation

openInvention

Oracle

Pioneer

RealVNC

Suntec

Ubiquitous

Qualcomm

Panasonic

Sony

Toyota

Linux Foundation
Thank You to our ALS Sponsors!

Diamond

AUTOMOTIVE GRADE LINUX

Platinum

intel  Panasonic  TOYOTA
Thank You to our Sponsors!

Gold
- Microchip
- NTT DATA
- Renesas

Silver
- DENSO
- Suzuki

Bronze
- Abalta
- Arkamys
- Denso Ten
- Green Hills Software
- igalia
- ICS
- Qt
- VNC Automotive
19 New AGL Members in 2018

*One stealth startup not shown*
# AGL Members - Total of 127 companies!

## Platinum
- Denso
- Panasonic
- Mazda
- Renesas
- Suzuki
- Toyota

## Gold
- Amazon
- Honda
- NTT Data
- NTT Data MSE Corporation
- Aisin AW Co., Ltd.
- Continental
- Mercedes-Benz
- Denso TEN
- DRiMAES
- Mitsubishi Electric
- Nissan
- Pioneer
- Qualcomm

## Silver
- Arm
- AutoNOM
- Bose
- Bright Box
- Brison
- Castalia
- Collabora
- Cybertrust
- Desay SV
- Enea
- ETRI
- Eureka, Inc.
- Fiberwire
- Forgerock
- Fujitsu
- GlobalLogic
- Green Hills Software
- HARMAN
- Hi Corp.
- Hitachi
- Hyundai Mobis
- ICS
- Igalia
- Intel
- IoTABZH
- Irdeto
- IVIS
- JVC Kenwood
- Karamba Security
- Konsulko Group
- Lear
- Linaro
- LipiConzept
- Makelkauf
- Mentor Automotive
- Microchip
- Microware
- Mitsubishi Motors
- Mitsubishi Nedens
- Mentor Grove
- Momento
- NEC
- NEXUS
- NextY Electronics
- NVIDIA
- NXP
- OpenSynergy
- Oracle
- Ossysterms
- Paragon Software
- Parrot
- Pocketsoft
- QNX
- Siemens
- Samsung
- SASEN
- Saletech
- Seltech
- SiFive
- Sirilux
- Sinocom
- Symbio
- Synopsys
- Sysgo
- Sygic
- Telegent
- Telegation
- The Qt Company
- ThunderSpart
- Toshiba
- Trend
- Trillium
- Ubiquitous
- VeriSiicon
- Virtual Open Systems
- Voicebox
- Wipro
- Witeki
- Witz
- Xevo
Code first
Reduce fragmentation
Foster an ecosystem
Decrease time-to-market
Drive rapid innovation
AGL: an open software platform for automotive
the de facto standard for the industry
Community: Mailing List Subscribers

- Healthy community!
- 950+ developers on Automotive-Discussions list
- 106% growth since 2015
Community: AGL Google Summer of Code

- AGL accepted in Google Summer of Code (GSOC)
  - Students from University of Aberdeen (UK)
  - Focusing on application development
  - 2 months of coding and one month for documenting/finalizing
- Great exposure for AGL and the developer community
- Thanks to Jan-Simon Moeller for driving this process!
the only organization addressing all software in the car
### AGL Release: Thanks for all the fish...

<table>
<thead>
<tr>
<th>AGL Release</th>
<th>Code Name</th>
<th>Release Date</th>
<th>Fish</th>
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<tr>
<td>AA</td>
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<td>December 2016</td>
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<td>July 2017</td>
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<tr>
<td>EE</td>
<td>Electric Eel</td>
<td>January 2018</td>
<td><img src="https://example.com/eel.png" alt="Eel" /></td>
</tr>
</tbody>
</table>
Announcing AGL UCB 6.0 - FF

Funky Flounder

Release Candidate 1 – Available next week

Final release end of July
Funky Flounder Highlights

• Yocto 2.4 – Rocko branch
• Graphics and Window Manager
• App Framework enhancements
• Audio refinements
• Connectivity
• Improved debug and monitoring
• *Release notes will be posted on AGL Wiki*
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AUTOMOTIVE LINUX

Inotainment

Instrument Cluster

Heads-up Display (HUD)

Telematics/Connectivity

Functional Safety

Advanced Driver Assistance Systems (ADAS)

Autonomous Driving
UCB 6.0 – Funky Flounder

New Profiles

Telematics/Headless

Instrument Cluster

Heads-up Display (HUD)
Grumpy Guppy
Release: Jan 2019
Grumpy Guppy

• Strong focus on hardening, stability and “production ready”
• Speech Services
  • Speech API
  • Speech enabled app framework
  • Speech enabled apps for CES 2019
• Vehicle-to-Cloud features
Speech Recognition Expert Group

• New Expert Group formed at CES
• Vision:
  • We want to speech-enable every app in the vehicle!
• Goals:
  • Define industry standard APIs
  • Independent of the underlying technology
  • Simplify Speech Rec integration for app developers
Virtualization Expert Group

Announcing: Publication of the Virtualization whitepaper
Virtualization Expert Group

Potentially a means to achieve interim functional safety with existing third party solutions.
WHAT’S NEXT?
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ADAS and Autonomous

• Plan
  • Leverage work on RT-Linux and Functional Safety
  • Build an AGL RT platform with support for major vendors of automotive camera, radar, lidar, sensors
  • Add OpenCV for visualization
  • Leverage AGL’s extensive CIAT testing infrastructure to create a high quality platform
  • Leverage the work done by our V2C Expert Group and extend to V2V
  • Partner with other organizations in the industry

• Vision
  • Crowd-sourced 3D mapping database that is shared between the AGL OEMs
Functional Safety

• ISO26262 and/or other relevant certifications for Linux and AGL
• AGL Advisory Board approved the project and funding
• Get experts involved and define our roadmap
• Many companies want to get involved
• Leverage
  • Piggyback on the Linux Foundation’s RT Linux project
  • Open collaboration channel with other LF projects such as Civil Infrastructure Project
  • All under one roof: The Linux Foundation
AGL won the TechXLR8 award in Mobility (Connected Car category) 
Awarded on June 12th in London
AGL Presence at CES 2019

SMART CITIES
Auto Grade Linux

CES 2019
January 8-11, 2019
Westgate Las Vegas
AGL Presence at CES 2019

• Expecting 15-20 AGL-based demos from member companies

• Located in the bustling Westgate show floor area

• Located in the Smart Cities Hall, near Ericsson booth
Toyota Vehicle AGL Demo at ALS

Demo Schedule
Coffee Break (AM, PM)
Lunch

Display Spot
Back Entrance
Driveway
EV Hall
Escalator to Event Floors
Main Entrance
Coffee shop

(c)TOYOTA MOTOR CORPORATION
AGL is “Code First”