

AGLの最新情報と CES2020について

Linux Foundation AGL Advisory Board

DENSO TEN Linux PF Project Leader

Yuichi Kusakabe

About Myself

- **Yuichi Kusakabe (DENSO TEN LIMITED)**
- **Software Engineer of IVI about 13 years
(for 16-bit and 64-bit architecture)**
- **Linux Software Engineer(2011–2013)**
- **Linux Software Lead Engineer(2013–Now)**
- **BSP Porting/Customizing**
- **Supporting for in-house software developers**
- **AGL(Automotive Grade Linux) Advisory Board member**



AGLの最新情報

What is AGL?

- Non-profit
- Open source Linux-based collaborative project
- Hosted at Linux Foundation
- Focused on rapid innovation of vehicle software



AUTOMOTIVE GRADE **LINUX**

the only
organization
addressing
all software in
the car



Infotainment



**Instrument
Cluster**



**Heads-up
Display (HUD)**



**Telematics/
Connectivity**



**Functional
Safety**



**Advanced Driver
Assistance Systems
(ADAS)**



Autonomous Driving

AGL Members - Total of 155 companies!

Platinum

DENSO



Panasonic

RENASAS



TOYOTA

Gold

HONDA
The Power of Dreams

Silver



amazon



Mercedes-Benz

DENSO TEN



DRIMES



NTT DATA
NTT DATA MSE Corporation

QUALCOMM



上汽集团
SAIC MOTOR

VOLKSWAGEN
AKTIENGESELLSCHAFT

WIND RIVER



Bronze





Trace: [start](#)

- [Visit the AGL Web Site](#)
- [AGL Projects](#)
- [2018 CES Demonstrator](#)

AGL Software

- [Schedule and Milestones](#)
- [AGL Software Distribution](#)
- [Subteam Pages](#)
- [Demo Apps](#)
- [AGL Developer Web Site](#)
- [Contributing to the AGL Code](#)
- [Tips and tricks](#)
- [Release Notes](#)

Expert Groups

- [System Architecture Team](#)
- [App Framework and Security](#)
- [Connectivity](#)
- [Continuous Integration and Test](#)
- [UI and Graphics](#)
- [Virtualization](#)
- [Navigation](#)
- [Reference Hardware System](#)
- [Architecture](#)
- [Vehicle to Cloud](#)



Automotive Apps with HTML5, Qt OpenGL
Multiple platforms on a common code base
Free and open source

[GET STARTED](#)

[CONTRIBUTE](#)



Reusable code
across platforms



Support for
Connected
Vehicles



Security Built In

Top 20 Git Committers in 2019

Commits	Name	Company
145	Matt Ranostay	Konsulko
132	Jose Bollo	IoT.bzh
111	Jonathan Aillet	IoT.bzh
66	Raquel Medina	Konsulko
59	Romain Forlot	IoT.bzh
57	Li Xiaoming	FUJITSU
53	Jan-Simon Moeller	Linux Foundation
43	Humberto Alfonso Díaz	Asvito Digital
41	Scott Murray	Konsulko
39	Arthur Guyader	IoT.bzh

Commits	Name	Company
39	Frederic Marec	IoT.bzh
37	Mark Farrugia	FiberDyne
29	Thierry Bultel	IoT.bzh
27	Khouloud Touil	BayLibre
24	Sebastien Douheret	IoT.bzh
23	Stephane Desneux	IoT.bzh
19	Wang Zhiqiang	Nexty
19	Clement Benier	IoT.bzh
19	Jacobo Aragunde Perez	Igalia
17	George Kiagiadakis	Collabora

1133 Total Commits
48 Committers
18 Companies

- 01 Jan 2019 – 01 Oct 2019
- Commits to master



Top Companies in 2019

Company	Commits
IoT.bzh	499
Konsulko	274
Fujitsu	59
Linux Foundation	53
BayLibre	49
Asvito Digital	43
FiberDyne	37
Nexty	26
Igalia	19
Collabora	17

Company	Commits
Witz	16
Scotty's Doc Service	14
Microchip	9
ADIT	7
Renesas	5
Individual	3
Amazon	2
AisinAW	1

デンソーテックのAGLチームは世界ランク3位

1133 Total Commits

48 Committers

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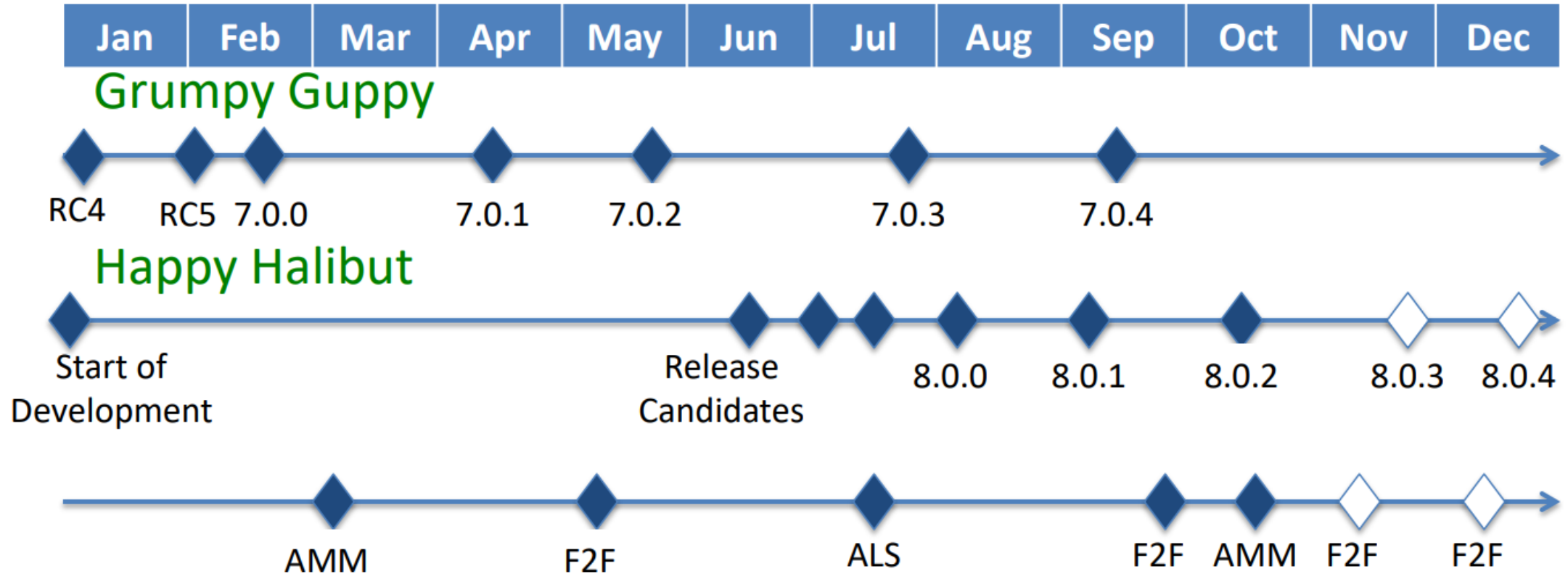
- 01 Jan 2019 – 01 Oct 2019
- Commits to master



Slide 9



2019 AGL Schedule





See https://wiki.automotivelinux.org/schedule#latest_schedule for latest schedule information



Happy Halibut

New Features available in Happy Halibut.

- UCB updated to use Yocto project version 2.6 (thud)
- Telematics Profile and demo available in meta-agl-telematics-demo layer
- AGL Application Framework
 - Multi-user security rules. AGL no longer runs applications and service binders as root user.
 - Process kill now available from afm-util
- Weston 6.0 now available
- Waltham transmitter and receiver refactored and now fully available in IVI and Instrument Cluster profiles
- Web App Manager
 - Latest Chromium 68 patches included
 - Qt dependencies removed
- Pipewire audio support
 - Pipewire is default audio build option
 - 4A is no longer a build option
 - Initial session manager (wireplumber) created
 - A new audiomixer binding has been introduced to serve as a backend for the mixer application
 - Bluetooth audio is temporarily not available - will be added back in 8.0.1
- CAN
 - J1939 support added
 - Writing to CAN bus fully supported and secured
- Test Cases added for numerous AGL Service Binders: afb, bluetooth, bluetooth-map, bluetooth-pbap, gps, mediaplayer, nfc, and weather.
- Board Support Packages
 - Renesas RCar3 BSPs updated to v3.15
 - i.MX6 reenabled using etnaviv open source graphics
 - New Support for SanCloud  [BeagleBone Enhanced](#) + Automotive Cape support
 - Preliminary Raspberry Pi 4 BSP included (agl-image-minimal)
- Task manager application now available as an installable widget
- Numerous fixes throughout AGL as documented in  [Jira](#)

CES2020について

AGLデモ会場



AGLデモ(メインデモ/コンテナデモ)



スズキ自動車(Lowコックピット)



マツダ自動車(リファレンスハードウェア)



ルネサス(打倒Tier1?)



OpenChain(AGL&OSSライセンスツールデモ)



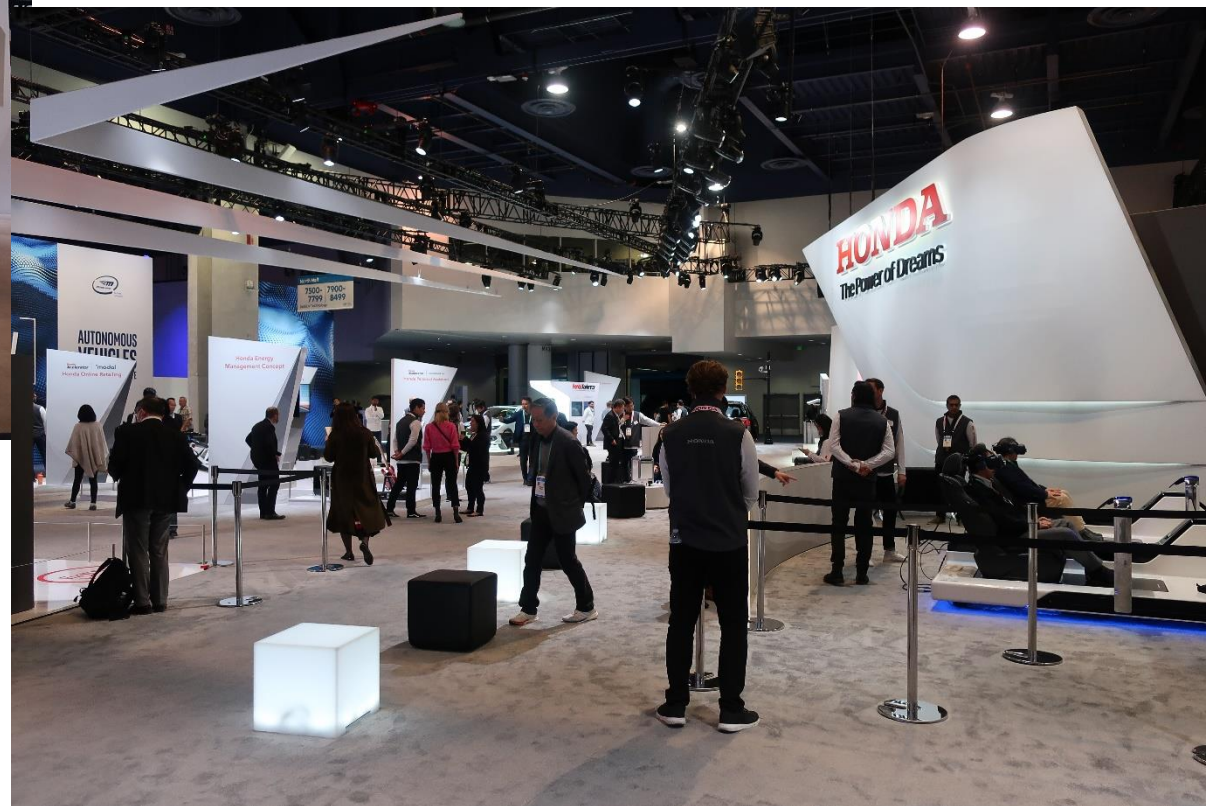
空飛ぶ車



SDLブース



Hondaブース



Audiブース



Thank you!!!

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