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GSoC 2020 Dev Log

Community Bonding Period (May 4th - June 1)

- Discussed and developed a proof of concept for the customizable toolbar.
- Mentors provided me accounts for wiki and blog.
- Reading and understanding the program flow of the lua ui scripts.
- Set up account info, dev log and blog with the help of mentors.

09 May 2020

 Added basic MainWindow class containing CadMdiChild, Layers, CliCommand, Toolbar and Select tools.

10 May 2020

• Updated the toolbar class for basic initialization, attaching select tools.

11 May 2020

 Shifted GUI related connect calls from lua code to MainWindow class, as well input trigger connections.

12 May 2020

- Replaced luaInterface::qtConnect calls with actual Qt connect calls.
- Moved command list from lua to CliCommand class, along with a few other changes.
- Replaced menu luaConnect calls with temporary API function call.

13 May 2020

- Toolbar manual button creation in lua replaced with temporary API function call.
- Removal and refactoring of redundant lua code.

14 May 2020

- Finished removal and refactoring of id related code since window id is not required anymore.
- Added WindowManager class which will hold a list of window instances and have the new and open functions.

15 May 2020

- Feedback from mentors regarding new entry point for lua scripts.
- Moved UI button connect calls from their UI lua files to each of the tool's lua files, so that each operation can connect the button in it's initialization function.
- Shifted save and saveAs slots from lua to C++.

16 May 2020

- Removed init.lua as lua script execution start point.
- Lua folders are now scanned for files and run, after which init function in each operation is called which adds and connects buttons/registers commands.
- Removed all lua files in ui folder except for operations.lua

17 May 2020

- Began work on automatic generation of operation buttons by using operation properties.
- Added support for command line, menu buttons and toolbar buttons.

18 May 2020

- Added command line list support, toolbar group on the basis of file location.
- Added operations icon property support.
- Shifted remaining global functions from operations.lua to C++.
- Removed lua UI folder completely.

19 May 2020

Added support for method wise toolbar icons in operation properties.

20 May 2020

Attempted to make the unit tests run locally on my pc, ran into some issues with gtest,

21 May 2020

- Added WindowManager unit tests, updated old unit tests to work with new changes.
- Added MainWindow unit tests.

22 May 2020

- Added few more MainWindow unit tests.
- Refactored operations related code in luaInterface.
- Created PR.

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23 May 2020

• Did not do anything related to the project.

24 May 2020

- Began work on Menu part of the Lua GUI API.
- Added Menu class.

25 May 2020

- Added menu and menuitem class
- Changed QMenu widgets to Menu class in ui file
- Ran into some issues regarding replacing qaction widgets.

26 May 2020

- Solved previous day's issues, replacement of gaction with menuitem works.
- Added callbacks list and few more functions for menu and menuitem class.

27 May 2020

- Added few more Menu API functions.
- Added menu positioning and fixed bug in findMenu function.

28 May 2020

- Added menu item positioning.
- Added more function overloads for Menu API operations.

29 May 2020

Added support for menu inside menus.

30 May 2020

- · Added menu item unit tests.
- Restricted menu items from having same label on the same level.
- Attempted disconnection of lua function slot, ran into some issues.

31 May 2020

Spent some time debugging it, more weird issues. Decided to put named callbacks on hold and

add unit tests first.

- Added menu unit tests.
- While adding unit tests, realized issue with updation of positions on removing menu.

Coding Period - I (June 1 - July 3)

01 June 2020

- Fixed remove function issues.
- · Added more menu unit tests.
- Added named callbacks and ability to delete callbacks.
- CliCommand GUI API functions added.

02 June 2020

- Added CliCommand API unit tests.
- Started Layers GUI API

03 June 2020

- Added Layers GUI API functions
- Added few Layers API unit tests

04 June 2020

- Added ToolbarButton class
- Added ToolbarGroup class

05 June 2020

- Updated and replaced toolbartab functions
- Updated operation icon loading in luainterface
- Added few more toolbar gui functions

06 June 2020

- Updated and changed toolbar class functions.
- Added remaining toolbar gui api functions.

07 June 2020

Attempted to solve issues with Qt and Visual Studio.

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08 June 2020

- Shifted button connect function to toolbargroup class
- LuaQObject bug causing issues.

09 June 2020

- Fixed luagobject bug
- Moved snap button initialization to after script loading to avoid issues.

10 June 2020

- Add toolbar and toolbar tab unit tests.
- Added toolbar group and toolbar button unittests.
- Changed menu item callback connection to use signals and slots.

11 June 2020

- Replaced static and dynamic casts with gobject casts, gt crashes have stopped.
- Named callbacks and remove callback added to toolbar button.
- Renamed some api functions to adhere to coding style.

12 June 2020

- Added back luascript widget.
- Enabled changing of number of group columns for toolbargroup.

13 June 2020

- Fixed luascript bug.
- Added OperationLoader class.
- Callback calling is now done directly instead of using luaConnect.
- Removed LuaQObject class and Qt related code in luainterface.

14 June 2020

- Renamed qtbridge to guibridge.
- Removed qt related code in guibridge.

15 June 2020

- Began work on GUI Dialog.
- Added dialog widget, InputGUI class.
- Added TextGUI, ButtonGUI and ButtonGroupGUI class.

16 June 2020

- Added checkbox, radiobutton, radiogroup, horizontalgroup widgets.
- Added Coordinate GUI widget.

17 June 2020

- Added angle widget.
- Added slider and combobox widget.
- Added number widget and updated widgets to allow retrieving of values.

18 June 2020

- Added finish callback functionality of dialog box retrieving all values in a lua table.
- Added keys for widgets added to dialog box.

19 June 2020

Allow selection of coordinate points for coordinate widget by clicking on the point.

20 June 2020

- Added color picker widget.
- Added entity picker widget.
- · Added few more input gui unit tests.

21 June 2020

- Used visitor design pattern to resolve entity determining issue.
- Added horizontal group unit test.

22 June 2020

- Fixed menu positioning bug and entity picker bug.
- Created PR
- Fixed issues on compiling through gnu compiler that were not showing up in msvc.

23 June 2020

- Added layer unit tests as they were less according to the coverage report.
- Began work on customizable toolbar.

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24 June 2020

- Worked on GUI for customize toolbar widget.
- Updated the drag and drop functionality.

25 June 2020

- Changed layout and added parent tabs for customize widget.
- Updated the customize widget.

26 June 2020

- · Added delete functionality for customize widget.
- Started integrating with librecad.

27 June 2020

• Shifted widget classes from qtcreator to librecad.

28 June 2020

- Updated customize widget classes for proper initialization.
- Few changes in the drag model.

29 June 2020

- Button loading and proper handling of duplicate icons in the customize widget,
- Remove button added to tabs and groups in the widget.
- Implemented basic re-addition of buttons on finish.

30 June 2020

- Added clone function for toolbar buttons.
- Fixed re addition of buttons.

1 July 2020

• Partly implemented reading of toolbar data file.

- Added reading of toolbar data from xml file through custom parsing code.
- Icon map shifted to toolbar class from iconlist so that it doesn't get overwritten.

3 July 2020

• Replaced custom parsing code with qxmlstreamreader and writer.

Coding Period - II (July 3rd - July 31)

04 July 2020

• Added UI settings class and writing to ui settings file.

05 July 2020

- Added default settings to ui settings.
- Added default and load toolbar file buttons.

06 July 2020

- Created PR for customizable toolbar.
- Added documentation for MainWindow menu and for menu class.

07 July 2020

- Documentation for Menu classes added.
- Documentation for toolbar classes added.

08 July 2020

- Documentation for layers and clicommand classes added.
- Documentation for dialog widget class added.

09 July 2020

• Documentation for all the input gui widgets added.

- Documentation for dialog example added.
- Finished up the documentation for gui api.
- Made toolbar xml schema.

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11 July 2020

- Searched for a good library for xml/json parsing and schema validation.
- Started shifting settings from xml to json.

12 July 2020

- Settings shifted from xml to json using rapidjson library.
- Settings json schema validation added.

13 July 2020

- Began work on the property editor.
- Added property editor class.

14 July 2020

- Abstracted away input gui containing code to the inputguicontainer class.
- Faced a few bugs with entity selection.

15 July 2020

- Fixed coordinate gui bug in property editor.
- Finally fixed bug with entity selection, properties of already selected entities get retained.

16 July 2020

- Added property visitor class.
- Tried out different ways of setting and retrieving property data.

17 July 2020

- Overrode copy function of entity builder classes for proper copying of entities.
- Added a variant type for retrieving property values from entities.

18 July 2020

- Removed property visitor class, opting for setProperties method instead.
- Changed creation of property widgets.
- Added properties for a few classes like line,circle,ellipse,arc.

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- Added group boxes to seperate entity properties.
- Added spline, polyspline and all dimension properties.

20 July 2020

• Added List Input GUI Class.

21 July 2020

- Added Plus and Minus button functionality for List GUI widget.
- Added control points property widget for spline entity.

22 July 2020

- Added point highlighting for list gui widget.
- Created LWVertexGroup class for holding polyline vertices in the properties widget.

23 July 2020

- Added LWVertex list for the polyline entity properties.
- Fixed few bugs related to lwvertex and added doxygen comments.
- Fixed entity removal and drag points width bugs.

24 July 2020

• Replaced group box with tree widget in the property editor.

25 July 2020

- Fixed minor bugs.
- Created PR and resolved merge conflicts.

26 July 2020

- Tried to figure out seg fault on travis build but not on pc.
- Started refactoring button and checkbox part of input gui.

- Refactored some input gui code (relating to button and checkbox gui)
- Changes to saving of customize toolbar widget (added ok, close and ask user on close)
- Merged and resolved merge conflicts with master.

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28 July 2020

- Fixed minor arc bug, added point properties.
- Added copy paste functionality for input guis through context menu.

29 July 2020

- Added widget titlebar and fixed for proper expansion/collapse of dock widget.
- Add column to make property editor table-like, also added some styling.
- Attempted to fix build constants bug with help from mentors.

30 July 2020

- Fixed build constants bug.
- Added few spacing and styling changes for property editor.
- Fixed proper resizing of property editor on being closed using widget toolbar.

31 July 2020

• Started work on context menu.

Coding Period - III (August 1st - August 31)

01 August 2020

- Added context menu manager class.
- Added loading of basic operation to context menu.

02 August 2020

- Changed initialization of context menu manager to use a static list of instances instead.
- Added few commands like last command, undo, redo, select options etc.

03 August 2020

- Divided context menu into active, inactive and selected states.
- Fix snap options to update changes on both toolbar and context menu.
- Fix undo bug.

04 August 2020

- Added meta info property to property editor.
- · Added lineselect class.

• Added layer combo box to property editor.

05 August 2020

- Added command specific context menu commands.
- Added properties for transition from current command to other commands.
- Added context menu transitions for line operation.

06 August 2020

- Added context menu transitions for circle and few other operations.
- Added contextMenuOptions for other commands like arc and line switching in polyline.
- Added PAN operation to pause the current active operation to allow the user to PAN.

07 August 2020

- Fixed dock widget movement bug.
- Added auto adjusting of titlebar between vertical and horizontal depending on dock position.

08 August 2020

• Nothing done on this day.

09 August 2020

- Changed toolbar data saving method to use rapidjson document.
- Refactored ui settings code to make it easier to add other settings to the json file.

10 August 2020

Added saving of dock proportions for the dock widgets.

11 August 2020

- Minor fix in unit tests as new menu item is added.
- Added ArcWithSCE, ArcWithSCL and ArcWithSCA functions to arcoperations.

12 August 2020

- Added ArcWithCSA and ArcWithSCL.
- Added context transitions for these arc operations.

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13 August 2020

Added ArcWithSEA for arcoperations.

14 August 2020

- Added entity serialization to JSON
- Entity Property serialization to JSON.

15 August 2020

- Deserialization of json properties on pasting.
- Added ArcWithSER and ArcWithSEC

16 August 2020

- Add CCW, switch direction context menu command for toggling CCW in arc/switch direction.
- Created PR for arc_operations
- Entity creation using deserialized json data.

17 August 2020

- Keyboard shortcuts for copy/paste.
- Added copying of polyline vertices.
- Fix spline and dimensions bug while copying.

18 August 2020

Added TextBuilder class

19 August 2020

- Added textoperations lua file
- Added entity properties for text.

20 August 2020

- Added text dialog widget and class
- Text dialog initialization

21 August 2020

Updated TextBuilder class to add more properties

- Dialog close transition to text operation
- Settings of text values through dialog.

22 August 2020

- Add fonts combo box
- Fetching of font from font family in painter

23 August 2020

- Loading of fonts from resources/fonts folder
- · Added menu item and toolbar icon for text
- Added context menu transitions for text operation

24 August 2020

• Wrote phase 3 blog post.

25 August 2020

- Added symbols list to text dialog.
- Wrote final report blog post.

26 August 2020

- Fix dimension modification bug.
- Implemented bounding box function for dimensions.

27 August 2020

28 August 2020

• Added writing and reading of mtext to dxf.

29 August 2020

- Added alignment box with icons to replace combo boxes.
- Fix text align position bug.

30 August 2020

- Added underline and strikethrough for text in lcvtext,text and builder.
- Added underline and strikethrough options in text dialog.

31 August 2020

• Final submisison of gsoc report.

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