

# Team Up: Contributing to the Tizen Platform

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**TIZEN™**  
**DEVELOPER  
SUMMIT**  
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**YOUR** Contributions  
**MATTER** to the **SUCCESS**  
of Tizen platform



# Agenda

- **About Tizen OSS**
- **Ways of Contribution**
- **Tizen 3.0 Governance Model**
- **Tools, Patch Submission, Bug Reporting**
- **Best Practices**

Tizen OSS



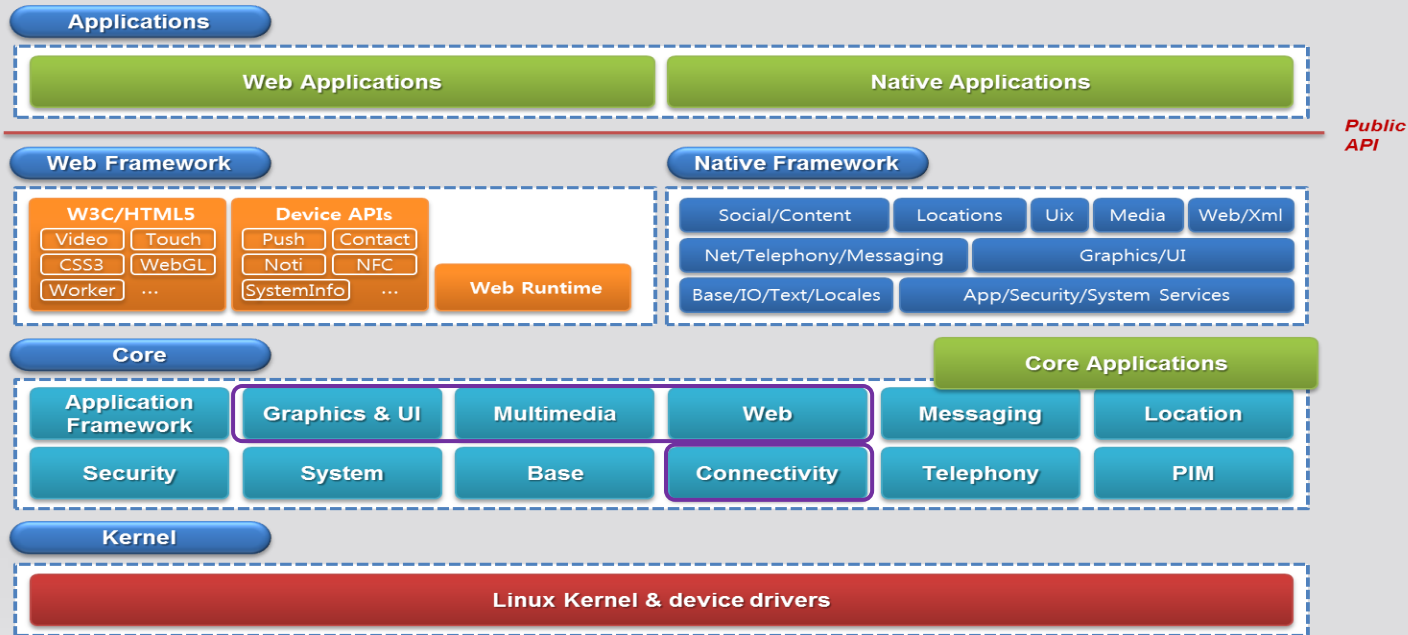
# Why Use and Contribute to Open Source?

- **Future of software and product development**
- **Faster adoption of technology & time to market**
- **Sense of Purpose by Sharing & Helping**
- **Known for being innovative and open**
- **Enhance skillset**

# Why Contribute to Tizen Open Source?







- **All the benefits of contributing to OSS Projects**
- **High impact**
  - Smartphones, Accessories, TVs, IVI devices, Printers, Cameras, Tablets
- **Usage by potentially large App Developer base**
  - HTML5/CSS/JS
- **Exposure to popular upstream projects**
- **Part of wider community**
  - Platform contributors, App developers, Device manufacturers
  - Consumers, Mobile operators

# Tizen Architecture



- Current Release: 2.3 <https://www.tizen.org/>
- Tizen Source <https://source.tizen.org/>

# Major Upstream Projects Used In Tizen

Tizen Component	OSS Used	Description
Graphics & UI	 EFL	The Enlightenment Foundation Libraries are a set of graphics libraries that grew out of the development of Enlightenment, a window manager and Wayland compositor
Multimedia	  	GStreamer is a pipeline-based multimedia framework written in the C programming language with the type system based on GObject
Web	 Webkit	WebKit is a layout engine software component for rendering web pages in web browsers
Connectivity	 BlueZ	Bluez is the Bluetooth stack for Linux kernel-based family of operating systems



# How to Contribute to Tizen Platform ?



# Various Ways of Contribution

- **Code Contribution, Code Review**
- **Documentation & Wiki Contribution**
- **Contribution in mailing list, IRC, Forums**
- **Bug Reporting, Verification, Testing**

# How Upstream Contributors Can Help

- **Contribution to upstream will be down streamed by Tizen**
- **Porting of latest upstream version to Tizen**
- **Moving a selected upstream patch to Tizen**
- **Moving a fix in down streamed code to upstream**
- **Discussion of Tizen specific new feature requests in upstream**



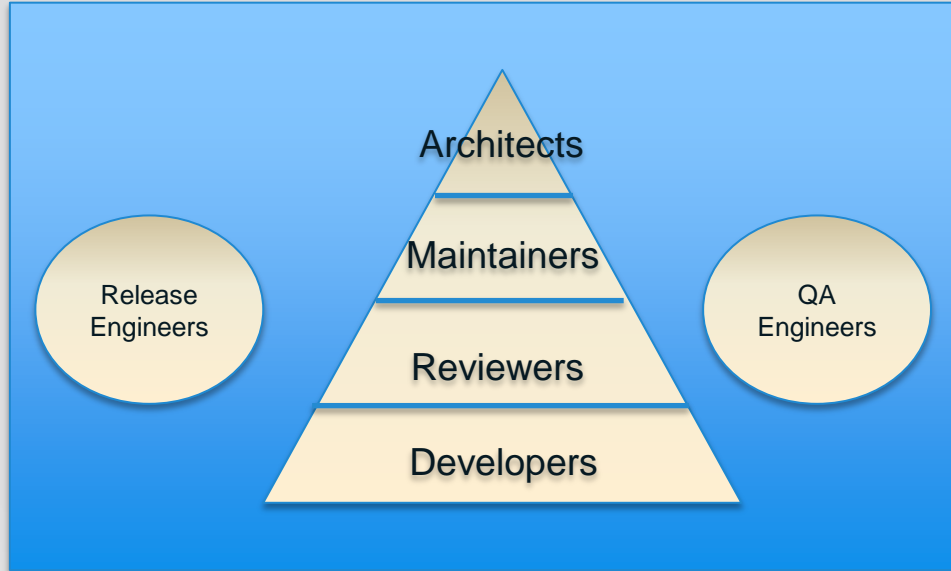
# Benefits for App Developer

- **Fix platform issues to bring up your app quickly**
- **Get & provide help in Platform IRCs and mailing lists**
- **Easy to understand exposed APIs with source code availability**
- **Contribute/Propose useful features for Apps development**
- **Update documentation which can help other App developers**
- **Integrate other open source which may help App development**

# Tizen 3.0 Governance Model

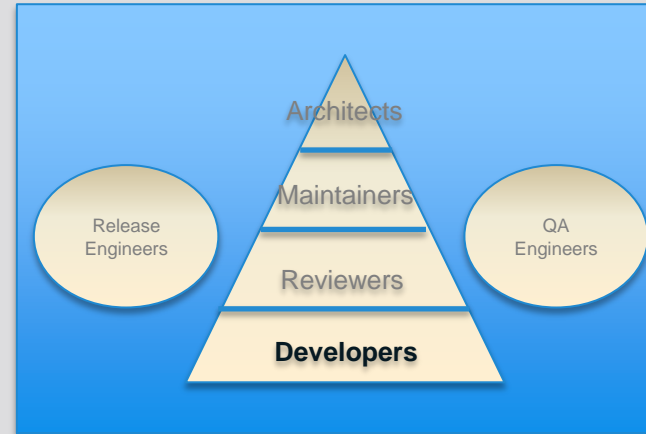


# Project Roles



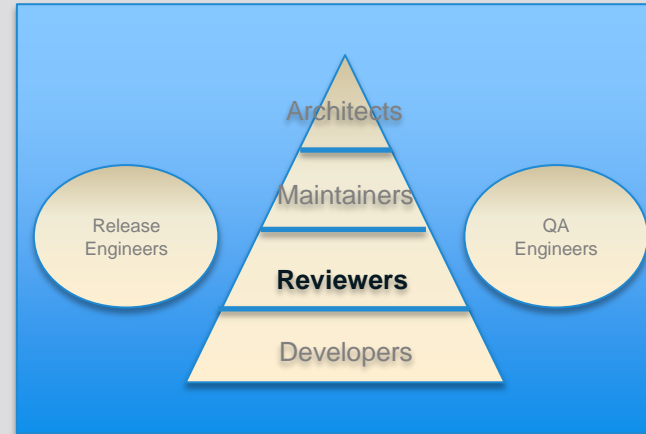
# Developer

- Develops code or other contributions
- Participate in mailing lists, IRCs, report bugs and suggestions
- Encouraged to participate in the review process (-1 and +1 reviews)
- Offer constructive advice to other developers



# Reviewer

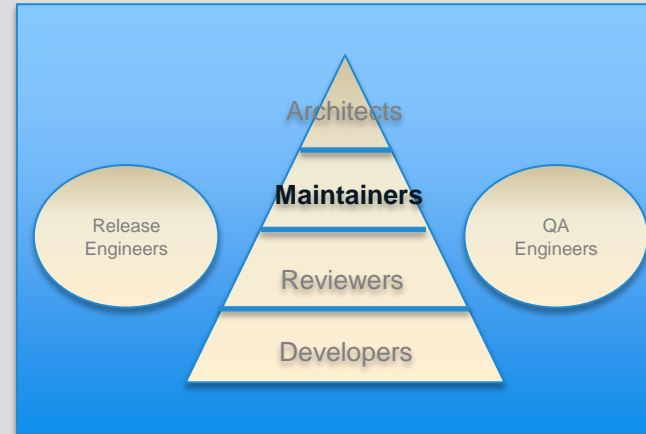
- All of a Developer's rights and duties
- Makes decisions on contributions
- Can make decisions on code contributions (-2 and +2 reviews)
- Must not approve own contributions
- Must offer constructive comments when rejecting a contribution





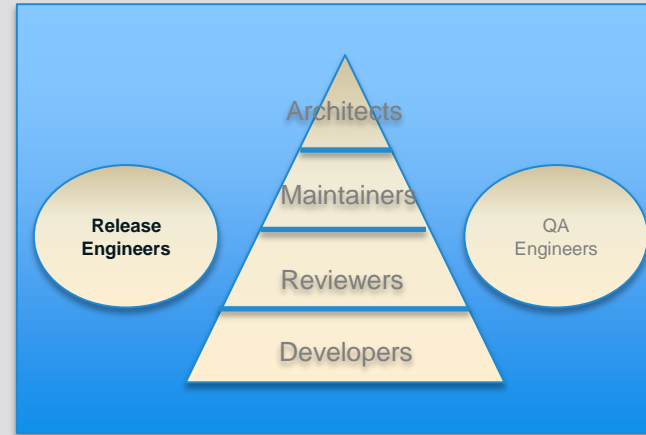
# Maintainer & Integrator

- All of a Reviewer's rights and duties
- Maintains a package and ensures progress
- Can approve own contributions in exceptional cases
- Interprets TSG medium- and long-term goals into short-term ones
- Must release approved contributions into the build system, ensure quality of the package



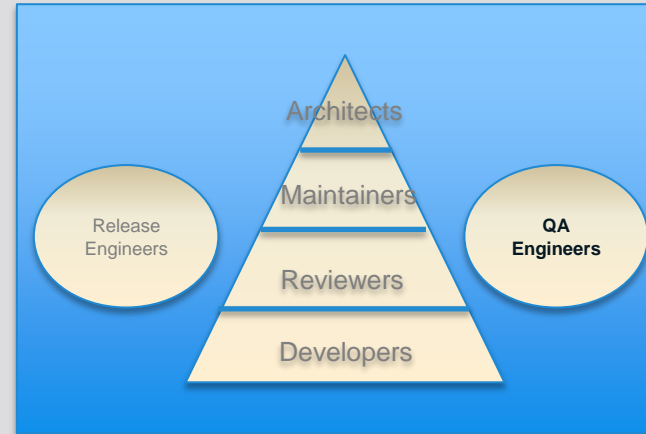
# Release Engineer

- All of a Developer's rights and duties
- Create pre-release and release images
- Should report bugs and regressions
- Must manage build system
- Must approve or reject submissions to the build system
- Must create Tizen images and smoke-test them



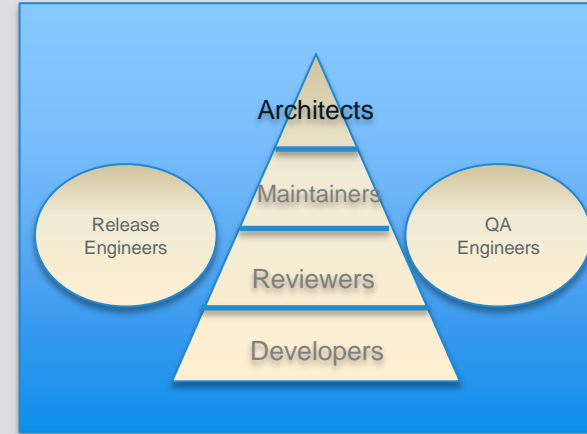
# QA Engineer

- All of a Developer's rights and duties
- Ensure the overall quality Releases
- Must test Tizen images
- Must report bugs and regressions
- Must participate in the release verification process



# Architect

- All of a Reviewer's rights
- Oversees and Advises in technical matters
- Should pro-actively offer advice to on-going discussions
- Interprets long-term Tizen strategy and vision into long- and medium-term technical goals
- Participate in Architecture Workgroup decisions



# Tools, Patch Submission, Bug Reporting



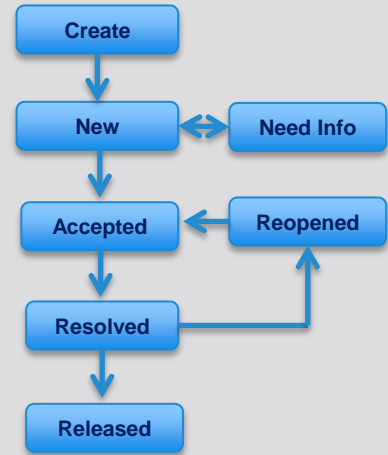
# Tizen Bug Reporting

Tool	Purpose	Links
JIRA	<ul style="list-style-type: none"><li>- Track Tizen bugs: add bug, comment on existing bug, submit patch to fix a bug</li><li>- Gather feature requests</li></ul>	<ul style="list-style-type: none"><li>- <a href="https://source.tizen.org/bug-life-cycle">https://source.tizen.org/bug-life-cycle</a></li><li>- <a href="https://www.tizen.org/community/bug-tracker">https://www.tizen.org/community/bug-tracker</a></li><li>- <a href="https://bugs.tizen.org/jira/secure/Dashboard.jspa">https://bugs.tizen.org/jira/secure/Dashboard.jspa</a></li></ul>

The screenshot shows the JIRA web interface. At the top, there are navigation tabs for 'Dashboards', 'Projects', 'Issues', and a 'Create' button. Below the navigation, there are filter options like 'My Open Issues', 'Reported by Me', and 'Recently Viewed'. The main content area displays a list of bugs for the 'PTREL' project, filtered by 'project = "Tizen Release"'. The list shows 1-50 of 772 bugs. The table columns are: T (checkbox), Key, Summary, Assignee, Reporter, P (priority), and Status.

T	Key	Summary	Assignee	Reporter	P	Status
<input checked="" type="checkbox"/>	PTREL-825	Conflict between modules provided by both Pulseaudio and pulseaudio-module-murphy-ivi	DomainProjectLead	Kévin THIERRY		NEW
<input checked="" type="checkbox"/>	PTREL-824	sync-agent - sync_agent_ds_deinit() crashes process	DomainProjectLead	Tomasz Iwanek		CLOSED
<input checked="" type="checkbox"/>	PTREL-822	/usr/kdbdb hierarchy is not claimed by any package and is misconfigured	John Whiteman	John Whiteman		RESOLVED
<input checked="" type="checkbox"/>	PTREL-819	There is no lame mp3 encode plugin after gststreamer-1.0-plugins-ugly	DomainProjectLead	Dmitry Slezkin		NEW

## Bug Life Cycle



# Tizen Source & Wiki

Tool	Purpose	Links
Git	Source Code Repository	<a href="https://review.tizen.org/git/">https://review.tizen.org/git/</a>
Gerrit	Code and contribution reviews	<a href="https://source.tizen.org/documentation/reference/gerrit-usage">https://source.tizen.org/documentation/reference/gerrit-usage</a>
Wiki	Tizen project documentation	<a href="https://wiki.tizen.org/wiki/Main_Page">https://wiki.tizen.org/wiki/Main_Page</a>
GBS	Build System	<a href="https://source.tizen.org/development/reference/git-build-system/usage/gbs-build?langswitch=en">https://source.tizen.org/development/reference/git-build-system/usage/gbs-build?langswitch=en</a>

## [projects /](#)

[List all projects](#)

Project	Description
All-Projects.git	Access inherited by all other...
Legacy-Projects.git	
Lock-Projects.git	
Private-Projects.git	
Public-Projects.git	
adaptation/alsa-scenario-scen-data-0-base.git	Domain: System;
adaptation/alsa-scenario-scen-data-0-mc1n2.git	Domain: System;
adaptation/ap_samsung/audio-hal-e3250.git	
adaptation/ap_samsung/audio-hal-e4x12.git	
adaptation/ap_samsung/camera-firmware.git	
adaptation/ap_samsung/device-manager-plugin-exynos.git	Domain: System;
adaptation/ap_samsung/device-manager-plugin-exynos3250.git	

[All](#)
[My](#)
[Projects](#)
[People](#)
[Documentation](#)
[GitBlit](#)

[Changes](#)
[Drafts](#)
[Draft Comments](#)
[Watched Changes](#)
[Starred Changes](#)

platform/core/multimedia/libmm-imgp-gstcs / gstcs/mm\_util\_gstcs.c

	Patch Set	Base 1		Patch Set	1
215 »	»	strcmp(__format_label, "RGB8E	215 »	»	strcmp(__format_label, "RGB8E
216 »	»	strcmp(__format_label, "ARGB8E	216 »	»	strcmp(__format_label, "ARGB8E
217 »	»	strcmp(__format_label, "XRGB")	217 »	»	strcmp(__format_label, "XRGB")
218 »	»	strcmp(__format_label, "Y42B")	218 »	»	strcmp(__format_label, "Y42B")
219 »	»	strcmp(__format_label, "Y41B")	219 »	»	strcmp(__format_label, "Y41B")
220 »	»	strcmp(__format_label, "GREY")	220 »	»	strcmp(__format_label, "GREY")
221			221		
222 »	»	_bool=TRUE;	222 »	»	_bool=TRUE;
223 »	»	}	223 »	»	}
224			224		
225 »	»	return _bool;	225 »	»	return _bool;

# Tizen Mailing lists & IRC

Tool	Purpose	Links
Mailing Lists	To discuss about Tizen Project	<a href="https://www.tizen.org/community/mailling-lists">https://www.tizen.org/community/mailling-lists</a> <ul style="list-style-type: none"><li>• General: <a href="mailto:general@lists.tizen.org">general@lists.tizen.org</a></li><li>• Application-dev: <a href="mailto:application-dev@lists.tizen.org">application-dev@lists.tizen.org</a></li><li>• Dev: <a href="mailto:dev@lists.tizen.org">dev@lists.tizen.org</a></li></ul>
IRC	For real-time conversations	<ul style="list-style-type: none"><li>• <a href="https://www.tizen.org/community/irc">https://www.tizen.org/community/irc</a></li><li>• Access from freenode (#tizen): <a href="http://webchat.freenode.net/">http://webchat.freenode.net/</a></li></ul>

<https://lists.tizen.org/pipermail/application-dev/>

## The Application-dev Archives

You can get [more information about this list](#).

Archive	View by:	Downloadable version
July 2015:	<a href="#">[ Thread ]</a> <a href="#">[ Subject ]</a> <a href="#">[ Author ]</a> <a href="#">[ Date ]</a>	<a href="#">[ Text 20 KB ]</a>
June 2015:	<a href="#">[ Thread ]</a> <a href="#">[ Subject ]</a> <a href="#">[ Author ]</a> <a href="#">[ Date ]</a>	<a href="#">[ Text 13 KB ]</a>
May 2015:	<a href="#">[ Thread ]</a> <a href="#">[ Subject ]</a> <a href="#">[ Author ]</a> <a href="#">[ Date ]</a>	<a href="#">[ Text 38 KB ]</a>
April 2015:	<a href="#">[ Thread ]</a> <a href="#">[ Subject ]</a> <a href="#">[ Author ]</a> <a href="#">[ Date ]</a>	<a href="#">[ Gzip'd Text 2 KB ]</a>
March 2015:	<a href="#">[ Thread ]</a> <a href="#">[ Subject ]</a> <a href="#">[ Author ]</a> <a href="#">[ Date ]</a>	<a href="#">[ Gzip'd Text 6 KB ]</a>
February 2015:	<a href="#">[ Thread ]</a> <a href="#">[ Subject ]</a> <a href="#">[ Author ]</a> <a href="#">[ Date ]</a>	<a href="#">[ Gzip'd Text 5 KB ]</a>
January 2015:	<a href="#">[ Thread ]</a> <a href="#">[ Subject ]</a> <a href="#">[ Author ]</a> <a href="#">[ Date ]</a>	<a href="#">[ Gzip'd Text 1 KB ]</a>

[webchat.freenode.net](http://webchat.freenode.net) Search

Status #tizen X

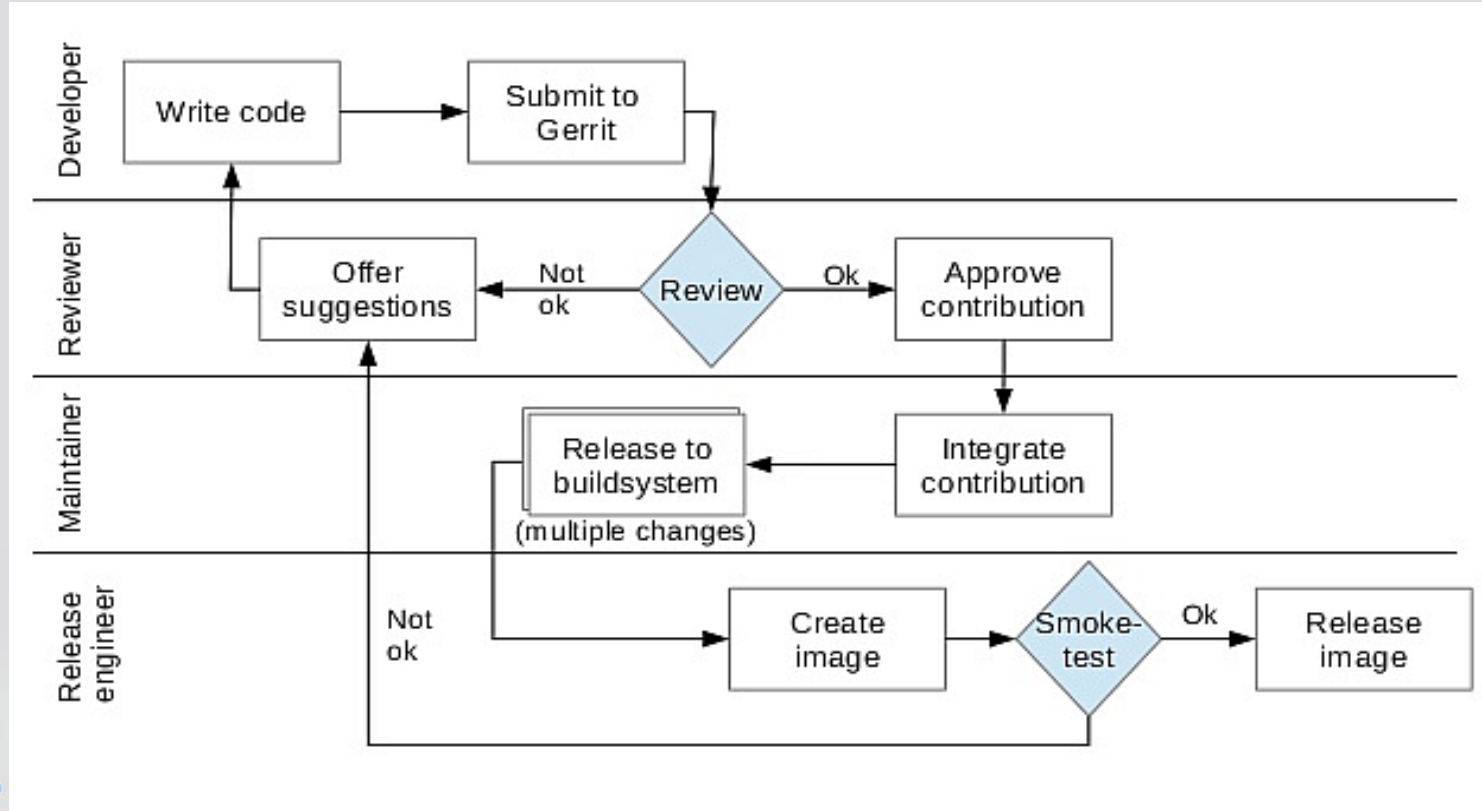
[Channel for general discussions about Tizen | Project info: <https://tizen.org> | Learn about filing bugs or using our mailing lists: <https://www.tizen.org/community> | This channel is logged at <https://www.tizen.org/irclogs>]

[16:15] == Sanjay [0e8d5b14@gateway/web/freenode/ip.14.141.91.20] has joined #tizen

@ChanServ  
ajwillia\_ms  
antitree  
antrik  
Aranel  
beverloo  
bjorn  
book`  
bzyx  
calvaris  
cazze  
cxl000  
cybrNaut  
dshwang



# Patch Submission & Bug Reporting Flow



# Patch Submission - Demo

- Cloning for sensord code
- Updating the code
- Creating a Patch & add commit message
- Pushing the Patch into git
- Code Review using Gerrit
- Amend & Push the Patch

# Tizen Open Source – Best Practices



# Do's

**Community Guidelines:** <https://www.tizen.org/community/guidelines>

- Be Nice, Keep it Clean, Keep it Legal, Stay on Topic

## Do's

- **Follow the project discussions, understand ongoing efforts**
  - Who are core developers? What are areas of high priorities?
- **Find out common areas of interest and people working on them**
- **Always work with latest Release, accept incoming feedback and work with it**
- **For New features Public discussion is a prerequisite**

# Don'ts

- **Don't change or eliminate existing comments**
- **Don't check un-approved code into any source tree**
- **Avoid re-naming open source modules**
- **Existing Licensing Information**
  - Do not remove or in any way disturb existing FOSS licensing information
  - All copyright and licensing information is to remain intact
- **Declare any OSS that you might be using in your contribution**

Recap ....



# What we Discussed ...

- **Why Contribute to Tizen Open Source ?**
  - Open Source is the future way of software and product development
  - Resolve your issues & add your apps faster into App Store
  - Involve in Tizen Development and develop your App in parallel
- **How To Contribute to Tizen Open Source ?**
  - Help in Bug Fixing, Up-streaming, Down-streaming patches
  - Bring in new useful Open Source to Tizen
- **Best Practices**
  - Find out common areas of interest and work on them
  - Communicate and follow others communication regularly



# Thank you

Open source development is the future of software!

**START CONTRIBUTING TO TIZEN AND BENEFIT  
FROM IT!!**

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