



Slides or source code?

Get the sample source here:
<http://blogs.igalia.com/itoral>

About myself

Member of Igalia since 2003.

Became a partner of the company in 2005.

Member of the build-brigade.

<http://live.gnome.org/BuildBrigade>

<http://build.gnome.org>

Developer of MAFW.

Also interested in GStreamer.



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Quick Introduction To MAFW

Quick Introduction To MAFW

Media Application Framework for Maemo.

High level APIs, close to application use cases.

Wider approach than traditional frameworks:

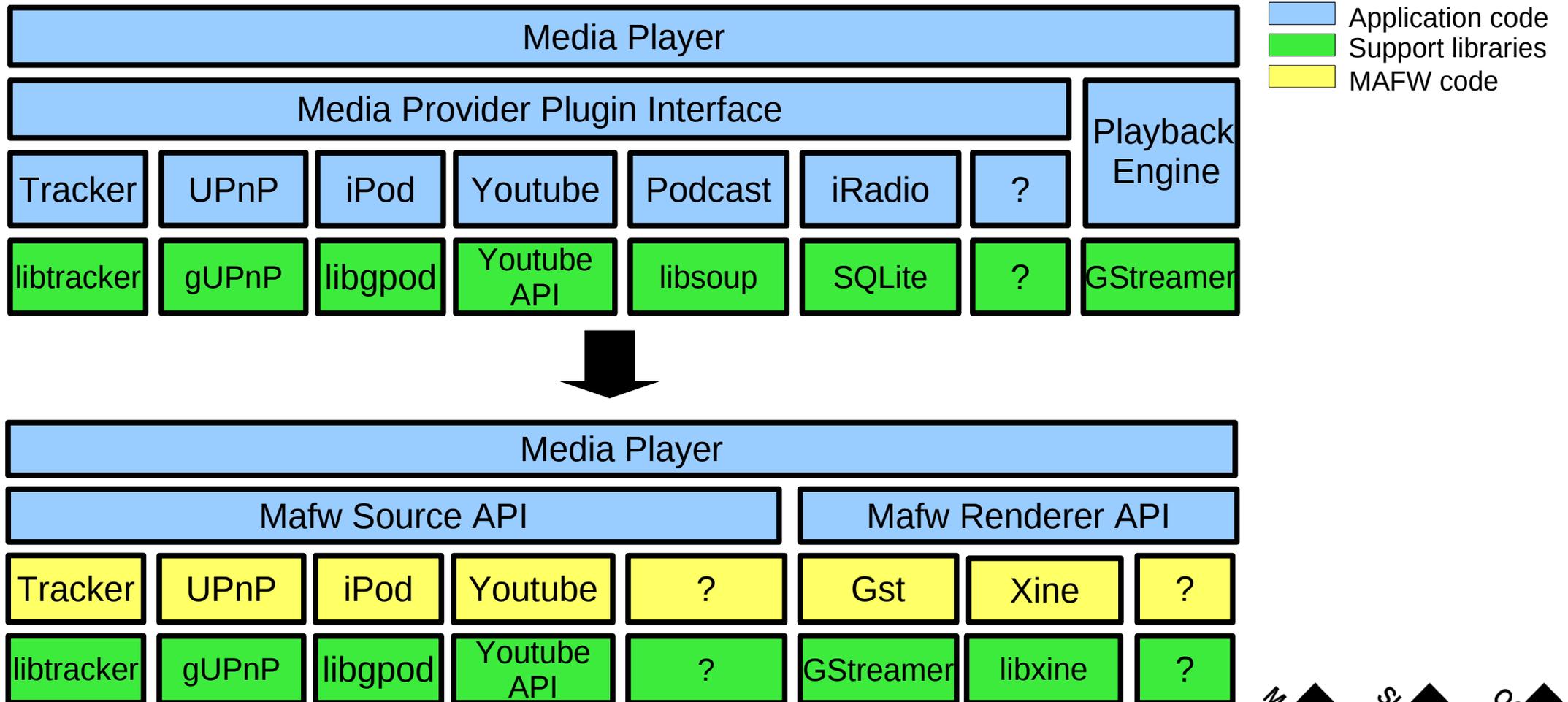
- Media discovery.
- Playlist management.

Plugin based architecture.

Open Source.



Quick Introduction To MAFW



Quick Introduction To MAFW

- Extensions:
 - Sources:
 - Provide access to media content exposing a tree of content that users can browse:
 - Categories: Containers of content, can contain other categories or media items (example: artists, albums, etc).
 - Media: Any resource that can be played.
 - Each item exposed by a source object has a unique identifier (object identifier).
 - <source-uuid>::<resource-identifier>



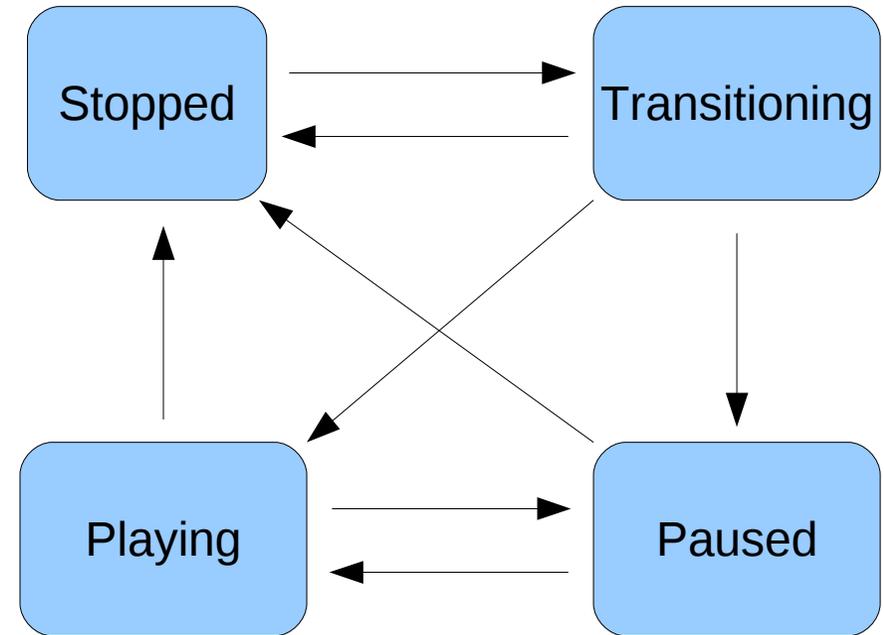
Quick Introduction To MAFW

- Extensions:
 - Renderers:
 - Provide means to play back content exposed by the sources.
 - They implement the playback pipeline.
 - They do not play individual items, but entire playlists.
 - Expose API to control playback:
 - Play, Pause, Resume, Stop, Next, Previous, etc
 - Since playlists in MAFW are a set of object identifiers, the renderers must communicate with the sources to retrieve the URI of the actual items contained in the playlist.



Quick Introduction To MAFW

- Extensions:
 - Renderers:
 - State machine.



Writing Source Plugins

Writing Source Plugins

- Inherit from MafwSource.
- APIs to implement (minimum set):
 - mafw_source_browse
 - mafw_source_get_metadata(s)
- Signals to emit:
 - Container-changed, metadata-changed, updating

Writing Source Plugins

- Important metadata to support:
 - MAFW_METADATA_KEY_{URI, MIME, TITLE}
- Other considerations:
 - Do not block, use the idle loop.
 - MAFW_SOURCE_ALL_KEYS

Writing Renderer Plugins

Writing Renderer Plugins

- Extend from MafwRenderer.
- APIs to implement (there are some more):
 - mafw_renderer_{assign_playlist, play, pause, resume, stop}
- Signals to emit:
 - playlist-changed, media-changed, state-changed, buffering-info, metadata-changed

Writing Renderer Plugins

- Considerations:
 - Renderers implement the playlist logic:
 - Move to next on EOS / error / etc
 - Next, Prev, GotoIndex, etc
 - MafwPlaylist::contents-changed
 - Increment and decrement playlist use count.

Testing Your Plugins

Testing Your Plugins

- Start maemo environment:
 - `af-sb-init start`
 - `run-standalone.sh mafw-playlist-daemon`
 - `run-standalone.sh mafw-dbus-wrapper <plugin.so>`
- Mafw-test-gui
 - Sandbox application, works with any plugin.



Thanks!

