VoxelGame User Manual

pershingthesecond January 28, 2022

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1 Welcome!

Thank you for downloading VoxelGame. Currently there is some basic information in this manual, but it will be continuously expanded. VoxelGame is a project I sometimes work on to learn new things and have fun programming, so do not expect too much, especially on the performance side.

2 Versions

- 1.0.0 The First Release
- 1.1.0 The World Update
- 1.2.0 The Block Update

3 Blocks

3.1 Air

The air block that fills the world. Could also be interpreted as "no block".

ID: Air Solid: \boldsymbol{X} Interactions: \boldsymbol{X} Replaceable: $\boldsymbol{\checkmark}$

3.2 Grass

Dirt with some grass on top. Plants can be placed on top of this. The grass can burn, creating ash.

ID: Grass
Solid: ✓
Interactions: ✗
Replaceable: ✗

3.3 Ash-covered Dirt

Grass that was burned. Water can burn the ash away.

ID: GrassBurned Solid: ✓ Interactions: ✗ Replaceable: ✗

3.4 Dirt

Simple dirt. Grass next to it can spread over it.

ID: Dirt Solid: \checkmark Interactions: $\cancel{\times}$ Replaceable: $\cancel{\times}$

3.5 Farmland

Tilled dirt that allows many plants to grow. While plants can also grow on normal grass, this block allows full growth.

ID: Farmland Solid: ✓
Interactions: ✗
Replaceable: ✗

3.6 Tall Grass

A tall grassy plant. Fluids will destroy it, if the level is too high.

ID: TallGrass Solid: \boldsymbol{X} Interactions: \boldsymbol{X} Replaceable: \checkmark

3.7 Very Tall Grass

A much larger version of the normal tall grass.

ID: VeryTallGrass Solid: \boldsymbol{X} Interactions: \boldsymbol{X} Replaceable: \boldsymbol{X}

3.8 Flower

A simple flower.

ID: Flower Solid: $\boldsymbol{\mathsf{X}}$ Interactions: $\boldsymbol{\mathsf{X}}$ Replaceable: $\boldsymbol{\checkmark}$

3.9 Tall Flower

A very tall flower.

ID: TallFlower

Solid: \boldsymbol{X} Interactions: \boldsymbol{X} Replaceable: \boldsymbol{X}

3.10 Stone

This stone block makes up large parts of the world. Below the dirt layers, the ground is solid stone.

ID: Stone Solid:

✓
Interactions:

Replaceable:

✓

3.11 Rubble

When stone is destroyed, rubble is what remains.

ID: Rubble Solid: \checkmark Interactions: \varkappa Replaceable: \varkappa

3.12 Mud

Mud is created when water and dirt mix.

ID: Mud Solid: \checkmark Interactions: X Replaceable: X

3.13 Pumice

Pumice is created when lava rapidly cools down, while being in contact with a lot of water.

ID: Pumice Solid: \checkmark Interactions: \nearrow Replaceable: \nearrow

3.14 Obsidian

Obsidian is a dark type of stone, that forms from lava.

ID: Obsidian Solid: \checkmark Interactions: \nearrow Replaceable: \nearrow

3.15 Snow

Snow covers the ground, and can have different heights.

ID: Snow Solid: \checkmark Interactions: \checkmark Replaceable: \checkmark

3.16 Leaves

Leaves are transparent parts of the tree. They are flammable.

ID: Leaves Solid: ✓ Interactions: ✗ Replaceable: ✗

3.17 Log

Log is the unprocessed, wooden part of a tree. As it is made of wood, it is flammable.

ID: Log Solid: \checkmark Interactions: X Replaceable: X

3.18 Wood

Processed wood that can be used as construction material. It is flammable.

ID: Wood Solid: \checkmark Interactions: $\cancel{\times}$ Replaceable: $\cancel{\times}$

3.19 Sand

Sand naturally forms and allows water to flow through it.

ID: Sand Solid: ✓ Interactions: ✗ Replaceable: ✗

3.20 Gravel

Gravel, which is made out of small pebbles, allows water to flow through it.

ID: Gravel Solid: \checkmark Interactions: \nearrow Replaceable: \nearrow

3.21 Coal Ore

Coal ore is stone that contains coal.

ID: OreCoal
Solid: ✓
Interactions: ✗
Replaceable: ✗

3.22 Iron Ore

Iron ore is stone that contains iron.

ID: OreIron Solid:

Interactions:

Replaceable:

X

3.23 Gold Ore

Gold ore is stone that contains gold.

ID: OreGold Solid: \checkmark Interactions: X Replaceable: X

3.24 Ash

Ahs is the remainder of burning processes.

ID: Ash Solid: \checkmark Interactions: \times Replaceable: \times

3.25 Cactus

A slow growing cactus.

ID: Cactus Solid: ✓
Interactions: ✗
Replaceable: ✗

3.26 Pumpkin

The pumpkin plant fruit.

ID: Pumpkin
Solid: ✓
Interactions: ✗
Replaceable: ✗

3.27 Melon

The melon plant fruit.

ID: Melon Solid: ✓ Interactions: ✗ Replaceable: ✗

3.28 Spider Web

A sticky web that hinders movement.

ID: Spiderweb Solid: $\boldsymbol{\times}$ Interactions: $\boldsymbol{\times}$ Replaceable: $\boldsymbol{\times}$

3.29 Vines

Vines, that grow and allow climbing.

ID: Vines Solid: X
Interactions: X

Replaceable: X

3.30 Flax

Flax.

ID: Flax Solid: X
Interactions: X

Replaceable: X

Potatoes 3.31

Potatoes.

ID: Potatoes

Solid: X

Interactions: X

Replaceable: X

3.32 Onions

Onions.

ID: Onions

Solid: X

Interactions: X

Replaceable: \boldsymbol{X}

3.33 Wheat

Wheat.

ID: Wheat

Solid: X

Interactions: X

Replaceable: X

3.34 Maize

Maize.

ID: Maize

Solid: X

Interactions: X

Replaceable: \boldsymbol{X}

Pumpkin Plant 3.35

Pumpkin plant.

ID: PumpkinPlant

Solid: X

Interactions: X

Replaceable: X

Melon Plant 3.36

Melon plant.

ID: MelonPlant

Solid: X

Interactions: \boldsymbol{X}

Replaceable: X

3.37 Glass

Glass, a see-through block.

ID: Glass

Solid: ✓

Interactions: \boldsymbol{X}

Replaceable: X

3.38 Tiled Glass

Tiled glass, a see-through block.

 ${\rm ID}\colon {\tt GlassTiled}$

Solid: ✓

Interactions: X
Replaceable: X

3.39Steel

Steel block.

ID: Steel Solid: ✓ Interactions: ✗

Replaceable: X

Worked Stone 3.40

Worked stone.

ID: StoneWorked

Solid: \checkmark Interactions: \checkmark

Replaceable: X

Ladder 3.41

Ladder, a block that can be climbed.

ID: Ladder

Solid: X

Interactions: X

Replaceable: X

Small Tiles 3.42

Small tiles.

ID: TilesSmall

Solid: ✓

Interactions: X

Replaceable: \boldsymbol{X}

Large Tiles 3.43

Large tiles.

 ${\rm ID}$: TilesLarge

Solid: \checkmark Interactions: X Replaceable: X

3.44 Black Checkerboard Tiles

Black checkerboard tiles, their color can be changed.

ID: TilesCheckerboardBlack Solid: ✓

Interactions: \checkmark Replaceable: \checkmark

3.45 White Checkerboard Tiles

White checkerboard tiles, their color can be changed.

ID: TilesCheckerboardWhite

Solid: 🗸

Interactions: \checkmark Replaceable: \checkmark

3.46 Bricks

Simple bricks.

ID: Bricks

Solid: \checkmark Interactions: \checkmark

Replaceable: X

3.47 Paving Stone

Paving stone.

ID: PavingStone

Solid: \checkmark Interactions: \checkmark

Interactions: A Replaceable:

3.48 Red Plastic

Red plastic.

ID: RedPlastic

Solid: 🗸

Interactions: X
Replaceable: X

Concrete 3.49

Concrete. The color can be changed.

ID: Concrete

Solid: \checkmark Interactions: \checkmark

Replaceable: \boldsymbol{X}

3.50 Stone Face

A face in stone.

 ${\rm ID} \colon \operatorname{\mathtt{StoneFace}}$

Solid: \checkmark Interactions: \checkmark

Replaceable: \boldsymbol{X}

3.51Vase

A vase.

ID: Vase

Solid: \checkmark Interactions: X

Replaceable: X

3.52 Bed

A bed. Placing it sets the spawn point.

ID: Bed

Solid: ✓

Interactions: 🗸

Replaceable: $\pmb{\varkappa}$

3.53Wool

Wool. The color can be changed.

ID: Wool

Solid: ✓

Interactions: \checkmark

Replaceable: X

3.54 Decorated Wool

Wool with decorations. The color can be changed.

ID: WoolDecorated

Solid: \checkmark Interactions: \checkmark Replaceable: \checkmark

3.55 Carpet

Carper. The color can be changed.

ID: Carpet

Solid: \checkmark Interactions: \checkmark Replaceable: \checkmark

3.56 Decorated Carpet

Decorated carpet, the color can be changed.

ID: CarpetDecorated

Solid: ✓
Interactions: ✓
Replaceable: ✗

3.57 Glass Pane

A thin glass panel.

ID: GlassPane

Solid: \checkmark Interactions: XReplaceable: X

3.58 Bars

Steel bars.

ID: Bars

Solid: ✓
Interactions: ✗
Replaceable: ✗

3.59 Wooden Fence

A wooden fence.

ID: FenceWood

Solid: \checkmark Interactions: X Replaceable: X

3.60 Rubble Wall

A wall made out of Rubble.

ID: WallRubble

Solid: ✓
Interactions: ✗
Replaceable: ✗

3.61 Brick Wall

A wall made out of brick.

ID: WallBricks

Solid: \checkmark Interactions: X Replaceable: X

3.62 Steel Door

A door out of steel.

ID: DoorSteel

Solid: ✓
Interactions: ✓
Replaceable: ✗

3.63 Wooden Door

A door out of wood.

ID: DoorWood

Solid: \checkmark Interactions: \checkmark Replaceable: X

3.64 Wooden Gate

A fence gate.

ID: GateWood

Solid: \checkmark Interactions: \checkmark Replaceable: \checkmark

3.65 Barrier

A barrier to control flow of liquids.

ID: LiquidBarrier

Solid: ✓
Interactions: ✓
Replaceable: ✗

3.66 Steel Pipe

An industrial steel pipe.

ID: SteelPipe

Solid: \checkmark Interactions: X Replaceable: X

3.67 Wooden Pipe

A primitive wooden pipe.

 ${
m ID}\colon {\tt WoodenPipe}$

Solid: \checkmark Interactions: X Replaceable: X

3.68 Straight Steelpipe

A special steel pipe that can only form straight connections.

 ${\rm ID}$: StraightSteelPipe

Solid: \checkmark Interactions: XReplaceable: X

3.69 Valve Pipe

A special steel pipe that can be closed.

ID: PipeValve Solid: \checkmark Interactions: \checkmark Replaceable: \checkmark

3.70 Pump

A pump that lifts up liquids when interacted with.

ID: Pump Solid: \checkmark Interactions: \checkmark Replaceable: \checkmark

3.71 Fire

Fire. Burns flammable blocks.

ID: Fire Solid: \boldsymbol{X} Interactions: \boldsymbol{X} Replaceable: \checkmark

3.72 Pulsating Block

A magical pulsating block.

ID: Pulsating
Solid: ✓
Interactions: ✓
Replaceable: ✗

3.73 Eternal Flame

A block that, once ignited, will burn for ever time.

ID: EternalFlame Solid: ✓ Interactions: ✗ Replaceable: ✗

3.74 Path

A walkable path.

ID: Path Solid: ✓ Interactions: ✗ Replaceable: $\pmb{\varkappa}$

Liquids 4

No Liquid 4.1

No liquid.

ID: None

Viscosity: 1

Density: 1.2

4.2 Water

Simple water.

ID: Water

Viscosity: 15

Density: 997

Milk 4.3

Milk.

ID: Milk

Viscosity: 30

Density: 1033

4.4 Steam

Steam.

ID: Steam

Viscosity: 3

Density: 0.5

4.5 Lava

Lava. Reacts in contact with water and other liquids.

ID: Lava Viscosity: 225 Density: 3100

4.6 Crude Oil

Crude oil.

ID: CrudeOil Viscosity: 120 Density: 870

4.7 Natural Gas

Natural gas.

ID: NaturalGas

Viscosity: 7 Density: 0.8

4.8 Concrete

Concrete, hardens after a while.

ID: Concrete Viscosity: 150 Density: 2400

4.9 Honey

Honey.

ID: Honey Viscosity: 300 Density: 1450

4.10 Petrol

Petrol.

ID: Petrol Viscosity: 13 Density: 740

4.11 Wine

Wine.

ID: Wine Viscosity: 21 Density: 1090

4.12 Beer

Beer.

ID: Beer Viscosity: 22 Density: 1030

5 Controls

5.1 Fullscreen

The key is bound to F11 per default.

5.2 Toggle UI

The key is bound to $\boxed{\mathsf{F10}}$ per default.

5.3 Screenshot

The key is bound to F12 per default.

5.4 Console

The key is bound to F1 per default.

5.5 Debug View

The key is bound to F2 per default.

5.6 Escape

The key is bound to Escape per default.

5.7 Forwards

The key is bound to W per default.

5.8 Backwards

The key is bound to S per default.

5.9 Strafe Right

The key is bound to D per default.

5.10 Strafe Left

The key is bound to A per default.

5.11 Sprint

The key is bound to ShiftLeft per default.

5.12 Jump

The key is bound to Space per default.

5.13 Interact / Place

The key is bound to Right per default.

5.14 Destroy

The key is bound to Button1 per default.

5.15 Force Interaction

The key is bound to $\overline{\sf ControlLeft}$ per default.

5.16 Placement Mode

The key is bound to R per default.

5.17 Next Placement

The key is bound to KeypadPlus per default.

5.18 Previous Placement

The key is bound to KeypadMinus per default.