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| 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%3ACitation_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
		- 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
		- Cooked: Restores Hunger.svgHunger.svgHunger.svg
	+ [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
* [**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
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