3.x Development Action Items

3.0 Active Action Items

Item	Description	Lead	Status	Date Created	Notes
46	Move color bars enabling and settings to Render tabs. Add an "apply to all" button to apply settings to all color bars	alan	in-progress	8/19/15	
52	Design review for animation	John	open	12/11/15	
55	Revisit the subtab scheme and consider Scott's suggestion of having "basic" and "advanced" tabs	Scott	open	12/11/15	
61	Investigate use of ForceRender() in render classes (e.g. arrowrenderer) in the context of a overall GUI architecture design review that includes the control exec	john	open	1/7/16	Works in general. Exception is edits to transfer function window, which for some reason aren't propagating up events to main QWidget. Hence, ForceRender still exists in this code.
67	Complete outstanding code review items here:	alan	open	1/25/16	
69	Explore performance of data transforms, particularly reconstruction in GUI. (compare with 2.x)	john	open	2/25/16	AN: on linux performance is ok. On mac and windows performance particularly bad. Problem may be limited to code compiled with -g.
70	Review use of divergent color maps	John	open	3/2/16	
71	Code review for divergent color maps needed	John	open	3/2/16	
72	Clean up params classes and ParamsMgr, removing forward class references	john	open	3/27/16	

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Item	Description	Lead	Status	Date Created	Notes
16	Improve OpenGL management	John	postponed	4/10/2014	
25	Explore adapting arrowrender.cpp, contour, and flow to use Miles "gltube" class for rendering	Alan	postponed	8/15/14	
36	Build 3.0 with Qt5	Alan	postponed	9/17/14	In progress. Qt 5 doesn't support VNC
40	Discuss making Region a sub tab for applicable renderers	john	open	2/11/15	
47	Move "reload shaders" to renderers	alan	open	8/19/15	
48	user prefs:Move "default Settings" to individual parameter panels where the setting applies. Add a "make default" and "restore default" to these panels. Defaults will only apply to some settings, indicated by an asterick, etc.	alan	open	8/19/15	Discussion needed, e.g. what settings will get asterisks? Which sub-tabs will get the buttons? Will make-default apply to the whole tab or just the sub-tab?
60	Refactor dynamic memory use in params and supporting (i.e. XmlNode) classes so that memory is freed by memory creator (current scheme has leaks).	John	open	1/7/16	
68	Design review for key framing		open	2/25/15	

Retired Action Items

Item	Description	Lead	Status	Retired	

1	migrate trackball to GUI	Alan	Done	6/25/2014	
2	redesign of manipulators - separation between GUI and rest of code	Alan	Done	6/25/2014	
3	implement load and save sessions	Alan	Done	6/25/2014	
4	GUI cleanup - vizwin, vizmanager, eventrouters	Alan	Done	6/25/2014	
5	implement viz features as a params class	Alan	closed	1/20/16	
6	Create master action item list	John	Done	6/25/2014	
9	Don't return references in Params classes	Alan	Done	6/25/2014	
8	Update regionparams documentation (DOXYGEN_SKIP stuff)	Alan	Done	8/13/2014	
10	Document error return values for Set/Get methods in Params class	Alan	Done	8/132014	
12	GUI should use ControlExec methods for accessing Params, not static class methods on Params	Alan	Done	8/13/2014	
13	Create status list for Class objects to indicate whether they are complete, partial, or not started	John	Done	8/13/2014	
15	Discuss event routers	Alan	closed	4/10/2014	Waiting on GUI structure decisions
18	Experiment with C++ namepace options to see how we might use them to help identify public classes /methods	Alan	Done	8/13/2014	
19	Research options in Doxygen to improve identification of public class/methods	John	Done	8/13/2014	
20	Create spread sheet to check-off completed (reviewed) classes	John	Done	8/13/2014	
7	Document ParamNode Add methods	John	closed	4/10/2014	no longer needed as ParamNode class will be largely hidden
21	Review ArrowParams and parent classes (code, API, and Doxygen documentation) for next meeting.	Scott, John	closed	7/9/2014	
22	Explore hiding ParamNode class from 3rd party developers	alan	closed	8/13/14	Now partially, but not completely hidden. Too much effort required.
23	Review arrowrender.cpp and renderer class	john, scott	closed	1/20/16	
24	Explore issues with passing pointers to DataMgr and Params* classes to renderers	Alan	closed	8/15/14	
26	Establish consistent methods for error handling (reporting and response)	John	done	8/26/14	
27	Review ControlExec (does it provide needed functionality for UI?)	John	done	8/26/14	
28	Identify preliminary list of things DataStatus provides that might be needed in DataMgr helper class	Alan	closed	8/26/14	Alan will forward John a list
29	Finish documenting DataMgr3.0	John	closed	8/26/14	
30	Add missing DataMgr methods identified in DataStatus document	John	closed	9/12/14	
31	Revise DataStatus class in response to above DataMgr changes	Alan	closed	1/20/16	
32	Refactor Renderer to accept DataMgr and Params as arguments, add return status to init and paint methods	Alan	closed	9/12/14	DataMgr passed in. Minor changes need for Params (pass in to constructor only).
33	Assess state of GUI internals and propose needed changes	Alan	closed	1/20/2016	
34	Evaluate possibility of migrating to Qt 5	Alan	closed	9/12/14	Migration possible. However, Qt5 does not work with VNC.
35	Implement OpenGL status method on renderer	John	closed	9/12/14	John will do ASAP
37	Prototype GUI concepts	Alan	closed	10/1/14	In progress
38	Discuss 3.0 schedule and concerns about getting a working release out	john	closed	2/5/15	Schedule needed
39	Explore options to reduce horizontal tab real estate	Alan	closed	2/11/15	

41	Explore options for re-using GUI components to facilitate adding of new tabs, and help achieve consistent look & feel	alan	closed	1/20/2016	
42	Experiment with appearance improvements on tabs	scott	closed	1/20/16	
43	Integrate DataMgrV3 into GUI	alan	closed	4/22/15	
44	Currently all Qt paint events result in re-renders. These need to be filtered so that re-renders occur only when needed (e.g. param changes, expose & resize events)	alan	closed	1/20/16	
45	settings tab: Omit Scope and Visualizer Name for 3.0 release	alan	closed	1/20/16	
49	Fix WRF translation bug	John	closed	1/20/2016	
50	Review GUI for usability for the next meeting	Scott, John	closed	1/20/16	
51	Implement error handling changes agreed upon today	Alan	closed	1/20/16	
54	Further discussion on error handling in GUI	John	done	12/11/15	
56	Investigate possibility of using Qt GUI designer for components of GUI, tabs and subtabs in particular, that are implemented programmatically	scott	closed	1/20/16	Doesn't appear possible without significant effort. Not clear work is warranted.
57	Make DataStatus a true class (no global scope, static methods) that can be passed to those classes that need access to it.	alan	closed	1/20/16	
58	Complete outstanding items with consensus here: Code Review: Barb Renderer - January 6, 2016 and GUI - Dec 3 2015	scott, alan	closed	1/20/16	
62	Implement subclass of QWidget that provides the subtabs for render event routers	Alan	closed	1/20/16	
63	Review isoline supporting classes (isolineparams, isocontrol, isolinerenderer, isolineeventrouter, isovalueeditor) for meeting on Monday	scott, john	done	1/20/16	
64	Make default arrow glyph width independent of data	Alan	done	1/20/16	
65	Explore options for performing params class initialization (via Validate) lazily to prevent unnecessary and expensive DataMgr access. Needs to be done in context of ControlExec function, and support for other interfaces (e.g. scripting).	John	done	1/20/16	
66	Prepare ControlExec presentation for meeting next wednesday.	Alan	done	1/20/16	