REAL-WORLD APP DEVELOPMENT WITH GOOGLE WEB TOOLKIT

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Outline

- Getting Started
  - Tools, Tutorials, Examples
- *Communicating with the Server*
  - *RPC, Creating Services, Exception Handling*
- *Tips / Tricks*
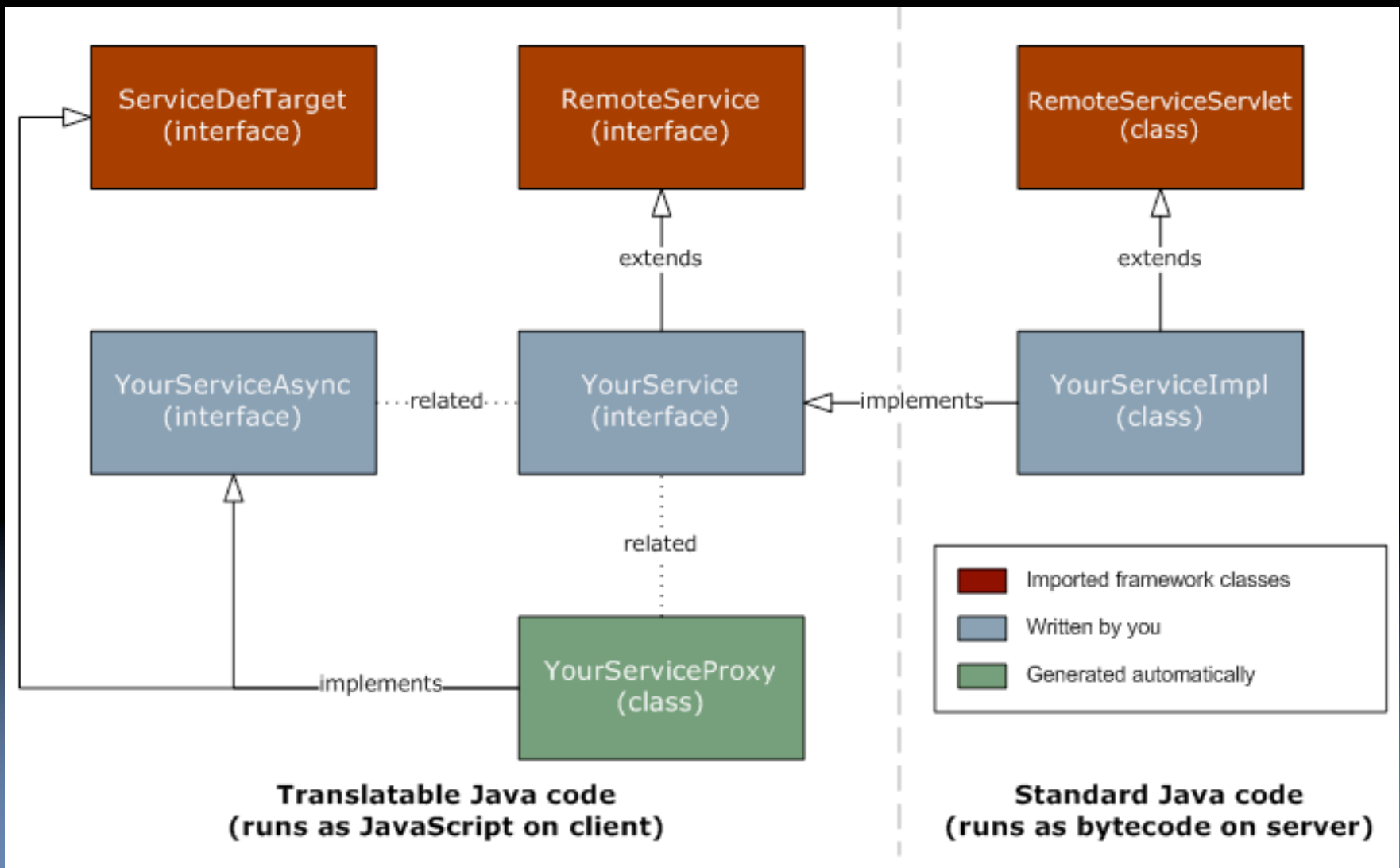- *Key Resources*

GWT - Getting Started

- Tools:
  - http://code.google.com/webtoolkit/
  - http://www.eclipse.org/
- Tutorials
- Widgets / Examples
  - http://www.gwt-ext.com
  - http://www.gwtpowered.org
  - http://www.extjs.com/explorer/

GWT – Server *Communication*

- RPC

  - Allows a GWT client to make a call to server-side code.

  - Super easy development. All the proxy classes that handle RPC are generated automatically. All you need to do is define your service's interface and its server-side implementations.

  - GWT client serialization allows client JavaScript to interact with Java classes on the server.

GWT – RPC Plumbing

ServiceDefTarget (interface)

RemoteService (interface)

RemoteServiceServlet (class)

extends

extends

YourServiceAsync (interface) ···related··· YourService (interface) ◁—implements— YourServiceImpl (class)

related

YourServiceProxy (class)

—implements—

Imported framework classes
Written by you
Generated automatically

Translatable Java code
(runs as JavaScript on client)

Standard Java code
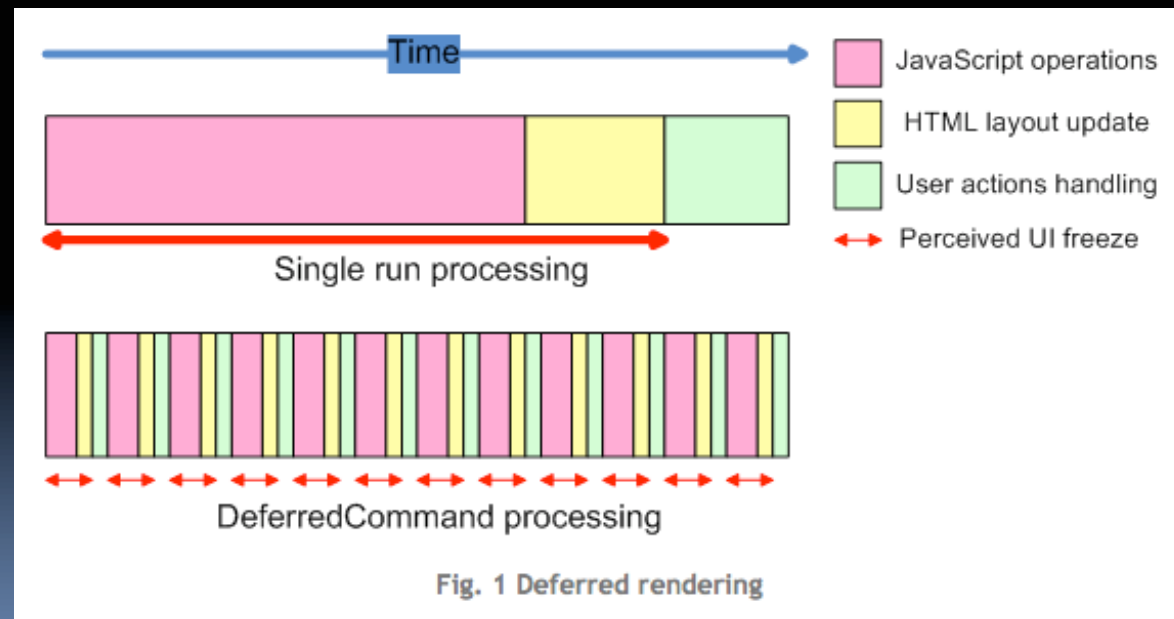**(runs as bytecode on server)**

GWT – Server *Communication*

- *Creating Services – Three steps:*

  - *Define the service's synchronous and asynchronous interfaces.*

  - *Implement the service*

  - *Call the service*

- *Exception Handling*

GWT – Tips and Tricks

- Deferred Rendering – most browsers don't update the HTML canvas while executing JavaScript… So break up long JavaScript ops.

Fig. 1 Deferred rendering

Source: http://techzone.enterra-inc.com/?p=25

GWT – Tips and Tricks

- Avoid long load times when manipulating DOM by only updating what's visible.

- Anticipate browser limits on number of HTTP connections (usually it's 2).

- Compress your JavaScript

- Bundle images.

- Fast Container Pattern

GWT – Key Resources

- *Project Home -* http://code.google.com/webtoolkit/

- GWT Conference Proceedings - http://www.voicesthatmatter.com/gwt2007/presentations/

- GWT Powered - http://www.gwtpowered.org/#Recent

- GWT Developer Forum - http://groups.google.com/group/Google-Web-Toolkit