**Periodic Table Program documentation**

\*Elemental V0.1

\*First 20 elementals useable

\*Ionic bonds added

\*Covalent bonding not supported

\*Metal alloys unsupported

**Developers : Craig Edwards**

Developed using third party library QT.

**Key files include :**

* icudt52.dll
* icuin52.dll
* icuuc52.dll
* libEGL.dll
* libGLESv2.dll
* Qt5Core.dll
* Qt5Gui.dll
* Qt5Widgets.dll
* Microsoft visual C++ 2010 redistributable
* moc\_periodictable.cpp
* moc\_periodictable.obj
* PeriodicTable.exe
* Plugins folder

**Functions explanations**

void on\_Lanathanide\_Series\_clicked();

void on\_Actinide\_Series\_clicked();

The functions above expand the table to show the extra elements.

void on\_H\_clicked();

void on\_He\_clicked();

void on\_Li\_clicked();

void on\_Be\_clicked();

void on\_B\_clicked();

void on\_C\_clicked();

void on\_N\_clicked();

void on\_O\_clicked();

void on\_F\_clicked();

void on\_Ne\_clicked();

void on\_Na\_clicked();

void on\_Mg\_clicked();

void on\_Al\_clicked();

void on\_Si\_clicked();

void on\_P\_clicked();

void on\_S\_clicked();

void on\_Cl\_clicked();

void on\_Ar\_clicked();

void on\_K\_clicked();

void on\_Ca\_clicked();

The Above functions give a result when a button is clicked. Example possible ionic bonds with Carbon is highlighted when void on\_C\_clicked() is called.

void on\_resetButton\_clicked();

The above function resets the program to default state when the reset button is clicked

void on\_fuseButton\_clicked();

The above function generates the compound result of the 2 selected elements

**Program variables and constants**

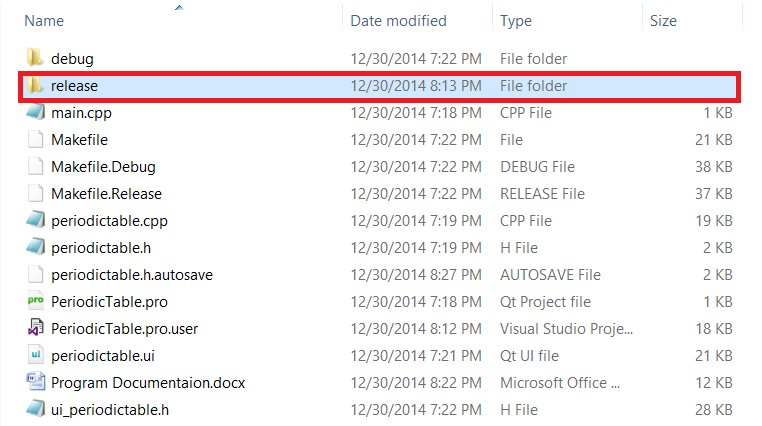
boolean downed variable is used to contain a true or false value whether a button is pressed down or not. It is true if the button is down and false if it is not pressed.

pointers QFont \*f, \*f2 is a QT pointer which containers fonts which are set to the element ID.

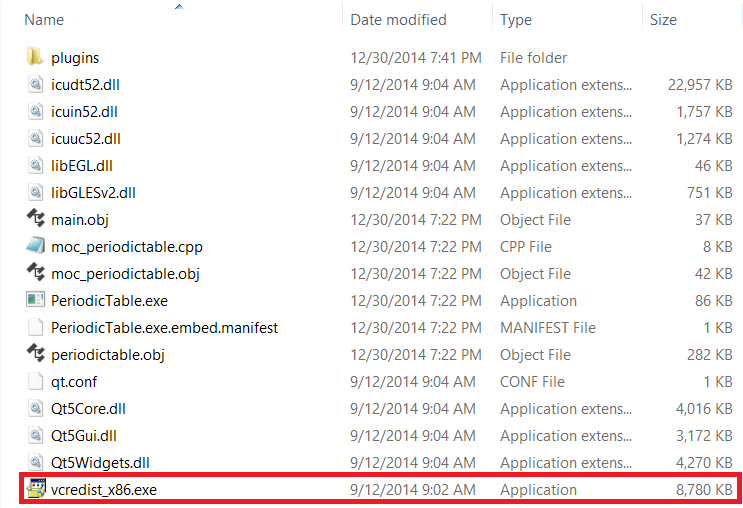
pointer \*ui is used to dereference the Form user interface and all its objects.

**Instructions**

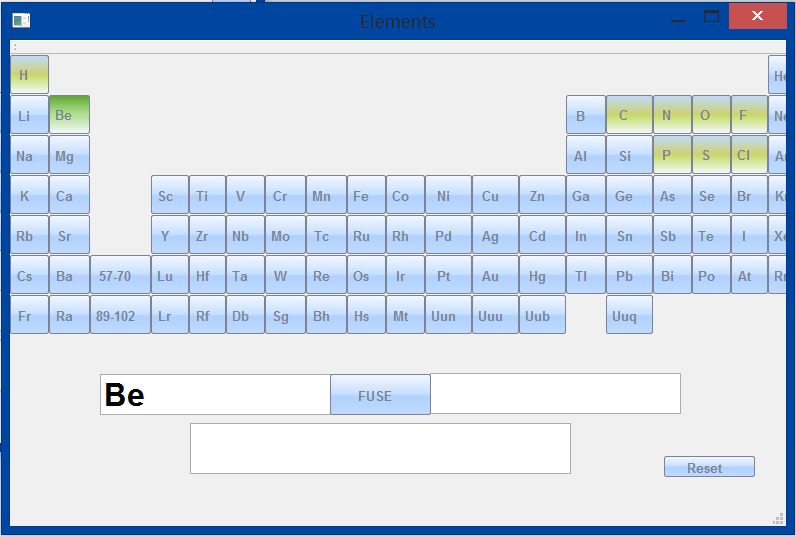
1. Open release folder.



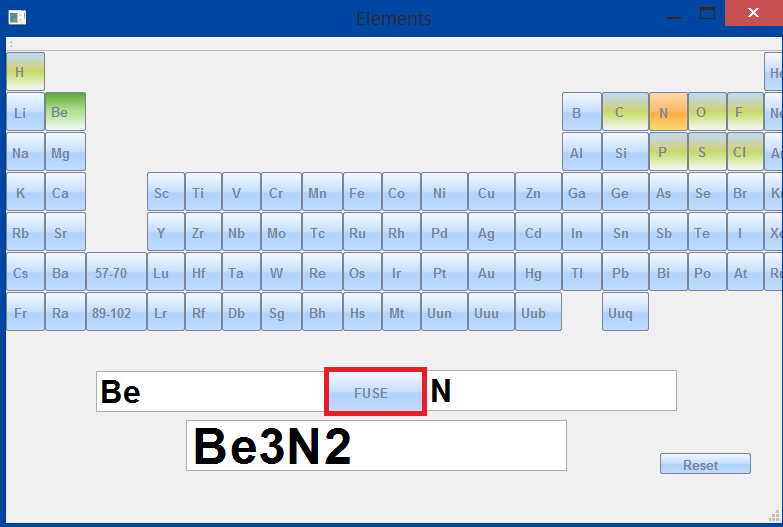
2. Install vcredist\_x86.exe if not already installed.



3. Run PeriodicTable.exe

4. Select a metal and possible ionic bonds should be highlights (metal + non-metal)

5. Select a another element (non-metal) from highlighted elements and click fuse to show bond result



6. Press Reset button to restart the program or simply select another element and fuse again.

7. Click 57-70 or 89-102 to expand table

