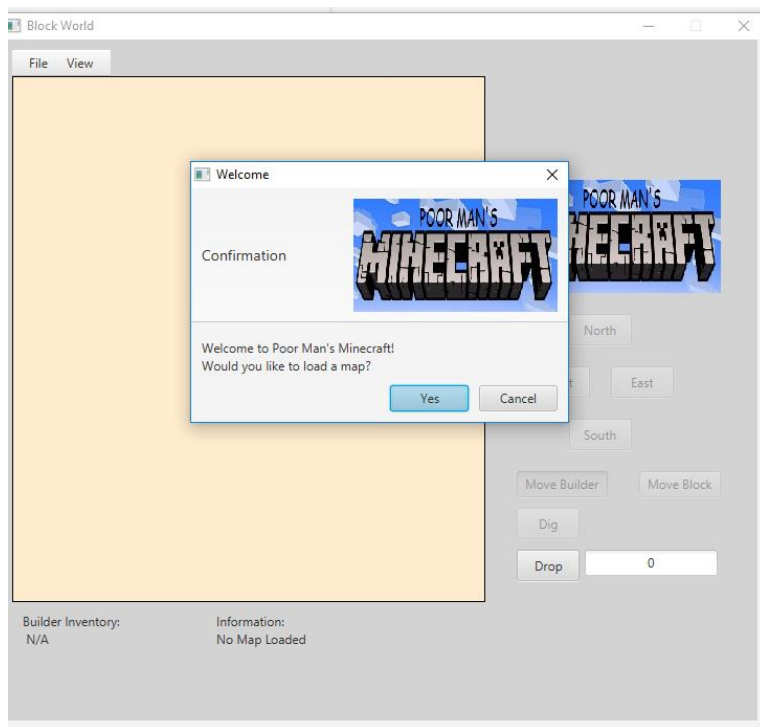
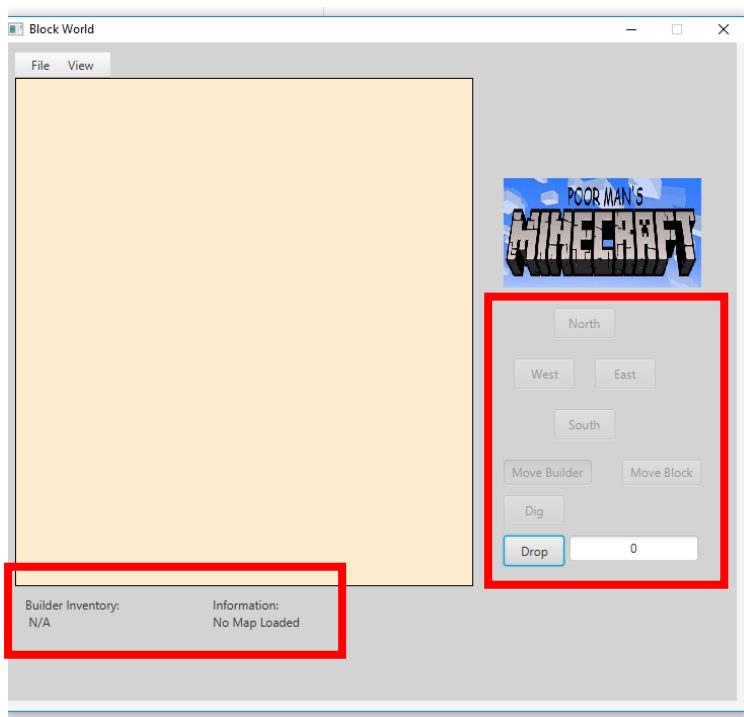


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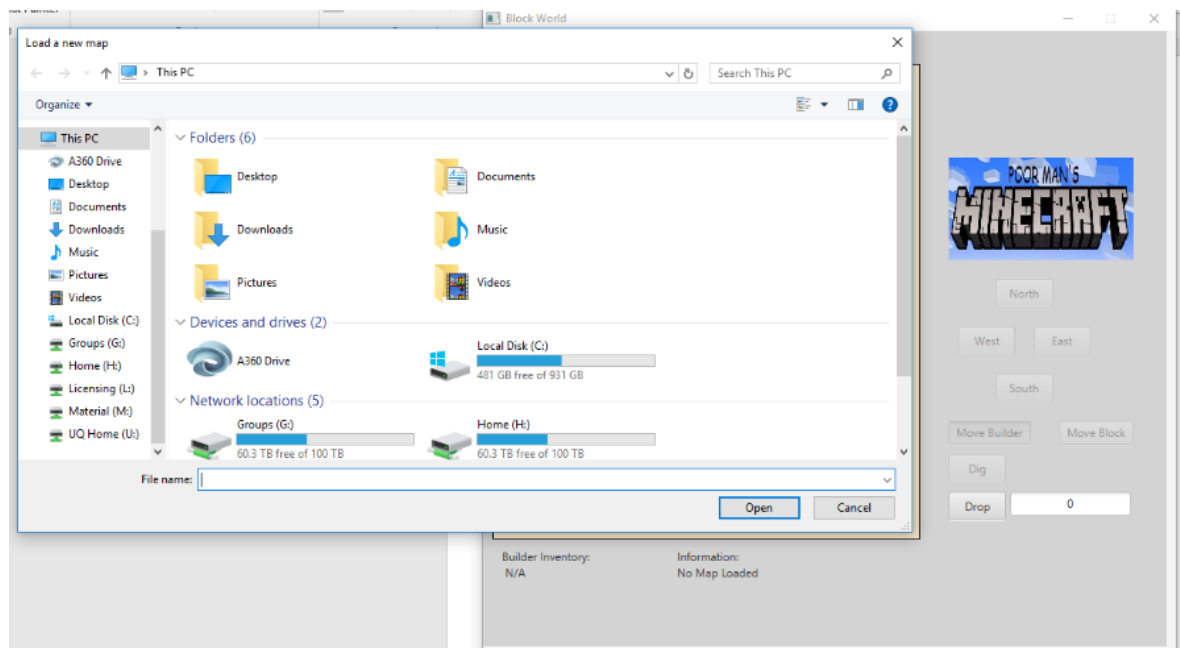


When the game is loaded, welcome screen is displayed with an option to load a map from file, or to not do anything.

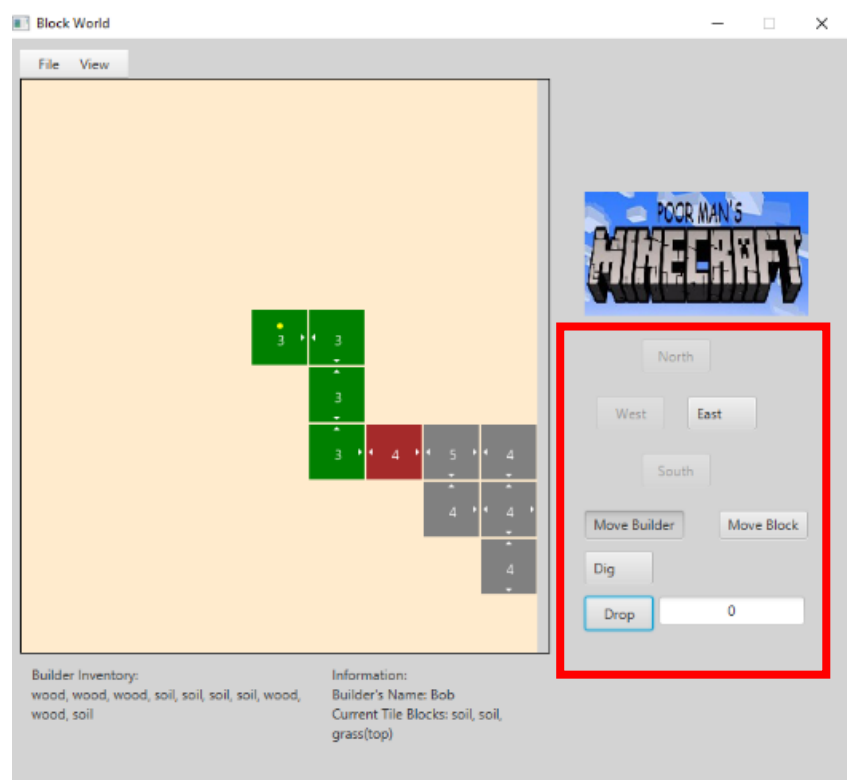


If “cancel” is selected above, the window disappears and all buttons and text fields are disabled besides the menu bar. Information and inventory fields show default abstract information.

File Menu



If the load option is selected, a file chooser window is opened. File types are not restricted but an error will be thrown if a .txt file is not the chosen file.



If a working map file is open, the map is loaded onto the game screen, and the buttons update accordingly. Available directional buttons are enabled, and move builder is enabled by default. Default drop integer value is 0.

Display Map (exactly the same as spec)

- The builder is shown in yellow
- Area will display 9x9 tiles. If a map contains more tiles, they will not be displayed until those tiles are in builder's view.
- Numbers on tiles are total blocks on the tile.
- Colour of the tile represents the colour of the top block on that tile.
- White triangles show the exits on the tile
- Text at the bottom is the builder's inventory.

Block colours:

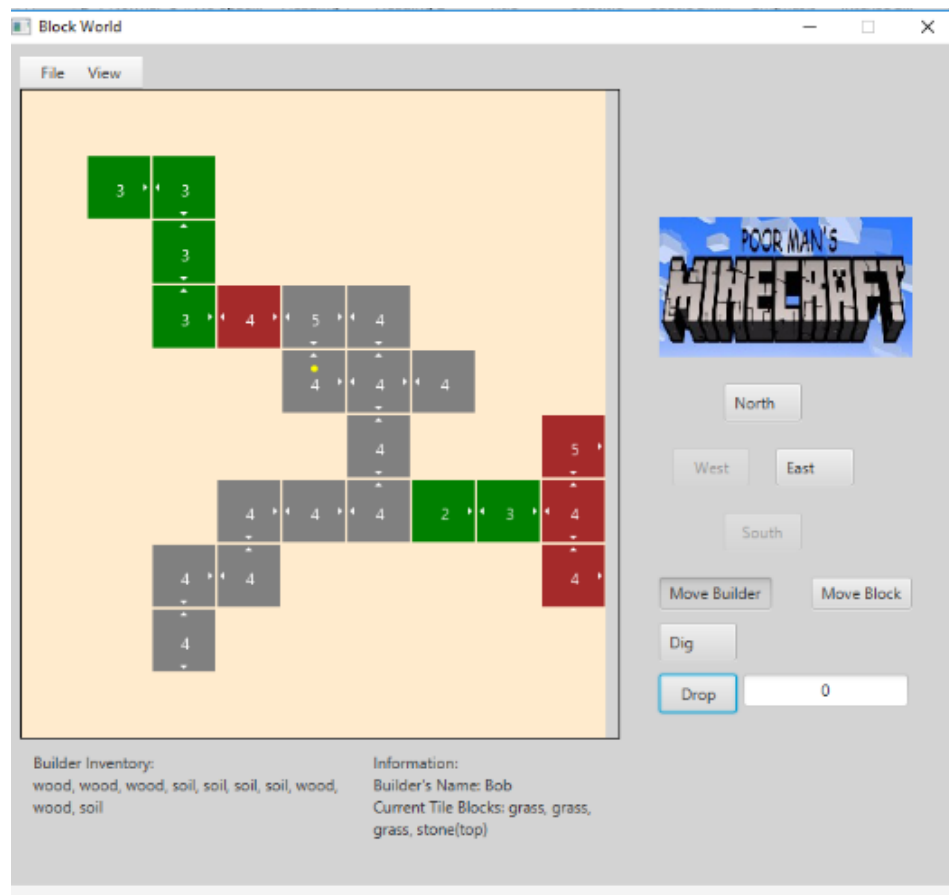
Brown → Wood Block

Green → Grass Block

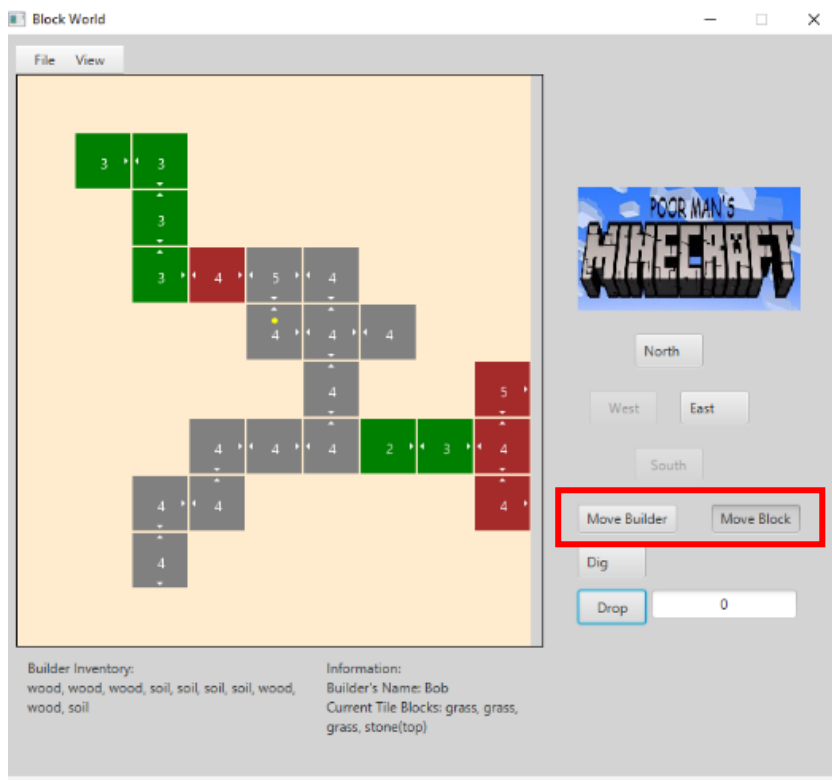
Black → Soil Block

Grey → Stone Block

Action Buttons

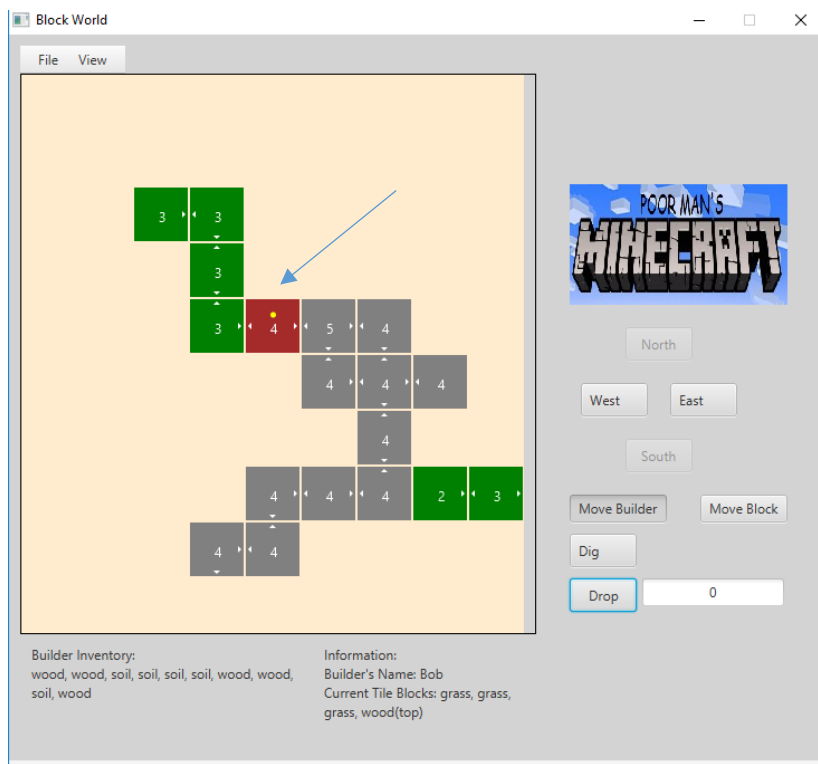


Using the Move Builder Button (Arrow Keys): When the builder moves, the drawn map moves around builder, who stays at centre of the map at all times. For example, clicking "South" or pressing the down arrow key will move all blocks on the map **up** one tile.

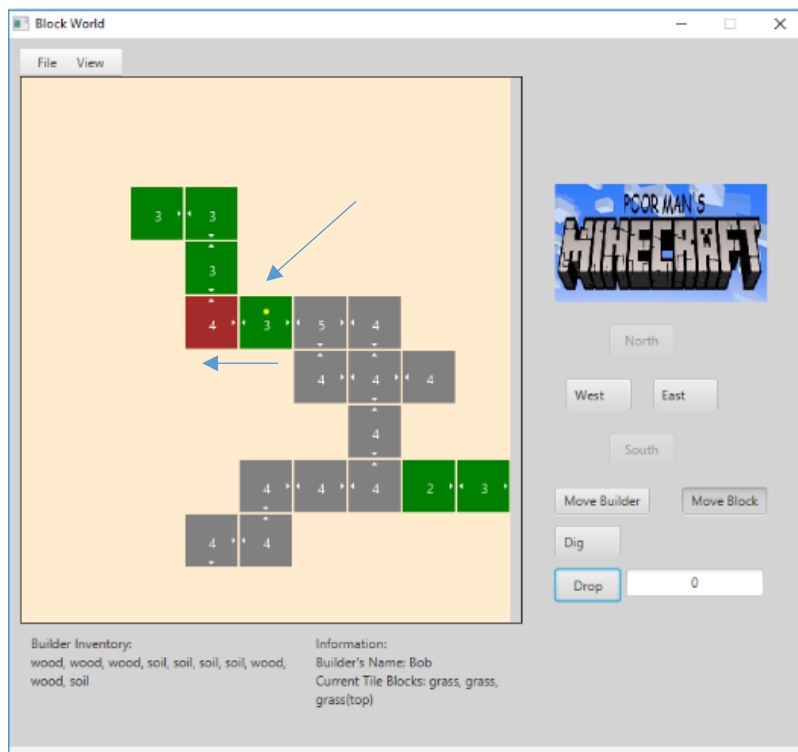


The move buttons can be toggled between each other by clicking Z on the keyboard, or manually clicking the button on the right hand side. Clicking one will automatically deselect the other.

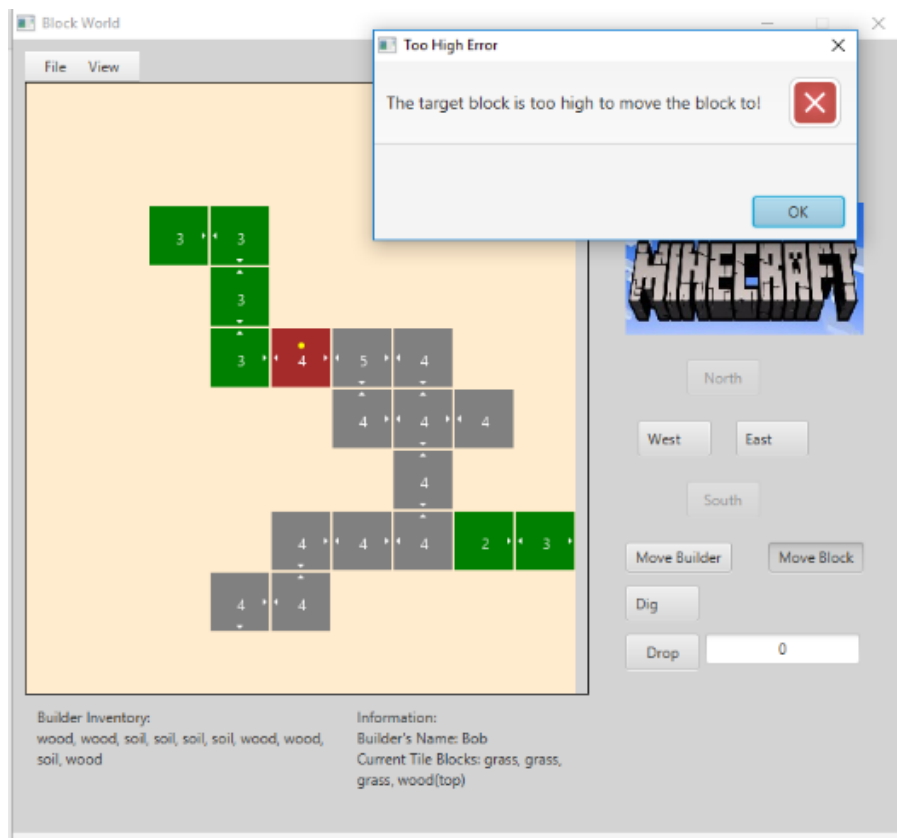
Using the Move Block Button (Click Z to toggle): The image below shows the builder positioned on a wood block 4 blocks high, about to click the West button (or left directional arrow) to move the block one position west.



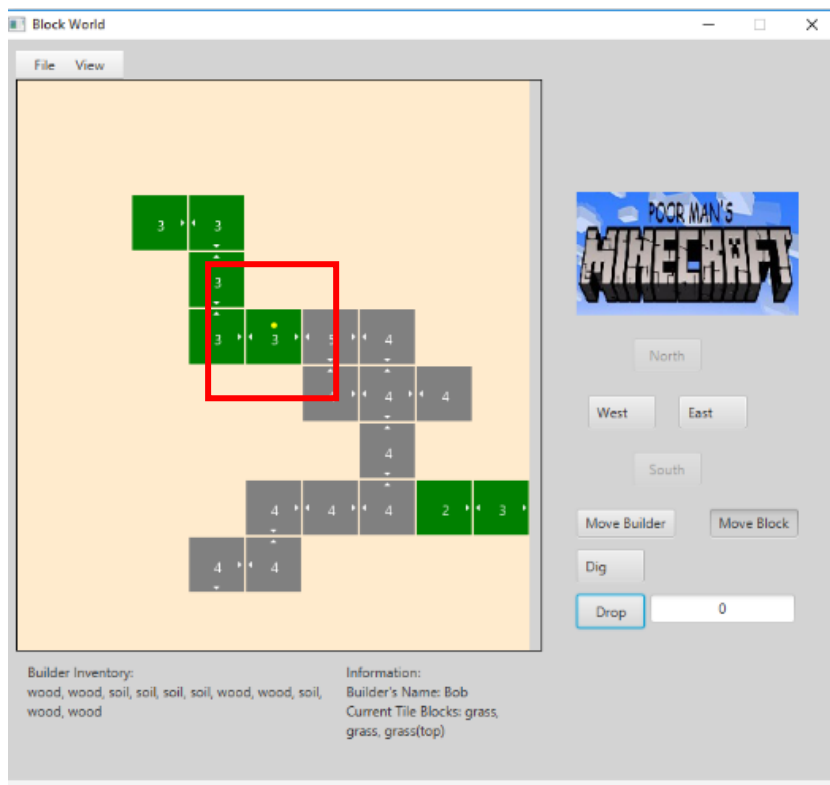
The image below shows the wood block being moved one block west, and thus hiding the original top block underneath it. A grass block on the builder's position is exposed as the new top block.



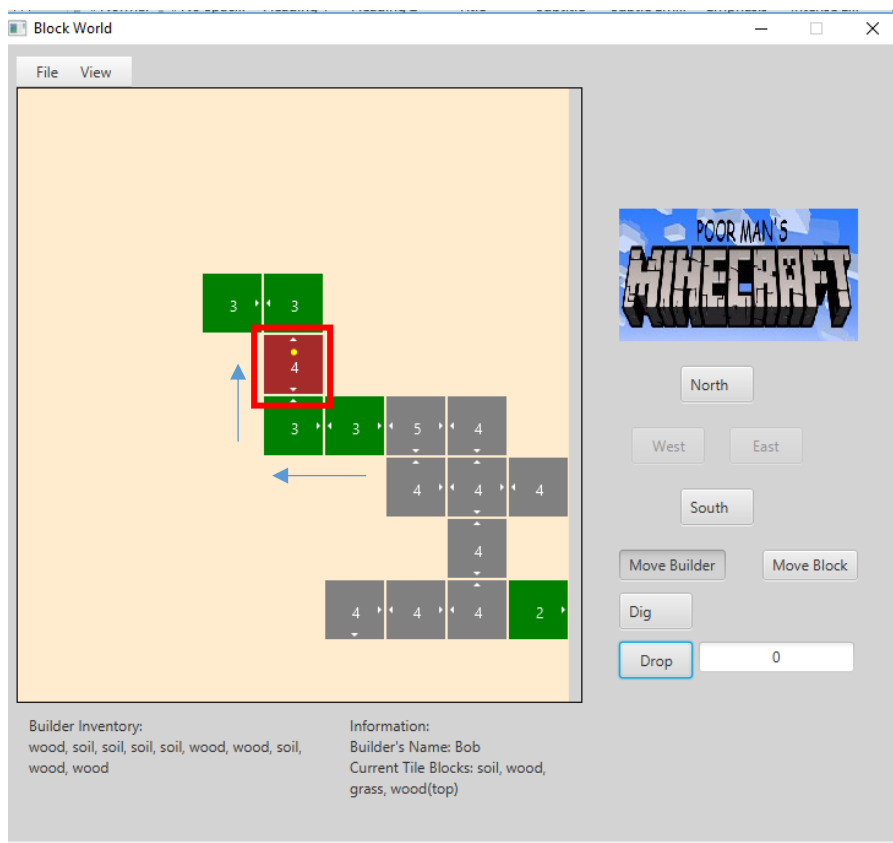
An error alert is shown when trying to move the block east, as the target tile is already too high to move another block onto.



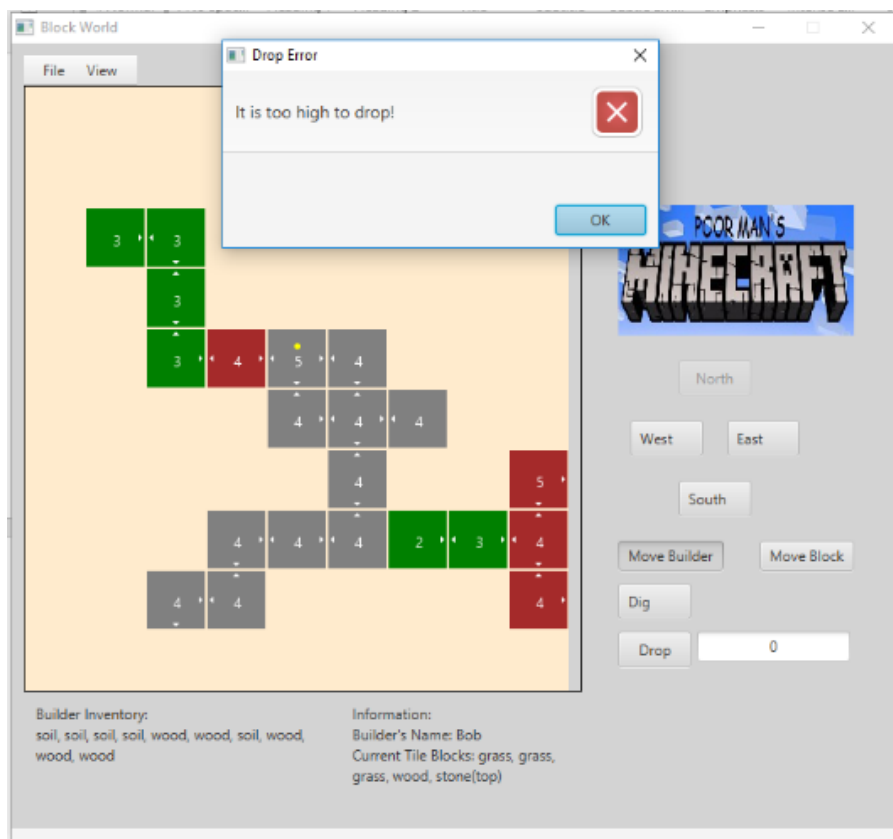
Using the Dig Button: The image below shows the state of the original tile after the dig button is pressed. The dug block is added to the inventory as shown.



Using the drop button with the other actions: Figure X shows the builder then moving a couple of tiles away and dropping the originally dug Wood block on a different tile.



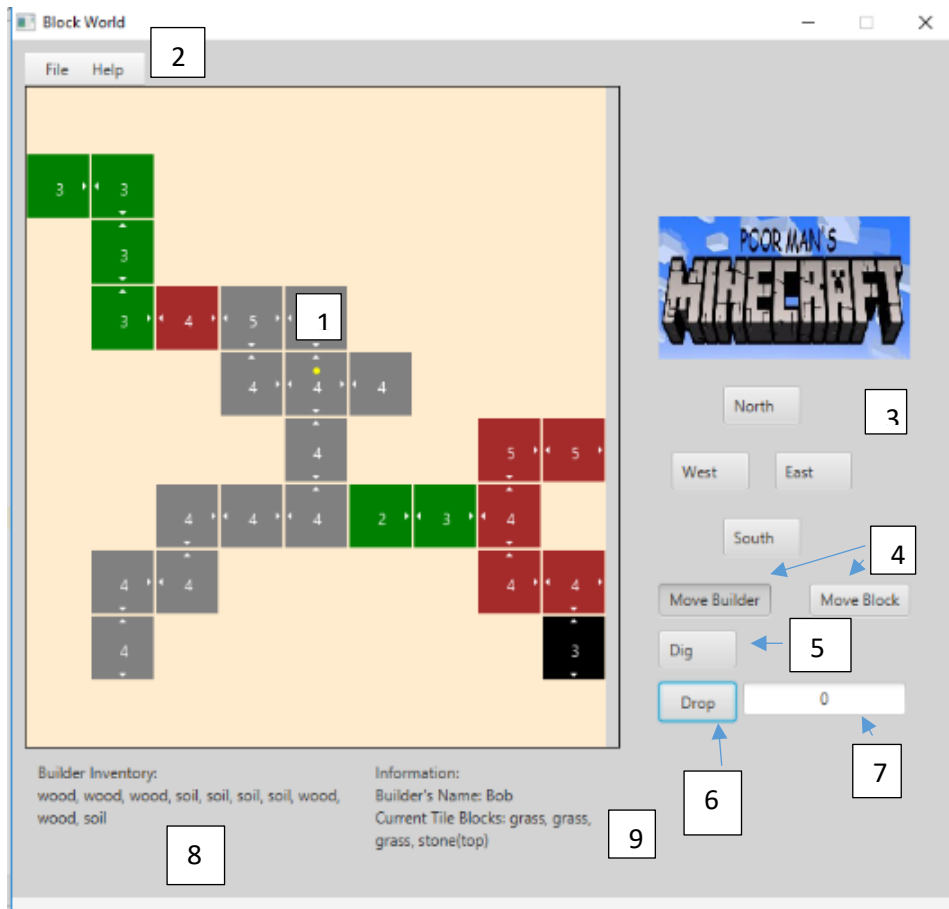
An error alert is shown if a block is attempted to be dropped in an inappropriate location.



Alert Boxes: When are they used?

- Moving Builder (Alert boxes are enabled but these can never be accessed as the movement buttons are disabled when a move is impossible for the below reasons)
 - No exit in the intended direction
 - Target tile is too high
- Moving block
 - No exit in the intended direction
 - Target tile is too high
 - Top block is not movable
- Drop (again, the text field does not allow anything other than integers. This alert can never be accessed)
 - Invalid text is entered in the "Drop index" field
- File Menu
 - When map is successfully loaded
 - When a map cannot be loaded

Annotated screen sample



1. Location of Builder at centre of Map (4, 4) indicated by yellow dot. All exits indicated by white triangles pointing in relevant directions. The number on the tile indicates the amount of blocks on the tile. The colour of the tile indicates the type of top blocks, which are:
 - Brown → Wood Block
 - Green → Grass Block
 - Black → Soil Block
 - Grey → Stone Block
2. Menu bar contains the File and Help sub-menus. File contains Load/Save/Exit options. Help contains the keyboard shortcuts.
3. Directional buttons to be used alongside the Move toggle buttons. Can be used with directional keyboard buttons
4. Toggle buttons used for selecting move focus. Can be toggled with keyboard Z.
5. Dig button. Can be clicked with keyboard X button
6. Drop Button. Can be clicked with keyboard C button
7. Drop text field. Selects which inventory spot to drop from. Can only take integers, and if any of the used key buttons are pressed (Z/X/C/UP/DOWN/LEFT/RIGHT) are pressed, focus is removed from the text field.
8. Contains details of the builder's current inventory. Updates dynamically.
9. Contains information about builder's name and the blocks on the tile the builder is standing on.