

# TIZEN™

DEVELOPER  
CONFERENCE  
MAY 7-9, 2012



## Podcasts on mobile

gPodder and the gpodder.net web service

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# Overview



- **gpodder.net web service**
  - API
  - Client libraries
  - Supported clients
  - Feed Service
- **gPodder mobile application**
  - QML UI
- **gPodder HTML5 UI**

# gpodder.net web service



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# Web Service



- Initial idea: Accumulate a list of example podcasts
- Side effects: Subscription list backup and sharing
- Initial implementation: CGI script, plain OPML files
- Overhauled in 2009: Django-based web service
- **78.366 podcasts**, ~ 8.5M episodes, ~ **28.000 users**
- **Python, Django, CouchDB**
- Open source (GNU Affero GPL v3):  
**<https://github.com/gpodder/mygpo>**

<https://gpodder.net/>

# Web Service – API (1/3)



- REST-based API, 3 “levels”:
  - **Simple**: Quick to integrate, stateless client
  - **Advanced**: More feature, stateful client
  - **Public**: Podcast directory, toplist, ...
- Various request/response formats
  - OPML, JSON, JSONP, plain text, XML

[http://wiki.gpodder.org/wiki/Web\\_Services/API\\_2](http://wiki.gpodder.org/wiki/Web_Services/API_2)

# Web Service – API (2/3)



- Advanced API Features
  - **Subscription management**
  - **Episode actions** (playback position, status, ...)
  - **Devices** (sync between devices)
  - Server-stored **shared settings and preferences**
  - **Favorite episodes**
  - **Podcast lists** (like “Podcasts to learn Japanese”)

# Web Service – API (3/3)



## ■ Public API Features

- List of tags and categories
- Podcasts from tags and categories
- User-created podcast lists
- Toplists (Most subscribed, most listened, ...)
- Episode metadata

# Web Service – Client libraries



- **python-mygpoclient**
  - Reference implementation
  - Pure Python library
  - Used in the official gPodder client
- **libmygpo-qt**
  - C++/Qt library
  - Used in Amarok and N9 Podcasts app



# Web Service – Supported clients



- **gPodder** (Desktop, Maemo, MeeGo)
- Amarok, Clementine (Desktop)
- Other platforms
  - **Android**: gpodroid, Podax
  - **WP7**: WPodder
  - **webOS**: drPodder (via patch)
  - **Symbian**: Podcatcher, Podmaster

[http://wiki.gpodder.org/wiki/Web\\_Services/Clients](http://wiki.gpodder.org/wiki/Web_Services/Clients)

# gpodder.net Feed Service



- RSS parsing and error correction
- For low-powered clients, JSON result

```
"author": "Sixgun Productions",
"content_types": [
  "audio"
],
"description": "The hardest-hitting Linux podcast around",
"episodes": [
  {
    "author": "Sixgun Productions (linuxoutlaws@sixgun.org)",
    "description": "<p>\n\t<strong>Released:</strong> May 6, 2012<br /><strong>L",
    "files": [
      {
        "mimetype": "audio/mpeg",
        "url": "http://traffic.libsyn.com/linuxoutlaws/linuxoutlaws264.mp3"
      }
    ],
    "link": "http://traffic.libsyn.com/linuxoutlaws/linuxoutlaws264.mp3",
    "number": 264,
    "released": 1336336104,
    "short_title": "s Humping Dog",
    "title": "Linux Outlaws 264 - 007's Humping Dog"
```

<http://mygpo-feedservice.appspot.com/>

# gPodder mobile application



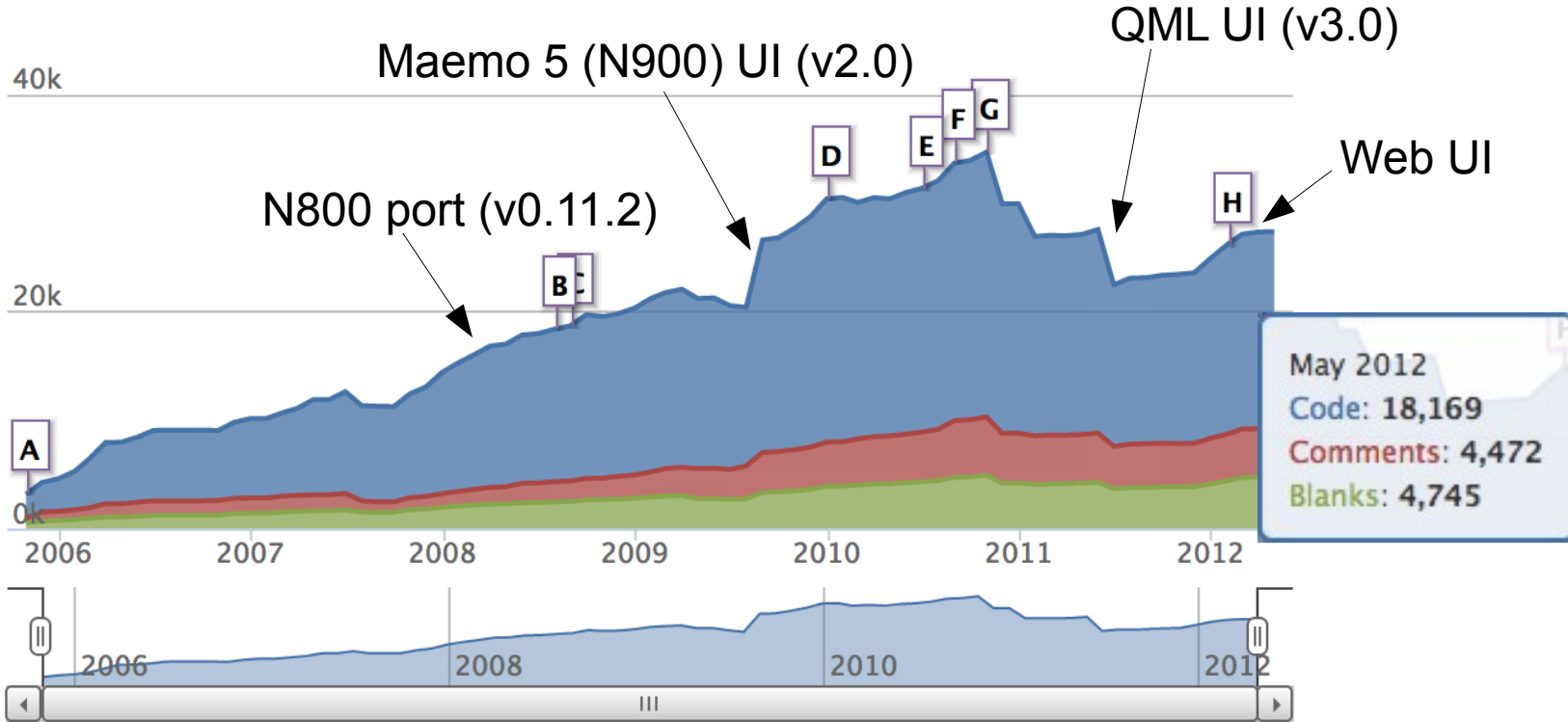
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# Mobile Application



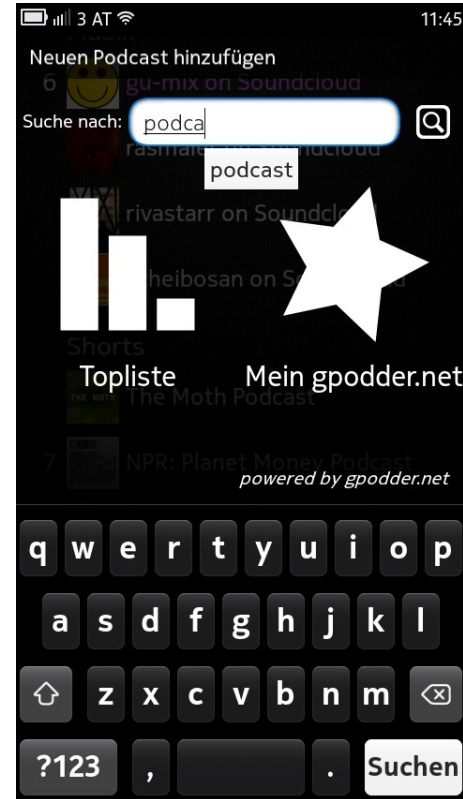
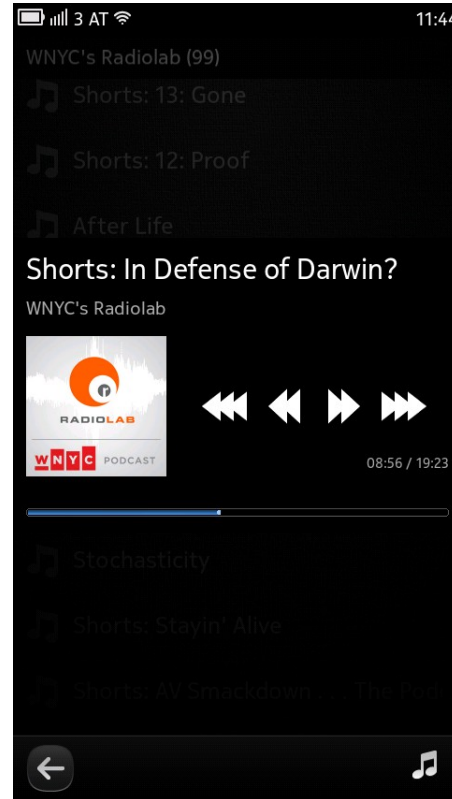
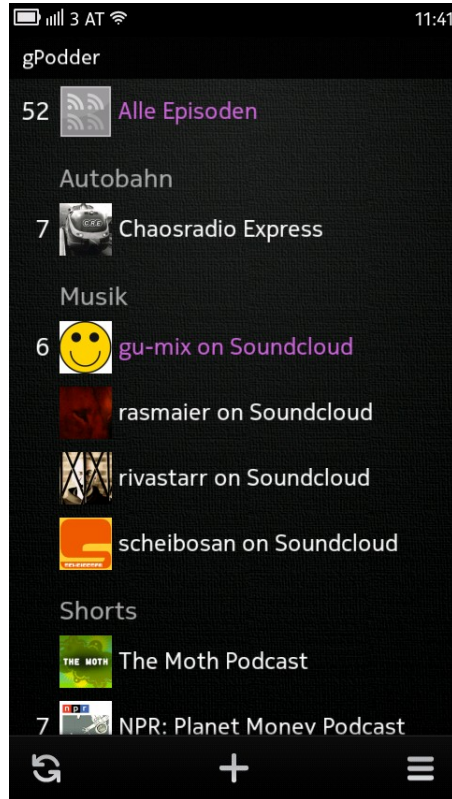
- **Started in 2005** as a Linux Desktop application
  - Written in Python / PyGTK
  - 2008: Ported to “Internet Tablets” (N800)
  - 2009: Ported to **Maemo 5**, smartphone OS (N900)
  - Meanwhile: CLI, Web UI, Windows/OS X port
  - 2011: New UI for MeeGo Harmattan (N9/N950)
    - **PySide**-based **QML UI** (Qt Quick)

# Ohloh.net code statistics



<https://www.ohloh.net/p/gpodder>

# Mobile Application – QML UI



# gPodder HTML5 UI



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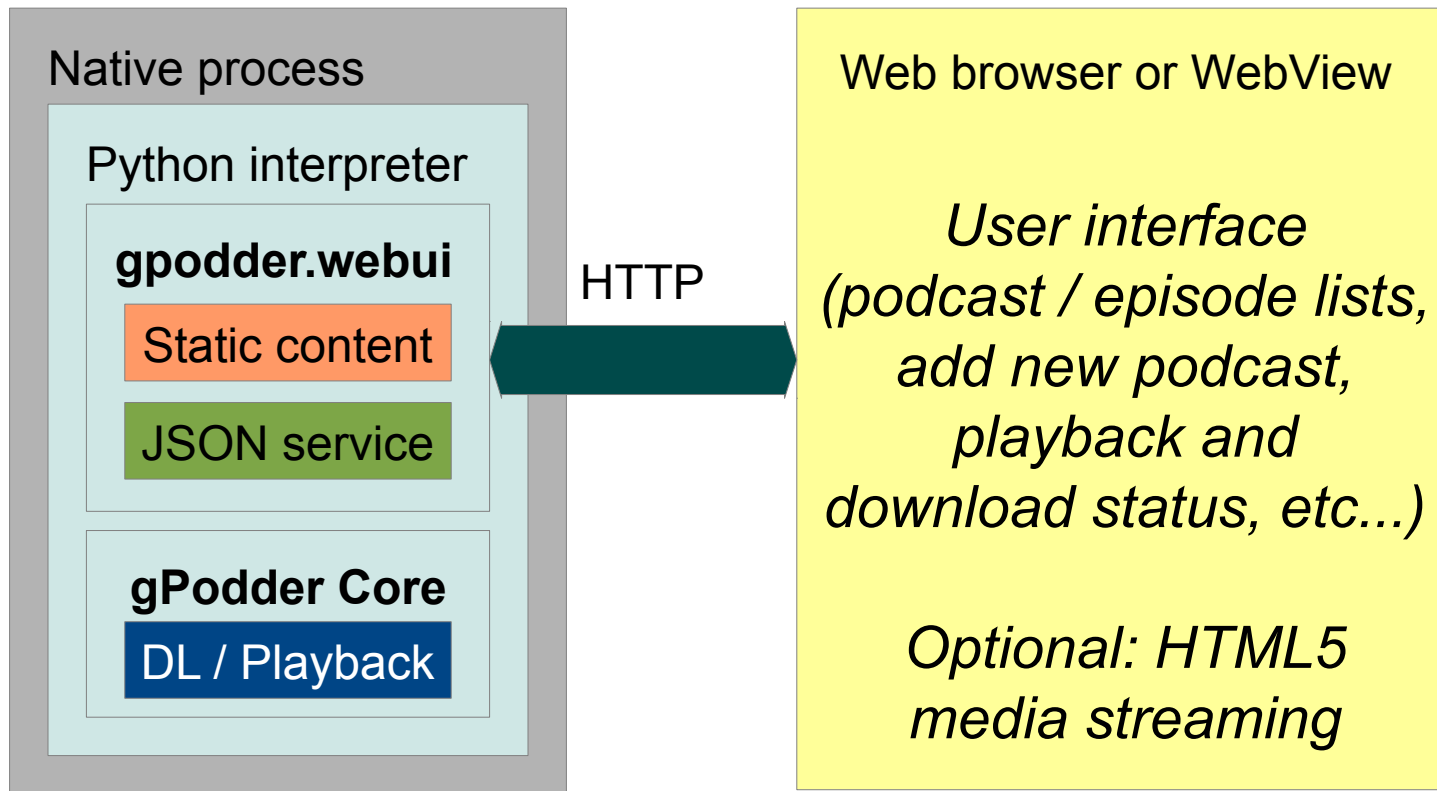
# HTML5 UI



- Evolution of gPodder's Web UI
- Embedded server runs gPodder, serves JSON+HTML
- Playback, downloading, etc. on the server (daemon)
- User controls the application through the HTML UI
- Fully-featured gPodder Python application
- Requires native development kit for the server



# HTML5 UI – Architecture



# Demo



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# Q & A

gPodder application: <http://gpodder.org/>  
Web service: <http://gpodder.net/>



Thomas Perl <[thp.io/about](http://thp.io/about)>

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