|  |  |
| --- | --- |
| 2013 | **1.7.2**  **General**  **Improvements & Changes**   * [**Resource packs**](http://minecraft.gamepedia.com/Resource_pack)   + Complete menu overhaul     - The ability to select multiple resource packs at once.     - Resource packs at the top take precedence over those below if files appear more than once     - Allows for non-manual merging of textures from multiple packs, a sound pack and a different texture pack, etc.   + Servers can offer resource packs     - Max size increased to 50 MB * **Sounds**   + You are now able to add new sounds using resource packs   + Resource packs can now add, remove, supplement, randomize, and group sounds using JSON   + Sounds and music are now stored together in the new .minecraft/assets/sounds folder   + Music now pauses when pausing the game * **Network Code**   + Completely rewritten   + Uses Netty now   + Most packets won't change, handshake and ping procedure redone   + There is a packet length header * **Lighting**   + Several lighting issues fixed.   + A lot fewer "black spots" in the terrain generator.[[5]](http://minecraft.gamepedia.com/Version_history#cite_note-5)   + [Torch](http://minecraft.gamepedia.com/Torch) bugs in [strongholds](http://minecraft.gamepedia.com/Stronghold) and [abandoned mineshafts](http://minecraft.gamepedia.com/Abandoned_mineshaft) have been fixed.[[6]](http://minecraft.gamepedia.com/Version_history#cite_note-6)[[7]](http://minecraft.gamepedia.com/Version_history#cite_note-7)   + The light level actually falls to 7 during thunderstorms now (before it stayed at 12 like normal rain but hostile mobs could spawn as if the light level was 7).     - The clouds go black and the sky goes much darker. * [**Options**](http://minecraft.gamepedia.com/Options)   + Grouped a few options into the Controls section, allowed rebinding of 1-9 hotkeys, screenshot key, cinematic camera toggle (can be rebinded and no longer has a default key), camera switching and added sprint button which will keep re-engaging sprint whenever possible (left control by default)   + Music & Sounds     - Now allows separate volume controls for Master Volume, Music, Jukebox/Noteblocks, Weather, Blocks, Hostile Creatures, Friendly Creatures, Players and Ambient/Environment   + The Resource Pack screen     - Now a split view to list selected and unselected resource packs - multiple resource packs can now be used simultaneously with higher priority resource packs getting to use eventual duplicate textures/files   + Video Settings     - Render Distance is now a slider ranging from 2 to 16 chunks, Max Framerate is now a slider ranging from 10 to 250 fps, Unlimited; Mipmapping can be set to levels 1 to 4 or disabled, Anisotropic Filtering can be set to 2, 4, 8, 16 or disabled   + Super Secret Settings     - Plays a random sound when clicked and cycles through various experimental shaders: fxaa, art, bumpy, blobs2, pencil, color\_convolve, deconverge, flip, invert, ntsc, outline, phosphor, scan\_pincushion, sobel, bits, desaturate, green, blur, wobble, blobs, antialias     - Can be reset by pressing F4   + Language Selection     - Added 'Force Unicode Font' option which allows you to change whether Unicode font is forced for text or not. * **Inventory**   + In creative mode, the display item for the Decoration Blocks tab changed from Rose to Peony.   + The armour boxes go black when the cursor is away from them     - Putting the cursor over an armour box will cause it to display what armour is put there * **Server list**   + Can now be refreshed using F5   + Added server icons   + Added support for multi-line MOTD comments which do not go offscreen   + Hovering over the player count will now show a few online players * **Logging**   + Now done using Log4j 2   + Default logging location is now in logs/latest.logs, older logs are archived in logs/<year>-<month>-<day>-1.lg.gz with the number at the end increasing each startup   + The way logs are saved can be changed to, for example, html pages, databases, errors only, no logging at all * **Minecraft Realms**   + Started preparing buying support internally   + Started offering an option to download the world map * [**Splash**](http://minecraft.gamepedia.com/Splash) **text**   + 'Now contains 32 random daily cats!'   **Gameplay**  **Additions**  **World Generation**  **Additions**   * [**Trees**](http://minecraft.gamepedia.com/Tree)   + Acacia Tree     - Curved trees made of Acacia Wood     - These spawn in Savanna biomes   + Dark Oak Trees     - Very large, short trees     - These spawn in Roofed Forest biomes * [**Biomes**](http://minecraft.gamepedia.com/Biome)[[11]](http://minecraft.gamepedia.com/Version_history#cite_note-worldgen-11)   + [*Mesa*](http://minecraft.gamepedia.com/Biome#Mesa)     - Composed of multiple colored [hardened clay](http://minecraft.gamepedia.com/Hardened_Clay) that are layered in a way that resembles sedimentary rock       * There are seven colours including normal, orange, red, yellow, white, light grey and brown.     - Has a floor similar to a desert biome, but made of [red sand](http://minecraft.gamepedia.com/Sand#Red_Sand) instead of sand     - [Dead bushes](http://minecraft.gamepedia.com/Dead_Bush) spawn in this biome     - Occasional dying forests spawn on top of the clay mountains     - There is no rain in this biome   + [*Savanna*](http://minecraft.gamepedia.com/Biome#Savanna)     - Acacia trees       * New wood, sapling, and leaf type     - Horses can spawn in this biome     - NPC Villages may generate in savanna biomes     - There is no rain in this biome     - Very flat with plateaus and the occasional giant mountain   + [*Sunflower Plains*](http://minecraft.gamepedia.com/Biome#Sunflower_Plains)     - Exactly the same as Plains, but can spawn Sunflowers   + [*Roofed Forest*](http://minecraft.gamepedia.com/Biome#Roofed_Forest)     - Has dark grass and giant mushrooms     - Has Dark Oak trees; dark and dangerous under the canopy even during the day       * New wood, sapling, and leaf type     - Monsters will most likely be able to spawn during the day and the night     - Monsters that spawned at night can survive during the day     - This is the first biome aside from Mushroom Island that naturally spawns with giant mushrooms   + [*Birch Forest*](http://minecraft.gamepedia.com/Biome#Birch_Forest)     - A forest made entirely of birch trees   + [*Flower Forest*](http://minecraft.gamepedia.com/Biome#Flower_Forest)     - Forest variant with several of the new flowers, including peonies, orange tulips, white tulips, oxeye daisies, rose bush and allium     - Very densely packed with the various new flowers   + [*Taiga*](http://minecraft.gamepedia.com/Biome#Taiga)     - Now generates without snow       * The previous taiga biomes are now Cold Taiga biomes   + [*Mega Taiga*](http://minecraft.gamepedia.com/Biome#Mega_Taiga)     - This is a very rare biome     - Contains 2x2 [Spruce trees](http://minecraft.gamepedia.com/Tree)     - Has a dirt block variant known as [Podzol](http://minecraft.gamepedia.com/Podzol).       * Currently obtained only by the silk touch enchantment.     - Contains [dirt](http://minecraft.gamepedia.com/Dirt) blocks that do not allow [grass](http://minecraft.gamepedia.com/Grass) to grow.     - [Moss Stone](http://minecraft.gamepedia.com/Moss_Stone) "boulders" are scattered around in this biome.     - [Dead bushes](http://minecraft.gamepedia.com/Dead_Bush), [mushrooms](http://minecraft.gamepedia.com/Mushrooms), and [ferns](http://minecraft.gamepedia.com/Grass) spawn in this biome.   + [*Extreme Hills+*](http://minecraft.gamepedia.com/Biome#Extreme_Hills.2B)     - Contains spruce trees     - Goes considerably higher than the normal Extreme Hills   + [*Ice Plains Spikes*](http://minecraft.gamepedia.com/Biome#Ice_Plains_Spikes)     - Contains giant ice spires similar to upside down icicles made of [Packed Ice](http://minecraft.gamepedia.com/Packed_Ice)     - These ice spikes can reach y=120 from normal ground     - Lakes of packed ice are dotted around the biome   + [*Deep Ocean*](http://minecraft.gamepedia.com/Biome#Deep_Ocean)     - Is about ten blocks deeper than normal oceans, the maximum depth is in the low 30s * **Biome Variants/Technical Biomes**   + Over 20 variants for the biomes.   + *M* - Biomes with an M variant are much rarer than any other variant.     - *Extreme Hills M*, *Taiga M*, *Roofed Forest M*, *JungleEdge M*, *Birch Forest Hills M*, *Cold Taiga M*, *Extreme Hills+ M*, *Savanna M*, *Savanna Plateau M*, *Swampland M*, *Jungle M*, *Mesa Plateau M* and *Mesa Plateau F M* are more mountainous versions of their normal biome counterpart.     - *Desert M* has patches of water unlike normal deserts     - *Birch Forest M* has taller birch trees than usual     - *Savanna M* has grassless dirt and mountains that can generate above the clouds and up to Y: 220 on rare occasions   + *Plateau* - Biomes with a Plateau variant are like the hills technical biome, but flattened at the top     - *Savanna Plateau* and *Mesa Plateau* are both plateaus       * These are landforms which are raised by up to about 30 blocks and have flat tops     - *Mesa Plateau F* - A variant of the plateau with trees   + *Mesa (Bryce)* - A rare variant of the Mesa biome which works similar to ice spikes with tall clay spikes generating from the sandy mesa floor.   + *Hills* - More technical hills biomes have been added to fit with the new biomes.     - *Birch Forest Hills,* *Cold Taiga Hills,* and *Mega Taiga Hills* can now be generated.   + *Beach* - New beaches separate certain biomes from oceans and rivers.     - [*Stone Beach*](http://minecraft.gamepedia.com/Biome#Stone_Beach) is composed mainly of [Stone](http://minecraft.gamepedia.com/Stone) and often generates between an Extreme Hills biome and a body of water.     - *Cold Beach* is composed of [Sand](http://minecraft.gamepedia.com/Sand) with a layer of [Snow](http://minecraft.gamepedia.com/Snow_%28cover%29) on top.       * Usually generates between a cold biome, such as [Ice Plains](http://minecraft.gamepedia.com/Biome#Ice_Plains), and a body of water. * **World type**   + [*AMPLIFIED*](http://minecraft.gamepedia.com/Amplified)     - Amplifies the terrain hugely, using the entire world height       * Almost all biomes can generate huge mountains that can reach well above Y: 200         + Extreme Hills biomes frequently reach the world height limit at Y: 256         + Swampland and ocean biomes unaffected by this world type     - Extremely resource intensive and requires powerful computer to run     - Ravines here can reach down to bedrock     - Contains numerous various landforms that are very rare or non-existent in default generation       * Some examples include floating islands, overhangs, large water and lava falls and huge indents     - Taiga biomes reach such altitudes that snow starts generating (about Y: 130)     - This will cause great lag if your computer is slow   **Improvements & Changes**   * [**Biomes**](http://minecraft.gamepedia.com/Biome)   + [*Jungle*](http://minecraft.gamepedia.com/Biome#Jungle)     - Melons can now be found in Jungle Biomes in patches similar to Pumpkins     - Jungle biomes have been made much rarer     - Has a Jungle Edge which has less foliage, but slowly leads into the main jungle     - Jungle trees now have branches   + [*Swampland*](http://minecraft.gamepedia.com/Biome#Swampland)     - Grass is greener and fluctuates more in color, depending on biome temperature     - In shallower parts, the coast is covered in staggered dirt block with lilypads between them     - Spawn with Blue Orchid flowers   + [*Plains*](http://minecraft.gamepedia.com/Biome#Plains)     - Now spawns with three of the new flowers - azure bluets, oxeye daisies and sometimes tulips       * Double tall grass also generates here   + [*Extreme Hills*](http://minecraft.gamepedia.com/Biome#Extreme_Hills)     - Snow at high elevations of over y=95     - Contain [Stone](http://minecraft.gamepedia.com/Stone) and large dirt patches     - Gravel can replace ground cover     - Flat valleys near sea level     - Can generate up to y=150, slightly above the clouds (previously y=124)     - Has much more height variation and has flat parts as well, as opposed to the previous extreme hills which forced endless high peaks to generate   + [*Ocean*](http://minecraft.gamepedia.com/Biome#Ocean)[[12]](http://minecraft.gamepedia.com/Version_history#cite_note-12)[[13]](http://minecraft.gamepedia.com/Version_history#cite_note-13)[[14]](http://minecraft.gamepedia.com/Version_history#cite_note-oceans-14)     - Oceans are smaller and take up much less of the map[[11]](http://minecraft.gamepedia.com/Version_history#cite_note-worldgen-11)     - Contain only gravel on the floor instead of sand, dirt, and gravel   + *Gravel Beaches*     - Appear more often * **Categorisation of** [**Biomes**](http://minecraft.gamepedia.com/Biome)   + Four main categories based on temperature[[11]](http://minecraft.gamepedia.com/Version_history#cite_note-worldgen-11)     - Snow-covered, cold, medium, dry/warm * **Placement of** [**Biomes**](http://minecraft.gamepedia.com/Biome)   + Biomes will attempt to avoid getting placed next to a biome that is too different to itself[[11]](http://minecraft.gamepedia.com/Version_history#cite_note-worldgen-11) * **Elevation of** [**Biomes**](http://minecraft.gamepedia.com/Biome)   + Much greater variation of elevation in general   + Most biomes can generate to y=100   + Hills technical biomes have been made taller * **Modified the temperature system**   + Each biome has a base temperature that determines whether the biome is snow-covered, whether it rains or snows, or whether it rains at all   + Biomes with a base temperature of 0.15 or less snow instead of rain   + Biomes with a base temperature of 1.5 or greater don't rain[[*citation needed*](https://en.wikipedia.org/wiki/Wikipedia:Citation_needed)]   + Biomes are grouped according to their temperature and attempt to generate next to biomes with similar temperatures   + Temperature decreases by 0.05 every 30 blocks increase in altitude     - Extreme Hills generate snow because of this at about y=95 as their ground base temperature is 0.2 * [**Caverns**](http://minecraft.gamepedia.com/Cavern)   + Are now less dense and interconnected * **Bonus Chests**   + Bonus chests now also contain Acacia logs   **Blocks & Items**  **Additions**   * [**Wood**](http://minecraft.gamepedia.com/Wood) **Varieties**   + Acacia Wood     - Silver outside with orange inside     - Makes up the Acacia Tree, found in Savanna biomes   + Dark Oak Wood     - A darker version of the Oak Wood     - Makes up the Dark Oak Tree, found in Roofed Forest biomes   + Acacia Wood Planks     - Orange in appearance   + Dark Oak Wood Planks     - Same texture as normal oak planks but darkened almost black   + Acacia and Dark Oak Wood Slabs   + Acacia and Dark Oak Wood Stairs * [**Saplings**](http://minecraft.gamepedia.com/Sapling)   + Acacia Sapling, found in savannas   + Dark Oak Sapling, found in roofed forests     - Must have 4 saplings placed in a 2x2 square to be grown, much like Big Jungle Trees   + 2x2 spruce saplings now create the large spruce trees from Mega Taiga biomes * [**Leaves**](http://minecraft.gamepedia.com/Leaves)   + Acacia leaves   + Dark Oak leaves     - Both visually identical to oak leaves * [**Fish**](http://minecraft.gamepedia.com/Fish)   + [Pufferfish](http://minecraft.gamepedia.com/Fish#Pufferfish)     - Restores [Half Hunger.svg](http://minecraft.gamepedia.com/File:Half_Hunger.svg?version=f21ee8722c55fcb88d9ef1010da5ec99)     - If eaten, you will be given Poison IV for 1 minute, Hunger III and Nausea II for 15 seconds     - Used to brew a water breathing potion   + [Salmon](http://minecraft.gamepedia.com/Fish#Salmon)     - Can be cooked and eaten     - Uncooked: Restores [Hunger.svg](http://minecraft.gamepedia.com/File:Hunger.svg?version=6b8c801f3dd8e4e54f8549700b9bca40)     - Cooked: Restores [Hunger.svgHunger.svgHunger.svg](http://minecraft.gamepedia.com/File:Hunger.svg?version=6b8c801f3dd8e4e54f8549700b9bca40)   + [Clownfish](http://minecraft.gamepedia.com/Fish#Clownfish)     - Usage still unknown besides being eaten and used to tame [Ocelots](http://minecraft.gamepedia.com/Ocelot)     - Restores [Half Hunger.svg](http://minecraft.gamepedia.com/File:Half_Hunger.svg?version=f21ee8722c55fcb88d9ef1010da5ec99) * [**Packed Ice**](http://minecraft.gamepedia.com/Packed_Ice)   + When broken, does not turn to water like normal ice blocks do   + Does not melt   + Opaque, rather than translucent like normal ice * [**Podzol**](http://minecraft.gamepedia.com/Podzol)   + New dirt variation   + Only found in Mega Taiga Biomes * **Grassless** [**Dirt**](http://minecraft.gamepedia.com/Dirt)   + Grass can not grow on it   + Obtainable only through /give * [**Red Sand**](http://minecraft.gamepedia.com/Sand)   + Generated in the Mesa biome   + Behaves like normal sand (can be smelted into [Glass](http://minecraft.gamepedia.com/Glass) and crafted into [TNT](http://minecraft.gamepedia.com/TNT)) * [**Flowers**](http://minecraft.gamepedia.com/Flowers)   + Red, Orange, White and Pink [Tulips](http://minecraft.gamepedia.com/Flowers)     - Can be crafted to Red, Orange, Light Gray, and Pink Dyes, respectively   + Blue Orchid     - Can be crafted to Light Blue Dye   + Allium     - Can be crafted to Magenta Dye   + Azure Bluet     - Can be crafted to Light Gray Dye   + Oxeye Daisy     - Can be crafted to Light Gray Dye   + Poppy     - Replacement for the rose - roses no longer exist   + All flowers can burn   + All flowers and grasses are now randomly offset to the sides like tall grass * **Two blocks tall** [**Flowers**](http://minecraft.gamepedia.com/Flowers)   + Applying bonemeal to them causes them to dispense a flower item that can be collected. Therefore, all two blocks tall flowers are renewable.   + [Sunflowers](http://minecraft.gamepedia.com/Flowers)     - Typically face East     - Can be grown, unlike [Roses](http://minecraft.gamepedia.com/Flowers) and [Dandelions](http://minecraft.gamepedia.com/Flowers)     - Can be crafted into 2 Yellow Dye   + [Peonies](http://minecraft.gamepedia.com/Flowers)     - Can be crafted into 2 Pink Dye   + Rose bush     - Can be crafted into 2 Red Dye   + Lilac     - Can be crafted into 2 Magenta Dye * **Two block tall grass**   + Double Tallgrass     - Can be made by applying [Bone Meal](http://minecraft.gamepedia.com/Bone_Meal) to [Tall Grass](http://minecraft.gamepedia.com/Grass).   + Large Fern     - Can be made by applying Bone Meal to [Fern](http://minecraft.gamepedia.com/Fern). * **New variants of** [**Monster Egg**](http://minecraft.gamepedia.com/Monster_Egg)   + Includes Mossy Stone Brick Monster Egg, Cracked Stone Brick Monster Egg and Chiseled Stone Brick Monster Egg.   + Added to fix a bug where Silverfish entering Mossy, Cracked, or Chiseled Stone Brick would cause the block to change into regular Stone Brick. * [**Minecart with Command Block**](http://minecraft.gamepedia.com/Minecart_with_Command_Block)   + Can only be obtained using /give (item ID minecraft:command\_block\_minecart) or /summon (entity ID MinecartCommandBlock)   + Activate using activator rails   + Run their command every 2 redstone ticks when powered (activates once when passing over an activator rail at full speed)   + Can be success tested by going over a [detector rail](http://minecraft.gamepedia.com/Detector_rail) connected to a [Redstone comparator](http://minecraft.gamepedia.com/Redstone_comparator) * **Potion of Water Breathing**   + Made by brewing a Pufferfish with an Awkward Potion   + Enables you to breathe underwater for 3 minutes without oxygen bar depleting   + The potion is dark blue in appearance * [**Stained Glass**](http://minecraft.gamepedia.com/Stained_Glass)   + Glass can now be dyed into all 16 colours     - This is done by putting a coloured dye in the centre of a crafting table and surrounding it with 8 pieces of normal glass, yielding 8 stained glass   + Stained glass can be crafted into stained glass panes using the same recipe as normal glass panes     - Doing this yields 16 stained glass planes, like normal glass   + Water, nether portals, and other stained glass blocks remain visible when looked at through a stained glass block   + The colour of blocks they are placed on are tinted towards the colour of the glass     - This includes glass of two different colours behind one another |