Qt-Based Google APIs
Integrated Computer Solutions (ICS)

Qt Developer Days
2012
What Are the Google APIs?

• Interface to Google services to help programmers develop applications.
• Offers a variety of APIs, mostly aimed at web developers.
• APIs consist of specialized web services and programs and specialized scripts that enable Internet application developers to easily find and manipulate information on the web.
• Can be used to add value to applications.
• Use the SOAP and WSDL standards to act as an interface between the user’s program and Google services.
• Compatible with programming environments such as C++, Java, Perl, and .NET
What Can Be Done With The Google APIs?

• Developers can write applications that can connect remotely to Google services.
• Data communications are executed via Simple Object Access Protocol (SOAP).
• SOAP protocol is an XML-based technology for exchanging information entered into a Web application.
• Developers can initiate search requests against Google's index and receive results, e.g.:
  – as structured data: estimated number of results, URLs, snippets, query time
  – access information in the Google cache
  – check the spelling of words
What Are the Qt-Based Clients for Google APIs?

• ICS has published 18 Qt and QML clients for popular Google APIs.
• Make it easy to integrate Google service functionality into your Qt-based applications.
• For many APIs both C++ and QML clients are provided.
• QML is currently targeted at MeeGo (Harmattan) and Symbian platforms.
• Open source.
• Hosted at code.google.com
What APIs are Supported?

- Google Books (C++ and QML)
- Google Tasks (C++ and QML)
- Google Maps (C++ and QML)
- Google Latitude (C++ and QML)
- Google Blogger (C++)
- Google Calendar (C++)
- Google Drive (C++)
What APIs are Supported?

- Google Freebase (C++)
- Google Places (C++)
- Google Plus (C++)
- Google Shopping (C++)
- OAuth Library (C++)
- Google Big Query (C++)
- Google Prediction (C++)
Qt Google Books

• C++ and QML clients which use the Google Books API.
• Google Books is Google's effort to make book content more discoverable on the Web.
• You can integrate this repository including search results and social features into your application
• Can embed book previews.
• Hosted at:
  – http://code.google.com/p/qml-google-books/
  – http://code.google.com/p/qt-google-books/
Qt Google Books - Desktop
Qt Google Books – Nokia N9 (MeeGo)
Qt Google Tasks

- C++ and QML clients which use the Google Tasks API.
- The Google Tasks API provides developers with a set of APIs for searching, reading, and updating Google Tasks content and metadata.
- Hosted at:
  - http://code.google.com/p/qml-google-tasks/
  - http://code.google.com/p/qt-google-tasks/
Qt Google Tasks - Desktop
Qt Google Tasks – Nokia N8 (Symbian)
Qt Google Maps

• C++ and QML clients which use the Google Maps API (v3).
• The Google Maps Image APIs make it easy to embed a static Google Maps image or Street View panorama into application with no need for JavaScript.
• Hosted at:
  – http://code.google.com/p/qml-google-maps/
  – http://code.google.com/p/qt-google-maps/
Qt Google Maps - Desktop
Qt Google Latitude

• QML and C++ clients which use the Google Latitude API.
• The Google Latitude API allows programs to integrate with Google Latitude, enabling users to update and read their current location, location history, etc.
• Hosted at:
  – http://code.google.com/p/qml-google-latitude/
  – http://code.google.com/p/qt-google-latitude/
Qt Google Latitude

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Qt Google Blogger

- Qt C++ client which uses the Google Blogger API.
- The Blogger Data API allows client applications to view and update Blogger content in the form of Google Data API feeds.
- Hosted at:
  - http://code.google.com/p/qt-google-blogger/
Qt Google Blogger

Russian language lessons

Я не понимаю по-русски
Я хочу есть
Я не хочу есть
Я никогда не буду
Не курить
Олеся

Belorussiya

Белый
Минск
Кiev
Москва

Alesia - Cябры "песня года 1981"

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Qt Google Calendar

- Qt C++ client which uses the Google Calendar API.
- The Google Calendar API lets you develop client applications that create new events, edit or delete existing events, and search for events.
- Hosted at:
  - http://code.google.com/p/qt-google-calendar/
Qt Google Calendar
Qt Google Drive

- Qt C++ client which uses the Google Drive API.
- These APIs allow users to create, open, save and share files on Google Drive.
- Hosted at: http://code.google.com/p/qt-google-drive/
Qt Google Drive
Qt Google Freebase

• Qt C++ client which uses the Freebase API.
• Freebase is a large collaborative knowledge base consisting of metadata composed mainly by its community members.
• An online collection of structured data harvested from many sources, including individual Wiki contributions.
• The Freebase APIs can be used to access and update the structured data.
• Hosted at:
  – http://code.google.com/p/qt-google-freebase/
Adventureland is one of the “cool themed lands” at the many Disneyland-style theme parks run by the Walt Disney Company around the world. It is themed to resemble the remote jungles in Africa, Asia, South America, and the South Pacific. “To create a land that would make this dream reality”, said Walt Disney, “we pictured ourselves far from civilization, in the remote jungles of Asia and Africa.”

Adventureland provides a 1950s view of exotic adventure, capitalizing on the post-war Tiki craze. Lush vegetation resembles jungles while elements of the “other” surround the visitor: Tribal performance masks, conga drums, non-American totem poles, exotic animal statues, and architecture of Pacific influence make for a confined area wherein industry and technology take a back seat to uncharted nature. Noted art historian David T. Doris explains Adventureland as, “a pastiche of imaginary colonial spaces, conflated within the green and foliate milieu of ‘the Jungle.’”

Disneyland’s Adventureland was originally envisioned as True-Life Adventureland, and was to be based on Walt’s famous award winning nature documentaries on Africa and Asia. The land was originally supposed to have real animals.

Parks:

- Disneyland
- Tokyo Disneyland
- Hong Kong Disneyland
Qt Google Places

- Qt C++ client which uses the Google Places API.
- The Google Places API is a service that returns information about Places – as establishments, geographic locations, or prominent points of interest – using HTTP requests.
- Place requests specify locations as latitude/longitude coordinates.
- Hosted at:
  - http://code.google.com/p/qt-google-places/
Qt Google Places
Qt Google Plus

- Qt C++ client which uses the Google+ API.
- The Google+ API is the programming interface to the Google+ social networking service.
- You can use the API to integrate your application with Google+ to support social networking features.

Hosted at:
- http://code.google.com/p/qt-google-plus/
Qt Google Plus

George Takei
male
link to google profile

Urls:
http://www.allegiancemusical.com
http://www.georgetakei.com
http://www.allegiancemusical.com/blog-so-takei
http://allegiancemusical.com/blog-so-takei
https://plus.google.com/104234302931579992973

Organizations:

Show activities
Qt Google Shopping

• Qt C++ client which uses the Google Shopping API.
• The Google Search API for Shopping allows developers, to build applications using product data.
• Hosted at:
  – http://code.google.com/p/qt-google-shopping/
# Qt Google Shopping

![Google API Shopping Client](Google_API_Shopping_Client.png)

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Qt OAuth Library

• Qt Library providing OAuth 2.0 for the Google API
• Google APIs use the OAuth 2.0 protocol for authentication and authorization.
• Some of the API clients have a dependency on this module.
• Hosted at:
Qt Google Big Query

- Qt C++ client which uses the Google Big Query API
- Google Big Query is a web service that lets you do interactive analysis of massive datasets – up to billions of rows.
- Hosted at:
  - http://code.google.com/p/qt-google-bigquery/
Qt Google Prediction

- Qt C++ client which uses the Google Prediction API.
- The Google Prediction API provides pattern-matching and machine learning capabilities.
- Hosted at:
  - http://code.google.com/p/qt-google-prediction/
Qt Google Prediction

This model is to predict if the sentence is Interrogative, Declarative or Exclamation. Enter the sentence in English, and click Predict button.

Result:

Interrogative: 0.804519
Declarative: 0.188337
Exclamation: 0.007144
How To Get Started

• Get source code from code.google.com
• See Wiki documentation for any build requirements and dependencies (e.g. QJson).
• Each project has a Wiki and issue tracker.
• C++ applications should work on Windows, Linux, and Mac OS X.
• Help test and contribute to code.
How To Get Started

• Projects in Google Code do not contain Google Application secrets.
• Need to go through registering Google Application and modifying the code to add your application secrets.
• For Prediction and Big Query you may want to add billing to your account.
Demos

• Also see additional demos at the ICS booth.
Future Work

• Enhancements
• Bug fixes
• Support for more APIs
• Better QML support for platforms other than MeeGo (Harmattan) and Symbian
References

• http://www.ics.com/technologies/qt_google_apis/
• http://code.google.com/
• Each API project has git repository, downloads, Wiki, and bug tracker.
Q & A

• Questions?
The End

Thank you very much for attending!