Might & Magic: Heroes VII Editor Manual
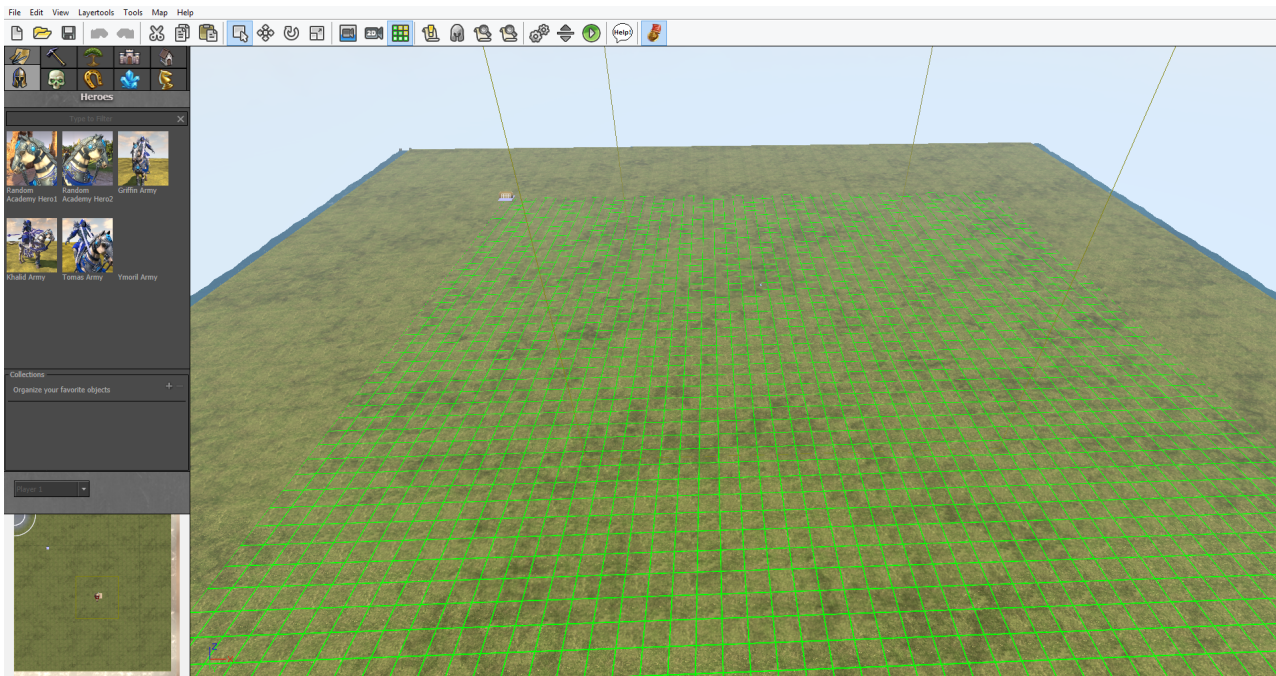
Build: 31505

1. General Layout

Main Menu:
Find all tools and general functionality here.

Toolbar:
Quick buttons for the most important entries of the menu.

Sidebar:
Contains different layertools to place objects and modify the landscape. At the bottom you can find a minimap that can be used to jump directly to a certain spot through clicking on the respective area on the minimap.

Main Screen:
Shows the current state of the map. Drag&drop objects from the object layertools to the map, select and modify them. Rightclicking objects opens a window with their properties. Landscape layertools enable you to paint the height, textures or special grid layers on the landscape. To rotate the camera, hold the right mouse button and move the mouse. You can zoom in and out with the mousewheel and move with the WASD keys.

2. Menu

2.1. File

⬜	New Map	Open the new map window to create a new adventure map, blank or randomly generated or a combat map.
📂	Open...	Open an existing map from folder.
💾	Save	Save the current map. If it is saved for the first time, it opens the save window.
	Save As...	Opens the save window to save the current map as new or overwriting an existing map.
	Recent	Shows a list of the last used maps to open.
	Exit	Close the editor.

2.2. Edit

↩	Undo	Undo the last action. Shortcut [Ctrl + Z]
↪	Redo	Redo the last undone action. Shortcut [Ctrl + Y]
✂	Cut	Cut the selected object/s. Shortcut [Ctrl + X]
📄	Copy	Copy the selected object/s. Shortcut [Ctrl + C]
📋	Paste	Paste the copied object/s. Shortcut [Ctrl + V]
	Duplicate	Duplicate the selected object/s. Shortcut [Ctrl + D]
	Delete	Delete the selected object/s. Shortcut [Del]
🔲	Selection Mode	Select an object on the adventure map.
✜	Translate	Translate the selected object/s. Shortcut [Space]
↻	Rotate	Rotate the selected object/s. Shortcut [Space]
⬓	Scale	Scale the selected object/s. Shortcut [Space]
	Select None	Deselect any selected object/s. Shortcut [Esc]

2.3. View

📷	Slowest Camera Speed	Set the camera to a slow panning speed.
📷	Normal Camera Speed	Set the camera to a normal panning speed.
📷	Fast Camera Speed	Set the camera to a fast panning speed.
📷	Very Fast Camera Speed	Set the camera to a very fast panning speed.
	Reset Camera	Set the camera position and view angle back to default.
📹	Toggle Camera Mode	Toggle the camera mode between *perspective* and *top* view.
▦	Toggle Grid Visibility	Toggle the visibility of the grid and markers for adventure maps. Shortcut: [G]

	Use In-game Camera Controls	Set the camera to behave like the game camera, else the unreal default camera in ego perspective will be used

2.4. Layertools

	Textures	Open the sidebar tool to paint the terrain of the landscape. Available on adventure maps.
	Areas of Control	Open the sidebar tool to paint areas of control as sovereignty of towns and forts. Available on adventure maps.
	Combat Map Areas	Open the sidebar tool to assign areas to combat maps. Available on adventure maps.
	Passability	Open the sidebar tool to define blocking and passable tiles. Available on adventure maps.
	Height Sculpting	Open the sidebar tool to paint the height map of the landscape. Available on adventure and combat maps.
	Foliage	Open the sidebar tool to paint (grouped) decorative objects. Available on adventure and combat maps.
	Towns and Forts	Open the sidebar tool to place towns and forts. Available on adventure maps.
	Buildings	Open the sidebar tool to place interactive buildings. Available on adventure maps.
	Heroes	Open the sidebar tool to place heroes. Available on adventure maps.
	Creatures	Open the sidebar tool to place creature armies. Available on adventure maps.
	Artifacts	Open the sidebar tool to place artifacts. Available on adventure maps.
	Pickups	Open the sidebar tool to place resources and other pickup-items. Available on adventure maps.
	Props	Open the sidebar tool to place decorative props. Available on adventure and combat maps.
	Ambiance	Open the sidebar tool to place special effects. Available on adventure and combat maps.
	Editor Objects	Open the sidebar tool to place editor related objects, mainly grid markers. Available on adventure maps.
	Combat Map Objects	Open the sidebar tool to place combat obstacles. Available on combat maps.

2.5. Tools

	Script Tool	Open the script editor to create events, quests, dialogues and in game scenes.

		Available on scenario maps.
	Campaign Tool	Open the campaign tool to combine multiple maps to a campaign. Available on skirmish and scenario maps.
	Artifact Tool	Open the artifact tool to create custom artifacts. Available on scenario maps.
	Hero Tool	Open the hero tool to create custom heroes. Available on scenario maps.
	Autosave Interval	En- or disable the autosave function and set the interval for the autosave to be performed every 1, 5, 10, 15 or 30 minutes.
	Unreal Editor	Switch to the full functionality of the Unreal Editor, switching back is always possible and will not affect the map. The functionalities of the Unreal Editor are not covered within this manual, see the official documentation instead. Note: This editor mode is not recommended for beginners.

2.6. Map

	Map Properties	Define general map settings and players. Check spells, heroes, items and weekly events to be available in random choices of the map. Adjust also simple win/loss conditions if you like.
	Toggle between Surface and Underground Level	Switch between the surface and underground level. Note: You need to create an underground level in the general map properties first.
	Build Lighting	Build the lighting for the map. Shortcut [Ctrl + Shift + ;]
	Play Map	Play the map in a new window.
	Publish current map	Start the cooking process to save your content into the map file, compiles the shader cache and compresses the map a bit. It will be saved to Documents\My Games\Might & Magic Heroes VII\MMH7Game\CustomMaps\, distinguishing between adventure maps, combats maps and campaigns. This process might last some minutes.

2.7. Help
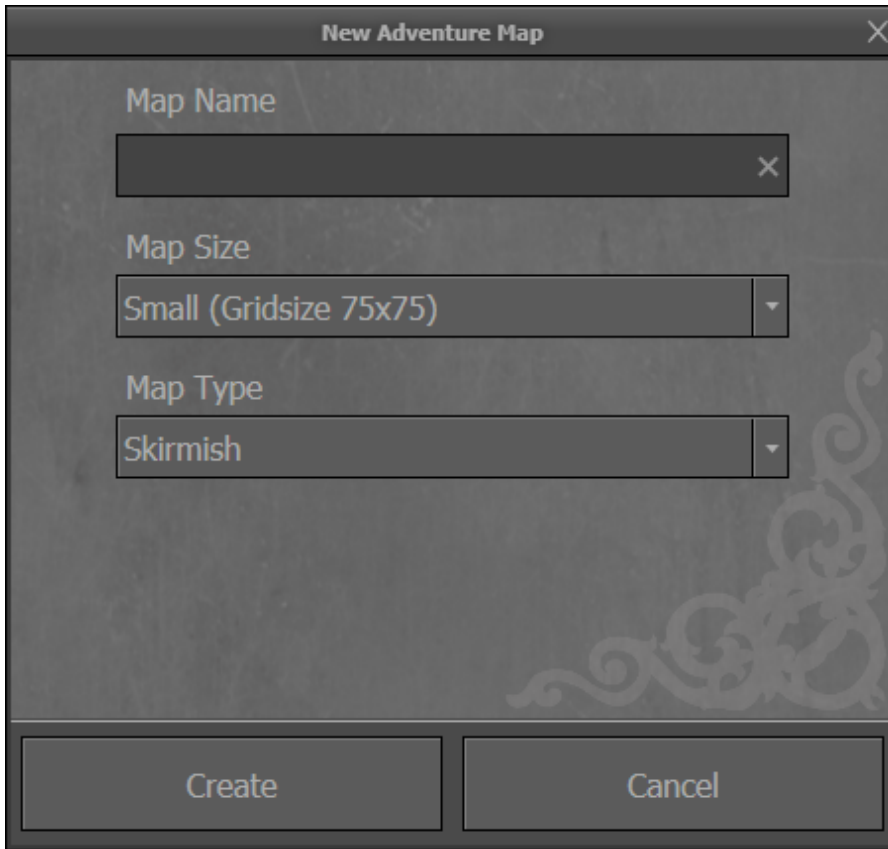
	Documentation	Open the editor documentation.

3. 📄 New Map Window

3.1. 🛡 New Adventure Map

Create a blank new adventure map.

Map Name	Enter the name of the map. You can change it in the map properties again.
Map Size	Select a size of the map: Small (75x75), Small Broad (100x75), Normal (100x100), Normal Broad (150x100), Big (200x200), Big Broad (300x200), Huge (300x300). The size cannot be changed again after creation of the map.
Map Type	Select Skirmish Map or Scenario Map. A skirmish map can not have any custom content or scripted events or quests. The maptype cannot be changed again after creation of the map.

3.2. 🛡 New Random Adventure Map
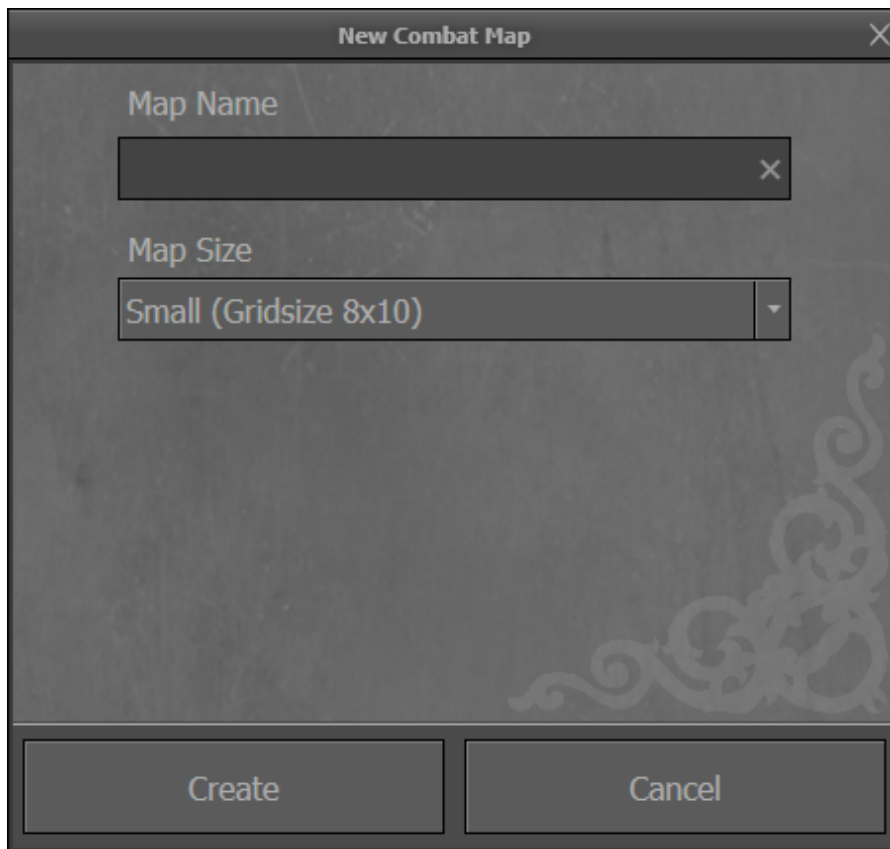
Create a new adventure map randomly generated by the options adjusted below.

Map Name	Enter the name of the map. You can change it in the map properties again.
Map Size	Select a size of the map: Small (75x75), Normal (100x100), Big (200x200), Huge (300x300). The size cannot be changed again after creation of the map.
Map Type	Select Skirmish Map or Scenario Map. A skirmish map can not have any custom content or scripted events or quests. The maptype cannot be changed again after creation of the map.
Landscape Theme	Select the general theme of the map: Plains, Forest, Desert, Wasteland, Ash, Snow. The theme defines textures and objects used for terrain, decoration, and liquid surfaces.
Number of Players	Select the number of players. The maximum numer of players is determined by the map size: 2 Players (Small, Normal), 8 Players (Big, Huge).
Enable Underground	Enable/Disable the presence of a underground map. Gates

	connecting both planes will be placed automatically.
Underground Size	If the underground map is enabled it can be set to a size between 25% and 75% of the surface plane.
Underground Theme	Select the general theme of the underground map: Faceless City, Natural Cave, Volcanic Tunnel, Subterrenean Lake, Dark Abyss, Frozen Chasm, Moss Cave. The theme defines textures and objects used for terrain, decoration, and liquid surfaces.
Place Gameplay Objects	Disable/Enable the placement of any gameplay obejcts like towns, forts, dwellings, mines, gates, buidlings, critters, resource piles and so on. When enabled the generated map is ready to be played. When disabled the generated map is more suited to be used as a base for a custom map.
Richness	Modify the amount of resource piles, artifacts and mines that are placed on the map. This can mildly affect the number of neutral armies placed on the map as well. Can be set to any value between 50% and 200% of the default setting, if *Place Gameplay Objects* is enabled.
Neutral Building Density	Modify the amount of neutral buildings that are placed on the map. This can mildly affect the number of neutral armies placed on the map as well. Can be set to any value between 50% and 200% of the default setting, if *Place Gameplay Objects* is enabled.
Neutral Army Strength	Modify the size of neutral armies that are placed on the map. Can be set to any value between 50% and 200% of the default setting, if *Place Gameplay Objects* is enabled.
Place Tear of Asha	Enable/Disable the treasure hunt and the placement of obelisks on the map with the Tear of Asha set as treasure. Can only be set if *Place Gameplay Objects* is enabled.

3.3. ⚔ New Combat Map

Create a new combat map to be assigned in any adventure map.

Map Name	Enter the name of the map. You can change it in the map properties again.
Map Size	Select a size of the map: Small (8x10), Normal (10x12), Narrow (10x18), Big (15x18). The size can be changed later in the properties of the *grid controller* at one of the corners of the grid.

4. Layertools

4.1. ![icon] Terrain Painting

4.1.1. ![icon] Paint

This tool allows to paint the landscape with various textures. Select a texture, adjust the brush settings and start painting on an active landscape layer. While applying a texture on new areas, there can be a short waiting time, due to technical restrictions.

Paint Target	Choose either the ![icon] surface level to paint solid themed textures like grass, rock or road or the ![icon] liquid level for liquid themed textures like water, lava or swamp. Both levels have their own landscape layer.
Tools	Switch between ![icon] Textures, ![icon] Areas of Control, ![icon] Combat Map Areas and ![icon] Passability Painting.

Target Layer	Select a texture for painting.
Brush Settings	Adjust the settings for the brush.
→ Falloff	Define the type of the falloff to have the texture fade out at the border of the brush. Choose between smooth, linear, spherical and tip falloff.
→ Brush size	Use the four presets or adjust the brush size with a slider.
→ Brush Falloff	Set the thickness of the border ring of the brush to start fading out the texture.
→ Tool Strength	Set the overall opacity of the texture brush.

4.1.2. ⬡ Areas of Control

Paint areas to connect placed towns or forts with mines and dwellings in the same area. Controlling the town/fort gives the respective player the ownership over connected buildings that are not still neutral. This tool is not available for combat maps.

Paint Target	You can only paint on the 🍃 surface level of the landscape.
Tools	Switch between 🖌 Textures, ⬡ Areas of Control, ✕ Combat Map Areas and 🐎 Passability Painting.
Target Layer	Select a colored area for painting. The first entry „free area" can be used to paint a neutral area without a connection to a town or fort inside.
Town/Fort Connection	See if the selected area is already connected to a town or fort. If there are no or multiple buildings in the area it shows „unconnected".
Brush Settings	Adjust the settings for the brush.
→ Brush size	Use the four presets or adjust the brush size with a slider.

4.1.3. ![X icon] Combat Map Areas

Define areas to assign a combat map to them. Combats that take place inside of these areas will use the assigned combat map. This tool is not available for combat maps.

Paint Target	Switching between ![icon] surface level and ![icon] liquid level is disabled for Combat Map Area Painting.
Tools	Switch between ![icon] Textures, ![icon] Areas of Control, ![icon] Combat Map Areas and ![icon] Passability Painting.
Target Layer	Select a previously created combat map, set a name, pick a color and press „create" to create a new combat map area.

Brush Settings	Adjust the settings for the brush.
→ Brush size	Use the four presets or adjust the brush size with a slider.

4.1.4. 🐴 Passability

Paint tiles to be always or never passable for moving heroes. By default, all tiles are set to be automatic, defining the passability through landscape slope, painted textures and placed objects. This tool is not available for combat maps.

Paint Target	Switching between 🍃 surface level and 💧 liquid level is disabled for Passability Painting.
Tools	Switch between 🖌 Textures, ⭕ Areas of Control, ✖ Combat Map Areas and 🐴 Passability Painting.
Target Layer	Select either „Automatic", „Blocking" or "Passable" for painting. „Automatic" scans the grid for impassable textures and slopes. Tiles painted with „Blocking" are always impassable, „Passable" tiles can always be moved on, no matter the texture or slope.
Brush Settings	Adjust the settings for the brush.
→ Brush size	Use the four presets or adjust the brush size with a slider.

4.2. ⛏ Height Sculpting

Sculpt the landscape with various adjustable brushes.

4.2.1. 🖌 Paint

In- or decrease the height of the landscape within the range of the brush.

Sculpt Target	Choose either the 🟢 surface level or the 🔵 liquid level to change the heightmap of the respective landscape layer.
Tools	Switch between different brushes: 🖌 Paint, ⌢ Smooth, ⌓ Flatten, 〰 Noise
Target Layer	Heightmap. Cannot be changed.
Brush Settings	Adjust the settings for the brush.
→ Falloff	Define the type of the falloff to have the height change fade to the border of the brush. Choose between ⌢ smooth, ⌢ linear, ⌢ spherical and ⌣ tip falloff.
→ Brush size	Use the four presets or adjust the brush size with a slider.
→ Brush Falloff	Set the thickness of the border ring of the brush to start fading out the height changes.
→ Tool Strength	Set the overall intensity of the brush.

4.2.2. ⌂ Smooth

Smooth height differences on the landscape within the range of the brush.

Sculpt Target	Choose either the 🍃 surface level or the 💧 liquid level to change the heightmap of the respective landscape layer.
Tools	Switch between different brushes: ✎ Paint, ⌂ Smooth, ⌂ Flatten, ⌁ Noise
Target Layer	Heightmap. Cannot be changed.
Brush Settings	Adjust the settings for the brush.
→ Falloff	Define the type of the falloff to have the height change fade to the border of the brush. Choose between ⌂ smooth, ⌂ linear, ⌂ spherical and ⌂ tip falloff.
→ Brush size	Use the four presets or adjust the brush size with a slider.
→ Brush Falloff	Set the thickness of the border ring of the brush to start fading out the height changes.
→ Tool Strength	Set the overall intensity of the brush.

4.2.3. ⬖ Flatten

Flatten the landscape to the height below the mouse cursor when starting painting within the range of the brush.

Sculpt Target	Choose either the ⬖ surface level or the ⬖ liquid level to change the heightmap of the respective landscape layer.
Tools	Switch between different brushes: ⬖ Paint, ⬖ Smooth, ⬖ Flatten, ⬖ Noise
Target Layer	Heightmap. Cannot be changed.
Brush Settings	Adjust the settings for the brush.
→ Falloff	Define the type of the falloff to have the height change fade to the border of the brush. Choose between ⬖ smooth, ⬖ linear, ⬖ spherical and ⬖ tip falloff.
→ Brush size	Use the four presets or adjust the brush size with a slider.
→ Brush Falloff	Set the thickness of the border ring of the brush to start fading out the height changes.

→ Tool Strength	Set the overall intensity of the brush.
Direction of Flattening	Select what heights are affected by flattening.
→ Both	Flatten landscape that is higher and lower than the picked height.
→ Addition	Flatten only landscape that is lower than the picked height.
→ Subtraction	Flatten only landscape that is higher than the picked height.
Use Slope Flatten	Check to flatten along the slope below the mouse cursor when starting painting.

4.2.4. ⚡ Noise

Change the height of the landscape through applying a noise filter. This filter is always at the same position and raises and lowers the same spots, as long as the noise scale is not changed.

Sculpt Target	Choose either the 🍃 surface level or the 🌊 liquid level to change the heightmap of the respective landscape layer.
Tools	Switch between different brushes: 🖌 Paint, ⛰ Smooth, ⛰ Flatten, ⚡ Noise
Target Layer	Heightmap. Cannot be changed.
Brush Settings	Adjust the settings for the brush.
→ Falloff	Define the type of the falloff to have the height change fade to the border of the brush. Choose between ⛰ smooth, ⛰ linear, ⛰ spherical and ⛰ tip falloff.
→ Brush size	Use the four presets or adjust the brush size with a slider.
→ Brush Falloff	Set the thickness of the border ring of the brush to start fading out the height changes.

→ Tool Strength	Set the overall intensity of the brush.
→ Noise Scale	Set the scale of the noise pattern.
Direction of Noise	Select what heights are affected by the noise filter.
→ Both	The noise filter raises and lowers the landscape.
→ Addition	The noise filter only raises the landscape
→ Subtraction	The noise filter only lowers the landscape.

4.3. 🍄 Foliage

Paint decorative objects distributed within the range of the brush. Paints a fix pattern according to the single object density and the overall brush density.

Filter	Type in any combination of letters to filter objects in the list below.

List of Objects	A list of object meshes to be placed on the map.
Add Selected Foliage to Brush	You can add selected objects to your brush, making them appear in the „Meshes" list.
Brush Settings	Adjust the settings for the brush.
→ Brush size	Use the four presets or adjust the brush size with a slider.
→ Paint Density	Overall paint density of the brush.
→ Erase Density	Overall erase density of the brush.
Meshes	Drag meshes from the list or collection to this area that you want to paint now or in future. Adjust each a density and scale minimum and maximum. Select or deselect meshes for painting on or deleting from the map. The „X" button removes all painted instances of the respective mesh object.

4.4. 🏰 Towns and Forts

Drag towns and forts of different factions and level presets to the adventure map.
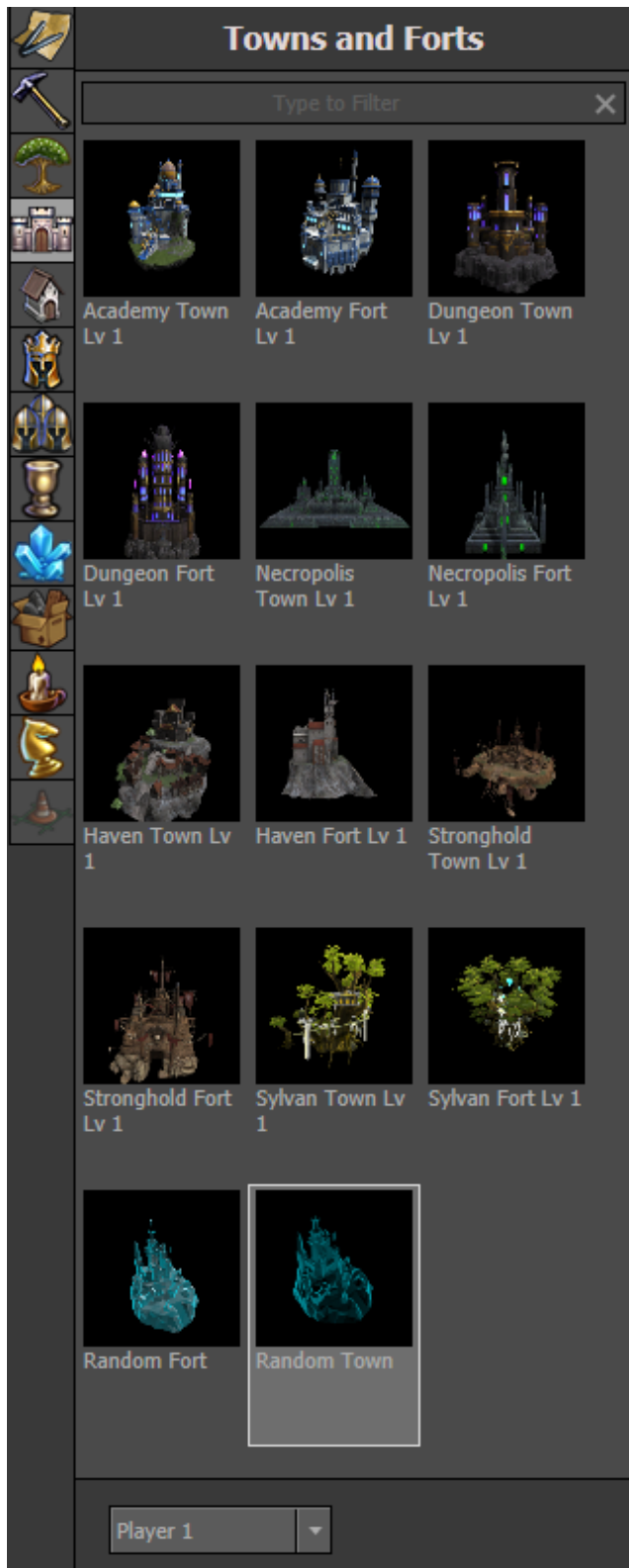
Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of town and fort archetypes to be placed on the map.

	Instead of placing a town or fort from a certain faction, random instances can be placed to allow the selection of any faction for the owning player during on map start.
Player	Select a player as an ownership preset for the next dragged objects. The player can be changed in the properties of the instance anytime again.

4.5. 🏠 Buildings

Drag neutral adventure map buildings to the adventure map.
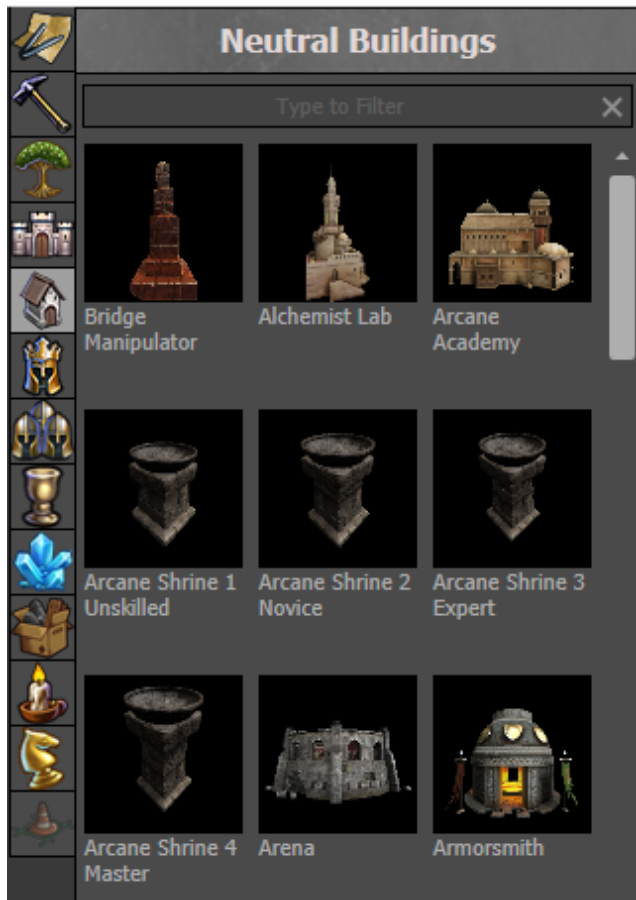
Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of neutral building archetypes to be placed on the map. Contains among others dwellings, resource buildings, buff buildings and travel objects.

4.6. 🪖 Heroes

Drag heroes with their army to the adventure map.

Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of hero archetypes to be placed on the map. Also provides custom made heroes. Instances can be configured in detail (stats, army, inventory, skills and spells) in the properties of the placed instance. As an alternative to placing certain heroes the „Player Start" object can be used to define the position of the starting hero assigned to the player during the setup of a skirmish game.
Player	Select a player as an ownership preset for the next dragged objects. The player can be changed in the properties of the instance anytime again.

4.7. 💀 Creatures

Drag creature army presets to the adventure map.

Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of creature army presets to be placed on the map. Alternatively you can place random creature army presets grouped by creature tiers (Core, Strong Core, Elite, Strong Elite and Champion) or completely random. You can define the army setup and strength in the properties of each placed instance.

4.8. 🧲 Artifacts

Drag artifacts to the adventure map. They can be picked up by heroes in the game.

Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of artifacts, scrolls and mana potions to be placed on the map. Alternatively you can place random artifact presets grouped by their tier (Minor, Major, Relic) or completely random. Also provides custom made artifacts.

4.9. 🔹 Pickups

Drag pickup objects to the adventure map. They can be picked up by heroes in the game.

Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of pickup objects to be placed on the map. Contains generic resource piles and specific pickups like chests. Alternatively you can place random resource pile presets grouped by their rarity (Common, Rare) or completely random.

4.10. 📦 Props

Drag decorative props to the adventure or combat map.
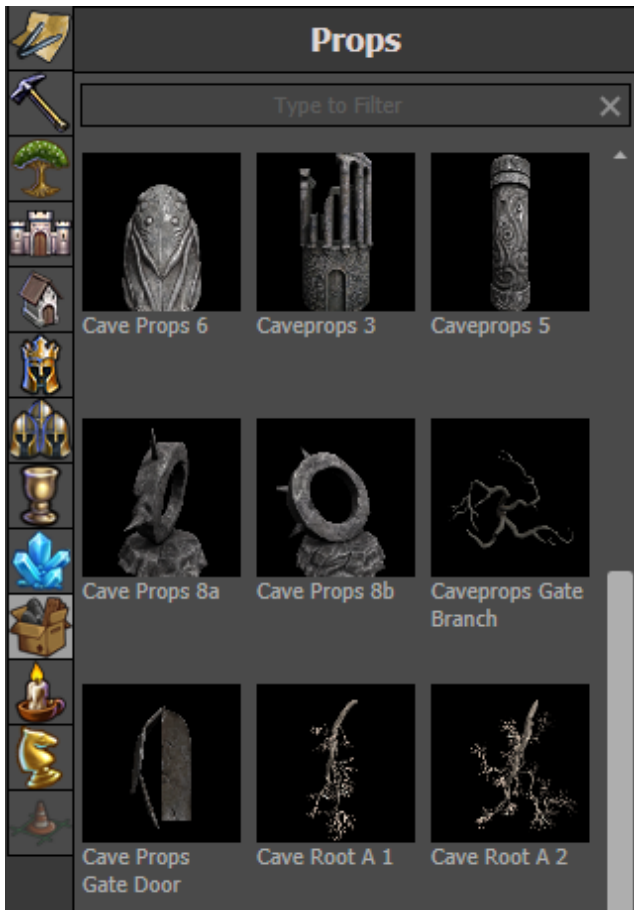
Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of different decoration objects to be placed on the map.

4.11. 🕯️ Ambiance

Drag visual effects to the adventure or combat map.
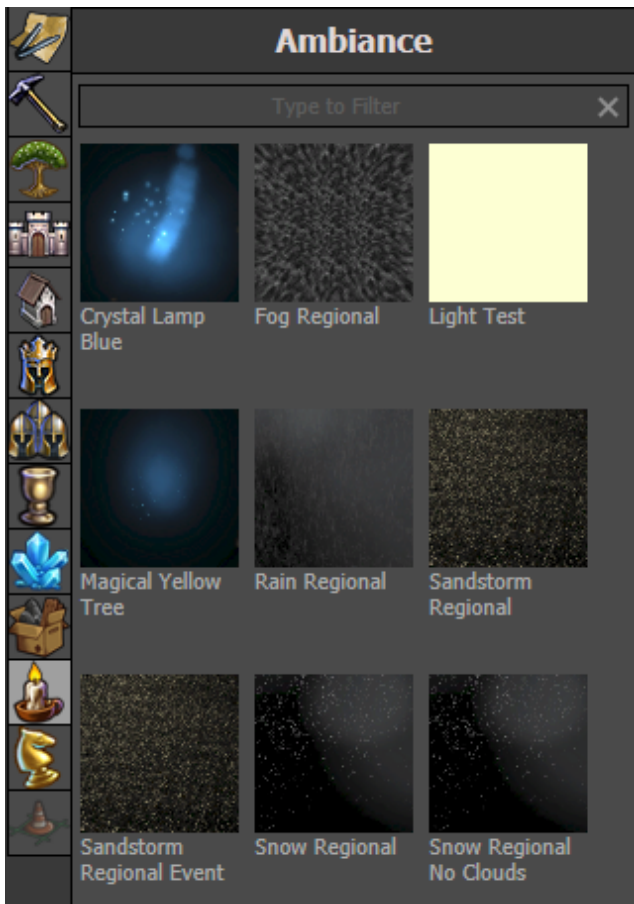
Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of different light and weather effects to be placed on the map.

4.12. 🐚 Editor Objects

Drag objects to the adventure map that can be used to realize scripted events.

Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of editor objects to be placed on the map.
→ Tile Marker	Tile markers placed on the map can be used as targets for scripted events (for instance to spawn an army).
→ Cell Trigger	Place cell trigger objects of any preset dimension (Tile, Box Small, Box Medium, Box Large, Box Extra Large) that can be used as sensors to start a scripted event. The size of Cell Trigger Boxes can be further altered on the map.
→ Terrain Modifier Changer	Place on the map to mark tiles in order to change their movement type (land, water, impassable) via scripted events. The dimension of the object can be modified after placement. Development Feature, do not use.
→ Treasure Marker	Place any number of treasure markers on the map to mark possible locations for the placement of the treasure that can be discovered by the players by visiting obelisks. At least one obelisk (see Neutral Buildings) needs to be placed on the map in order for the treasure hunt to be functional.

4.13. ⚜ Combat Map Objects

Drag objects on the combat map.
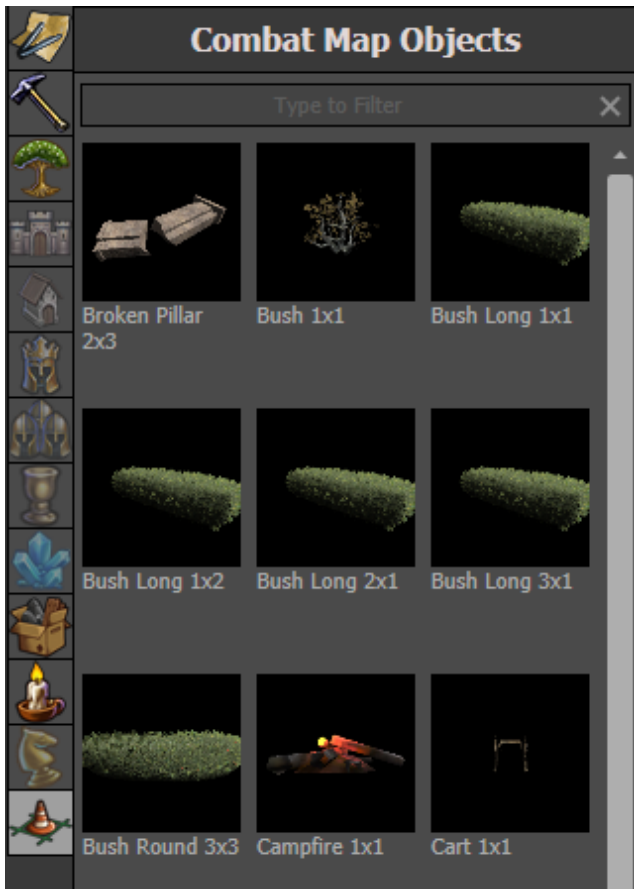
Filter	Type in any combination of letters to filter objects in the list below.
List of Objects	A list of different decorative obstacles to be placed on the map. Every object blocks a number of tiles for movement and provides cover for nearby creatures.

5. 📖 Script Tool

5.1. 🏆 Quests

Create complex quests and objectives and assign rewards. Primary quests need to be fulfilled to win the game, secondary quests are optional. Objectives are sorted in stages, unlocking the next filled stage after completion. The last objective of the highest stage will complete the respective quest.
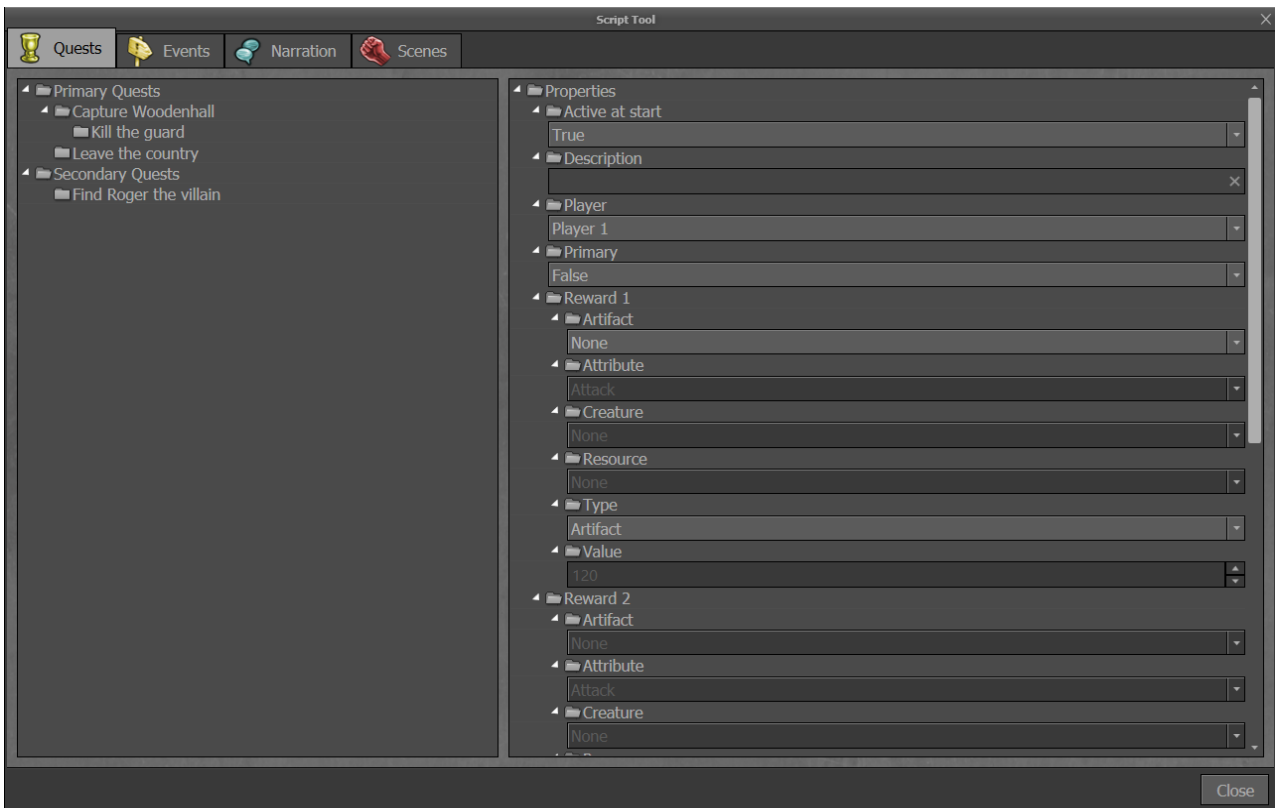
The list on the left shows every custom made quest and subordinated objective.

Options on right-click:

Empty area	• Create a new primary quest. • Create a new secondary quest.
Primary Quests folder	• Create a new primary quest.
Secondary Quests folder	• Create a new secondary quest.
Primary Quest	• Create a new primary quest. • Create a new objective in the selected quest. • Delete the selected quest.
Secondary Quest	• Create a new secondary quest. • Create a new objective in the selected quest. • Delete the selected quest.
Objective	• Create a new objective in the selected quest. • Delete the selected objective.

Quest Properties:

Player	Select a player. The quest is only shown in the questlog of this player and can only be fulfilled by him.
Title	Enter a short title for this quest.
Description	Enter a flavored description for the quest.
Active at Start	Check to have this quest active at start of the game or be activated later through a trigger.
Show on Minimap	Enable or disable the highlight of objectives of this quest to be displayed on the minimap.
Reward Text	Enter a short text for the reward pop-up on quest completion.
Reward 1 - 3	Choose each a reward type: Artifact, Attribute increase, Creature stack or Resource. Select a value and add an amount. Rewards are not mandatory.
If Quest Completed Do	Set actions that will be executed when this quest is completed. Add actions by right-clicking. See section 5.5 for a list of actions.
If Quest Failed Do	Set actions that will be executed when this quest is failed. Add actions by right-clicking. See section 5.5 for a list of actions.

Objective Properties:

Editor Title	Enter a name for this objective. It is for editor use only and will not be visible in the game.
Description	Enter a short description of the objective.
Activation Stage	Select a stage number when this objective should become active. Quests always activate the lowest stage with an assigned objective. Completing the objectives of a stage will activate the next used stage.
Ignore Fail	Check whether failing this objective does fail the quest, or not.
Show on Minimap	Select one option.
→ Automatic	Minimap highlights for this objective will be compiled from the minimap highlights of the currently active objectives.
→ Custom	Highlight the position of certain objects on the minimap. The objects need to registered in a list (see Objects for minimap tracking).
→ Disabled	This objective does not have minimap highlights.
Objects for minimap tracking	Right-click to add any number of objects that will be highlighted on the minimap. Select objects using a drop-down from all applicable objects placed on the map.
Winning Condition	Set conditions that need to be fulfilled to complete this objective. Conditions can be combined via OR to need either one of both to be fulfilled or AND to make both conditions mandatory for achieving the objective. AND operations are checked before OR operations. Example: 1 AND 2 AND 3 OR 4 AND 5 OR 6 The condition is fulfilled when all members of one of the three

	yellow marked areas are fulfilled. Add conditions by right-clicking. See section 5.6 for a list of conditions.
Losing Condition	Set conditions that need to be fulfilled to fail this objective. Conditions can be combined via OR to need either one of both to be failed or AND to make both conditions mandatory for failing the objective. AND operations are checked before OR operations. Example: 1 AND 2 AND 3 OR 4 AND 5 OR 6 The condition is fulfilled when all members of one of the three yellow marked areas are fulfilled. Add conditions by right-clicking. See section 5.6 for a list of conditions.

5.2. 🪧 Events

Create events by connecting triggers, conditions and actions. Whenever a trigger is fired, the conditions are checked to execute an action.
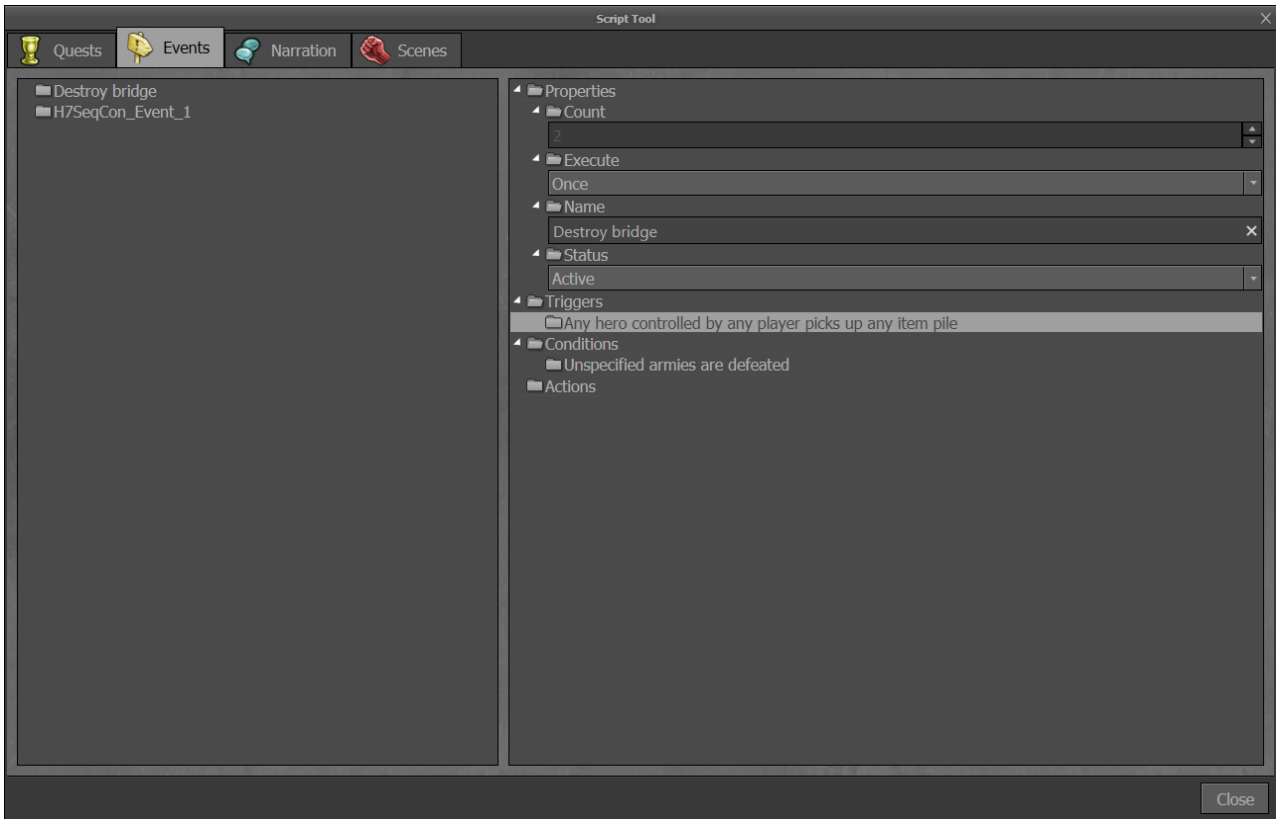
The list on the left shows all created events.

Options on right-click:

Empty area	• Create a new event.
Event	• Create a new event. • Delete the selected event.

Event Properties:

Name	Enter a custom name for addressing this event in the editor.
Status	Set this event to be active or inactive to check its defined triggers. Events can be activated or inactivated anytime as an action of other events or quests.
Execute	Select how often this event can be executed: Once, Multiple and Always.
Count	If execute is set to multiple, enter a number of how often this event can be executed.
Triggers	Set single triggers for this event. Add triggers by right-clicking. See section 5.7 for a list of triggers.
Conditions	Set conditions to be checked when the event was triggered.

	Conditions can be combined via OR to need either one of both sides to be failed or AND to make both sides of conditions mandatory for failing the objective. AND operations are checked before OR operations. Example: 1 AND 2 AND 3 OR 4 AND 5 OR 6 The condition is fulfilled when all members of one of the three yellow marked areas are fulfilled. Add conditions by right-clicking. See section 5.6 for a list of conditions.
Actions	Set actions to be executed when the event was triggered and the conditions are fulfilled. Actions can be sorted via drag&drop. The order of the entries defines the order of execution. Add actions by right-clicking. See section 5.5 for a list of actions.

5.3. 💬 Narration

Create text messages and dialogues to tell a story on your map. Text messages are displayed as pop-ups when triggered. Messages and Dialogue can be embedded in Quests, Events and Scenes.
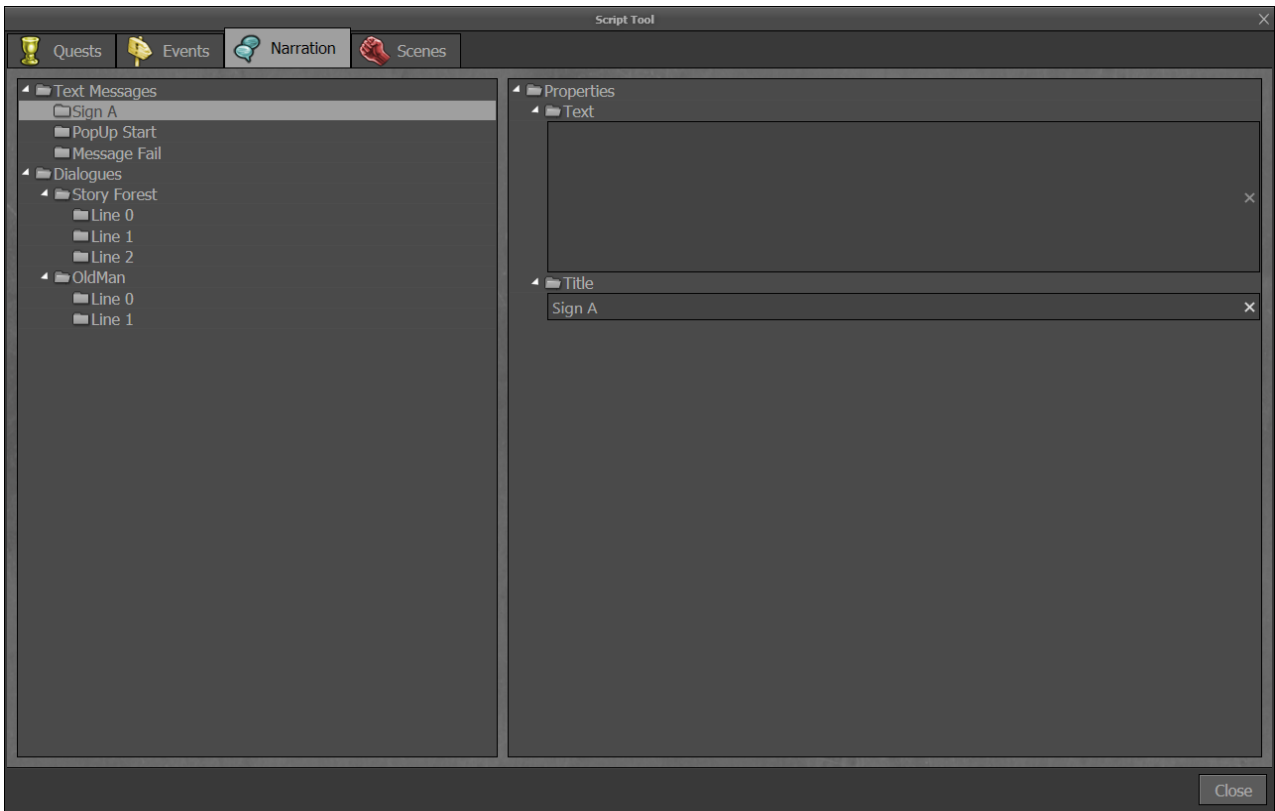
The list on the left shows all created text messages and dialogues.

Options on right-click:

Empty area	• Create a new text message. • Create a new dialogue.
Text Messages folder	• Create a new text message.
Text Message	• Create a new text message. • Delete the selected text message.
Dialogues folder	• Create a new dialogue.
Dialogue	• Create a new dialogue. • Delete the selected dialogue. • Create a new dialogue line in the selected dialogue.
Dialogue Line	• Create a new dialogue line in the selected dialogue. • Delete the selected dialogue line.

Text Message Properties:

Title (Unused)	Enter a custom name for addressing this text message in the editor.
Text	Enter a text to be displayed when the message is activated.

Dialogue Properties:

Title	Enter a custom name for addressing this text message in the editor.
Dialogue Type	Select the type of the dialogue: • Narration has one speaker talking while the game is not paused. • Hero Dialogue activates a dialogue pop-up. • Council Intervention is a mechanic for campaign only. • Narration Subtitle is used for speaking while a scene is performed.
Narrator (EditorHero)	This option is not available when the dialogue type is set to Council Intervention. Define a hero archetype to be the narrator of the subordinated lines.

Dialogue Line Properties:

SpeakerType	The first entry takes the adjusted Speaker from the next option below, when available. Else choose a councilor to speak the dialogue line.
Speaker (EditorHero)	Define a hero archetype to be the narrator of this line.
Position	This option is only available if the dialogue type is set to Hero Dialogue or Council Intervention. Select either left or right as the position of the speaker in the dialogue screen.
Content	Enter a text to be told by a speaker.
Optional Listener Overwrite (EditorHero)	Development Feature, do not use.
Start Voice Over AkEvent Audio File	Development Feature, do not use.
Stop Voice Over AkEvent Audio File	Development Feature, do not use.

5.4. 👊 Scenes

Create scenes using different camera adjustments and executing actions. Scenes can be used in Quests and Events.
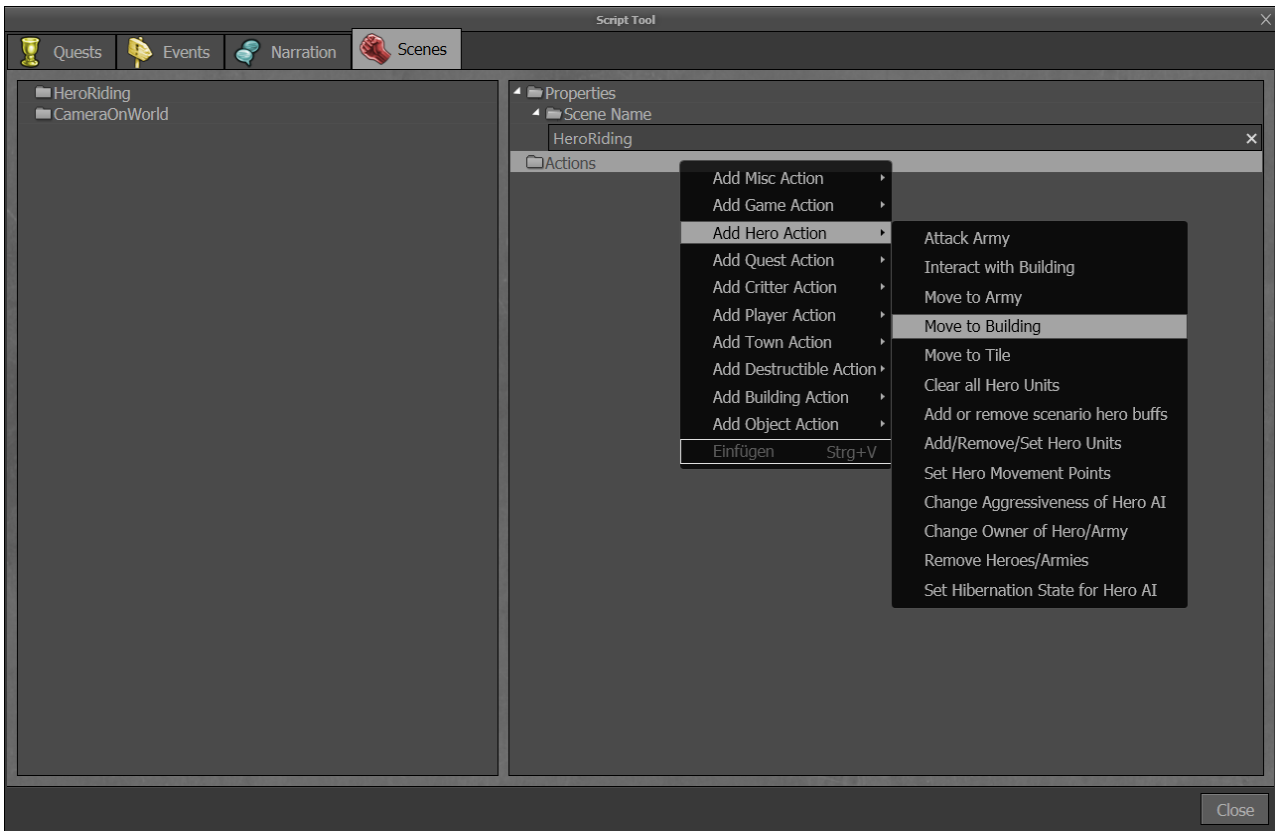
The list on the left shows all created scenes.

Options on right-click:

Empty area	• Create a new scene.
Scene	• Create a new scene. • Delete the selected scene.

Scene Properties:

Scene Name	Enter a custom name for addressing this scene in the editor.
Actions	Set actions to be executed when the scene was started. Actions can be sorted via drag&drop. The order of the entries defines the order of execution. Add actions by right-clicking. See section 5.5 for a list of actions.

5.5 List of Actions

Create and arrange actions to realize events and scenes, or use actions as feedback for quest completion.
Note: Some actions are only available in certain contexts (e.g. when creating a Scene).

5.5.1 Game Actions

- **Play/Stop sound**
  Stop or resume the playback of ambient sounds or the background music.
- **Pause/Resume current combat**
  Pause an ongoing combat to keep the player from doing inputs that might clash with the action sequence.
- **Set Combat CoolCam Allowed**
  Enforce or forbid the camera orchestration to match your action sequence independent from the player's settings.

5.5.2 Camera Actions

- **Focus Camera**
  Allows you to select a target object that will be focused by the camera when this
- **Give/Take Camera Control**
  Keep the player from moving the camera or zooming during a sequence of action.

5.5.3 Hero Actions

- **Move to Army**
  Specify an army object that will move to a target army object you specify. Set movement type (walk or teleport) , movement costs (yes or no) and camera behavior (follow or don't follow).
- **Move to Building**
  Specify an army object that will move to a target building object you specify. Set movement type (walk or teleport) , movement costs (yes or no) and camera behavior (follow or don't follow).
- **Move to Tile**
  Specify an army object that will move to a target tile marker object you specify. Alternatively define target coordinates (not recommended). Set movement type (walk or teleport) , movement costs (yes or no) and camera behavior (follow or don't follow).
- **Rotate Army**
  Specify an army object to orient it to a cardinal point or make it face a certain object you specify.
- **Finish current Hero Turn**
- **Attack Army**
  Start a combat involving two army objects you specify.
- **Interact with Building**
  Engage interaction of one army object and a building object you specify.
- **Add or remove Hero Artifacts**
  Compile a list of artifacts to add or remove from the hero of an army you specify. Alternatively you can remove all artifacts from that hero.
- **Transfer Hero Artifacts**
  Transfer all artifacts from one hero of an army you specify to the hero of another army you specify. Choose whether to include equipped artifacts, or not.

- **Clear all Hero Units**
- **Add or remove scenario hero buffs**
  Development Feature, do not use.
- **Change all Hero Unit stacksizes**
  Add or subtract a percentage of every stack in an army you specify.
- **Add/Remove/Set Hero Units**
  Add or subtract a number of certain units to/from an army you specify.
- **Select Hero of current Player**
- **Set Hero Movement Points**
- **Transfer Hero Units**
  Transfer all units from one army you specify to another army you specify, you can choose to open or suppress the Merge Armies window.
- **Change Aggressiveness of Hero AI**
  Development feature, do not use.
- **Change Owner of Hero/Army**
  Specify an army, all armies in a certain area of control, all armies of a certain player, or all armies of allied/hostile players. The selected army/armies will be assigned to a player you specify as owner.
- **Remove Heroes/Armies**
  Specify an army, all armies in a certain area of control, all armies of a certain player, or all armies of allied/hostile players to be removed.
- **Set Hibernation State for Hero AI**
  Specify an army, all armies in a certain area of control, all armies of a certain player, or all armies of allied/hostile players. The selected army/armies can be activated/suspended. Suspended armies will not act during their owner's turn.

5.5.4 Quest Actions

- **Activate NPC Scene**
- **Activate Quest**
- **Win/Lose Map**
  Select a player to win or lose the current map.
- **Start Dialogue**
- **Start Text**
- **Set NPC Properties**
  Specify an army to change its interaction settings: NPC armies do not have a threat indicator and might be interactive in order to trigger events or quests.
- **Show Floating Text**
  Enter a short text that will be displayed on the screen, floating upwards and disappearing again. Configure the color and position of the text.

5.5.5 Critter Actions

- **Set Diplomacy**
  Change the behavior of an army you specify to or from the default mechanics: Offer to join for a Price, Offer to Join for Free, Fight, Force to join for Free (the player will not be able to postpone the Merge Army window), or Flee (the army will disappear on interaction).

5.5.6 Player Actions

- **End Current Turn**

- **Add or remove scenario player buffs**
  Development Feature, do not use.
- **Remove Caravans**
  Select a player whose caravans will be removed. You can specify certain routes to have only caravans from these routes get removed.
- **Reveal Fog of War**
  Specify a radius of tiles around a target tile marker to be revealed for a player you specify.
- **Set Player Resources**
  Specify a list of resources and their amounts to be set for or added/subtracted from a certain player.
- **Spawn Army**
  Select an army template to be spawned at the position of a target tile marker, under control of a player you specify. You can also set the orientation of the spawned army.
- **Spawn Caravan**
  Configure a custom army (creatures, amounts) to spawn at the position of a target tile marker under control of a player you specify, heading to a town you choose.

5.5.7 Town Actions

- **Change Owner of AoCSite**
  Transfer ownership of a town or fort you specify (and the buildings in its AoC) to a player of your choice.
- **Change Town AI Settings**
  Configure the behavior of AI controlled towns by enabling/disabling single AI features: Construct buildings, recruit creatures, trade resources, hire heroes.
- **Manipulate Town Building**
  Development Feature, do not use.

5.5.8 Destructible Actions

- **Manipulate Destructible State**
  Destroy or repair a bridge or garrison you specify. Alternatively you cancel ongoing repair/destruction actions of that building.

5.5.9 Building Actions

- **Flag building**
  Set the owning player of a single building you specify.
- **Add or remove scenario building buffs**
  Development Feature, do not use.

5.5.10 Object Actions

- **Change Movement Type**
  Development Feature, do not use.
- **Change Cell Layer Data**
  Development Feature, do not use.
- **Hide or Reveal Object**
  Toggle the visibility of an adventure map building you specify.

5.6 List of Conditions

Compile a list of conditions for quest objective. All conditions can be utilized as winning or losing condition. Some conditions can only be used to specify Event triggers.
Every condition can be negated to check for its inverted state instead.

5.6.1 Player Conditions

In order to be used as win or lose condition for quests each player condition can be bound to a specific player. In addition you can set a timer to check whether a condition is met for the specified duration.

- **Can reach hero**
  Checks whether a hero or army is within movement range or a specified range to another hero, army or any army of a certain player.
- **Check total army strength loss**
  Development Feature, do not use.
- **Collected souls**
  Count the number of single fallen creatures from both sides during a combat.
- **Time passed with no town**
  Set a timer of days or weeks to pass with a player you specify does not own any town.
- **Defeated amount of armies**
- **Has resources**
  Specify an amount of a certain resource a player you specify has to gather.
- **Governor of Town**
  Specify an army, whose commanding hero needs to be assigned as governor of a town you specify.
- **Has Building**
  Specify a town building that needs to built in a town you specify.
- **Has built Tear of Asha**
  Check whether a player you specify has found the Tear of Asha and constructed the corresponding building in one of his towns.
- **Has collected Armies**
  A player you specify needs to collect a list of armies you can select from a list of all armies placed on the map.
- **Has Hero with Item**
  Check whether a specific hero in a specific town owns a number of any or certain artifacts you specify.
- **Player has no enemy Player**
- **Player has no hero**
- **Player has no town**
- **Has plundered Mines**
  Compile a list of mines on the map and the amount of how often they need to be plundered by a player you specify.
- **Has visited sites**
  Compile a list of buildings on the map that need to be visited by any hero of a player you specify.
- **Has visited Town Building**
  Specify a town and a town building that need to be visited by any hero of a player you specify.
- **Army of hero defeated**
  Development feature, do not use.
- **Has creatures**
  Compile a list of creatures and their required amount that a player you specify owns over all or within a certain army.
- **Has creatures of tier**

Select a creature rank and the over all amount required by a player you specify.
- **Lost creatures**
Compile a list of creatures and their required amount that a player you specify lost over all.
- **Own sites**
Compile a list of controllable sites on the map a player you specify needs to own.
- **Reach level**
Define a level any hero of a player you specify needs to reach.
- **Sites visited**
- **Time passed**
Define duration that needs to be passed.

5.6.2 Army Conditions

- **Army defeated**
Compile a list of armies on the map that need to by defeated. Cannot be used as a condition for quest objectives.

5.6.3 Destructible Objects Conditions

- **Destructible object state**
Check for the state of a destructible objects you specify. Cannot be used as a condition for quest objectives.

5.7 List of Triggers

Define triggers to start events.

5.7.1 Hero Triggers

- **Collected armies**
  Specify a number of armies to be defeated by a specific hero or any hero by a specific or any player.
- **Hero started/won/lost combat against**
  Define a specific combat encounter between defined or undefined armies of defined or undefined players. You can restrict the trigger to certain combat maps. Check for the beginning or the outcome of the combat.
- **Combat Map finished**
  Specify a certain hero to win a combat on a defined or undefined combat map against a defined or undefined army controlled by a defined or undefined player.
- **Combat Map started**
  Specify a certain hero to engage a combat on a defined or undefined combat map against a defined or undefined army controlled by a defined or undefined player. The trigger is activated before or after the army presentation.
- **Hero boards or disembarks a ship**
- **Army has moved**
- **Hero learned ability**
  A defined or undefined hero of a defined or undefined player learns a certain ability. Make sure to not select specialization abilities
- **Hero increased skill rank**
  Development feature, do not use.
- **Learned spell**
- **Hero picked up item**
  A defined or undefined hero of a defined or undefined player picks up a defined or undefined artifact pile.
- **Hero plundered mine**
  A defined or undefined hero of a defined or undefined player plunders an undefined mine, a specific mine or any mine of a specific player.
- **Hero reached level**
  A defined or undefined hero of a defined or undefined player reaches a certain level.
- **Hero captured site**
  A defined or undefined hero of a defined or undefined player captures a certain building on the map.
- **Talked to NPC**
  A defined or undefined hero of a defined or undefined player interacts with a specific NPC army on the map.
- **Hero visits dwelling or mine**
  A defined or undefined hero of a defined or undefined player visits a defined or undefined mine.
- **Hero visits neutral building**
  A defined or undefined hero of a defined or undefined player visits a defined or undefined adventure map buildings.
- **Hero visits shell**
  Development feature, do not use.
- **Hero visits town or fort**
  A defined or undefined hero of a defined or undefined player visits a defined or undefined town or fort.
- **Cell Event**
  A defined or undefined army of a defined or undefined player enters or leaves a cell trigger object on the map.
- **Hero cast Ability**

A defined or undefined army of a defined or undefined player casts a certain spell.

5.7.2 Player Triggers

For any player trigger you can define multiple players by whom the trigger is raised.

- **Player gets visibility of army**
  A defined or undefined player discovers an undefined army from a defined or undefined player or a defined army.
- **Player gets visibility of building**
  A defined or undefined player discovers a defined or undefined building from a defined or undefined player.
- **Player gets visibility of tile**
  A defined or undefined player discovers a certain tile marker.
- **Start/End turn**
  A defined or undefined player starts a new turn on a new day, week or month or ends a turn.
- **Visits Town Building**
  A defined or undefined human player interacts with a certain town building in any town.
- **Win/Lose game**
  A defined or undefined player wins or loses the game.

5.7.3 Destructible Objects Trigger

- **Destructible object is destroyed**
  Select a fort or bridge manipulator on the map, whose destruction activates the trigger.
- **Destructible object is repaired**
  Select a fort or bridge manipulator on the map, whose destruction activates the trigger.
- **Destructible object destruction is started**
  Select a fort or bridge manipulator on the map, when its destruction is engaged the trigger is activated.
- **Destructible object reparation is started**
  Select a fort or bridge manipulator on the map, when its repairs are engaged the trigger is activated.

5.7.4 Game Triggers

- **Adventure Map finished**
  Activate the trigger when the map is finished anyhow or based on the victory or defeat of the current player.
- **Game Mode Transition**
  Select this trigger to activate when transitioning from adventure map to combat map or vice versa.
- **Adventure Map loaded**

6. 🎧 Hero Tool

Create custom heroes. They are added to the hero list in the map properties, making them available in the hall of heroes.
These heroes cannot exist on their own and need an army to be assigned to. You can drop these heroes from the hero layer tool to the adventure map or adjust them directly in the properties of an already placed army instance.

Changes in this tool are only saved when closing via „OK". Abort your adjustments with „Cancel".
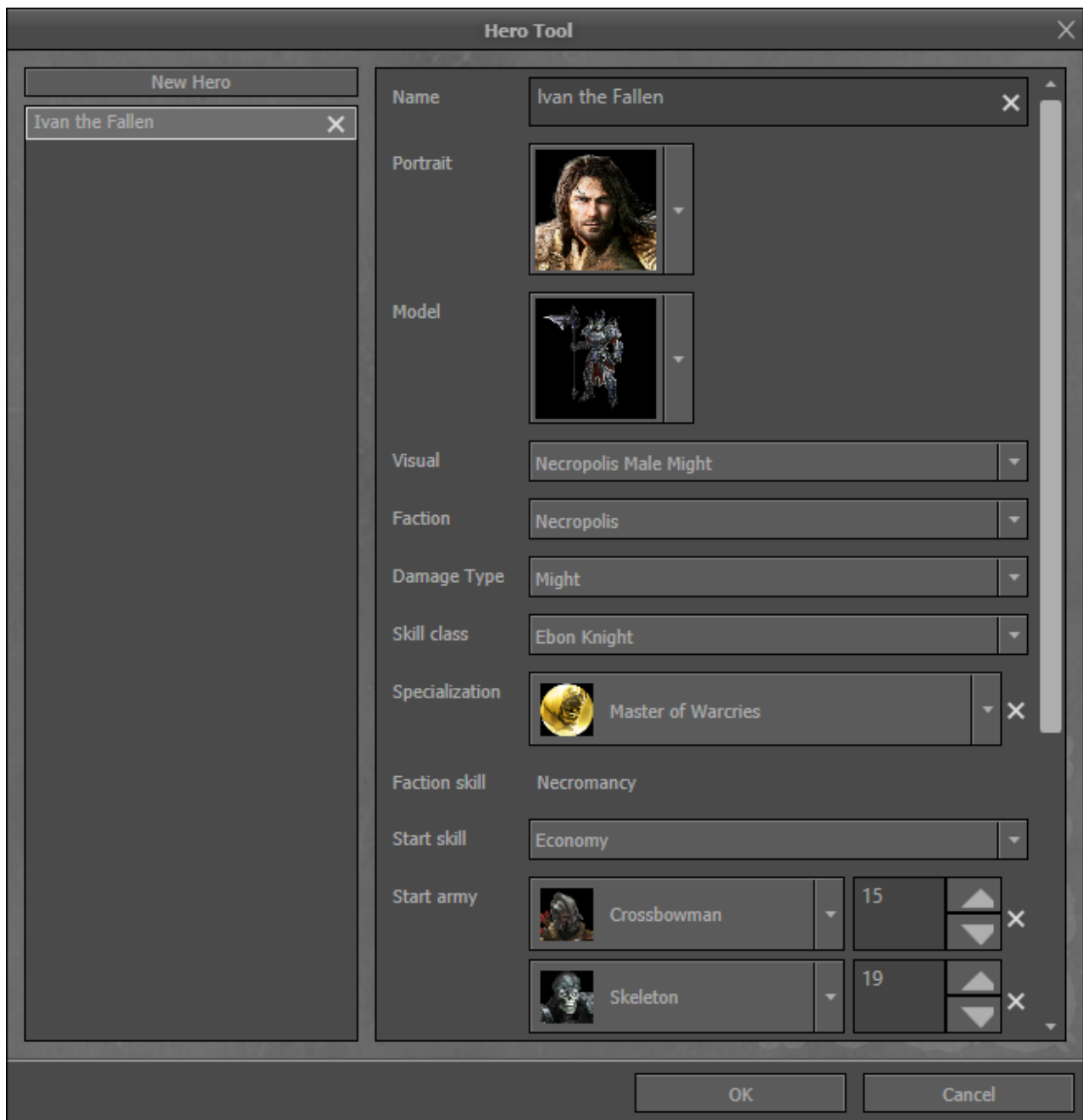
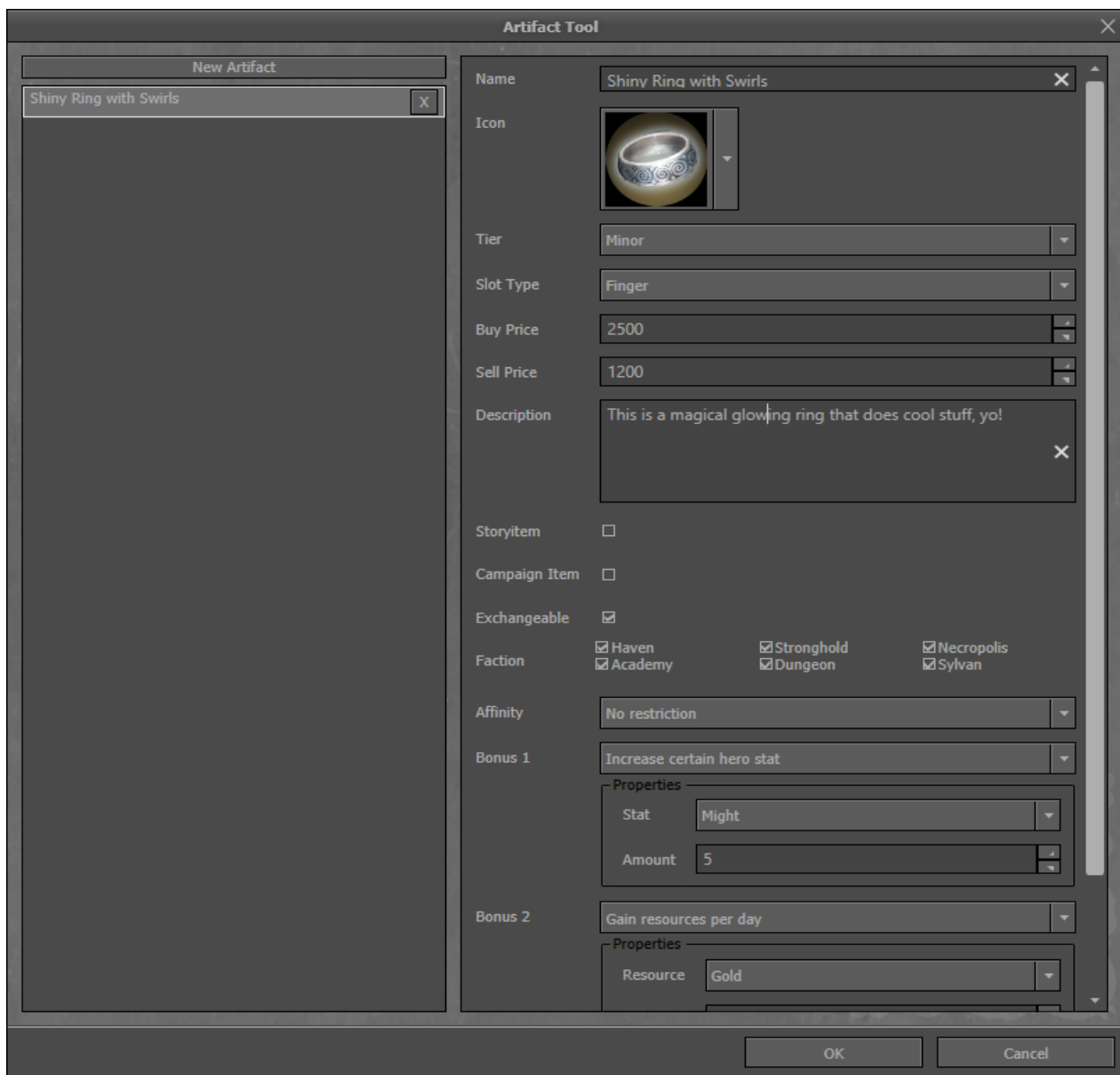**List on the left:**

New Hero	Create a new hero
List of Heroes	See all heroes you already created. They can be selected to show and adjust their properties on the right. Delete heroes with the x-Button.

Properties:

Name	Enter the name of the hero, this name can be seen in the game.
Portrait	Select a portrait for this hero.
Model	Select the hero model that can be seen in the hero window. This is only a 2D image, originally distinguished in faction, might/magic and gender.
Visual	Select the 3D visualization of the hero for the adventure map. They are distinguished in faction, might/magic and gender.
Faction	Select a faction for this hero.
Damage Type	Select the type of damage the hero attack of this hero will inflict to target creatures or warfare units.
Skill Class	Select a skill class. The available entries depend on the chosen faction. Hover an entry to see the related skills of the respective class.
Specialization	Select a specialization. This is a unique bonus. Hover an entry to see a description of the effect.
Faction Skill	Read-only. The Faction skill depends on the chosen faction and will always start on novice rank for new heroes.
Start Skill	Select a second start skill to be already on novice rank in the game.
Start Army	Select up to 7 creatures and their stack size to be the starting army the hero will have when hired from the hall of heroes.

7. 🏆 Artifact Tool

Create custom artifacts. They are be added to the artifact list in the map properties, making them available at merchants and random items. You can also drop these artifacts from the artifact layer tool to the adventure map or adjust it directly in the properties of any already placed artifact instance.

List on the left:

New Artifact	Create a new artifact.
List of Artifacts	See all artifacts you already created. They can be selected to show and adjust their properties on the right. Delete artifacts with the x-Button.

Properties:

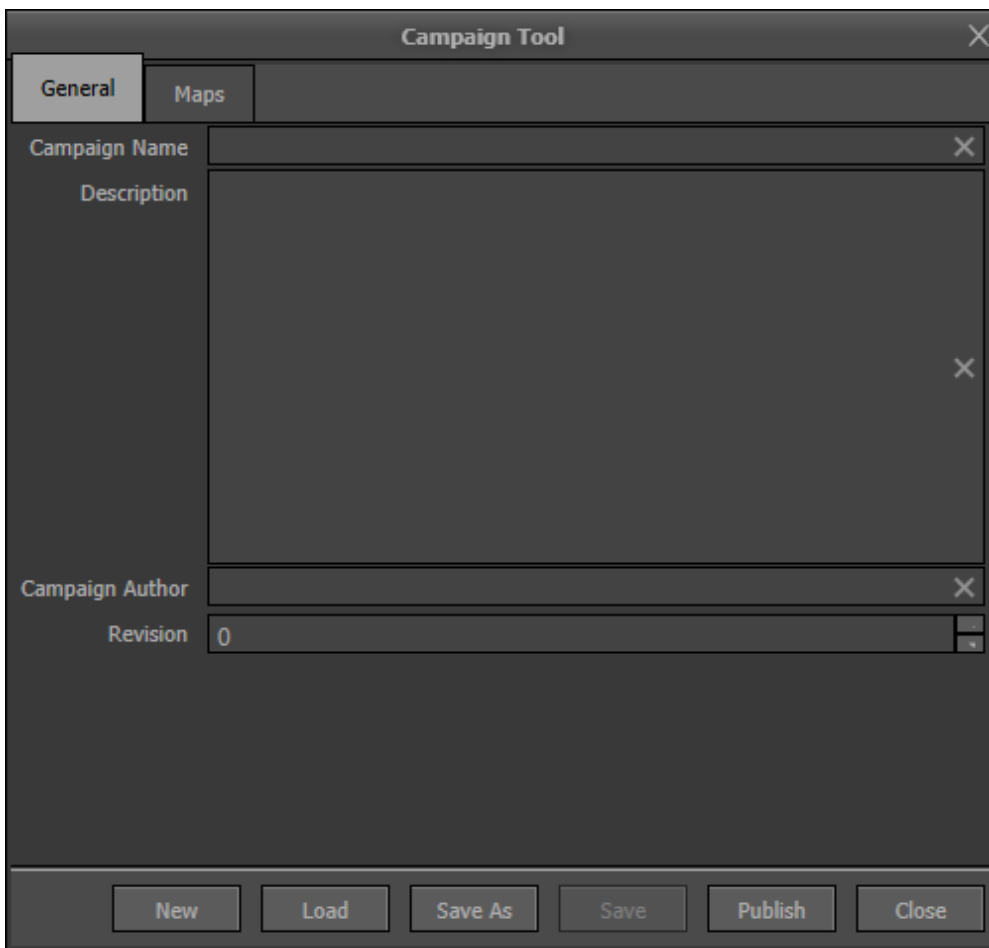| Name	Enter a name of the artifact to be displayed in game.
Icon	Select an icon as the only visual representation for this artifact.
Tier	Select either minor, major or relic. This categorizes the artifact from

	low valued and common (minor) to high valued and rare (relic). The rarity is used for the chance in random choices and helps to compare it to other artifacts.
Slot Type	Select a slot to which this artifact can be equipped.
Buy Price	Price to buy this artifact from a offer in a shop.
Sell Price	Price to gain when this artifact is sold in a shop.
Description	Enter a narrative description for this artifact.
Storyitem	Check to prevent this artifact from dismissing and losing through combats.
Campaign Item	Check to have this item transferred along with its wearer from one adventure map to the next.
Exchangeable	Check to be able to exchange these artifacts between allied heroes.
Faction	Check all factions that should be able to equip this artifact.
Affinity	Select Might or Magic to restrict this artifact to a hero of this affinity.
Bonus 1 - 4	Define up to 4 bonuses that are applied to the hero when this artifact is equipped. • Increase certain hero stat: Choose a stat to increase it for a certain amount. • Increase Magic for spells of certain school: Choose a school of magic to cast spells of this type with a higher magic value. • Decrease Mana costs of spells of certain school: Choose a school of magic to cast these spells with less mana costs. • Increase friendly creatures' stat: Choose a stat for all creatures under the control of this hero to be increased in combats. • Decrease enemy creatures' stat: Choose a stat for all creatures of armies opposing this hero to be decreased in combat. • Gain resources per day: Choose a resource to be granted to the owning player of this hero at the beginning of each day in a certain amount.

8. 🖐 Campaign Tool

Create a campaign and add already created maps to it. Maps are connected linearly and can only have one follow up map each.
You can carry the status of heroes from one map to another. Therefore place the heroes in both maps and set its properties in the second map to have it overwritten or not. The following values are carried over: Experience points and level, learned skills and abilities, learned spells, the basic stats (permanent bonuses keep applied). The owning player is not transferred and needs to be set manually.

Note: Data from heroes can only be transferred from one map to the next. To have a hero skip a map he needs to be placed in the skipped map under the control of the neutral player to have his data still existing the third map.

General:

| Campaign Name	Enter a name of the campaign. It is shown in the game menu for selection.
Description	Enter a description for campaign. It can be used for narrative contents.
Campaign Author	Enter the name you want to show to players of the campaign.
Revision	Enter a number of the current version of the campaign if you distribute it again after some changes.
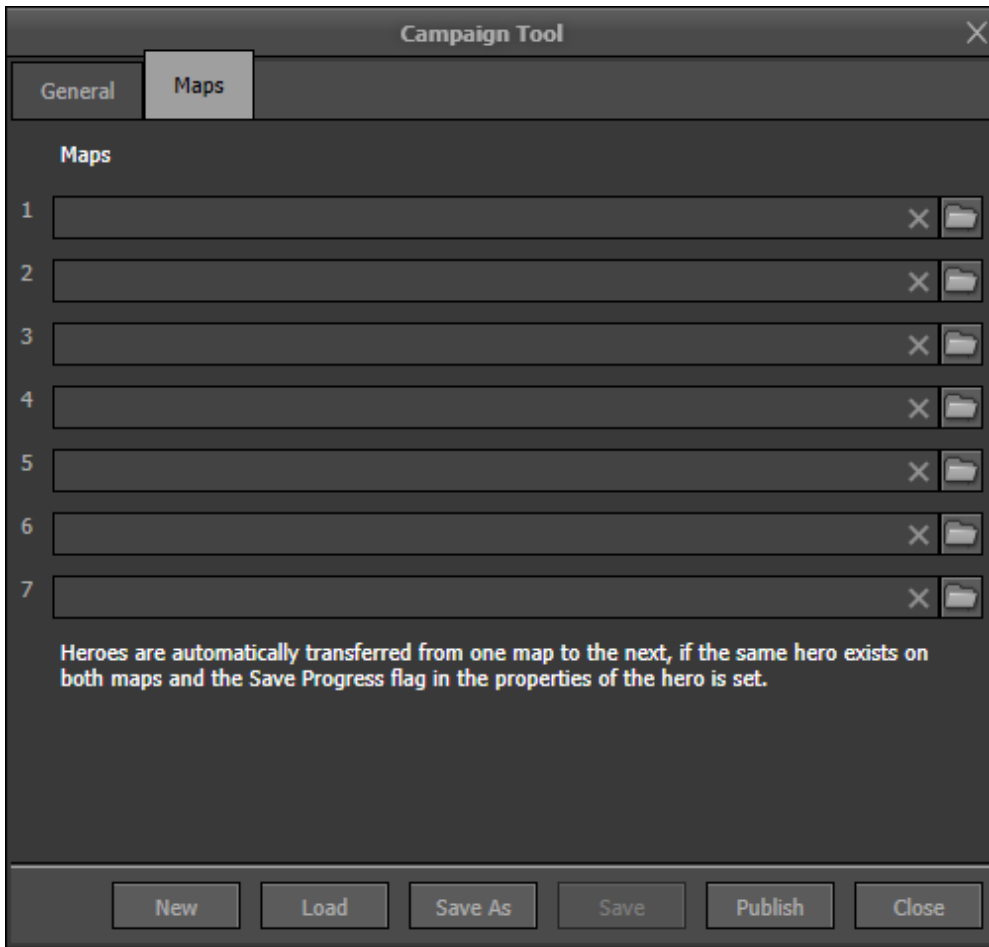
Maps:
Select up to 6 maps you created and put them into the slots. They will be played in the order of the slots.

9. 📖 Object Browser

This tool gives an overview about all archetypes and placed instances in the game and also allows to change the properties if needed.
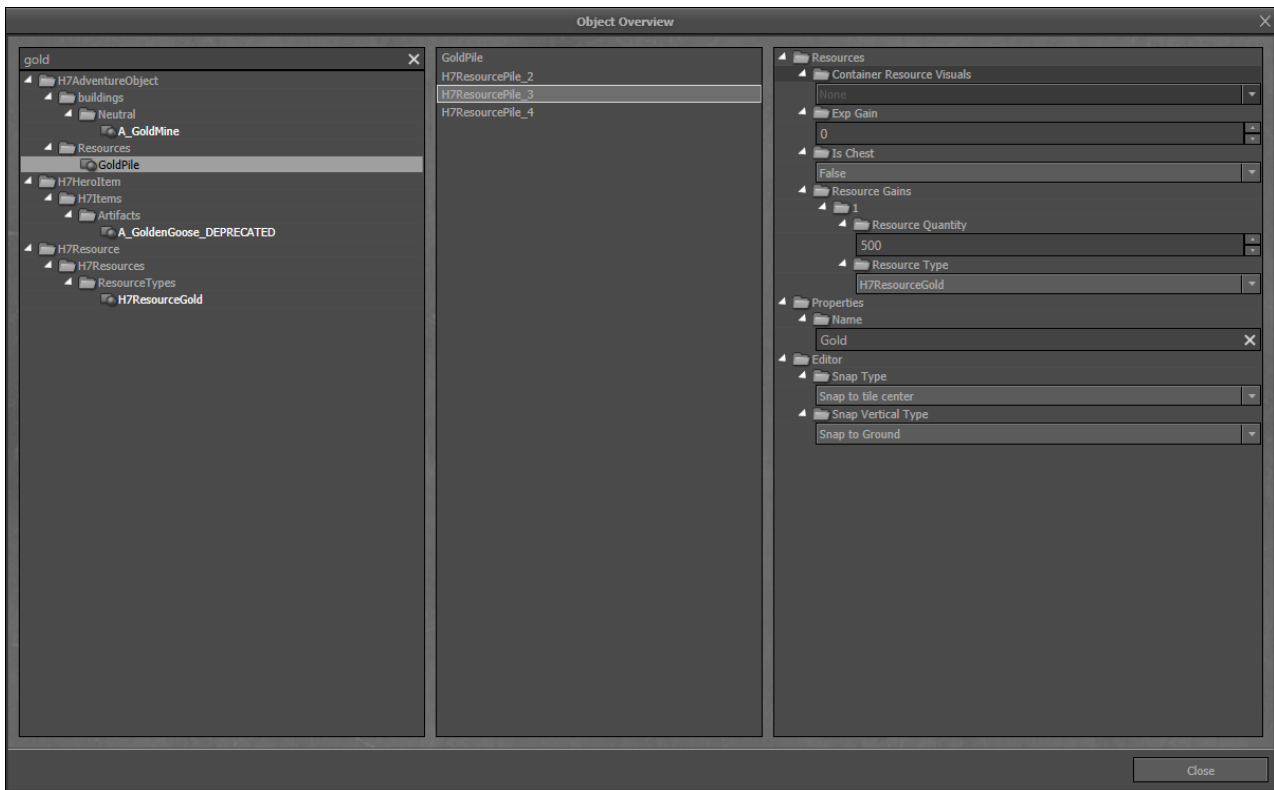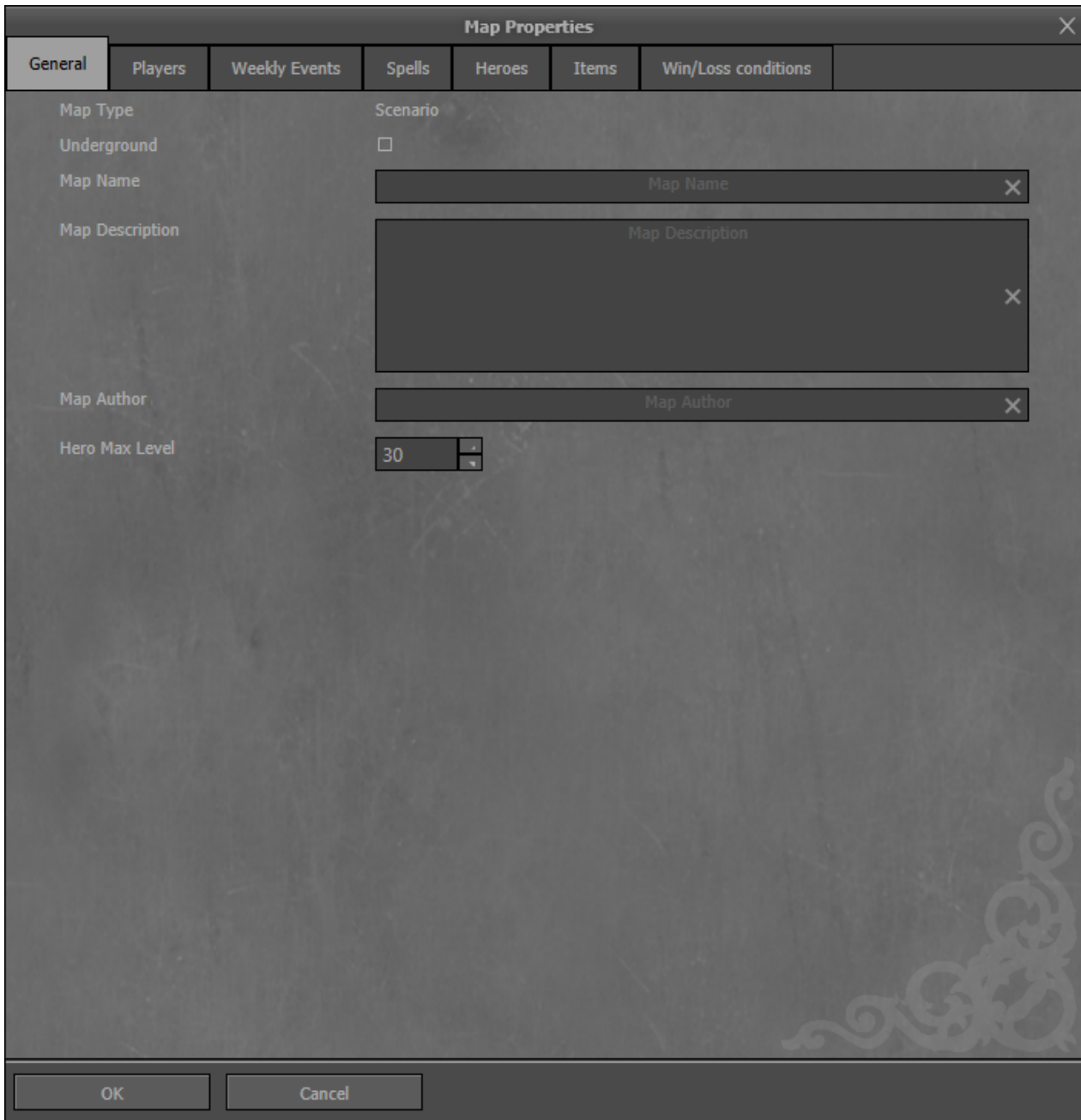

The list on the left shows all existing archetypes, independent from their usage in the game. Archetypes are the basic templates from which you will create instances when placing them on the map. The archetypes are sorted in groups and subgroups and can be filtered with using the search bar on top.

The list in the middle shows all instances of an selected archetype. The first entry is always the archetype itself. Selecting it or any other instance will show the according properties in the list on the right.

10. ⚙️ Map Properties

10.1. General

Properties:

Map Type	See the current type of the map. It can be Combat Map, Skirmish Map or Scenario Map.
Underground	Check to create an underground level. It is of the same size as the surface level. Unchecking deletes the underground level irreversibly.
Map Name	Enter the name of the map.
Description	Enter a description for the map. It is shown as a pop-up at start of

|	
	the game.
Map Author	Enter your name or nickname. This name is shown when selecting the map for play.
Hero Max Level	Select a maximum level. No hero played on this map can reach a higher level than that.

10.2. Players

Properties:

List of players	See a list of all eight possible players. The player number and the color are fixed. Select a player from the list to see and edit its settings.
Name	Enter the player's default name. Human players will overwrite the name of their player number when setting up the game.
Editor Faction	Random towns will be become of the chosen faction when you start this map from the editor.
Team	Assign the player to a team. Players of the same team are allied, different teams make them enemies.

|	
Control	Select the controller of this player. You can set him to a fix value human or AI (only use Standard setting for AI). You can remove the check from "Active at Start" for AI players to have them join the game later. User defined allows the player to set the controller when creating a new game. Closed players do not exist in this map.
Thieves Guild	Check to hide this player in the list of all other players' thieves guilds until any building or hero gets visible to another player.
Start Resources	If you untick the "Use Default" option you can define a custom amount of resources for the player.

10.3. Weekly Events

Check and uncheck which weekly events should randomly take place in this map.
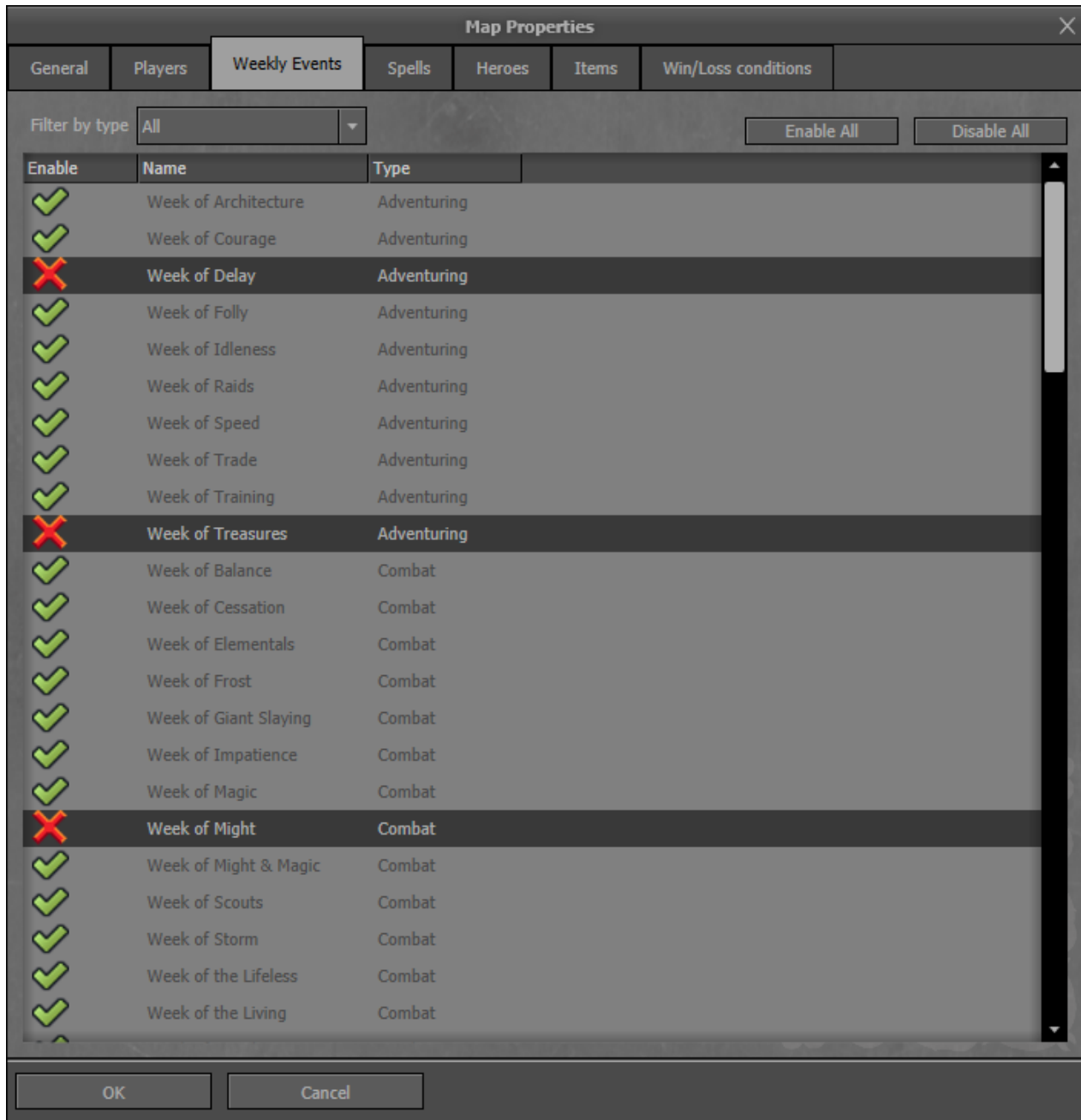
You can enable/disable all weekly events as a whole or individually. Filter the weeks by type: Adventuring, Combat, Flavor, Growth, Resources, or show all.

10.4. Spells

Check and uncheck spells to be available in random selections in this map. This affects magic guilds of towns and neutral buildings that grant random spells.
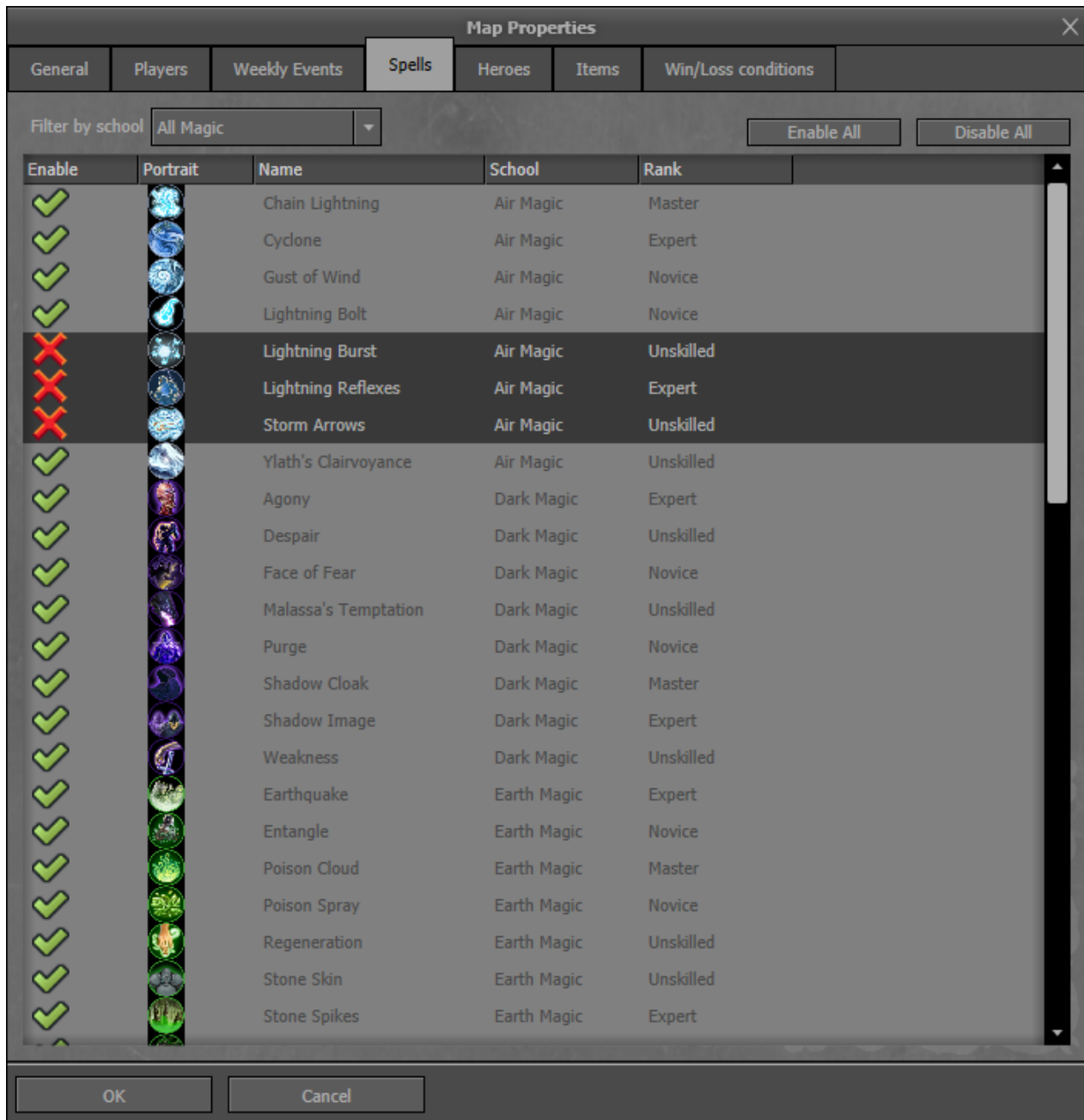
You can enable/disable all spells as a whole or individually. Filter the spells by their school of magic or show all.

10.5. Heroes

Check and uncheck heroes to be available in the hall of heroes in this map per player.
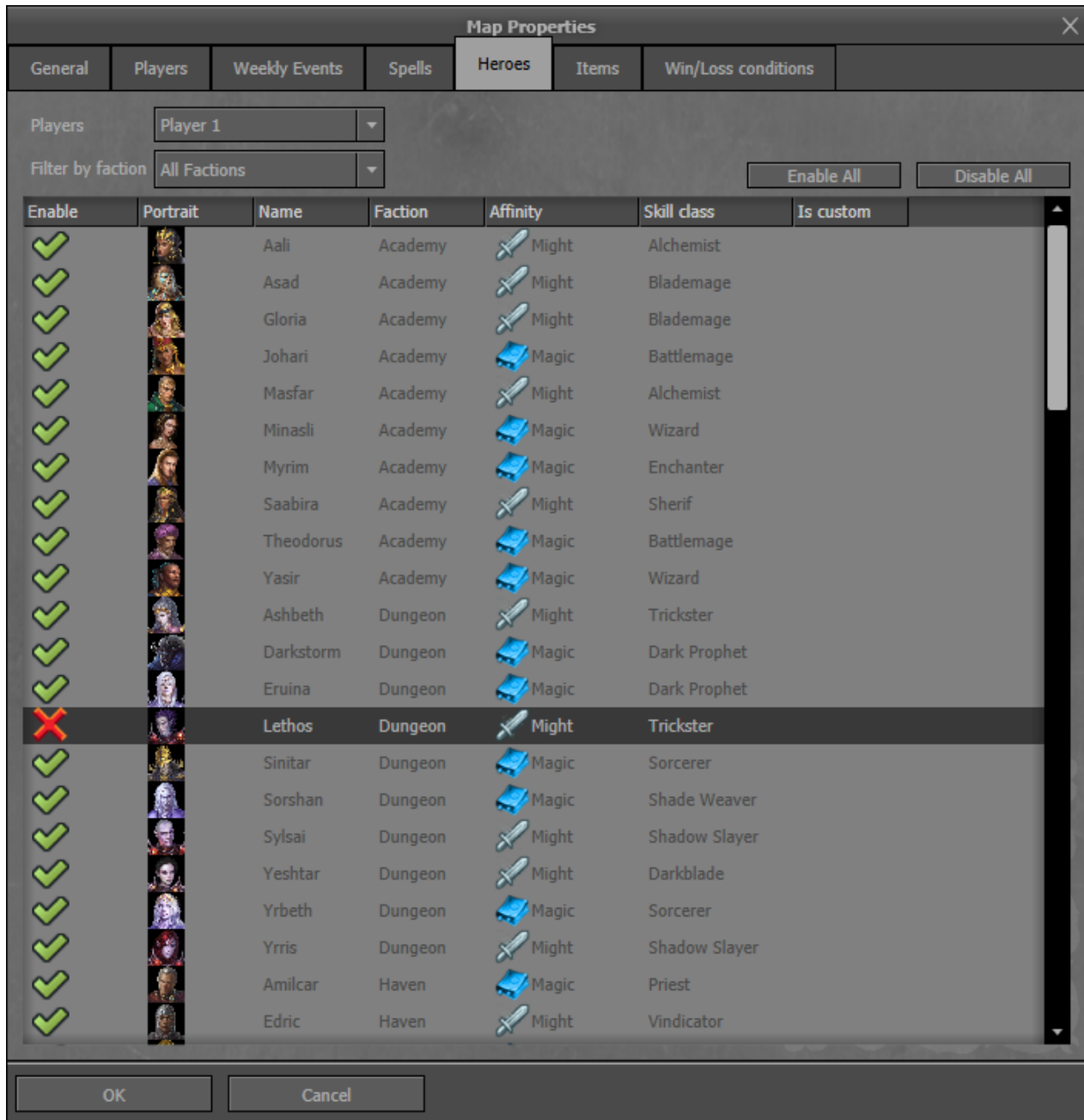
You can enable/disable all heroes as a whole or individually. Filter the heroes by their faction or show all.

10.6. Items

Check and uncheck artifacts to be available in random selections in this map. This affects random pickups, the black market and the merchants on the adventure map.


Filter the artifacts by their tier and equipment slot type or show all.

10.7. Win/Loss conditions

Select a general condition for both, winning and losing the game. This affects all human players. AI players always have the standard win and loss conditions. The selected conditions are always active, even if you set up additional win and loss conditions in the event or quest tool.
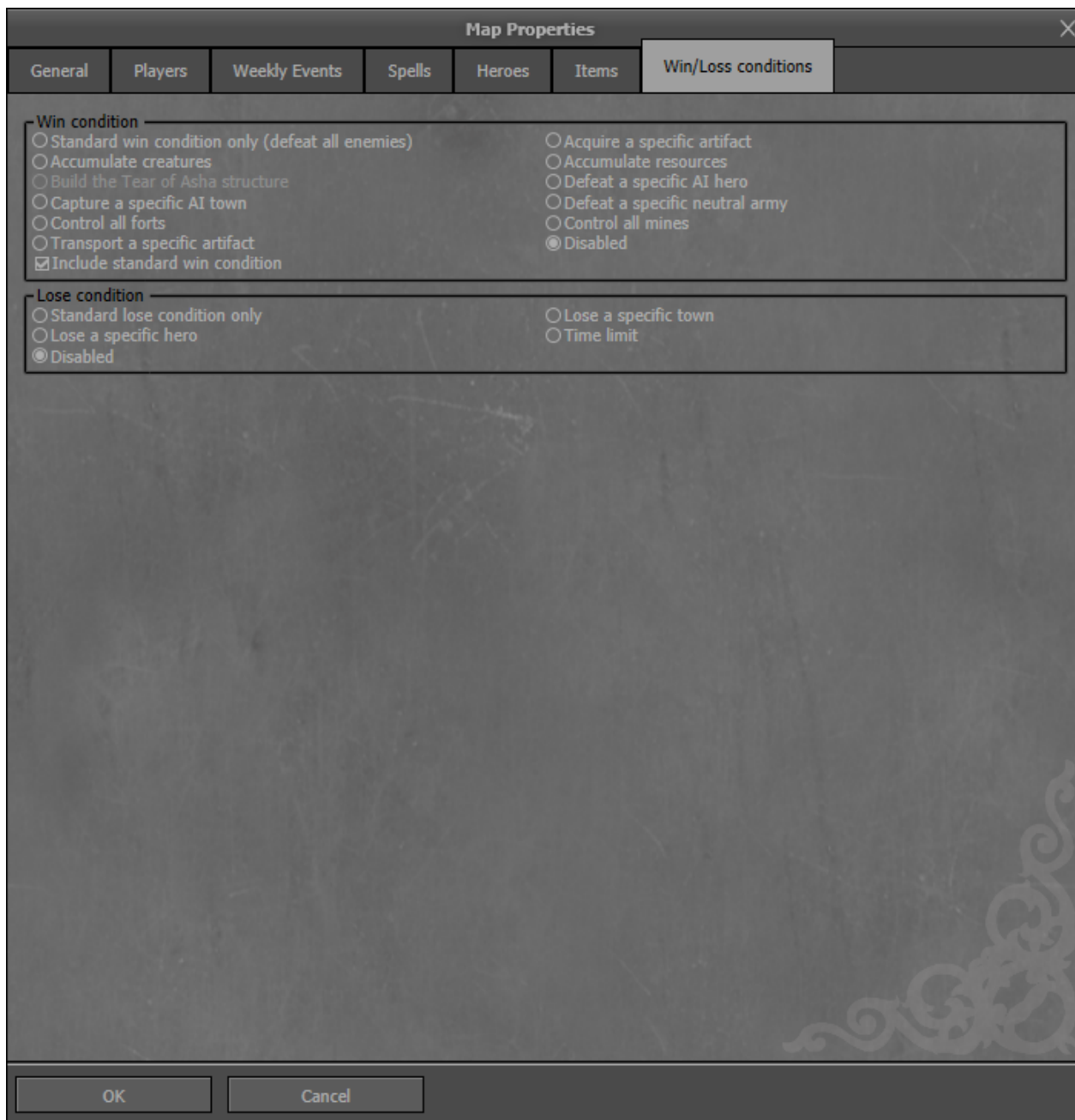
10.7.1. Win Conditions:

| Standard win condition only (defeat all enemies)	The players of one team win, when all players of enemy teams are defeated. See loss conditions.
Acquire a specific artifact	The players of one team win, when one of these players becomes the owner of an instance of a specific artifact.
Accumulate creatures	The players of one team win, when one of these players owns a

	specific amount of a certain creature type (core, elite, champion). The creatures do not need to be in one single stack.
Accumulate resources	The players of one team win, when one of these players owns a specific amount of a certain resource (or more).
Build the Tear of Asha structure	The remaining players of a team win, when one of these players builds the Tear of Asha building.
Defeat a specific AI hero	The remaining players of a team win, when one of these players defeats a specific hero, controlled by an AI player.
Capture a specific AI town	The remaining players of a team win, when one of these players captures a specific town, controlled by an AI player.
Defeat a specific neutral army	The remaining players of a team win, when one of these players defeats a specific neutral army.
Control all forts	The remaining players of a team win, when all forts of the map are controlled by players of this team.
Control all mines	The remaining players of a team win, when all resource buildings of the map are controlled by players of this team.
Transport a specific artifact	The remaining players of a team win, when one of these players has a hero in a specific town carrying an instance of a certain artifact.
Disabled	This game cannot be won if nothing else is defined in the event or quest tool.

Additionally you can include the standard win condition to your choice.

10.7.2. Loss conditions:

Standard lose condition only	A player is defeated when he does not control any hero and town at the same time, or when he does not control a town for seven days.
Lose a specific town	A player is defeated when he loses the ownership of a specific town. This condition only gets active when there is only one human player.
Lose a specific hero	A player is defeated when a specific hero under his control gets defeated. This condition only gets active when there is only one human player.
Time limit	A player is defeated when a certain amount of weeks went over. The standard loss condition is always included.
Disabled	This game cannot be lost if nothing else is defined in the event or quest tool.

11. Combat Map
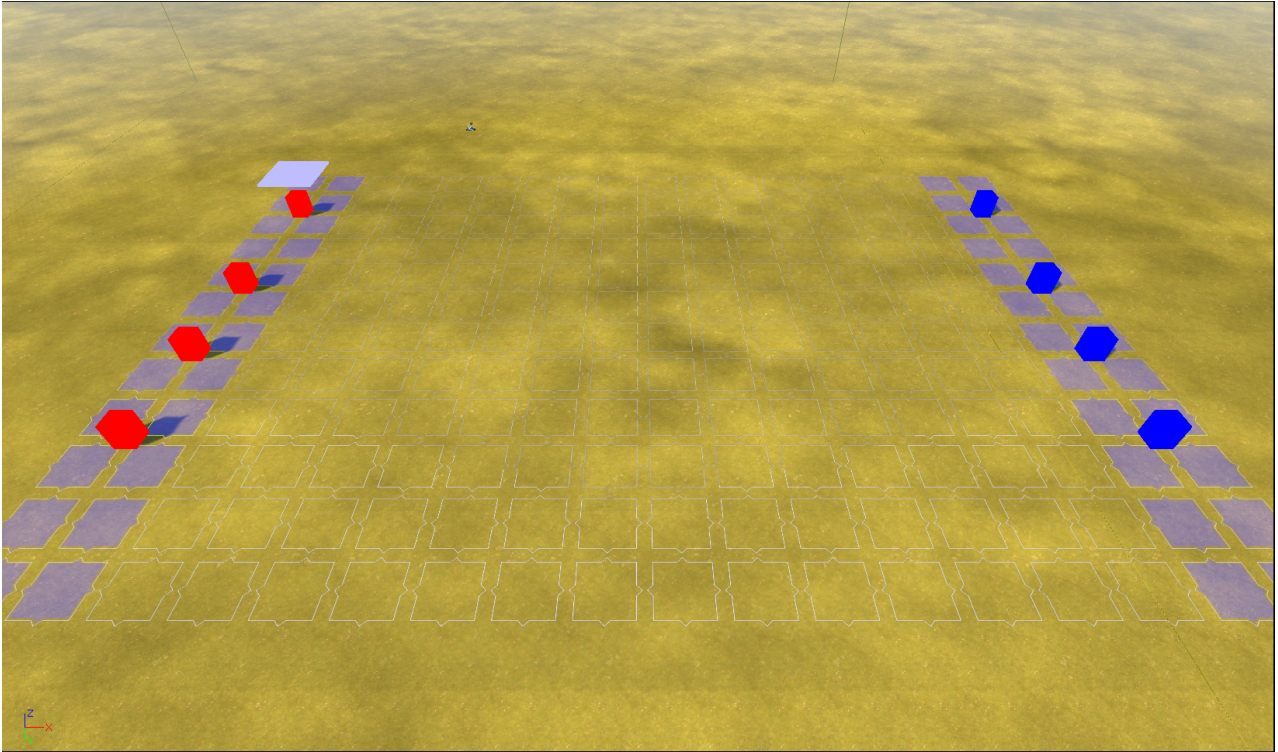
The grid in the center represents the grid for combats that will take place on this map. The positions of the heroes and warfare units are preset and cannot be changed. Remember the deployment area that will take the first 2, with ability 3 columns in which no objects should be placed. The landscape below the combat grid should also be as flat as possible to provide proper game behavior.

You can drag&drop obstacles from the combat map objects layer tool onto the grid to automatically block these tiles for (walk) movement.

Decorate the landscape around the grid as you like. Beware, the combat map will always be seen from one direction (disregarding the possibility of 90 degree rotation to both sides). To get the right view, reset the camera (Menu: View) and see to have the grid controller object at the top left of the grid.

12. Hotkeys

File:

Exit	Alt + F4

Edit:

Undo	Ctrl + Z
Redo	Ctrl + Y
Cut	Ctrl + X
Copy	Ctrl + C
Paste	Ctrl + V
Duplicate	Ctrl + D
Delete	DEL
Translate Object	Space (toggle)
Rotate Object	Space (toggle)
Scale Object	Space (toggle)
Select None	ESC

Camera:

Forwards	W
Backwards	S
Slide Left	A
Slide Right	D
Pitch Up	E
Pitch Down	Q
FOV move in	C
FOV move out	Z

View:

Toggle Game View (including grid)	G
Close Window	ESC
Toggle Fullscreen	F11

Map:

Build Lighting	Ctrl + Shift + ;
Play Map	F8

Mouse:

Zoom in	Mouse Wheel Up
Zoom out	Mouse Wheel Down
Turn Camera (around z axis at camera position)	Mouse Right Hold
Paint Brush	Mouse Left Hold
Select Object	Mouse Left Click
Select Multiple Objects	Ctrl + Mouse Left Click

Translate Object	Mouse Left Hold
Rotate Object	Mouse Left Hold
Scale Object	Mouse Left Hold