**Software Team Retreat Notes**

**11/4/2010**

**To Be Continued on Nov. 11, 1-5pm and Nov. 18**

**Decisions**

1. RiverWare to become Windows only
2. This Release will be RiverWare 6.0

**Action Items**

1. Meeting to implement automated licensing on web pages

Features exist in Reprise license manager to do it. Jessica, Bill, and Edie

1. Gather information from users about terminating Solaris: TVA, UC, Others?
2. String class use for internationalization. Define guidelines
3. Investigate Qt number formatting with respect to locale
4. Online Help – Formulate goals, Look at Qt Assistant
5. GUI Standard

Review Kenny’s Doc

Esp. common GUI items

Develop new standards and document

Icon libraries that can be reused to help standardize GUI

**Goals / Objectives**

1. Research Internationalization
2. RiverWare autonotification + version information + download/install option
3. Web-based forum open to users
4. Error numbers (would help with forum, etc.)
5. Online training / Online help / Demos
6. Online Help – An HTML version (in addition to PDF version) on the web
7. Window Management – Need a design
8. Qt4
9. Work Flow Analysis Sessions – webinar where we see user’s screen and hear their narration

**Visions for the Future**

Web applications of RiverWare

**Topics**

(Roughly as it flowed, and sometimes off topic. These are comments not necc. conclusions.)

1. Review of FY 2011 Scopes

I didn’t take notes for this section because it was mostly covered in the handouts.

The URGWOM model developed by Sandia with sliders and dials would be interesting to see given that the stakeholders love it.

1. Licensing RiverWare

Goal: make it easier, more automated

Would like all users to have a login

Have they paid for support?

Consultants with multiple clients need individual support accounts for each client

Want to improve the “Help Desk”

RiverWare Viewer

Many requests

Want to automate it, but also know who they are

Evaluation licenses

Fully functioning RiverWare plus demo models

Prohibit continuous evaluation licenses somehow

Auto-Notify users of new RiverWare versions

Has to check over the internet

Include an **option** to download the new version

Possible firewall issues

Software authentication certificates via Windows to prevent viruses

Would like to double licenses in next two years

Need a user database shared by Jessica, Gwen, and Edie

User support tie in

Currently use Act for training, but hard to share

Licensing to be on new Windows server

Need to improve web pages on Windows server

Also, the new pages should be easily updatable

University has high security responsibility for credit cards

Currently using PayPal

Need to have an ecommerce site in the future

1. Future platforms, Internationalization

Ditch Solaris

TVA only using because of optimizing hourly model with 4.9.5 and using Solaris CPLEX license

UC

Others?

Windows only?

However,one benefit of a second compiler is more robust code

Reduces complexity of having tools to use both

More tools available

Less effort

Some parts of RiverWare are already Windows only

Postprocessor

GPAT

64-bit

Distributed MRM

Competitors are Windows only

Decision – We embrace the evil empire, Microsoft!

Web – Perhaps limited access in the future – e.g. Viewer, SCT, Results

For sharing results

More modular RiverWare may help with this

Might influence model file format changes

Internationalization

Have to redo translation with each new release

Applied to RiverWare binary

Separate loadable language module

Try a language that uses the Latin-1 chaacter set first

Full expressiveness of Qstrings should not be used with this

Strings should be in Qobject

Care about how words become plural

Use more symbolic accelerators to simplify

Guidelines and Qt white papers are available

Qlocale class – scope can be either an instance or system wide

e.g. Numbers with European formatting of “,” and “.”

Locale idea is widespread beyond Qt

Also, need to translate online help

1. Distribution of information about releases, etc.

Have RiverWare check for updates over the internet

Ability to disable

Option to download/install new release

Use HttpRequest

1. User Support

Controlled access

Link to their support account: hours available and hours used

User access to hours via the Web

Average 2-3 questions per week

Should we have a question forum on the web?

Restricted to users with logins

FAQ list?

Error messages – Add error number so that it can be referenced

Messages currently have error numbers, but

Not visible to users

Not static

1. Training

Need more of it

Need more revenue from it

Free training / Webinars for new features

Other topics not free

Remote class participation?

Topic-based, short-module classes

Refresher modules

Possibly reduce Sim class to 1 day of core material with additional topics available as needed

Phil has done click through screenshots for demos of new features

1. Online Help

Move from PDF to HTML, or perhaps add HTML

PDF better for printing the whole document

Hard to search multiple PDFs

Need CMS to efficiently search HTML

Should be able to download from our web pages

Need a better connection from redefined functions to online help

1. Compare other modeling tools; interact with other modeling tools

Parallelization an issue?

Easy prototyping model

Usually guide curves – usually represented with periodic slots

Template objects with dummy data

Look at other systems

Automatic SCT

Automatic method selection with low data demands

Simplify linking

Too many linking options – many don’t make sense

Easy elevation curves somehow

Sample objects

Simplest model: flow demands, elevation targets, guide curves

Canned DMIs. e.g. User makes inputs in Excel and DMIs grab the data for them

On the flip chart

“Prototyping Mode”

Provide guidance to make model building easier / faster

Simple Reservoir Simulation

No pool elevation needed

Run on guide curves

Easy EVT creation

Easy outlet creation

Default method selection

Pre-written policy: guide curve, demand, flow targets

Possibly like automatically generated post-optimization rules

1. Functional Improvements and Enhancements

Excel, RDF, Integrated Input - ***postponed to Nov. 18***

Rest - ***postponed to Nov. 11, 1-5pm***

1. GUI

Too many windows

Ditch Qt3 support layer ASAP

Workflow webinars – Ask users to walk through their normal process

Camera Analogy

Temptation to add too many features and make it hard to navigate

Should be easy to turn the flash off and on

Apple vs. Windows analogy for ease of software use / productivity

Use show more/show less buttons to clarify dialogs

Use “Advanced” buttons to help navigation

Analyze dialogs as we modify them or transition them

Too much or too little functionality

Organization / navigation

Should be able to file comments both positive and negative in the new bug tracking tool

Need to improve GUI consistency – establish standards

Should look like one person programmed it

e.g. OK, Apply, Cancel

Three levels of seriousness in GUI problems

* 1. Substantive problems leading to wrong behavior (and perhaps unnoticed by user)
  2. Inconvenient, but not incorrect behavior e.g. can’t figure out how to do what they want to do
  3. Purely esthetic, e.g. dialog width

Users should feel that experimentation is safe

When it’s not safe users save frequently

Suspect there is underleveraged functionality

Some would be revealed by studying user workflows

Standardize icons – icon library?

Need to simplify and unify copy and paste

Accidental parent-child dialog closing problems

GUSS not ideal for supplies

1. Software Improvements – ***postponed to Nov. 11, 1-5pm***
2. Development Process - ***postponed to Nov. 11, 1-5pm***
3. Staffing or other help/input - ***postponed***

