			[core]	https://docs.google.com/spreadsheets/d/1aeP3pUic0IutZlgGix_cM8xR7LEH44gS4itAxETK954/edit?userstoinvite=sadoldporygon24%40gmail.com&ts=5f49ec37&actionButton=1#gid=890975357&range=A4
			[canBuild]	https://docs.google.com/spreadsheets/d/1aeP3pUic0IutZlgGix_cM8xR7LEH44gS4itAxETK954/edit?userstoinvite=sadoldporygon24%40gmail.com&ts=5f49ec37&actionButton=1#gid=890975357&range=A167
			[graphics]	https://docs.google.com/spreadsheets/d/1aeP3pUic0IutZlgGix_cM8xR7LEH44gS4itAxETK954/edit?userstoinvite=sadoldporygon24%40gmail.com&ts=5f49ec37&actionButton=1#gid=890975357&range=A186
Version	Section		*[core]*	
Added	Code	Value Type	Description	Example
			Necessary Code, will cause error if these are not included	
			name:	
			mass:	
			radius:	
			price:	
			maxHp:	
	#====	#====	**Common Keys**	
	name:	string	Defines the unit raw name, game uses it to identify as a unique name. (This is not displayed in-game)	name: customTank1
	altNames:	string(s)	Comma separated list of names. Like **name** but lower priority, useful for multiple optional mods.	altNames: custTank1, customTank1, cTank1
	class:	string	Reserved for future use, must be CustomUnitMetadata by default.	class: CustomUnitMetadata
1.13.3	strictLevel:	float	Defaults to 0. 1 = Errors if keys are duplicated. Add to "all-units.template" in root to apply to all units.	strictLevel: 1
	price:	int	The unit cost from builders/buildings.	price: 500
	mass:	int	The 'weight' of the unit, defines how it collides with other units, a greater value means it's tougher to push.	mass: 3000
	techLevel:	int	Defines the Tech Level of the unit, there're 3 levels and each will appear in a different color in the GUI.	techLevel: 1
	buildSpeed:	float / s	Time it takes to build the unit. (may multiply with builder speed)	buildSpeed: 3s
	radius:	int	Circular area around the unit that makes it selectable. (mouse click/screen touch)	radius: 20
	isBio:	bool	Choose whether the unit is bioligical or not, affects sound and splat (unless **hideScorchMark:true**)	isBio: true
	isBug:	bool	Changes some death defaults, and sort order in Sandbox.	isBug: false
1.13	isBuilder:	bool	Normally required if this unit places buildings. Defaults to **[ai]useAsBuilder**.	isBuilder: true
	#====	#====	**Unit Stats Keys**	
	maxHp:	int	The max health for the unit. (will spawn with this value)	maxHp: 200
	selfRegenRate:	float	Passive self repair rate.	selfRegenRate: 0.01
	maxShield:	int	The max shield hitpoints of the unit. Can start with 0 hitpoints if **startShieldAtZero:true**.	maxShield: 500
	startShieldAtZero:	bool	Unit starts with a 0 hitpoints shield on created if true.	startShieldAtZero: true
	shieldRegen:	float	Passive shield regen rate.	shieldRegen: 0.15
	energyMax:	float	Defaults to 0. Energy that can be used as ammo for turrets, laser defense and actions.	energyMax: 1
	energyRegen:	float	Passive energy regen rate.	energyRegen: 0.001
	energyStartingPercentage:	float	Sets the percentage of charged energy when the unit is first built.	energyStartingPercentage: 0.5
	energyNeedsToRechargeToFull:	float	Disables weapons using energy after reaching zero till fully recharged if true.	energyNeedsToRechargeToFull: true
	energyRegenWhenRecharging	float	Regen rate while recharging.	
	~~energyDisplayName~~	string	Unused, no effect.	
1.13	armour:	int	Damage taken away from each hit. (not currently used in any vanilla units)	armour: 6
1.13	armourMinDamageToKeep:	int	Min damage to keep from received damage. Defaults to 1.	armourMinDamageToKeep: 2
1.13.3	borrowResourcesWhileAlive:	price	Takes these resources when created and returns them when removed or destroyed.	borrowResourcesWhileAlive: gold=10
1.13.3	generation_resources:	price	Income unit creates. (custom resource version)	generation_resources: credits=5, gold=20
1.13.3	generation_active:	logicBoolean	Disables **generation_resources/credits** when false. (logic_boolean)	generation_active: if not self.hp(lessThan=100)
	generation_credits:	int	Income unit creates. (credits only)	generation_credits: 2
	generation_delay:	int	How often **generation_resources/credits** is added. Defaults to 40. (changing not recommended)	generation_delay: 40
	#====	#====	**UI and Graphics Keys**	
	showInEditor:	bool	Set to false to hide unit in Sandbox editor. (Defaults to true)	showInEditor: false
	displayText:	LocaleString	The unit name that the game shows to the player.	displayText: Custom Tank
1.13	displayText_{LANG}:	string	LANG = ISO 639-1 Code to show this text instead when game is in this language.	displayText_es: Tanque Personalizado
	displayDescription:	LocaleString	Unit description that the game shows to the player.	displayDescription: -Fast movement\n-Light damage
1.13	displayDescription_{LANG}:	string	LANG = ISO 639-1 Code to show this text instead when game is in this language.	displayDescription_es: -Movimiento rápido\n-Daño ligero
	displayLocaleKey:	string	Translation file key for unit name and description.	displayLocaleKey: units.mechArtillery
	displayRadius:	int	Defaults to **radius** value. Set to show a larger or smaller selection circle UI on units.	displayRadius: 20
	uiTargetRadius	int	Defaults to **displayRadius** value. Radius used when attacking/reclaiming/etc this unit	
	shieldRenderRadius:	int	Defaults is a little bigger than **radius**. Set to show a larger or smaller shield circle on units.	shieldRenderRadius: 12
	shieldDisplayOnlyDeflection:	bool	Hide shield unless deflecting shot if true.	shieldDisplayOnlyDeflection: true
	shieldDeflectionDisplayRate:	float	Defaults to 4. High value causes shield deflection to fade disappear faster.	shieldDeflectionDisplayRate: 3
1.13.3	showOnMinimap:	bool	Defaults to true. Hide units on minimap if false.	showOnMinimap: false
1.13.3	showActionsWithMixedSelectionIfOtherUnitsHaveTag:	bool	Shows a merged action list if all units selected includes one of these tags. Useful for converted units.	showActionsWithMixedSelectionIfOtherUnitsHaveTag: true
1.14	showOnMinimapToEnemies	bool	Useful for stealth units	
	#====	#====	**Building Only Keys**	
	isBuilding:	bool	Defines if the unit is a building.	isBuilding: true
	footprint:	ints	Left, up, right, down. Tiles taken up which block unit movement. Defaults to 0,0,0,0 = 1 center tile.	footprint: 0,0,1,1
	constructionFootprint:	ints	Tiles taken up for placement of other buildings. Defaults to 0,0,0,0 = 1 center tile.	constructionFootprint: -1,-1,1,3
	displayFootprint:	ints	Left, up, right, down. Only applies to buildings, just used for GUI. Defaults to footprint.	displayFootprint: 0,0,1,1
	buildingSelectionOffset:	int	Defaults to 0. Adds or removes padding on the drawn selection rect in UI.	buildingSelectionOffset: 4
	buildingToFootprintOffsetX:	float	Defaults to 10. Change the building position in the footprint on the X-axis.	buildingToFootprintOffsetX: 4
	buildingToFootprintOffsetY:	float	Defaults to 10. Change the building position in the footprint on the Y-axis.	buildingToFootprintOffsetY: 6
	placeOnlyOnResPool:	bool	Normally used for extractors, forces building construction in a resource pool.	placeOnlyOnResPool: true
	selfBuildRate:	float	Rate unit builds itself when placed without a builder.	selfBuildRate: 0.0008
1.14	ignoreInUnitCapCalculation		defaults to true for buildings otherwise false. Set to true to not count this unit in unit cap.	
	#====	#====	**Misc Keys**	
	copyFrom:	file(s) (ini)	Uses unit data from another ini file as default for this unit, supports multiple files.	copyFrom: ROOT:defaultTanks.template, tankT1.ini
	dont_load:	bool	Do not load unit, and don't error on missing data. Can be useful when used with **copyFrom**.	dont_load: true
	overrideAndReplace:	string(s)	Overrides another unit with this unit. Build links and map positions to target unit will be replaced.	overrideAndReplace: builder, combatEngineer
1.13.3	onNewMapSpawn:	string	Values: emptyResourcePools_asNeutral, emptyOrOccupiedResourcePools_asNeutral, mapCenter_asNeutral, mapCenter_eachActiveTeam, spawnPoint_eachActiveTeam	
	globalScale:	float	Defaults to 1. Changing not recommended.	globalScale: 2
	isLocked:	bool	Disallow building of this unit. Can be used with **overrideAndReplace** to restrict units player can build.	isLocked: true
1.13	isLockedIfGameModeNoNuke:	bool	Disallows building of this unit if nukes are disabled during match setup.	isLockedIfGameModeNoNuke: true
	experimental:	bool	Tag unit as experimental. Affects zoomed out icon and end game stats.	experimental: true
	stayNeutral:	bool	Set to false to disable capture when unit is on the neutral team.	stayNeutral: false
1.13	createNeutral:	bool	Set to true to always spawn the unit on the neutral team.	createNeutral: true
	createOnAggressiveTeam:	bool	Set to true to always spawn the unit on aggressive teams on single player matches.	createOnAggressiveTeam: true
1.13	tags:	string(s)	List of comma separated strings. Used to classify units, create special actions and balances.	tags: tank, smallTank, piercingDamage
	fogOfWarSightRange:	int	Sets number of tiles this unit can see through the fog of war. Defaults to 15.	fogOfWarSightRange: 18
1.14	fogOfWarSightRangeWhileNotBuilt	int	Fog of War range when unit/building is incomplete. Defaults to **fogOfWarSightRange**	
	softCollisionOnAll:	int	Creates a soft collision effect when touching other units.	softCollisionOnAll: 3
	disableAllUnitCollisions:	bool	Unit cannot collide with others if true.	disableAllUnitCollisions: true
1.13	isUnrepairableUnit:	bool	No unit can repair this unit if true.	isUnrepairableUnit: true
	isUnselectable:	bool	If true unit cannot be selected. (includes AI players)	isUnselectable: true
1.14	isUnselectableAsTarget	bool	Defaults to **isUnselectable**. Can be used to create units that cannot be selected but can be targeted for attack, reclaim, etc	
1.13	isPickableStartingUnit:	bool	If true, unit is added to dropdowns for starting unit in game setup menus.	isPickableStartingUnit: true
1.13	startFallingWhenStartingUnit:	bool	Unit will appear falling from skies when starting unit if true.	startFallingWhenStartingUnit: true
	soundOnAttackOrder:	sound(s)	List of sound names. Only one will be played on each attack order. Only .ogg and .wav formats.	soundOnAttackOrder: tankAttackOrder1.ogg, tankAttackOrder2.ogg
	soundOnMoveOrder:	sound(s)	List of sound names. Only one will be played on each move order. Only .ogg and .wav formats.	soundOnMoveOrder: tankMoveOrder1.ogg, tankMoveOrder2.ogg
1.13.3	soundOnNewSelection:	sound(s)	List of sound names. Only one will be played on each unit selection. Only .ogg and .wav formats.	soundOnNewSelection: tankSelection1.ogg, tankSelection2.ogg
	canNotBeDirectlyAttacked:	bool	No unit can directly target this unit. If true this will also skip this unit in victory/defeat checks.	canNotBeDirectlyAttacked: true
	canNotBeDamaged	bool	Defaults to value of canNotBeDirectlyAttacked (be careful setting this without canNotBeDirectlyAttacked, as AI will attack forever)	
1.13.3	canNotBeGivenOrdersByPlayer:	bool	If true unit will not take player or AI orders.	canNotBeGivenOrdersByPlayer: true
1.13.3	canOnlyBeAttackedByUnitsWithTags:	strings(s)	List of tag strings, only units with these tags can directly target this unit.	canOnlyBeAttackedByUnitsWithTags: piercingTank, powerfulTank
1.14	disableDeathOnZeroHp	bool	Setting to true allows unit to continue living even at 0 HP, useful for custom "death" action. Warning: If not used with an autoTrigger, etc units will attack this unit forever.	
	#====	#====	**Transport Keys**	
1.13	transportSlotsNeeded:	int	Defaults to 1. Number of slots this unit uses up in a transport, experimentals are often set to 5.	transportSlotsNeeded: 2
	maxTransportingUnits	int	Number of slots this units has for transporting other units.	maxTransportingUnits: 5
1.13	transportUnitsRequireTag:	string(s)	Only allows trasport of units that have one of these tags.	transportUnitsRequireTag: smallTank, soldier
1.13	transportUnitsRequireMovementType:	movementTypes	Only allows trasport of units that have one of these movement types.	transportUnitsRequireMovementType: AIR, WATER
1.13	transportUnitsBlockAirAndWaterUnits:	bool	Defaults to true. This unit can only transport LAND units if true.	transportUnitsBlockAirAndWaterUnits: false
1.13	transportUnitsKeepBuiltUnits:	bool	Makes built units stay inside transport instead of exiting it once ready if true.	transportUnitsKeepBuiltUnits: true
1.13	transportUnitsCanUnloadUnits:	LogicBoolean	Defaults to: if not self.isOverLiquid() and not self.isMoving(). This unit cannot unload units if false.	transportUnitsCanUnloadUnits: false
1.13	transportUnitsAddUnloadOption:	bool	Defines if unload button should be added to the unit menu	transportUnitsAddUnloadOption: false
1.13.3	transportUnitsUnloadDelayBetweenEachUnit:	float	Changes the delay it takes between each unit getting unloaded.	transportUnitsUnloadDelayBetweenEachUnit: 12
1.13	transportUnitsKillOnDeath:	LogicBoolean	Defaults to true. If false transported units don't die when transport dies.	transportUnitsKillOnDeath: if self.isOverLiquid()
1.13	transportUnitsHealBy:	float	Rate to heal units that are being transported.	transportUnitsHealBy: 0.1
	transportUnitsBlockOtherTransports:	bool	Defaults to true, if false this transports can hold other transports.	transportUnitsBlockOtherTransports: false
1.13.3	whileNeutralTransportAnyTeam:	bool	This unit can transport units of any team while neutral if true.	whileNeutralTransportAnyTeam: true
1.13.3	whileNeutralConvertToTransportedTeam:	bool	Converts this unit to transported team while neutral. Useful with **whileNeutralTransportAnyTeam**.	whileNeutralConvertToTransportedTeam: true
1.13.3	convertToNeutralIfNotTransporting:	bool	Reverts back this unit to neutral when unloaded. Useful with **whileNeutralTransportAnyTeam**.	convertToNeutralIfNotTransporting: true
1.13.3	transportUnitsOnTeamChangeKeepCurrentTeam:	bool	Keeps transported units on their orginal team when this unit is converted if true.	transportUnitsOnTeamChangeKeepCurrentTeam: true
	transportUnitsEachUnitAlwaysUsesSingleSlot	bool	Ignore transportSlotsNeeded on transported units.	

	transportUnitsKeepWaypoints	LogicBoolean	Default false. When true transported units keep their original waypoints when unloading, and don't get an unload waypoint.	
1.13.3	#====	#====	**Resource Node Keys**	
	resourceRate:	float	Used with **canReclaimResources**. Allows other teams to reclaim this unit. Normally used with neutral team. Use **price** to set what resources are gained.	
	similarResourcesHaveTag:	string(s)	When this has been reclaimed harvester unit moves on to another resource with these tags.	similarResourcesHaveTag: goldResource
1.13.3	resourceMaxConcurrentReclaimingThis:	int	Defaults to unlimited. Set to restict how many units can reclaim this resource at the same time.	resourceMaxConcurrentReclaimingThis: 3
1.13.3	reclaimPrice:	int	Like price but for resources. Useful for buildable resources.	reclaimPrice: gold=1000
1.13.3	#====	#====	**Resource Harvester Keys**	
	canReclaimResources:	bool	If true this unit can gather resources, useful with **resourceRate**.	canReclaimResources: true
	canReclaimResourcesNextSearchRange:	int	Defines the resource search range of this unit when its main gathered resource runs out.	canReclaimResourcesNextSearchRange: 100
	canReclaimResourcesOnlyWithTags:	string(s)	This unit is only allowed to gather resources with these tags.	canReclaimResourcesOnlyWithTags: foodResource, goldResource
	canReclaimUnitsOnlyWithTags	string(s)	This is for reclaiming units, not for resources. See **canReclaimResourcesOnlyWithTags**	
	#====	#====	**Construction and Factory Keys**	
	canRepairUnitsOnlyWithTags	string(s)		
	canRepairBuildings:	bool	Can this can heal ally buildings (**isBuilder:true** is required)	canRepairBuildings: true
	canRepairUnits:	bool	Can this can heal ally units. (**isBuilder:true** is required), canRepairBuildings required for buildings.	canRepairUnits: true
	autoRepair:	bool	Automatically try and repair damaged units in nano range. (**isBuilder:true** is required)	autoRepair: true
	nanoRange:	int	Defaults to 85. Defines the unit building/repair/reclaim range.	nanoRange: 110
	nanoRepairSpeed:	float	Defaults to 0.2. Defines the unit nano repair/reclaim speed.	nanoRepairSpeed: 0.01
	nanoBuildSpeed:	float	Defaults to 1. Defines the unit nano building speed. (May multiply with target's **buildSpeed**)	nanoBuildSpeed: 0.9
1.13.3	nanoRangeForRepairIsMelee:	bool	Defines if this unit must touch its target to repair it.	nanoRangeForRepairIsMelee: true
1.13.3	nanoRangeForReclaimIsMelee:	bool	Defines if this unit must touch its target to reclaim it.	nanoRangeForReclaimIsMelee: true
1.13.3	nanoRangeForRepair:	int	Defines a specific range for the repair action of this unit.	nanoRangeForRepair: 60
1.13.3	nanoRangeForReclaim:	int	Defines a specific range for the reclaim action of this unit.	nanoRangeForReclaim: 60
	nanoFactorySpeed:	float	Defaults to 1. Multiplies the **buildSpeed** value of the created unit if this unit is a factory.	nanoFactorySpeed: 1.2
	extraBuildRangeWhenBuildingThis:	int	Temporarily adds extra build range to builders to build this unit. Useful for water based buildings.	extraBuildRangeWhenBuildingThis: 90
	builtFrom_#_name:	string(s)	Useful if adding this unit to build to existing buildings. Like **canBuild** but in opposite direction.	builtFrom_1_name: landFactory, airFactory
	builtFrom_#_pos:	float	Order this build link appears in UI. Using **canBuild** instead is more recommended.	builtFrom_1_pos: 0.1
	builtFrom_#_forceNano:	bool	Build as if this is a building if true. (even if it's a unit)	builtFrom_1_forceNano: true
1.13.3	builtFrom_#_isLocked:	LogicBoolean	If true this unit cannot be built in this build link. (can be conditioned if logicBooleans are used)	builtFrom_1_isLocked: if self.hp(lessThan=100)
1.13.3	builtFrom_#_isLockedMessage:	LocaleString	Message shown when this build link is locked.	builtFrom_1_isLockedMessage: -Needs more population
	exit_x:	float	Where created or unloaded units appears from the transport or building. Defaults to 0.	exit_x: 0
	exit_y:	float	Where created or unloaded units appears from the transport or building. Defaults to 5.	exit_x: 5
1.13	exit_dirOffset:	float	Defaults to 180 for units and 0 for buildings. Defines the exit direction of created or unloaded units.	exit_dirOffset: 140
1.13	exit_heightOffset:	float	Defaults to 0. Defines the height where created or unloaded units appears.	exit_heightOffset: 16
1.13	exit_moveAwayAmount:	float	Defaults to 70. Defines the distance that created or unloaded units moves from this unit.	exit_moveAwayAmount: 10
1.14	exitHeightIgnoreParent	bool	Ignores parent height for exit height; useful for separating attachments with their parents for building	
	#====	#====	**Death Keys**	
	dieOnConstruct:	bool	Deletes this unit when it starts to build if true. (target building/unit likely will need **selfBuildRate** set)	dieOnConstruct: true
1.13	dieOnZeroEnergy:	bool	Kills this unit if energy level reaches zero when true.	dieOnZeroEnergy: true
	numBitsOnDeath:	int	Defines the number of scattered bit fragments when this unit dies.	numBitsOnDeath: 20
	nukeOnDeath:	bool	Unit will spawn a nuke detonation built-in effect when dies if true.	nukeOnDeath: true
	nukeOnDeathRange:	float	Defines the nuke effect range when using **nukeOnDeath**.	nukeOnDeathRange: 140
	nukeOnDeathDamage:	float	Defines the nuke effect area damage when using **nukeOnDeath**.	nukeOnDeathDamage: 2000
	nukeOnDeathDisableWhenNoNuke:	bool	Defaults to false. If true this unit will not explode with nuke when nukes are disabled in skirmish maps.	nukeOnDeathDisableWhenNoNuke: true
	fireTurretXAtSelfOnDeath:	turret ref	Auto-shoot a specific turret when this unit dies.	fireTurretXAtSelfOnDeath: turret_1
1.13	explodeOnDeath:	bool	Defaults to true. Disables the unit death explode built-in effect if false.	explodeOnDeath: false
1.13	explodeOnDeathGroundCollision:	boolean	Defaults to true. Disables the explode built-in effect on death when unit touches ground if false.	explodeOnDeathGroundCollision: false
1.14	explodeTypeOnDeath:	preset effects	options: verysmall, small, normal, large, largeUnit, building, buildingNoShockwaveOrSmoke, verylargeBuilding	
1.13	effectOnDeath:	effect(s) ref	Spawns built-in or custom effects when unit dies.	effectOnDeath: shockwave, CUSTOM:pieces*3, CUSTOM:deathSound
1.13	effectOnDeathGroundCollision:	effect(s) ref	Like **effectOnDeath** but when unit touches ground. Useful for flying units.	effectOnDeathGroundCollision: CUSTOM:bigExplosion
1.13	unitsSpawnedOnDeath:	string(s)	Spawns these units when dies. Comma separated unit identifiers.	unitsSpawnedOnDeath: tank*5, hoverTank
	unitsSpawnedOnDeath_setToTeamOfLastAttacker:	bool	Units spawned on death will appear on the last attacker team if true.	unitsSpawnedOnDeath_setToTeamOfLastAttacker: true
	hideScorchMark:	bool	Disables the death scorch mark leaved when unit dies if true.	hideScorchMark: true
	soundOnDeath:	string(s)	Sets a custom sound for this unit death.	soundOnDeath: tankExplosion1.ogg, tankExplosion2.ogg
	fireOnDeath	bool?		
1.14	effectOnDeathIfUnbuilt:	effect(s) ref	If the unit was not completed, and is destroyed, play this effect. Defaults to **effectOnDeath**	effectOnDeathIfUnbuilt: CUSTOM:implode
	#====	#====	**Action Keys**	
1.13.3	autoTriggerCooldownTime:	time (seconds)	Post automatic action cooldown (Not detection cooldown). Defaults to 1s. Warning: Setting this too low for many units might effect performance depending on the action effects.	
	autoTriggerCooldownTime_allowDangerousHighCPU:	bool	Allows for auto actool cooldown lower than 0.2s. Default to false.	
	#====	#====	**Deprecated Keys (can be used but there are better ways)**	
depr. 1.13	~~action_#_convertTo:~~	string	Deprecated in 1.13, use [action_x] sections instead	action_1_convertTo: customTank_2
depr. 1.13	~~action_#_pos:~~	float	Order action appears in UI	action_1_pos: 0.1
depr. 1.13	~~action_#_price:~~	int	The price of your action for the unit. (All your sub actions will be linked to the # you use)	action_1_price: 1000
depr. 1.13	~~action_#_text:~~	string	A display text when you select your unit's action, used to explain it's purpose.	action_1_text: Upgrade to Custom Tank 2
depr. 1.13	~~action_#_description:~~	string	The action description.	action_1_description: -Converts the tank
depr. 1.13	~~action_#_addEnergy:~~	float	Adds energy to unit. Has no effect unless energyMax is set	action_1_addEnergy: 10
depr. 1.13	~~action_#_whenBuilding_cannotMove:~~	bool	Stops unit moving while action is being applied. Useful for deploy like actions.	action_1_whenBuilding_cannotMove: true
depr. 1.13	~~canBuild_#_name/pos/isLocked:~~	string	Use canBuild section instead.	canBuild_1_name: tank
	Section		*[canBuild_NAME]*	
	Code	**Value Type**	**Description**	**Example**
1.13.3	name:	string(s)	List of unit identifiers this unit can create. Can be buildings or units. Add "setRally" to create a rally button	name: setRally, tank, hoverTank, heavyTank
1.13.3	pos:	float	Order build link appears in this unit UI.	pos: 0.1
1.13.3	tech:	int	Tech level. Mostly just affects build link colour in this unit UI. Defaults to 1.	tech: 2
1.13.3	forceNano:	bool	Builds target as if it was a building if true. (even if it's a unit)	forceNano: true
1.13.3	isVisible:	LogicBoolean	Hide this build link if true in this unit UI.	isVisible: if not self.energy(greaterThan=100)
1.13.3	isLocked:	LogicBoolean	Dynamically locks this build option and shows **isLockedMessage** if true.	isLocked: if self.hp(lessThan=100)
1.13.3	isLockedMessage:	string	Set to tell to players why a unit is locked.	isLockedMessage: -Needs 2 Barracks
1.13.3	isLockedMessage_{LANG}:	string	LANG = ISO 639-1 Code to show this text instead when game is in this language.	isLockedMessage_es: -Necesita 2 Cuarteles
1.13.3	isLockedAlt:	LogicBoolean	Another reason for this to be locked. Just allows a different message to be shown.	isLockedAlt: if self.energy(greaterThan=90)
1.13.3	isLockedAltMessage:	string	Message for **isLockedAlt**.	isLockedAltMessage: -Needs less energy
1.13.3	isLockedAlt2:	LogicBoolean	Like **isLockedAlt** but to show one more message.	isLockedAlt2: if self.isMoving()
1.13.3	isLockedAlt2Message:	string	Message for **isLockedAlt2**.	isLockedAlt2Message: -Needs to be quiet
1.13.3	addResources:	price(s)	Adds these resources to self when placing the building or producing the unit.	addResources: ammo=5, setFlag=1
1.13.3	price:	price(s)	Overrides builded units/buildings price. Defaults to target unit prices.	price: credits=1000, ammo=5
1.13.3	isGuiBlinking:	LogicBoolean	Generates a blinking effect in UI if true.	isGuiBlinking: true
	Section		*[graphics]*	
	Code	**Value Type**	**Description**	**Example**
			Necessary code	
		file (image)	**image:**	
	#====		**Common Keys**	
	image:	file (image)	File path to png image.	
	image_back:	file (image)	An optional image drawn behind other units. Useful for factories that units exit	
1.14	image_shield	file (image)	Image to show as a custom shield	
	image_wreak:	file (image)	Image to use when unit dies. Can be NONE to leave no wreak	
	image_offsetX:	int	Use this to adjust the graphics of a unit if it is too far off one side	
	image_offsetY:	int	Use this to adjust the graphics of a unit if it is too far off one side	
1.13.3	isVisible	logic	If false will hide the unit.	
1.14	isVisibleToEnemies	bool	Only visible to player and allies when false. Recommend with showOnMinimapToEnemies. Useful for stealth units.	
1.13	teamColoringMode		How pixels are used for team coloring, options: pureGreen (default), hueAdd, hueShift, disabled	
	~~teamColorsUseHue:~~	~~bool~~	~~False: Green pixels on unit gets converted to team color. True: Whole unit is tinted the team colour. Defaults to false~~	
	scaleImagesTo:	float	Resize image to fit this value in pixels. Effects leg, and shadow images as well.	
	imageScale:	float	Resize image. Defaults to 1. Effects leg, and shadow images as well.	
	drawLayer:	string	Land units normally default to ground or ground2 if transport.	wreaks, underwater, bottom, ground, ground2, experimentals, air, top
1.13	whenBeingBuiltMakeTransparentTill	float	How long the transparent effect is applied to incomplete units, set to 0 to disable completely	Default: 1
	icon_zoomed_out	file (image)		
	icon_zoomed_out_neverShow	bool		
	icon_build	file (image)	When set, it will use the specifed image on build list instead of the unit itself	
	#====		**Turrets (images can also be set on each turret)**	
	image_turret:	file (image)	Default image for all turrets, can also be set per turret	
	teamColorsOnTurret	bool	Defaults false. Apply team colours on turret as well. Also effects pre-turret images	
	scaleTurretImagesTo:	float	Will cause crash if image_turret is not specified, even if image is set per turret	
	lock_body_rotation_with_main_turret:	bool	Locks body image locked to first turret's direction	
1.13	lock_leg_rotation_with_main_turret	bool	Locks legs and arms to first turret's direction	
	#====		**Shadow**	
	image_shadow:	file (image)	Image file, NONE, AUTO, or AUTO_ANIMATED (AUTO will use image and make it transparent black only.)	

	shadowOffsetX:	float		
	shadowOffsetY:	float		
1.13.3	image_shadow_frames	bool	If shadow image should use frame animation of main image	
	lock_shadow_rotation_with_main_turret:	bool	Locks body image shadow locked to first turret's direction	
	#====		**Effects and animation**	
	total_frames	int	Defaults to 1. Animations require this.	
	default_frame	int	Sets the default frame to display. Dependent on total_frames.	
	frame_width:	int	Calculated for you if total frames is set, but can be overridden	
	frame_height:	int	Defaults to image height	
	splastEffect:	bool	True to create a water wave effect when over water. Default false	
	dustEffect:	bool	True to create a dust effect when over land. Default false	
	splastEffectReverse:	bool	True to also create effect when unit is reversing	
	dustEffectReverse:	bool	True to also create effect when unit is reversing	
1.13	movementEffect	effect	Custom movement effect, can be anything	eg: movementEffect: smoke, CUSTOM:fastDust*2, CUSTOM:pop*5
1.13	movementEffectReverse	effect		
1.13	movementEffectRate	float		
1.13	movementEffectReverseFlipEffects	bool	Create effect as if unit has rotated 180 when reversing	
	repairEffect	effect ref	Custom movement effect, can be anything. Replaces default effect from builders	
	repairEffectAtTarget	effect		
	repairEffectRate	int	Defaults to 5	
1.13.3	reclaimEffect	effect		
1.13.3	reclaimEffectAtTarget	effect		
1.13.3	reclaimEffectRate	int		
	rotate_with_direction:	bool	Defaults to true. Makes unit body image locked to 0 degrees when false. Often used with animation_direction_*	
	animation_direction_units:	float	45 for 8 directions, 90 for 4 direction animation. Used with rotate_with_direction:false	
	animation_direction_strideX:	int	Animation frames to offset on direction change.	
	animation_direction_strideY:	int	Animation frames to offset on direction change. Used with frame_height.	
	animation_direction_starting:	float	Direction for first frame	
	animation_direction_useMainTurret	bool	Use main turret	
1.13.3	disableLowHpFire	bool		
1.13.3	disableLowHpSmoke	bool		
1.13.3	showTransportBar:	bool		
1.13.3	showHealthBar	bool		
1.13.3	showEnergyBar	bool		
1.14	showShieldBar	bool		
1.14	showQueueBar	bool		
			Deprecated Keys (can be used but there are better, more adaptable ways)	
~~depr. 1.13~~	~~animation_TYPE_start:~~	~~int~~	~~TYPE can be set to: attack, moving, idle. Use [animation] section instead for more control~~	~~animation_moving_start: 0~~
~~depr. 1.13~~	~~animation_TYPE_end:~~	~~int~~	~~End frame, must be larger then start~~	~~animation_moving_end: 3~~
~~depr. 1.13~~	~~animation_TYPE_scale_start:~~	~~float~~	~~Scale unit image. Defaults to 1. Useful for bio units or breathing effects.~~	
~~depr. 1.13~~	~~animation_TYPE_scale_end:~~	~~float~~	~~Scale unit image. Defaults to 1. Useful for bio units or breathing effects.~~	
~~depr. 1.13~~	~~animation_TYPE_speed:~~	~~float~~	~~Delay for each frame of animation. Larger values cause slower animation~~	
~~depr. 1.13~~	~~animation_TYPE_pingPong:~~	~~bool~~	~~Play animation in reverse before repeating. Useful with scale_start/scale_end~~	
	Section		*[attack]*	***The attack section is for global attack characteristics, per-turret overrides these***
	Code	Value Type	**Description**	Example
	canAttack:	bool	If set to false, can not attack any unit. Regards of other canAttack options below.	
	canAttackFlyingUnits:	LogicBoolean	can also be narrowed per turret. Note: not required if canAttack is false.	
	canAttackLandUnits:	LogicBoolean	can also be narrowed per turret	
	canAttackUnderwaterUnits:	LogicBoolean	can also be narrowed per turret	
	maxAttackRange:	float	(multiplied by globalScale)	
	canAttackNotTouchingWaterUnits:	LogicBoolean	Default true. If false unit can only attack units in contact with the water. Used for units with torpedos. (can also be set per turret)	
1.13.3	canOnlyAttackUnitsWithTags	tags	Will only attack units that has the specified tags.	
1.13.3	canOnlyAttackUnitsWithoutTags	tags	Can only attack units without the specified tags.	
1.13	turretMultiTargeting	bool	Allow each turrets to fire at a different target at the same time. Very useful if [turret]limitingAngle is used	
	isMelee:	bool	Used with a low attack range (like maxAttackRange: 9) makes src and target radius get added to range, and effects AI.	
1.13.3	meleeEngangementDistance	int	Makes unit move to attack nearby units. Defaults to 250 for melee, and 0 for non melee (Works even if non-melee, but might be unexpected to players)	
	turretRotateWithBody	bool	Are all turrets rotated when body rotates. Defaults to true	
	attackMovement:	string	normal/bomber. bomber attack movement will retreat when energy runs out	
	dieOnAttack:	bool	Will die when it attacks.	
	removeOnAttack	bool	Remove unit when it attacks.	
	isFixedFiring:	bool	Must aim body at target to shoot. Will often make the unit need to stop before it can aim and shoot.	
	aimOffsetSpread:	float	Offset each shot multiplied by target radius. Defaults to 0.6	aimOffsetSpread:0 will make unit always attack center
1.13	stopTargetingAfterFiring	bool	Unit stops targeting after firing a shot. Rarely used or needed.	
	disablePassiveTargeting:	bool	Unit only attacks manually ordered target. Rarely used or needed.	
1.13.3	showRangeUIGuide	bool	Will it show the range indicator. Useful for showing ranges in radar and related structures.	
	setMainTurretAs	turret ref	Set main turret for lockLegRotationWithMainTurret, lockShadowRotationWithMainTurret, etc	
			Deprecated Keys - can be used but better to set these per turret	
depr. 1.13	~~turretSize:~~	float	~~(multiplied by globalScale)~~	
depr. 1.13	~~turretTurnSpeed:~~	float		
depr. 1.13	~~shootDelay:~~	float	~~Global delay, can also use delay on each turret~~	
	Section		*[turret_NAME]*	***Turrets fire projectiles with different traits***
	Code	Value Type	**Description**	Example
			Necessary Code	
		float	**x:**	
		float	**y:**	
			Positioning/Stats	
	x:	float		
	y:	float		
	copyFrom:	turret ref	Copy all values from another turret as defaut values for this turret	copyFrom: 1
	projectile	projectile ref	Projectile fired from this turret.	eg: projectile: torpedo
1.14	altProjectile	projectile ref	Alternative projectile fired from this turret when altProjectileCondition is true	
1.14	altProjectileCondition	LogicBoolean	Used with **altProjectile**	
1.13	barrelX	float	Defaults to 0. Controls horizontal position for projectile spawn.	
1.13	barrelY	float	Defaults to size. Note: size and barrelY have the same meaning	
1.13.3	barrelHeight	float	Height of barrel in 3d. Effect projectile and shoot flame starting height	
	size:	float	Controls the distance between the center of the turret and the point from where projectiles spawn.	size: 5
	turnSpeed	float	Max turn speed of the turret	
	turnSpeedAcceleration	float	Defaults to disabled, and full turn speed is used.	
	turnSpeedDeceleration	float	Defaults to turnSpeedAcceleration. Setting this higher than turn acceleration might allow faster targets to be hit	
	idleDir	float	Defaults to 0	
1.13	idleDirReversing	float	Defaults to idleDir+180 unless attached to another turret (as attached turret will often be rotating when reversing)	
	shouldResetTurret:	bool	Defaults true. False to disable the reseting turret angle when idle	
1.14	idleSweepAngle	int	Disabled by default. Controls how far the turret will "look" left and right	
1.14	idleSweepDelay	float	Controls the delay between idleSweep movements	
1.14	idleSweepSpeed	float	Controls the speed with which the turret sweeps when idle	
1.14	idleSweepCondition	LogicBoolean	Disable idle sweep if false	
1.14	idleSweepAddRandomDelay	float	Default 1-20 depends on idleSweepDelay, used to stop sweep syncing up with other units	
1.14	idleSweepAddRandomAngle	int	Default 0	
	attachedTo:	turret ref	Id of another turret to attach to, will be positioned relative to it, and rotate with it.	
	slave:	bool	Locks this turret's direction and shot cooldown to attached turret. Often used with warmup for multiple barrel guns	
	isMainNanoTurret:	bool	Defaults to false. Turret to use for creating buildings, etc. should only be true on one turret, and should have canShoot set to false	
	energyUsage:	float	Required energy to fire weapon. Same as resourceUsage: energy=X	
	resourceUsage	price	can be in credits/energy/hp/shield/ammo. Stops firing if not met	resourceUsage: credits=5, energy=5, hp=100, shield=5, ammo=1
			Timing	
	delay:	float	Override global shootDelay for this turret	
	linkDelayWithTurret	turret ref	When this other turret fires the cooldown delay on this turret will be reset/removed	
	warmup:	float	Delay before firing a shot.	
	warmupCallDownRate	float	Rate to reduce warmup when turret is not ready to fire at any targets	
	warmupNoReset	bool	Defaults to false. When true warmup is not reset after firing a shot. Used with warmupCallDownRate	
	warmupShootDelayTransfer	float	Defaults to 0, a multiplier which reduces the next shot delay by the warmup value. When used with warmupNoReset, can make a each shot faster.	
			On Shoot	
1.13.3	onShoot_freezeBodyMovementFor		Freezes body movement while shooting.	
1.14	barrelOffsetX_onOddShots:	float	0 by default. Sets a barrelX offset only during odd numbered shots, useful for twin-barreled units. Use with **barrelX**	
			Targeting control	
1.14	aimOffsetSpread			

	canShoot:	bool	Defaults to true		
	canAttackFlyingUnits:	LogicBoolean	Narrows targeting for this turret, note targeting for the whole unit in [attack] is applied first. (so you can only use this to target less not more)		
	canAttackLandUnits:	LogicBoolean			
	canAttackUnderwaterUnits:	LogicBoolean			
	canAttackNotTouchingWaterUnits:	LogicBoolean	Default true. If false unit can only attack units in contact with the water. Used for units with torpedos.		
1.13.3	canOnlyAttackUnitsWithTags	tags			
1.13.3	canOnlyAttackUnitsWithoutTags	tags			
	canAttackCondition:	LogicBoolean	Normally, used to optionally disable a turret based on a LogicBoolean. Eg: this unit's height	canAttackCondition: if not self.flying	
1.14	canAttackMaxAngle	float	Max angle to target for turret to be allowed for fire. Defaults to 5, don't set lower. Can be set to 181 for turrets that don't need to turn to fire missiles.		
1.13	clearTurretTargetAfterFiring	bool	Clears the turrets sub-target when using multi-targeting		
	limitingRange:	float	Make this turret have less range than the maxAttackRange. Do not apply this to all turrets change maxAttackRange instead.		
1.13	limitingAngle		Linked with idleDir. Turret will only be able to fire at units +/- this angle.		
1.13	limitingMinRange		Sets minimum range for turret.	limitingMinRange: 200	
1.13	interceptProjectiles_withTags		Currently used with anti-nuke units.		
	interceptProjectiles_andTargetingGroundUnderDistance				
	interceptProjectiles_andUnderDistance		Defaults to 2000, distance inflight before firing		
	interceptProjectiles_andOverHeight		Defaults to 0		
	laserDefenceEnergyUse:	float	Set to enable a projectile laser defence from this turret. Should also set the energyMax in core.		
			Graphics and effects		
	invisible:	LogicBoolean	Don't render this turret, but still can shoot, etc.		
	image:	file (image)	Use custom image. Overrides unit's main turret image		
	image_applyTeamColors	bool			
	image_drawOffsetX	float			
	image_drawOffsetY	float			
	chargeEffectImage:	file (image)	Used with warmup. Shows a scaling effect image on turret barrel when charging.		
	warmupStartEffect	effect ref			
	shoot_sound:	string	Can be linked to an .ogg or .wav file, or one of the default game sounds (list at bottom of reference)	shoot_sound: tank_firing | shoot_sound: missile.wav | shoot_sound: ROOT:audio/shoot.ogg	
	shoot_sound_vol:	float			
	shoot_flame:	effects	Current types are: small, large, smoke, shockwave, or CUSTOM: effectSectionName	eg: shoot_flame: smoke, CUSTOM:lightFade, CUSTOM:pop*5	alleged: largeExplosion, smallExplosion, resourcePoolSmoke, noneExplosion
	shoot_light	color			
	idleSpin:	float	Spin rate when idle, used on missile turrets		
1.13	onShoot_playAnimation	animation ref	Play a custom animation from an [animation] section after firing this turret		
1.14	onShoot_triggerActions	action refs	Trigger these actions each time this turret fires		
1.13.3	onShoot_freezeBodyMovementFor	time	Stops the unit from moving for a certain period of time		
	recoilOffset	float	Push turret forward or back after firing for a recoil effect. Value in pixels.		
	recoilOutTime	float	Time to get to offset position after firing		
	recoilReturnTime	float	Time to return to default position		
1.13.3	showRangeUIGuide	bool			
	unloadUpToXUnitsAndGiveAttackOrder	int	After unloading the units, they are automatically given an attack waypoint against the parent's target		
	unloadUpToXUnitsAndGiveAttackOrder_withTag	tag(s)	Specifies units with specified tag.		

Section [projectile_NAME]

Projectiles are necessary to inflict damage on an enemy, but also other purposes

	Code	Value Type	Description	Example
			Necessary Code	
		int	**directDamage:** *or* **areaDamage:**	
			life:	
			Core	
	life:		How long till this projectile gets removed if it hasn't hit a target, 300 might be a good starting point, change depending on speed and range	
	deflectionPower:	float	Defaults to 1. Energy needed for laser defence to deflect. -1 to disable deflection (only disable for special weapons like flames)	
1.13	explodeOnEndOfLife	bool	Default to false. True to explode at end of life with all side effects and area damage instead of disappearing. Good for making area-denial weapons.	
	autoTargetingOnDeadTarget:	bool	Retarget to nearby unit if target dies while in transit	
1.14	autoTargetingOnDeadTargetRange	int	The range which it will select a new target if old target has died	
1.14	autoTargetingOnDeadTargetLead	float	The lead it will try to have on the new target	
1.13	unloadUpToXUnitsFromSource	int	Unload X units from source unit, to projectile explode location	
1.13	teleportSource	bool	Move unit that shot this projectile to projectile explode location	
1.13	spawnUnit	unit types	Spawn new units of this type at projectile explode location	eg: spawnUnit: heavyTank, tank*5, hoverTank(offsetX=10)
1.14	spawnProjectilesOnEndOfLife	projectile ref	Spawns new projectiles on end of life, useful for secondary projectiles	spawnProjectilesOnEndOfLife: torpedo_split(offsetDir=90), torpedo_split(offsetDir=-90)
1.14	spawnProjectilesOnExplode	projectile ref	Projectiles to spawns when this projectile hits it's target	
1.14	spawnProjectilesOnCreate		Spawns projectiles on creation of this projectile, useful for making true shotgun-like projectile spread	
1.13.3	convertHitToSourceTeam	bool	Convert units hit to the team that fired this projectile. Useful to make capturing systems	
1.13	tags	tags	Useful for projectile interceptions (e.g. Nuke and Anti-Nuke Interaction)	
	flameWeapon:	bool	Generates small flames on hit (only cosmetic)	
			Damage	
	directDamage:	int	Damage to target unit on hit. Does not work with targetGround:true as it won't have a clear unit to target	
	areaDamage:	int	Damages on arrival of target with an area effect, use areaRadius to adjust size of damage. targetGround needs this to damage	
1.13	areaRadius:	float	How wide areaDamage effects. Note this drops off (unless areaDamageNoFalloff is used)	
	areaDamageNoFalloff	bool	Removes the falloff from areaDamage	
	areaRadiusFromEdge	bool	Applies damage from edge of units instead of center. Mostly effects large units.	
1.13	areaExpandTime	float	Applies area damage as an expanding blast wave rather than instantly. Useful for nuke projectiles	
1.13	areaHitAirAndLandAtSameTime	bool	Defaults to false	
	areaHitUnderwaterAlways	bool	Defaults to false	
	areaIgnoreUnitsCloserThan	int	Units closer than this range aren't effected. Rarely needed. Not recommended for normal projectiles.	
1.13	buildingDamageMultiplier	float	Defaults to 1	
1.13	shieldDamageMultiplier	float	Defaults to 1.	eg: 0 to do no damage to shields and 2 to do double damage
1.13	shieldDefectionMultiplier	float	Defaults to 1.	eg: 0 to ignore shields and directly damage hull
1.14	hullDamageMultiplier	float	Defaults to 1. Can be used to create EMP weapons that affect shields only	eg: 0 to ignore hull and only damage shields
	armourIgnoreAmount	int	Amount of armour to ignore on target and do damage as if this armour was not there	
1.13	friendlyFire	bool/string	Lets area effect projectiles damage own team units (can't damage allies). Useful for nuke-like weapons	friendlyFire: false / friendlyFire: true / friendlyFire: only-ignoreEnemy
1.13.3	mutatorX_ifUnitWithTags	tags	Applies mutators to this projectile if target has corresponding tags	eg: mutator1_ifUnitWithTags: infantry
1.13.3	mutatorX_ifUnitWithoutTags	tags	Same as ifUnitWithTags, but applies if target doesn't have the set tags	eg: mutator1_ifUnitWithoutTags: strongArmour
1.13.3	mutatorX_directDamageMultiplier	float	Changes directDamage. Defaults to 1. Be careful not to confuse players using this as the effect may not be clear. Use amour instead when possible	
1.13.3	mutatorX_areaDamageMultiplier	float	Same as directDamageMultiplier but for areaDamage. Defaults to 1.	
1.13.3	mutatorX_changedExplodeEffect	effect	Change explode effect if this mutator is active. Eg make a bounce off amour effect. Helps to make the damage change more clear to players (Doesn't work with targetGround.)	
1.14	mutatorX_addResourcesDirectHit	resource	Add resource to all hit units. Warning: Be careful not be break units from other mods by adding random resources or energy to them that they don't expect.	
1.14	mutatorX_addResourcesAreaHit	resource		
1.14	interceptProjectile_removeTargetLifeOnly	bool	Defaults to false. When false projectiles are just removed. Could be true to make hit projectiles explode or split when hit	
	targetGround	bool	Target ground, and don't home in on target. Note: only areaDamage is applied if targeting ground.	
1.14	targetGround_includeTargetHeight	bool	Default false. for area affect AA weapons	
1.14	targetGroundHeightOffset	float	Default 0. for shooting over or under a target. Useful for projectiles that split and rain down.	
	speed:	float	Projectile default travel speed	
	targetSpeed:	float	Accelerate to this speed	
1.13	targetSpeedAcceleration	float	Controls the speed rampup for targetSpeed	
	ballistic:	bool	Makes projectiles fly up into the air and come down, instead of going in a straight line	
	ballistic_delaymove_height:	float		
	ballistic_height:	float		
	targetGroundSpread:	float	Randomly makes the shot inaccurate by this amount. Also used by weapons like the flamethrower	
	speedSpread:	float	Randomly change the starting projectile speed by this amount	
	instant	bool	Hit target instantly	
	instantReuseLast:	bool	Recycles last projectile fired, only one projectile ever exists. Can turn lasers into beam weapons by using lower rate of fire and setting this to true	
1.14	instantReuseLast_alsoChangeTurretAim	bool	Make turret's aim include last projectile's spread and sweep offsets, useful for beam weapons	
1.14	instantReuseLast_keepAreaDamageList	bool	Default false. Keeping the list was the normal behaviour in 1.13 making area damage not apply a second time but this is not useful. Use this only if you want the old behaviour.	
1.13	disableLeadTargeting	bool	Disable the lead targeting calculations when aiming at a moving target. Defaults false.	
1.13	leadTargetingSpeedCalculation	float	The expected speed of this projectile for targetGround lead target calculation. Defaults to 'targetSpeed' if set otherwise 'speed'.	
1.13.3	initialUnguidedSpeedHeight		Sets vertical speed for projectiles with targetGround. Use gravity to make smooth arching projectiles	
	initialUnguidedSpeedX			
	initialUnguidedSpeedX			
1.13.3	gravity:		Controls the pull for projectiles that target ground. Use together with initialUnguidedSpeedHeight	
1.14	turnSpeed	float	Limits the turn speed of a projectile, making them inaccurate even with directDamage	
1.14	wobbleAmplitude	float	How wide the projectile will wobble	
1.14	wobbleFrequency	float	How often the projectile will wobble	
1.14	pushForce	float	Push (or pull with a negative value) the units that get hit. Divided by target mass	
1.14	pushVelocity	float	Push (or pull with a negative value) the units that get hit. Ignores target mass	
1.14	moveWithParent	bool	Move projectile as parent moves. Useful for beam effects that need to stick to source turret.	
1.14	sweepOffset	float	Useful for beam effects.	
1.14	sweepOffsetFromTargetRadius	float	Add to sweep offset by factor of target's radius. 0.4 would be 40%	sweepOffsetFromTargetRadius: 0.4
1.14	sweepSpeed	float	Useful for beam effects.	
1.14	retargetingInFlight	bool	Can retarget a new target mid-flight, perfect for flak-style weapons and projectiles that collide	
1.14	retargetingInFlightSearchDelay	float/time	How long between searching for new targets. Default 5	

1.14	retargetingInFlightSearchRange	int	Range which targets are reselected. Default 120		
1.14	retargetingInFlightSearchLead	float	The lead of the projectile to try to hit the target. Default 15		
1.14	retargetingInFlightSearchOnlyTags	tag ref	Only retarget units with these tags		
1.13			**Graphics and effects**		
	color	color	Recolors this projectile using a hex value.	color: #bebe50	
1.13.3	invisible	bool			
	image:	file (image)	Use custom image. Overrides drawType and frame		
	drawType	int	Built-in image to use. 0:projectiles.png 1:projectiles_large.png 2:projectiles2.png	drawType:1	
	drawSize:	float	Scale image. Defaults to 1		
	frame	int	Built-in image frame to use, starts at zero.		
	hitSound:	bool	Default true		
1.13	explodeEffect	effect ref list		explodeEffect: smallExplosion, CUSTOM:myExplodeEffect	
1.13	explodeEffectOnShield	effect ref list	Use this effect if shield is active on target		
1.13	teamColorRatio	float	Mix 0-1 of team colour into color field		
1.14	teamColorRatio_sourceRatio	float	default is (1-**teamColorRatio**). Keep more of **color** when mixing. Note this might saturate colors.		
1.13	drawUnderUnits	bool			
1.13	effectOnCreate	effect ref list			
1.13	shouldRevealFog	bool	Reveal fog to player on explode		
1.13	alwaysVisibleInFog	bool			
1.13	nukeWeapon	bool	Shows on mini-map when fired. Some other side effects as well.		
	trailEffect	boolEffect	true for built-in defaults, but can also point to any custom effects		
1.13	trailEffectRate	float	Defaults to 3		
	lightCastOnGround	bool			
	lightSize:	float			
	lightColor	color		lightColor: #ffe92b	
	largeHitEffect:	bool	Creates a large explosion and accompanying sound on hit (only cosmetic)		
	lightingEffect:	bool	Draw as lighting works best with instant:true		
	laserEffect:	bool	Draw as laser works best with instant:true		
1.14	beamImage	file (image)	Image to use for laserEffect		
1.14	beamImageOffsetRate	float			
1.14	beamImageStart	int	Frame start of beam animationeffect		
1.14	beamImageStartRotated	bool	Defaults false. True to rotate with turret angle		
1.14	beamImageEnd	int	Frame end of beam animation effect		
1.14	beamImageEndRotated	bool	Defaults false		
	Section		*[movement]*	*These are traits the unit has as far as movement goes, such as rotation and acceler*	
	Code	Value Type	**Description**	Example	
	movementType:	string	Defines what kind of terrain the unit will be able to move, along with other properties of unit types.	movementType: LAND	
	slowDeathFall:	bool	Used with large aircraft. Makes the unit fall slowly while maintaining its speed at the time of death.	slowDeathFall: true	
	moveSpeed:	float	Maximum movement speed of the unit.	moveSpeed: 1.2	
	moveAccelerationSpeed:	float	Defines how fast units accelerate to max speed.	moveAccelerationSpeed: 0.07	
	moveDecelerationSpeed:	float	Don't make this too low or units will have trouble stopping at waypoints	moveDecelerationSpeed: 0.17	
	reverseSpeedPercentage:	float	0.6 default. Over 0.4 will reverse for short distances (at 40% speed). If set to 1 will drive in reverse same as fo	reverseSpeedPercentage: 0	
	landOnGround:	bool	Should flying unit land when idle.	landOnGround: false	
	targetHeight:	float	Defaults to 0 but if AIR movementType default is 35	targetHeight: 25	
	targetHeightDrift:	float	Smooth animated height change. Defaults to 0 but if AIR movementType default is 1.5	targetHeightDrift: 1	
	startingHeightOffset:	float			
1.14	heightChangeRate:	float	Rate at which the unit changes height, either from converting or drifting	heightChangeRate: 3	
1.14	fallingAcceleration:	float	The acceleration in which a unit drops		
1.14	fallingAccelerationDead:	float	fallingAcceleration but when destroyed		
	maxTurnSpeed:	float			
	turnAcceleration:	float			
	moveSlidingMode:	bool	Makes the unit slide when moveDecelerationSpeed is lower, making them drift and feel natural		
	moveIgnoringBody:	bool	Allows the unit to move without fully turning in the direction its moving, useful for ships and air units		
	moveSlidingDir:	int			
	joinsGroupFormations:	bool	Defaults to true. Changing not recommended		
	ignoreMoveOrders	bool	Ignore and remove movement type waypoints. Always to true for buildings.		
	Section		*[ai]*	*This determines what the AI will use the unit for, does not effect player*	
	Code	Value Type	**Description**	Example	
	useAsBuilder:	bool	Set to true if unit can build or repair buildings. Defaults to [core]IsBuilder.		
	useAsTransport	bool	Defaults to true if unit can transport units		
	useAsHarvester	bool	Defaults to true if unit can reclaim resources		
	useAsAttacker	bool	Can AI use this unit for attacks. Defaults to true.		
	disableUse:	bool	Disallow AI building this unit or building		
	ai_upgradePriority	float	Defaults to 0.06. Set between 0-1, higher means AI is more likely to upgrade this unit before others		
			Buildings only		
	buildPriority:	float	0-1. AI uses 0.8 for first land factory, 0.48 for air factory, 0.47 for first turret.		
	noneInBaseExtraPriority:	float	Adds to buildPriority, if this unit doesn't exist in the AIs base		
	noneGlobalExtraPriority:	float	Adds to buildPriority, if this unit doesn't exist in the any where on the map		
	recommendedInEachBaseNum	float	Defaults to 0		
	recommendedInEachBasePriorityIfUnmet	float	Defaults to 0.5. Overrides buildPriority		
	upgradedFrom:	string	Create link to another unit to preserve max counts for upgraded and non-upgraded types in same base.		
	maxGlobal:	int			
	maxEachBase:	int			
1.4	notPassivelyTargetedByOtherUnits	bool	Useful for walls, etc		
1.4	lowPriorityTargetForOtherUnits		Useful for units that cannot attack back. Eg walls		
1.13.3	whenUsingAsHarvester_recommendedInEachBase				
1.13.3	whenUsingAsHarvester_recommendedGlobal				
1.13.3	whenUsingAsHarvester_includeOtherHarvesterCounts				
1.13.3	onlyUseAsHarvester_ifBaseHasUnitTagged				
	Section		*[leg_#] / [arm_#]*	*Legs can move around when unit moves. Arms need an animation or convert*	
	Code	Value Type	**Description**	Example	
	x:	float	Sets position of the foot on the X axis.		
	y:	float	Sets position of the foot on the Y axis.		
	copyFrom:	int	Copy from another leg. Useful to only need to set leg values once	copyFrom: 1	
	attach_x:	float	Sets the leg's attach point on the X axis.		
	attach_y:	float	Sets the leg's attach point on the Y axis.		
	rotateSpeed:	float			
	endDirOffset		Target foot/end rotation relative to body		
	lockMovement	bool	Lock to unit body. Useful if walking unit converted to a flying unit.		
	heightSpeed:	float			
	moveSpeed				
	moveWarmUp				
	holdDisMin:	float	Defaults to 7. Reposition leg at this distance if neighbor legs are not already repositioning.		
	holdDisMax:	float	Defaults to 16. Force reposition of leg at this distance.		
	holdDisMin_maxMovingLegs				
	hold_moveOnlyIfFurthest				
	holdDisMin_checkNeighbours				
	hardLimit:	float	Defaults to 80. Force leg to never go this far. Better to not be reached.		
	estimatingPositionMultiplier	float	defaults to 1. Predicts were unit will be for leg placement based on unit speed.		
			Graphics and effects		
	hidden:	logic boolean			
1.13	image_end	file (image)			
1.13	image_end_shadow	file (image)			
1.13	image_end_teamColors				
1.13	image_foot	file (image)	same as image_end		
	image_foot_shadow	file (image)			
1.13	image_middle	file (image)			
	image_leg	file (image)	same as image_middle		
1.13	draw_foot_on_top	bool			
	drawOverBody	bool	Draw over body		
	drawUnderAllUnits	bool	Draw over all units		
	drawDirOffset	float			
	dust_effect:	bool	Spawns dust particles on each step.		
	spinRate	float	Makes arm/leg spin, like idleSpin for turrets		
	favourOppositeSideNeighbours		calculate neighbours with X 10 times closer than Y		
	drawLegWhenZoomedOut		For performance, defaults changes based on unit size		

	drawFootWhenZoomedOut		For performance, defaults changes based on unit size	
	treeMeight	float	Unused	
	Section		*[attachment_NAME]*	***Attachments are slots where other units can be positioned or carried***
	Code	**Value Type**	**Description**	**Example**
1.13.a	x	float		
1.13.a	y	float		
1.13.a	height	bool		
1.13.a	rideDir	int		
1.13.a	rideDirReversing	int		
1.13.a	isVisible	bool		
1.13.a	onCreateSpawnUnitOf	unit ref		
1.13.a	isUnselectable	bool	Defaults to false	
	canAttack	bool	Defaults to true. Set to false to stop this attachment attacking.	
1.13.a	canBeAttackedAndDamaged	bool		
1.13.a	deattachIfWantingToMove	bool	If the unit is ordered to move, it will detach. This includes waypoints from actions.	
1.13.a	lockLegMovement	bool		
1.13.a	keepAliveWhenParentDies	bool	Defaults to false	
1.13.a	setDrawLayerOnTop	bool		
1.13.a	setDrawLayerOnBottom	bool		
1.13.a	addTransportedUnits	bool		
1.13.a	lockRotation	bool		
1.13.a	rotateWithParent	bool		
1.13.a	resetRotationWhenNotAttacking	bool	Similar to shouldResetTurret:for turrets.	
1.13.a	prioritizeParentsMainTarget	bool	It will prioitze targeting the main target. Defaults to true.	
1.13.a	alwaysAllowedToAttackParentsMainTarget	bool	Will always attack the parents main target.	
	onParentTeamChangeKeepCurrentTeam	bool	Defaults false. If true attached units are not converted when parent changes team. Eg from [projectile]convertHitToSourceTeam	
	onConvertKeepExistingUnitInSameSlot	bool		
	unloadInCurrentPosition	bool	Defaults false. If true transported attached units are kept current attached location when unloading	
	keepWaypointsNeedingMovement	bool	Defaults false. If true attached units keep waypoints with movement even while they cannot move. Useful if they will be automatically deattached soon.	
1.14	smoothlyBlendPositionWhenExistingUnitAdded	bool		
1.14	keepWaypointsNeedingMovement	bool	Defaults to false. When false any queued waypoints needing movement to complete get removed.	
1.14	showAllActionsFrom	LogicBoolean	Show all actions of the units attached in the parent unit list when selected	
1.14	createIncompleteIfParentIs:	bool		
1.14	redirectDamageToParent:	bool	Redirects damage done to this attachment to the parent instead of damaging itself directly	
1.14	redirectDamageToParent_shieldOnly:	bool		
	Section		*[effect_NAME]*	***Effects are purely visual, but can be important for a mod***
	Code	**Value Type**	**Description**	**Example**
1.13	life	float	Defaults 200. Time till effect is removed. Set low as possible to reduce effect overhead.	life: 70
1.13	lifeRandom	float	Random offset life by +/- this value	lifeRandom: 12
1.13	alsoEmitEffects	effect ref	Create more effects when created, useful for meta-effects. Note: other 'alsoEmitEffects' on created effects are ignored.	
1.14	alsoEmitEffectsOnDeath	effect ref	Create these effects when life runs out.	
	fSpawnFailsEmitEffects	effect ref	If 'spawnChance' for this effects fails then emit these effects instead	
1.13	alsoPlaySound	sound ref		
1.13	createWhenOffscreen	bool	Defaults false.	
1.13	createWhenZoomedOut	bool	Defaults true	
1.13	createWhenOverLiquid	bool	Defaults true	
1.13	createWhenOverLand	bool	Defaults true	
1.13	spawnChance	float	Default 1. If less than 1 effect only has a random chance of being created	
1.13	shownFog	bool	Default false	
1.13	delayedStartTimer	float	Hide for x time before showing and updating effect.	
1.13	liveAfterAttachedDies	bool	Defaults false when attachedToUnit is being used	
1.13	priority	string	Defaults to high. verylow/low/high/veryhigh/critical. Takes effect when too many effects are being shown at once.	
			Movement	
1.13	attachedToUnit	bool	Attach to unit or projectile that created this effect. Will move with this object.	
1.13	alwayStartDirAtZero	bool	Ignore source/attached unit dir	
1.13	atmospheric	bool	Apply drag to slow this effect down and add small wind effects	
1.13	physics	bool	Fall to ground and bounces. Needs height to take effect.	
1.13	physicsGravity	float	Defaults to 1. height speed acceleration when physics: true	
1.13	xOffsetRelative	float	Offset starting effect position. Relative to direction of attached turret, projectile, unit	
1.13	yOffsetRelative	float	Offset starting effect position. Relative to direction of attached turret, projectile, unit	
1.13	xOffsetRelativeRandom	float	Random offset by +/- this value	
1.13	yOffsetRelativeRandom	float	Random offset by +/- this value	
1.13	xOffsetAbsolute	float	Offset starting effect by position ignoring direction of attached turret, projectile, unit	
1.13	yOffsetAbsolute	float	Offset starting effect by position ignoring direction of attached turret, projectile, unit	
1.13	xOffsetAbsoluteRandom	float	Random offset by +/- this value	
1.13	yOffsetAbsoluteRandom	float	Random offset by +/- this value	
1.13	xSpeedRelative	float		
1.13	ySpeedRelative	float		
1.13	xSpeedRelativeRandom	float	Randomly change by -value to value	
1.13	ySpeedRelativeRandom	float	Randomly change by -value to value	
1.13	xSpeedAbsolute	float		
1.13	ySpeedAbsolute	float		
1.13	xSpeedAbsoluteRandom	float	Randomly change by -value to value	
1.13	ySpeedAbsoluteRandom	float	Randomly change by -value to value	
1.13	hOffset	float	height offset from source	
1.13	hOffsetRandom	float	Randomly change by -value to value	
1.13	hSpeed	float	height speed	
1.13	hSpeedRandom	float	Randomly change by -value to value	
1.13	dirOffset	float	rotation	
1.13	dirOffsetRandom	float	Randomly change by -value to value	
1.13	dirSpeed	float	rotation speed	
1.13	dirSpeedRandom	float	Randomly change by -value to value	
			Graphics	
1.13	frameIndex	int	frame of to use	
	frameIndexRandom			
1.13	stripIndex	intraging	A built-in image set to use. Cannot be used with custom image	effects/explode_big/light_50/flame/effects/effects2/projectiles/projectiles2/explode_bits
1.13	image	image	Custom image file to use. Cannot be used with stripIndex.	
	imageShadow	image	Custom image file to use for shadows	
1.13	scaleTo	float	Defaults to 1	
1.13	scaleFrom	float	Defaults to 1	
1.13	color	color	Defaults #FFFFFFFF	
	teamColorRatio		0-1	
1.13	drawUnderUnits	bool		
1.13	fadeInTime	float	Fade alpha from 0% to 100% for this time at start	
1.13	fadeOut	bool	Fade alpha from 100% to 0% based on life. Set alpha is higher than 1 to delay fade	
	alpha		Capped between 0-1. Can be set higher than 1 to delay fadeOut effects	
	shadow		True to draw a shadow. Forced true if imageShadow is used	
			Animation	
1.13	total_frames	int	Total frames of 'image', used with animation or frameIndex. Only needed with custom images	
1.13	animateFrameStart	int		
1.13	animateFrameEnd	int		
1.13	animateFramePingPong	int		
1.13	animateFrameSpeed	time		
1.13	animateFrameSpeedRandom	time		
1.14	animateFrameLooping	bool	Defaults false. When false effect is removed when animation ends	
	Section		*[animation_NAME]*	***Use this to make intricate animations based on different circumstances***
	Code	**Value Type**	**Description**	**Example**
1.13	onActions : Unknown		move, attack, idle, underConstruction, underConstructionWithLinkedBuiltTime, queuedUnits	
1.13	onActionsQueuedUntilPlayAt : float		For onAction: queuedUnits. Amount queue needs to reach before starting, set between 0-1	
1.13	blendIn : time		Blend with last animation for this time	
1.13	blendOut : time		Blend with next animation for this time	
1.13	pingPong	bool	Play animation in reverse after it ends	
1.13	keyframeTimeScale : float	float	Scales all keyframe times, useful to make an animation faster/slower without changing everything	
			Keyframes - create as many as needed	
1.13	arm# _[time]		Adds a keyframe at time. Use multiple times to create animation.	eg: arm1_5s: {x: 5, dir: 90 }
	leg# _[time]		Adds a keyframe at time. Use multiple times to create animation.	

	body_[time]		Adds a keyframe at time for body. Only frame and scale allowed on body	eg: body_4s: {frame: 4, scale: 0.5}
1.13	effect_[time]		Spawn effects while playing an animation	eg: effect_2s: {name:CUSTOM|myExplode, x: 0,y: 5}
	direction_units	float	Overrides [graphics]animation_direction_units while this animation is playing	
	direction_strideX:	int	Overrides [graphics]animation_direction_strideX	
	direction_strideY:	int	Overrides [graphics]animation_direction_strideY	
	direction_starting:	float	Overrides [graphics]animation_direction_starting	
			Deprecated Keys (can be used but there are better ways)	
1.13	~~start - int~~		~~Start image index. Deprecated~~	
1.13	~~end - int~~		~~End image index. Deprecated~~	
1.13	~~scale_start - float~~		~~Start scale. Deprecated, use body keyframes instead.~~	
1.13	~~scale_end - float~~		~~End scale. Deprecated, use body keyframes instead.~~	
1.13	~~speed - float~~		~~Speed, smaller is faster. Only effects start_end, scale_start, scale_end~~	
	Section		*[action_NAME] / [hiddenAction_NAME]*	***Actions that can dynamically cause changes to units and resources***
			[hiddenAction_NAME] is basically an action with isVisible: false by default	
	Code	Value Type	**Description**	Example
	text	string	Text shown in UI	
	textPostFix:	string	Text shown as suffix, useful with textAddUnitName to create text UI	text: [textPostFix:] textAddUnitName: unitRef self.attachment(slot="${slotId}")
	text_{LANG}	string		
	description	string	A display text when you select your unit's action, used to explain it's purpose.	
	description_{LANG}	string		
	displayType	list	none, rally, upgrade, queueUnit, building, action, infoOnly, infoOnlyNoBox	
	displayRemainingStockpile	bool	Queue is shown as number of times action can be triggered based on price	
	pos	float	Order action appears in UI	
	iconImage	file (image)	Adds an icon for the action.	
1.14	iconExtraImage	file (image)	Drawn over top of icon image. Useful for upgrade icons, etc	
1.14	iconExtraColor	colour	Defaults to #64FFFFFF	
1.14	iconExtrasVisible	LogicBoolean		
1.13	unitShownInUI	unitRefunitType	Display this unit. (as if this action built this unit)	eg: unitShownInUI: unitRef self.transporting(slot=0) or unitShownInUI: heavyTank
1.14	setBuilt	float	Designates how built the unit is from a percentage of 0-100% with a number between 0 and 1.	
	~~setBuildUnit~~	~~unitRefunitType~~	~~UNFINISHED KEY??? Simulates the UI when building units/buildings through nano~~	
			Unit Reference - Dynamically parts from already existing units, useful w/ isAlsoViewableByEnemies	self, self.parent(), self.transporting(slot=x), self.attachment(slot=X)
1.14	textAddUnitName	unitRefunitType	Add this unit's name to this action's text	eg: textAddUnitName: unitRef self.attachment(slot="1")
1.14	descriptionAddFromUnit	unitRefunitType	Add this unit's description to this action's description	
1.14	descriptionAddUnitStats:	unitRefunitType	Add this unit's stats (eg HP, energy, resources) to this action's description	descriptionAddUnitStats: unitRef self.parent()
1.14	unitShownInUIWithHpBar	bool	default true, Only used when unitShownInUI is a unitRef	
1.14	unitShownInUIWithProgressBar	bool	default true, Only used when unitShownInUI is a unitRef. Replaces HP bar if active	
			Requirements for player/AI to use in UI	
1.14	alwaysSinglePress	bool	Defaults false. When true no confirmation needed on mobile, when used with **canPlayerCancel**:false and **allowMultipleInQueue**:false will also hide the queue interface.	
	price	resources	The price of your action for the unit. Disables action if not available. Defaults to credits if unlabelled	price: credits=5, energy=5, hp=100, shield=5, ammo=1
	isActive	LogicBoolean	Defaults true. If false then action is disabled and shown in red in UI.	
	isVisible	LogicBoolean	Defaults true. If false action is hidden from UI and disabled.	
	isLocked	LogicBoolean	Defaults false. If true action is disabled, and a lock icon is shown. Mostly used for no nuke game modes	
	isLockedMessage	LocaleString		
1.13.4	isLockedAlt	LogicBoolean	Another reason for this to be locked. Can just use OR on isLocked, but this allows a different message to be shown	
1.13.4	isLockedAltMessage	LocaleString		
1.13.4	isLockedAlt2	LogicBoolean		
1.13.4	isLockedAlt2Message	LocaleString		
	allowMultipleInQueue			
	onlyOneUnitAtATime	bool	When action is picked in UI, only one unit selected with get this action. Defaults to false.	
1.13.4	isGuiBlinking	LogicBoolean	Flashes in UI to draw attention to it. Might be annoying if used often, recommended only for temporarily states/messages	
1.14	isAlsoViewableByAllies	bool	Allows ally players to see actions from this unit, useful for showing stats to other players (eg missile count, items collected)	
1.14	isAlsoViewableByEnemies	bool	Allows enemy players to see actions from this unit, useful for showing stats to other players (eg missile count, items collected)	
			AI - How the AI uses this action	
1.13.3	ai_isHighPriority	LogicBoolean	Use this for faction selection actions or other high priority actions such as building high priority units	
	ai_isDisabled	LogicBoolean	Defaults false. Stop AI using this action.	
1.13.3	ai_considerSameAsBuilding		Be careful with	
			Triggers - These skip the queue and do not use price, ignores isLocked, buildTime, etc	**(Use 2 actions and alsoQueueAction to automatically add an action to the queue)**
1.13.3	autoTriggerOnEvent		Parameters: created, completeAndActive, destroyed, killedAnyUnit, queuedUnitFinished, queueItemAdded, queueItemCancelled, teleported, touchTargetSuccess, newWaypointGivenByPlayer, teamChanged, transportingNewUnit, transportUnloadedOrRemovedUnit, tookDamage	
	autoTrigger	LogicBoolean	When true triggers the effects of this action instantly (ignoring price, isActive, isVisible, buildSpeed, etc)	autoTrigger: if self.overWater(), autoTrigger: if self.customTimer(laterThanSeconds=5)
			While action is queued	
	buildSpeed	time		buildSpeed: 5s
	buildSpeed_ignoreFactorySpeedModifiers	bool?		
	highPriorityQueue	bool	Defaults to false. If true this action skips all other low priority actions in queue. Useful for fireTurret actions.	
	canPlayerCancel	bool	When false, it prevents the player to cancel the action	
	whenBuilding_cannotMove	bool	Stops unit moving while action is being applied. Useful for deploy like actions.	
	whenBuilding_playAnimation	animation ref	Plays animation when the action is queued	
	whenBuilding_rotateTo	float	Rotate unit body to this direction when action is in active queue	
	whenBuilding_rotateTo_orBackwards	bool	If true allow rotation in 180 degrees from whenBuilding_rotateTo when this is a smaller angle	
	whenBuilding_rotateTo_waitTillRotated	bool	Pause action queue till rotation is finished	
	whenBuilding_temporarilyConvertTo	unit ref	Convert to another unit while action is in active queue. Note: actions from the original unit will be kept	
	whenBuilding_triggerAction	action ref	Triggers a specified action while the action is queued	
1.14	whenBuilding_rotateTo_aimAtActionTarget	bool	Rotates the unit on the direction where the target is placed (especially when using fireTurretXAtGround)	
1.14	whenBuilding_rotateTo_rotateTurretX	turret ref	Rotates the specified turret on the direction where the target is placed	
	spawnEffectsOnQueue	effect ref	Effects to spawn at unit when action is first added to queue	
	playSoundToPlayerOnQueue	sound ref	Global sound to play to unit's player only when action is first added to queue	
			Misc outcomes / Results (What happens) (Note: Must be at least one outcome for an action to show)	
	requireConditional		Skip all effects of this action if this evaluates to false	
1.13.4	convertTo	unit ref	Convert your unit into another unit. properties are preserved.	
1.14	convertTo_keepCurrentTags		Keep current and temporarily tags and ignores default tags on convertTo target.	
	addEnergy	float	Adds energy to unit. Has no effect unless energyMax is set. (Same as addResources: energy=X)	
	addResources	resources	Add these resources when action finishes.	addResources: credits=5, energy=-5, hp=-100, shield=5, ammo=1
	addResourcesScaledByAIHandicaps		Same as addResources, but increased or decreased depending on AI difficulty level	
	deleteSelf		Remove self with no explosions or sounds	
	resetCustomTimer	LogicBoolean	Reset timer used with self.customTimer()	
1.13.3	setBodyRotation			
			Outcome - Chaining Actions	
	alsoTriggerAction	action refs	Trigger to results of another action as well. Ignores action's requirements.	alsoTriggerAction: addCredits, playSound
	alsoQueueAction	action refs	Adds another action into the normal unit's queue. Ignores action's requirements	
	alsoTriggerOrQueueActionConditional	LogicBoolean	Defaults true. alsoTriggerAction and alsoQueueAction are ignored if this works out to be false.	
			Outcome - Sounds	
	playSoundAtUnit	sound ref	Local sound to play when action finishes	
	playSoundGlobally	sound ref	Global sound to play to all players in game	
	playSoundToPlayer	sound ref	Global sound to play to unit's player only	
			Outcome - Fire projectile from turret	
	fireTurretXAtGround	turret ref	When action finishes fire target turret at point on ground, bypasses canShoot rules in turret.	fireTurretXAtGround: nukeSilo
	fireTurretXAtGround_withOffset	point	If not set player targets the ground with GUI, if a point is set this step is skipped	fireTurretXAtGround_withOffset: 0,0
	fireTurretXAtGround_withProjectile	projectile ref	Used with fireTurretXAtGround. Defaults to target turret's normal projectile.	
1.13	fireTurretXAtGround_count		Number of projectiles to fire. Defaults to 1	
1.13	fireTurretXAtGround_onlyOverPassableTileOf		Only allow tiles crossable by this movement type to be selected	LAND,BUILDING,WATER,HOVER, etc
			Outcome - Spawning	
1.13	spawnUnits		Spawns specified units	eg: spawnUnits: heavyTank, tank*5, hoverTank(offsetX=10)
	spawnEffects	effect ref	Effects to spawn at unit	
1.13	produceUnits		Like spawnUnits but unit exits as if it was produced normally, and gets a move away waypoint	
			Outcome - Position	
1.14	offsetSelfAbsolute:	point3d	Changes unit position absolutely to its current position	offsetSelfAbsolute: 0, 0, 40 [x,y,height]
			Outcome - Transport Changes	
	addUnitsIntoTransport	unitTypes	Add units into transport, use self.transportingCount() to check for space before adding	addUnitsIntoTransport: tank*3, heavyTank(neutralTeam=true)
	deleteNumUnitsFromTransport	int	Removes specified number of units on transport	
1.13.4	deleteNumUnitsFromTransport_onlyWithTags	string(s)	Same with deleteNumUnitsFromTransport, but more narrowed	
1.13.4	startUnloadingTransport	bool	Unloads unit from transport normally	
1.13.4	forceUnloadTransportNow	bool	For unload all units, or slot targeted by **forceUnloadTransportNow_onlyOnSlot.** Unloads even if no space or overwater, etc	
1.14	forceUnloadTransportNow_onlyOnSlot	int		

			Outcome - Waypoint Changes	
1.13.x	clearAllWaypoints	bool	Clears all waypoints, be careful not to annoy players by removing their orders, prepending waypoints is often better	
1.13.x	clearActiveWaypoint	bool		
	addWaypoint_type		move, attackMove, guard, loadInto, loadUp, attack, reclaim, repair, touchTarget, build, follow, setPassiveTarget	
1.13	addWaypoint_unitType		Only for use with addWaypoint_type:build	
1.13.x	addWaypoint_prepend	bool	Add to the start of the waypoint queue or the end	
1.13.x	addWaypoint_triggerActionIfFailed	actions	If target_nearestUnit fails to find a match so waypoint cannot be added then trigger this action	
1.13	addWaypoint_triggerActionIfMatched	actions		
1.13.x	addWaypoint_maxTime	time	Automatically remove this waypoint if it has been active for longer than this time.	
1.13	addWaypoint_target_nearestUnit_tagged	tags		
1.13.x	addWaypoint_target_nearestUnit_team	relation	own|neutral|ally|NotOwn|ally|enemy|any	
1.13	addWaypoint_target_nearestUnit_maxRange	float		
1.13.x	addWaypoint_target_mapMustBeReachable	bool		
1.13.x	addWaypoint_position_offsetFromSelf	point		
1.13.x	addWaypoint_position_fromAction	bool		
1.13.x	addWaypoint_position_randomOffsetFromSelf		Same as above, but random.	
1.14	addWaypoint_position_relativeOffsetFromSelf	point		
1.14pb	addWaypoint_target_randomUnit_tagged			
1.14pb	addWaypoint_target_randomUnit_team			
1.14pb	addWaypoint_target_randomUnit_maxRange			
			Outcome - Cooldown	
1.14	addActionCooldownTime	time	Player cannot use action again for this amount of time	
1.14	addAllActionCooldownsTime	time	Same as addActionCooldownTime, but affects all actions and build menu	
1.14	addActionCooldownApplyToActions	action ids	Sets addActionCooldownTime's target. Defaults to this action.	
1.14	clearAllActionCooldowns		Removes all cooldown	
			Outcome - Animation	
1.13.x	playAnimation	animation id		
1.13.x	playAnimationIfNotPlaying	bool	Don't restart animation if this animation is already playing	
1.13.x	finishPlayingLastAnimation	bool	Finish last animation, including blend out	
1.13.x	stopLastAnimation	bool	Stop last animation, skipping blend out	
1.13.x	switchToNeutralTeam	boolean	Change team to neutral. This team is allied to all other teams. Will be captured by nearby units unless [core]stayNeutral:true is used	
1.13.x	switchToAggressiveTeam	boolean	Change to a built-in team that is aggressive to all other teams. Does not get captured.	
			Outcome - Take Resources from other units	
1.13.x	takeResources	customPrice	Resources to take (required to use take resources). And at-least 1 include key is needed.	takeResources: hp=5, gold=10
1.13.x	takeResources_includeUnitsInTransport	bool		
1.13.x	takeResources_includeParent	bool	Include attachment parent or transport parent	
1.13.x	takeResources_includeUnitsWithinRange	float		
1.13.x	takeResources_includeUnitsWithinRange_team	TeamRelation	Used with includeUnitsWithinRange, defaults to own. Can be: own|ally|allyNotOwn|enemy|neutral|any	
1.13.x	takeResources_excludeUnitsWithoutTags	tags		
1.13.x	takeResources_excludeUnitsWithTheseResources	customPrice		
1.13.x	takeResources_excludeUnitsWithoutAllResources	bool	Defaults to true.	
1.13.x	takeResources_triggerActionIfAnyCollected	action refs		
1.13.x	takeResources_triggerActionIfNoneCollected	action refs		
1.13.x	takeResources_discardCollected	bool	Just take resources from targets, don't add(or remove) to self	
1.13.x	takeResources_keepResourcesOnTarget	bool	Don't add/remove resource from target. This clones resources. Use with takeResources_discardCollected and takeResources_triggerActionIfAnyCollected to make a resource detector.	
	takeResources_maxUnits	int	Defaults to 1.	
1.13	takeResources_directTransferStoppingAtZero	bool	If less resources on target than transfer amount, only remaining resources will be transfered. Doesn't support use with some other takeResources_* keys	
			Outcome - Convert Resources	
1.13.x	convertResource_from	customResource	Name of custom resource to take from	
1.13.x	convertResource_to	customResource	Name of custom resource to give to	
1.13.x	convertResource_minAmount	float	Skip if less than this amount in 'from'. Defaults to 0. Likely not needed for most use cases	
1.13.x	convertResource_maxAmount	float	Max amount to transfer between 'from' and 'to'	
1.13.x	convertResource_multiplyAmountBy	float	Defaults to 1. Amount to multiply when adding on 'to' (does not effect amount taken on 'from')	
			Outcome - Set Resources	
1.13.x	resourceAmount	customResource	Name of custom resource to set with the below 3 keys. All keys are optional, and can be used together.	resourceAmount: oil
1.13.x	resourceAmount_setValue	float	Absolute value to set this resource to, ignores current value of resource. Skipped by default	resourceAmount_setValue: 20
1.13.x	resourceAmount_addOtherResource	customResource	Name of another custom resource to add to this on. Can be used without resourceAmount_setValue, to just add resources. Or with resourceAmount_setValue:0 to copy a resource value.	
1.13.x	resourceAmount_multiplyBy	float	Defaults to 1. Multiple the current or new value by	
			Outcome - Attachment changes	
1.13.x	attachments_addNewUnits	unit types		
1.13.x	attachments_deleteNumUnits	int		
1.13.x	attachments_onlyOnSlots	attachment ids	Restrict attachments_* actions to these attachments	
1.13.x	disconnectFromParent	bool		
1.13	attachments_unload	bool	Unload all attachments. Can be used with **attachments_onlyOnSlots.** Same as unloading transported units	
1.13	attachments_disconnect	bool	Disconnect all attachments in the place they are right now. Can be used with **attachments_onlyOnSlots.**	
			Outcome - Tag changes	
1.13.x	temporarilyAddTags	tags	Add tag to this unit until it is converted or reset (unless **convertTo_keepCurrentTags** is used)	
1.13.x	temporarilyRemoveTags	tags	Remove tag from this unit until it is converted or reset (unless **convertTo_keepCurrentTags** is used)	
1.13.x	resetToDefaultTags	bool	Reset to standard tags	
1.13.x	addGlobalTeamTags	tags	Add a tag to player's team. Use with self.globalTeamTags() to create unlocks and upgrades. Unique tags are best to not conflict with other mods.	
1.13.x	removeGlobalTeamTags	tags	Remove a tag from player's team.	
			Outcome - Show Message	
1.13.x	showMessageToPlayer	string	Sends a message to the player controlling the unit	
1.13.x	showMessageToPlayer_(LANG)	string	Note: This format is support on nearly all strings that show to player even when reference doesn't show it	
1.13.x	showMessageToAllPlayers	string	Sends a message to all players	Eg: showMessageToAllPlayers: %{self.playerName} has captured a point
1.13	showMessageToAllEnemyPlayers	string		showMessageToAllEnemyPlayers: Team %{self.playerName} has %{self.resource.gold}
1.13.x	showQuickWarLogToPlayer	string	Sends a Quick War Log message to the player controlling the unit (in the lower lef)	
1.13.x	showQuickWarLogToAllPlayers		Sends a Quick War Log message to all players (in the lower lef)	
1.13.x	debugMessage		Only shows in Sandbox with Debug mode on.	
	Type		*Spawn units line*	*Spawn lines specifically for units, used with "unit ref" value types*
	Code		Description	Example
			Most units spawning keys support multiple units with parameters	spawnUnits: crates*10(neutralTeam=true), tank(spawnChance=0.5)
1.13.x	neutralTeam	bool	Spawn the unit on the neutral team instead of the same team as source	
1.13	setToTeamOfLastAttacker	bool	Spawn the unit on the last attacker of source (useful on [core]unitsSpawnedOnDeath)	
1.13.x	spawnChance	float	Chance this unit will spawn. Defaults to 1.	
1.13.x	maxSpawnLimit	int	Useful with spawnChance, max number of units to spawn in total	spawnUnits: treeA(spawnChance=0.5, maxSpawnLimit=1), treeB(maxSpawnLimit=1)
1.13.x	gridAlign	bool	Align spawn location to grid, useful for buildings	
1.13.x	skipIfOverlapping	bool	Don't spawn this unit if spawn in an invalid location. Eg on units or over water when LAND based	
1.13.x	offsetX	float		
1.13.x	offsetY	float		
1.13.x	offsetRandomX	float		
	techLevel	int	Sets unit techLevel, very useful in mods that use the damagingBorder and zone marker (found in BR servers)	
	offsetRandomY	float		
	offsetRandomDir	float		
1.13.x	offsetHeight	float		
1.13.x	offsetDir	float		
1.13.x	addResources	resource ref	Give spawn unit those resources, can be used to set flags that trigger actions	spawnUnits: crates(addResource=gold:30|stone:10, spawnChance=0.5)
1.14	transportedUnitsToTransfer	int	Puts the designated amount of transported units into the transport of the spawned unit.	spawnUnits: transporter(transportedUnitsToTransfer=5)
1.14	alwaysStartDirAtZero	bool		
	Type		*Spawn Projectiles line*	*Spawn lines specifically for projectiles, used with "proj ref" value types*
	Code		Description	Example
1.14			**Most projectile spawning keys used for projectile ref**	spawnProjectilesOnEndOfLife: secondary*3(spawnChance=0.5)
1.14	spawnChance	float	Chance this projectile will spawn. Defaults to 1.	spawnChance: 0.5
1.14	maxSpawnLimit	int	Maximum amount to spawn	
1.14	recursionLimit	int	Prevents loops, useful with spawning itself so it doesn't infinitely spawn, good for chain exploding	recursionLimit: 5 (Recommended no more than 4 if spawning more than 3 projectiles)
1.14	offsetX	float		
1.14	offsetY	float		
1.14	xOffsetRelative	float	Similar to offsetX, but the offset is relative to the position of the projectile	
1.14	yOffsetRelative	float	Similar to xOffsetRelative, but for Y axis	
1.14	offsetRandomX	float	Random value to offset in the X axis only	
1.14	offsetRandomY	float	Random value to offset in the Y axis only	
1.14	offsetRandomXY	float	The offset in both directions to randomly spawn, makes truly random spawning within an area	
1.14	offsetHeight	float		
1.14	offsetDir	degrees		
1.14	offsetRandomDir	degrees		

	Type		*LogicBoolean*	*Advanced code to create conditionals and triggers*
	Code		**Description**	Example
	true			
	false			
	if		Start all logic booleans with if, unless just using true/false	
	and			if self.isInWater() and self.energy(greaterThan=1)
	or			if (self.energy(greaterThan=1) or self.ammo(greaterThan=1)) and self.isFlying()
	not			if not self.isOverLiquid()
			Unit location and movement	
	self.isUnderwater()			
	self.isAtGroundHeight()			
	self.isFlying()			
	self.isMoving()			
	self.isAtTopSpeed()			
	self.isInWater()		Touching water	
	self.isOverwater()		Touching or over a water tile	
	self.isOverLiquid()			
	self.isOverCliff()			
	self.isOverPassableTile()		(parameters: type)	
	self.isOverOpenLand()		shortcut for self.isOverPassableTile(type='LAND')	
			Unit stats	
1.13	self.hasResources()		Can check multiple resources (all price parameters)	
	self.resource()		Checks a single resource (parameters: type, greaterThan, lessThan)	
1.14	self.isResourceLargerThan		Compare two resource between each other, note multiplyTargetBy doesn't make any changes. (parameters: source=x, compareTarget=x, byMoreThan=x, multiplyTargetBy=x)	
	self.hp()		(parameters: greaterThan, lessThan, empty, full)	
	self.height()		(parameters: greaterThan, lessThan, empty, full)	
	self.ammo()		(parameters: greaterThan, lessThan, empty, full)	
	self.isAmmoEmpty()		shortcut for self.ammo(empty=true)	
	self.ammoIncludingQueued()		Also includes ammo from actions still in queue (parameters: greaterThan, lessThan, empty, full)	if self.ammoIncludingQueued()lessThan=12)
	self.energy()		(parameters: greaterThan, lessThan, empty, full)	
	self.energyIncludingQueued()		Also includes energy from actions still in queue (parameters: greaterThan, lessThan, empty, full)	
	self.isEnergyFull()		shortcut for self.energy(full=true)	
	self.isEnergyEmpty()		shortcut for self.energy(empty=true)	
	self.shield()		(parameters: greaterThan, lessThan, empty, full)	
	self.kills()		(parameters: greaterThan, lessThan)	
1.13.3	self.queueSize()			
			Misc	
	self.hasFlag()		Boolean flag saved into units for mods to use. (parameters: id=0-31)	Use addResources in action change this value
	self.tags()		(parameters: includes)	
1.13	self.globalTeamTags()		(parameters: includes)	
	self.transportingCount()		(parameters: greaterThan, lessThan, empty)	
	self.numberOfAttachedUnits()		(withTag, greaterThan, lessThan)	
	self.isAttacking()			
	self.hasActiveWaypoint()		(parameter: type=x)(x can be the following: move, attackMove, guard, loadInto, loadUp, attack, reclaim, repair, touchTarget, build, follow,	self.hasActiveWaypoint(type='attack')
	self.transportingUnitWithTags()		(parameters: includes)	self.transportingUnitWithTags(includes='human')
	self.hasParent()		For both attachments and transports (parameters: [withTag=x])	
	self.hasTakenDamage()		(parameters: withinSeconds=X, laterThanSeconds=X)	self.hasTakenDamage(withinSeconds=1)
	self.timeAlive()		(parameters: withinSeconds=X, laterThanSeconds=X)	
	self.lastConverted()		(parameters: withinSeconds=X, laterThanSeconds=X)	
	self.customTimer()		(parameters: withinSeconds=X, laterThanSeconds=X)	
	self.isOnNeutralTeam()			
1.13	self.isControlledByAI()			
1.13	self.hasUnitInTeam()		(parameters: withTag, withinRange, incompleteBuildings, factoryQueue) alias for numberOfUnitsInTeam	
1.13.4	self.noUnitInTeam()		(parameters: withTag, withinRange, incompleteBuildings, factoryQueue) alias for numberOfUnitsInTeam	
	numberOfUnitsInTeam()		(parameters: withTag, greaterThan, lessThan, withinRange, incompleteBuildings, factoryQueue)	numberOfUnitsInTeam(withTag='techUnlockBuilding', greaterThan=0)
	numberOfUnitsInNeutralTeam()		(parameters: withTag, greaterThan, lessThan, withinRange, incompleteBuildings, factoryQueue)	
1.13	numberOfUnitsInEnemyTeam()		(parameters: withTag, greaterThan, lessThan, withinRange, incompleteBuildings, factoryQueue)	
1.14	numberOfUnitsInAggressiveTeam()		The special 'aggressive to all' team (this is not the same as **numberOfUnitsInEnemyTeam**) (parameters: withTag, greaterThan, lessThan, withinRange, incompleteBuildings, factoryQueue)	
1.14	self.numberOfUnitsInAllyNotOwnTeam()		(parameters: withTag, greaterThan, lessThan, withinRange, incompleteBuildings, factoryQueue)	
	game.nukesEnabled()			
1.14	Type		*[placementRule_NAME]*	Allows creation of rules for requiring buildings
1.14	**Code**	Value Type	**Description**	Example
1.14	anyRuleInGroup:	string	(Only require 1 of the rules in this group pass, instead of all. Use the same group name on other placement rules to create a group.)	
1.14	searchTags:	tag list	Search for any unit with at least one of these tags	
1.14	searchTeam:	relation	Teams to include in search, can be: own/neutral/allyNotOwn/ally/enemy/any	
1.14	searchOffsetX:	float	defaults to 0	
1.14	searchOffsetY:	float	defaults to 0	
1.14	**searchDistance:**	float	Required	
1.14	excludeIncompleteBuildings:	bool	defaults to false. Might want to set to true depending on the requirement reason	
1.14	excludeNonBuildings:	bool	defaults to false	
1.14	minCount:	int	Set min amount of units that need to be found in search. (eg needs to be near something). Defaults to 0	
1.14	maxCount:	int	Set max amount of units before match fails (eg cannot be close to something). Defaults to unlimited	
1.14	blocksPlacement:	bool	Defaults to true.	
1.14	cannotPlaceMessage:	LocaleString	Highly Recommended. Message shown to player if this rule fails (will be first failing rule if using anyRuleInGroup).	
1.14	checkEachTile:	bool	defaults to true (set to false to only test unit center, true checks each tile under the unit which shows up on the placement grid. Can be easier to see requirements with true)	
	aiSuggestionOnly	bool?	allegedly only AI is affected	
	Section		*Prices/Resources lines - used by addResources, price, etc*	
	Code	Value Type	**Description**	Example
	credits		Global resource	
	energy			
	hp			
	shield			price: hp=-100, shield=100
	ammo		Hidden value on each unit for use by mods	
	setFlag		use with addResources, resourceUsage or price. 0-31. Flags are stored in each unit	setFlag=1, setFlag=0-10 (will set the flags from 0 to 10)
	unsetFlag		use with addResources, resourceUsage or price. 0-31	
	hasFlag		use with price or resourceUsage	
	hasMissingFlag		use with price or resourceUsage	
1.13	[resource]	resource ref	Any resource defined in [global_resource_x] or [resource_x] sections	gold=5, stone=20
	Section		*[global_resource_NAME]*	
	Code	Value Type	**Description**	Example
			Define a new resource shared with all units in a team, works just like the built-in credits resource. Add to 'all-units.template' (at mod root) for easy use in all of your mods	
1.13	displayName		Name of this resource in UI	
1.13	displayNameShort		Resource name on smaller UI elements like action hovertext (Defaults to displayName)	
1.13	hidden	bool	Hide this resource from the player	
1.13	priority		If 2 or more units define a resource with the same NAME, the displayName/displayColor with the highest priority is used	
1.13	displayColor	color	Color, can be hex with optional alpha	#FF0000
1.14	displayRoundedDown	bool	Don't show decimal places to the player	
	displayWhenZero	bool	Default false	
	Section		*[resource_NAME]*	
	Code	Value Type	**Description**	Example
			Define a new resource local to unit. Works like build-in ammo resource	
1.13	displayName		Name of this resource in UI (eg hovering over unit info)	
1.13	displayNameShort			
1.13	hidden		Hide this resource from the player	
	equivalentGlobalResourceForAI		Used to hint to the AI that a resource node with a local resources could be used to get a different global resource. Eg when a harvester unloads the resource	
1.14	displayRoundedDown			
	Section		*[template_NAME]*	
	Code	Value Type	**Description**	Example
1.13			**Template sections can have any keys and have no effect by themselves.**	
			Template can get included from other files with [core]copyFrom. Eg: [core]copyFrom: ROOT:effects/explodeEffects.template (Note that copyFrom can include multiple files.)	
			--All these below features can be used with any section not just templates--	

1.13.1	@copyFromSection		Use in any section to include keys from a section or template. (Comma separated for multiple)	@copyFromSection: template_name/action_name/projectile_name
	@copyFrom_skipThisSection		Use in any section to make [core]copyFrom not copy into it. Eg not copy an action when overriding	@copyFrom_skipThisSection
	@define X		Define a local variable within a section (best outside of template)	@define targetEffect: boom
	@global X		Define a global variable used in all sections. Local variables have a higher priority	@global targetEffect: pop
1.13.2			${X} can be used to reference variables (can also be done outside of a template)	spawnEffects: effect: ${targetEffect}
1.13.3			${section.key} can be used to reference another key (can also be done outside of a template)	addResources: credits=${ core.price * 2 + 10 }
	Section		*[comment_NAME]*	
	Code	Value Type	**Description**	Example
1.13.4			**Comment sections can have any keys and have no effect.**	
	List of default game noises (for turret fire sound or other sound references):		bug_attack, bug_die, building_explode, cannon_firing, click, click_add, click_remove, firing3, firing4, gun_fire, interface_error, large_gun_fire1, large_gun_fire2, laser_deflect, laser_deflect2, lighting_burst, message, missile_fire, missile_hit, move, nuke_explode, nuke_launch, plasma_fire, plasma_fire2, tank_firing, unit_explode, unit_explode_old, warning