UMANCIND

OFFICIAL MODDING GUIDE

Table of Contents

1 Installing Modding Tool and Creating the Mod	6
1.1 Downloading Unity 2020.3.7f1	6
1.2 Installing and launching "HUMANKIND Mod Tools"	7
1.3 Starting the first project	10
1.4 Continue working on the mod	12
2 Game Assets Types	13
2.1 UI mapper notes	15
3 Game Asset Modification/Replacement	
4 Game Asset Creation	
4.1 Duplicating the existing object	21
4.2 Creating objects from scratch	23
5 Building and Running the Mod	
6 Shipping the Mod	
6.1 Shipping the mod within the site	
6.2 Shipping the mod within Unity editor	
Modding Tool Possibilities	
7 Adding a new Technology	
7.1 Setting up the environment	
7.2 Creating the new technology	39
7.3 Setting up the definition	39
7.4 Setting up the cost	40
7.5 Setting up the prerequisites	40
7.6 Setting up the unlock references	41
7.6.1 Setting up the unlock reference	41
7.6.2 Setting up the unlock reference UI mapper	41
7.7 Mapping the technology to the Tech Tree	
7.8 Testing	
8 Adding a new Constructible District	
8.1 Setting up the environment	
8.2 Creating the district definition	
8.3 Setting up the "Definition" tab	
8.3.1 Setting up the "Constructible" section	

	8.3.2 Setting up the "District" section	. 50
	8.3.3 Setting up the "Extension District" section	. 51
	8.4 Setting up the "Construction" tab	. 52
	8.5 Setting up the "Prerequisites" tab	. 54
	8.5.1 Setting up the "Constructible" section	. 54
	8.5.2 Setting up the "District/Own Tile" section	. 56
	8.5.3 Setting up the "District/Neighbouring Tiles"	. 58
	8.5.4 Setting up the "District/Borough"	. 59
	8.6 Setting up the UI and GeoLocalization	. 59
	8.7 Adding the constructible district into the Tech Tree	. 60
	8.8 Testing	. 61
9	Adding a new Unit	. 63
	9.1 Setting up the environment	. 63
	9.2 Creating the new unit	. 64
	9.3 Setting up the "Definition" tab	. 65
	9.3.1 Setting up the "Constructible" section	. 65
	9.3.2 Setting up the "Unit" section	. 67
	9.3.3 Creating a unit descriptor	. 69
	9.4 Setting up the "Construction" tab	. 71
	9.5 Setting up the "Prerequisites" Tab	. 72
	9.6 Setting up the "Al" Tab	. 73
	9.7 Adding the UI mapper for the unit	. 73
	9.8 Creating the unit presentation	. 74
	9.8.1 Setting up the environment	. 74
	9.8.2 Creating the new unit presentation	. 75
	9.9 Creating the new unit pawn presentation	. 76
	9.10 Testing	. 78
1(0 Adding a new Culture	. 79
	10.1 Setting up the environment	. 79
	10.2 Creating the new culture	. 80
	10.3 Setting up the "Definition" tab	. 81
	10.4 Setting up the "Presentation" tab	. 82
	10.5 Adding a UI mapper for civilization	. 84

10.6 Creating the new legacy trait	85
10.7 Creating the new legacy trait descriptor	
10.8 Setting up the legacy trait descriptor	
10.9 Setting up the legacy trait	
10.10 Adding a UI mapper for the Legacy Trait	
10.11 Testing	
10.12 Adding an emblematic district	
10.13 Adding an emblematic unit	
10.14 Testing	
11 Adding a new Narrative Event	
11.1 Setting up the environment	
11.2 Create a new narrative event	
11.3 Setting up the "Definition" section	
11.4 Event category	
11.5 Setting up the "Trigger" section	100
11.6 Setting up the "UI" section	
11.7 Setting up the "GeoLocalization" section	
11.8 Setting up the "Choices" section	103
11.9 Testing	105
11.10 Adding a lasting effect	106
11.10.1 Adding a descriptor	106
11.10.2 Adding a status definition	109
11.10.3 Applying a lasting effect to choices	112
11.11 Testing	114
11.12 Adding narrative consequences	116
11.12.1 Narrative consequence	116
11.12.2 Testing	119
11.12.3 Narrative consequence tag	120
11.12.4 Testing	123
12 Adding a new Civic	125
12.1 Setting up the environment	125
12.2 Creating the new civic	127
12.3 Setting up the civic definition	

12.4 Setting up the empty choices	127
12.5 Setting up the civic descriptors	128
12.6 Setting up the civic descriptor UI mapper	128
12.7 Fulfilling the empty choices	129
12.8 Setting up the "Prerequisites" section	130
12.9 Mapping the new civic to the Civics screen	131
12.10 Setting the new civic choices UI mappers	132
12.11 Creating a new civic narrative event	134
12.12 Setting up the "Definition" section	134
12.13 Setting up the "Trigger" section	135
12.14 Setting up the "Variables" section	135
12.15 Setting up the "UI" and "GeoLocalization" sections	136
12.16 Setting up the choice	136
12.17 Testing	137
13 Balancing Battle	139
13.1 Changing unit's basic stats	140
13.2 Testing	141
13.3 The unit abilities	142
13.4 The battle abilities	145
13.5 The game effect	149
13.6 Property effects calculations	150
13.7 Balancing the battle ability	154
13.7.1 Rebalancing the charge ability	154
13.7.2 Rebalancing the unit specialty	156
14 Useful data	159

1 Installing Modding Tool and Creating the Mod

To start the modding process of the game, the "HUMANKIND Mod Tools" has to be installed as well as Unity 2020.3.7f1.

1.1 Downloading Unity 2020.3.7f1

1. Go to <u>https://unity3d.com/get-unity/download/archive</u> to get the necessary Unity version.

	udies Learning Support & Services	Get started Asset Store Q
From this page you can download the previou key when prompted after installation). Please can import projects into a new editor version. errors or warnings after importing.	Oad archive us versions of Unity for both Unity Personal and Pro (if you h a note that we don't support downgrading a project to an old b. We advise you to back up your project before converting a	nave a Pro license, enter in your ler editor version. However, you nd check the console log for any
Long Term Support releases The LTS stream is for users who wish to continu ship their games/content and stay on a stable we extended period. Download LTS releases	ie to develop and iersion for an	
Unity 2021.x Unity 2020.x Unity 2019	9.x Unity 2018.x Unity 2017.x Unity 5.x Unit	y 4.x Unity 3.x
2. Select "Unity Unity 2021.x Unity 2020.x Unity 2021.x Unity 2020.x	2020.x" 19.x Unity 2018.x Unity 2017.x Unity 5.x Unit	y 4.x Unity 3.x
Unity 2020 3 22	📥 Unity Hub Downloads (Win) 🗸 Down	nloads (Mac) 🗸 Downloads (Linux) 🖌 Release notes
6 Nov, 2021		
0 Nov, 2021 Unity 2020.3.21 21 Oct, 2021	∆ Unity Hub Downloads (Win) ✔ Down	nloads (Mac) 🗸 Downloads (Linux) 🗸 Release notes

3. Search for "Unity 2020.3.7", download and install it.

Unity 2020.3.7	📩 Unity Hub	Downloads (Win) 🗸	Downloads (Mac) 🗸	Downloads (Linux) 🗸	Release notes
5 May, 2021					

1.2 Installing and launching "HUMANKIND Mod Tools"

1. Search for HUMANKIND in your library in Steam and install "HUMANKIND Mod Tools" under the "TOOLS" section.



2. Launch the modding tool and go through the launcher steps.

Humankind Modding Wizard Setun	
Welcome Page	
Hi and welcome to the Humankind Modding Wizard Setup.	
This wizard will help you:	
1. Locate or install Unity Hub.	
 Locate or install Unity Hub. Locate or install the correct Unity Editor version. 	



- 🗆 X

Humankind Modding Wizard Setup

Unity Hub

Unity Hub is correctly installed and located.

C:\Program Files\Unity Hub\Unity Hub.exe

Locate

Install Unity Hub

		N	lext
	_		\times
🗧 Humankind Modding Wizard Setup			

Unity Account and License

Please read carefully!

In order to create a modding project, you need a Unity account and an active License.

If you do not have a Unity account, you can create one by clicking on this link: <u>Create Unity account</u>

Once you have a Unity account, login inside the Unity Hub and activate your license.

 Open Unity Hub
 Activating a licence in the Hub



	-		\times
~	Humankind Modding Wizard Setup		
	Unity Editor 2020.3.7f1		
	Unity Editor is correctly installed and located.		
	C:\Program Files\Unity\Hub\Editor\2020.3.7f1\Editor\Unity.exe	Locate	
	Choose where Unity Editor will be installed.		
		Locate	
	Download and Install		
		Ne	xt
	_		\times
←	🍐 Humankind Modding Wizard Setup		
	Create Project		
	Choose the root folder where your project(s) will be created.		
	C:\Humankind Modding	Locate	
	Choose your new project name.		
	Project1	1	

Create Project

3. Once Unity is fully started, you can proceed with modding.

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Provent Construction	File Edit Assets GameObject Compo	onent Mercury Amplitude	Tools Window Help				
The state 1	🕊 💀 Ø 🖻 🎞 🛎 🛠	Center Global				🔅 📤 Account 👻	Layers 🔻 Layout 💌
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🕒 Spent 0.001 s to BullidCacheBulliderEntry 🛛 👋 📚 🕱 🔗							
🖸 Spent 0.001 s to BuildCacheBuildefatty							
	Spent 0.001 s to BuildCacheBuilder	Entry					0 8 8 8

1.3 Starting the first project

1. Most of the usual Unity tabs won't be used during the mod creation so you should rearrange the working space to the more efficient one. We recommend you to focus on "Mod Editor", "Project", "Console" and two "Inspector" tabs.

Project1 - Untitled - PC, Mac & Lin File Edit Assets GameObject Co	nux Standalone - Unity 2020.3.7f1 Perso omponent Mercury Amplitude Too	onal <dx11> ols Window Help</dx11>						-	٥	×
🖤 💠 🗘 🗵 🆽	🛠 🖉 Center 🌐 Global 🖽			► II ►		:¢: 🌰	Account 💌 I	Layers 🔻 L	.ayout	•
Mod Editor 🖿 Project			Inspector		Inspector					
1. Configuration										
Mod Name Please give your mod a name. Max. 64 characters. Invalid characters: "<>]:*?\/ and ".".										
1 This is a valid name.										
Project1										
	Initialize Mod									
<u> </u>		CCheck Debug								
Clear Collapse Error Pause UnityEngine.Debug:LogWar	Editor 🕶 ۹									
[10:58:49] Load AssetBundl UnityEngine.Debug:Log (obj	leLoadingConfiguration fail ject)									
[10:58:49] Spent 0.007 s to UnityEngine.Debug:LogForr	mount Project mat (string,object[])									
10:58:49] Spent 0.010 s to										

- A Y

2. Once the working space is ready, create the new mod by clicking on the "Initialize Mod" button.

Mod Editor	Project		а:		
1. Con	figuration	2. Data	3. Export		
Mod Nam Please give yo Max. 64 chara Invalid charac	e our mod a name. cters. ters: "				
This is a v	alid name.				
Project1					
Initialize Mod					

3. Complete the related fields like "Author", "Description", etc.

Mod Editor 📄 Project			a :
1. Configuration		2. Data	3. Export
Project1 Please fill in this form to h	elp ide	ntify your mod.	
Author	TestAu	uthor	
Description			
Test Description			
Homepage	Test H	omepage Title	
Release Notes			
Test fields are completed			
Once this is done, you	can sta	rt adding data to your mod by going t	o the 2. Data tab of this window.

Now you are ready to export some databases or work with your own to create the first mod!

1.4 Continue working on the mod

If the project was closed you can reopen it from the Unity Hub to continue working on the mod.

1	Projects	Projects		ADD	NEW	•
٢	Learn	Project Name	Unity Version	Target Platform	Last Modified 👌	Q
	Community Installs	Project1 C:\Humankind_modding\Project1 Unity Version: 2020.3.7f1	2020.3.7f1	Current platform	a few seconds ago	0 0 0

2 Game Assets Types

In order to modify the game, you have to work with the related in-game databases, collections, and assets.

The game has 3 main associated types of assets:

• Definition - defines the object characteristics, settings and applies a descriptor to this object.

Test 1 (Extension District Definition)							
Script		C ExtensionDis	strictDefinition				
Кеу							
Hidden							
ls Obsolete							
Definition	Construc	tion	Prerequisites	AI			
DLC Prerequisite							
Constructible							
Category		Food				•	
Level		0					
Unicity		Any				•	
Constructible Visual Affinity		DistrictVisualAt	finity_Base_Food			Ð	
District							
Prototype		Extension_Base	_Food			Ð,	
Own Descriptor References						+	
Effect_Extension_Base_Foo	d				Ð] × [
Effect_Extension_Base_Foo	d_Yield				Ð	X	
Effect_Extension_Base_Scie	ence				Ð	X	
Effect_Extension_Base_Scie	ence_Yield				Ð	X	
Effect_Extension_Default_Vi	ision				Ð	X	
Effect_Extension_Workplace	eSlot_Food				Ð	X	
Effect_Extension_Workplace	eSlot_Science				Ð	x	
Is Replaceable Or Destroyable		~					
Can Be Downgraded To Ruin		 					
Additional Visual Levels				E		+	

• Descriptor - defines the effect that is applied to the in-game objects, assigns tags, etc. Several descriptors can be applied to the same definition object.

G	<pre>Fffect_Extension_Base_Food_Yield (De</pre>	escriptor)		≵ :
Scri		C Descriptor		
Sta	rting Type	District		
ΨE	ffects			+
	▼ Path			
	District			
	Specific Target Type	None		
	Validations		Empty 🕂	
	Apply Effect On	Source (District)	Target (District)	
	Source: District	Target: District		- x
	▶ Properties	▶ Properties		
	Help (click to expand)			
	▼ Property Effects		1 items 🕇	
	Add	- FoodProduced		
			×	
	Add notes here			

• UI Mapper - defines the interface representation of the asset including name, description, images, etc. If there is no UI mapper object for the definition, it won't be visible to other players in the game.

Test 1 (Constructible UI Mapper)	‡	
Script	ConstructibleUIMapper	
Title	Test Manual Creation Title	
Description	Test Manual Creation Description	
▼ Images		+
Small	≣ Test ⊙	×
Color		8
Symbol		
Sort Priority	0	
Constructible Traits		+

All these 3 objects have different types for different in-game objects/mechanics and are divided into different collections. Example of different definitions:

AirUnitDefinition
AirportDefinition
ArtificialDepositDistrictDefinition
ArtificialWonderDefinition
ColonialDistrictDefinition
ConstructibleActionDefinition
EmpireWideConstructionParticipationDefinition
ExploitationDistrictDefinition
ExtensionDistrictDefinition
FakeEmblematicCamp
HolySiteDefinition
LandUnitDefinition
MissileUnitDefinition
NationalProjectDefinition
NationalProject_Leveling

Example of different collections:

🔻 🗁 Settlement
GonstructibleCommonExtensionDefinition
GonstructibleCommonExtensionDescriptor
ConstructibleCommonExtensionUIMappers

For example, city district "Harbour" consists of:

- 1 definition object "Extension_Base_Harbour";
- 3 assigned descriptors:
 - Effect_Extension_Base_Harbour;
 - Effect_Extension_Default_Vision;
 - Tag_Extension_Urban.
- 1 UI mapper "Extension_Base_Harbour".

2.1 UI mapper notes

Few important notes regarding UI Mappers:

• The best way to work with UI mappers is to duplicate the existing similar UI mapper. It will eliminate the issue of having the wrong UI mapper type.

Civilization_Era1_Babylon		
	Add >	>
	Copy 1 Element	
	Cut	
	Paste as New	
	Copy Name	
	Rename	
	Delete 1 Element	
	Duplicate 1 Element	

• If the new image is added to the UI mapper object, it must be stored inside the "Resources" folder of the project.

Project Mod Editor			a:	Inspector			≙ :
+• ٩	•	₽	% 9	🚫 🛛 UI Mapı	per Test (UI Mappers		
🔻 🚘 Assets							
[Amplitude.Framework]							
[Amplitude.Mercury]				UMapper Gene	erator		
AssetBundles Configurations				UIMapper Conv	vert Data		
V Databases					Cop	by 1 Mappers to Clipboard	
Civilizations				Search: * 🤍			
Settlement							
ConstructibleDefinition Lest							
Editor							
Localization							
Manifests							
Test							
P Kunume				Test 1 (Constructible UI Map		
G AssetBundleContentDescriptor				~0			
Packages							
						Test Manual Creation Title	
				Description		Test Manual Creation Description	
							1 items 🕂
				Small		T est	
				Color			68
				Symbol			
				▶ Constructible	Traits		1 items 🕂

• All UI Mappers must have the same names as Definition objects to be displayed in the game.

0 Inspector	•		0 Inspector	A :
Constructible Common Extension Definition (Constructible Definition		Î	Constructible Common Extension UI Mappers (UI Mappers Collection)	# I
Search: * ٩			UIMapper Generator	
Extension_Base_Food_TEST		ų	UIMapper Convert Data	
			Copy 1 Mappers to Clipboard	
		-	Search: * ٩	
			Extension_Base_Food_TEST	_

The "Images" field of the UI mapper works only with specific keywords. Few keywords for the example: "Small", "Medium", "Large", "Picto", "Tooltip", "Landscape", "FactionCard", "AvatarBackground", "EraTimeline". Please refer to existing UI mappers for more examples.

▼ Ir	nages	9 iten	ns	+
	Small	⊠None (Texture)	\odot	×
	Medium	WI_Civilization_Era1_BabyIon_LeaderPc	•	×
	Large	WI_Civilization_Era1_BabyIon_FactionC	•	×
	Picto	UI_Civilization_Era1_BabyIon_Logo	\odot	×
	Tooltip	WI_Civilization_Era1_Babylon_Tooltip	\odot	×
	Landscape	UI_Civilization_Era1_BabyIon_Landscap	•	×
	FactionCard	WI_Civilization_Era1_BabyIon_FactionC	\odot	×
	AvatarBackground	<missing></missing>	\odot	×
	EraTimeline	<missing></missing>	•	×

- The field "Color" works as a filter to the attached images.
- The "Sort Priority" is used to sort units in the armies.
- The "Constructible Traits" is used during some special occasions.

LandUnit Era2 Common Citizens			•
Land Unit_Era 2_Common_Citizens	(Constructible UI Mapper)	7	
Script	ConstructibleUIMapper		
Title	%LandUnit_Era2_Common_CitizensTitle		
Description	%LandUnit_Era2_Common_CitizensDescription		
▶ Images			+
Color			8
Symbol			
Sort Priority	7800		
Constructible Traits			+
Raised When Besieged		•	×
Raised From Militarist Affinity		•	×

3 Game Asset Modification/Replacement

The easiest way to work with game data is to import existing database object and modify

it:

- 1. Go to "2. Data" of the Mod Editor tab.
- 2. Select "Import from Archives".
- 3. Search for the necessary object (let's modify Biplane's movement speed and production cost). To select the correct asset type, please refer to the text in parentheses.
- 4. Press "Import".

Mod Editor 🖿 Project		а:	ð In	spector		ć	3 :	Inspective
1. Configuration 1 2. Data	3. Export							
Gameplay Data & Visual Mapping			_					
Those type of data are the bread an Import from mercurydatabases.as	setbundle		×					
Gameplay data are sets of linked va uses.			×	AirUnit_E	ra5_Common_Biplane	es (AirUnitDefinition)	
Visual mapping (Presentation layer)	iplanes		0		AirUnitDefinition			
Import from Archives 2 Charlen AirUnit_Era5_Common_B	iplanes 3		۲					
G Effect_AirUnit_Era5_Com	mon_Biplanes		۲					
VISUAL Data Gresentation AirLinit Fra	_01 5 Common Biolanes Default		0					
This section will assist you in adding								
Localization								
								Ð
game.								
(Coming Soon) AI (Adva								
This section is for advanced editing								- 0
A								
E Console								
Clear - Collapse Error Pause Edit								
UnityEngine.Debug:LogWarning None All		Imp	ort					- Q

After the object becomes available for editing in the project structure.

Mod Ed	itor 🖿 Project			а:	🚯 Ins	pector					a:
+•	۹	•	ø	1 9	(A)	Air Unit <u>.</u>	_Era 5_C	Comm	ion_Biplane	s (Air Unit Definition) 코 :
▼ <u>→</u> As	sets Amplitude Framework	1			~0						
	[Amplitude.Mercury]	1				pt			🖸 AirUnitDe	efinition	
	AssetBundles				Key						
	Configurations Databases				Hido	den					
	⊇Unit				ls O	bsolete					
	AirUnitDefinition					Definition		Const	truction	Prerequisites	AI
	AirUnit_Era5_Co	mmon_	Bipla	ines	►D	LC Prere	quisite				
	Editor										
	Manifacto				Cor	structibl	е				
	Plugins				Cat	egory			Military		
	Resources				Ser	ializable f	Family		UnitFamily_	_FighterAircraft	• (Q)
 	Runtime				Lev	el			34		
🕨 🖿 Pa	ckages				Uni	city			Any		
					Cor	nstructible	e Visual A	Affinit	None		

Now let's change the basic production cost of the unit. All the related fields will be described in more detail in the corresponding chapters later.

Inspector			
Air Unit_Era 5_Cor	nmon_Biplanes (Air Ui	nit Definition)	
	🕻 AirUnit		
Hidden			
Is Obsolete			
Definition	Construction	Prerequisites	
Constructible			
Can Be Bought Out	~		
Can Be Canceled	~		
Start When Queued			
Can Be Bought Out With	Population		
Production Cost			
Туре	Productio		
Constant	-1		
Rpn Definition Reference	e Productio	onCost_Unit_Era5_Medium	▼ (⊕<)
Money Instant Cost			
Constant			
Rpn Definition Reference			
Influence Instant Cost			
	5		
Rpn Definition Reference	e None		
Population Instant Cos			
Constant	1		

Note! This action will overwrite the initial object data.

Once the change is made, the mod can be tested.

- 1. Go to "3. Export" of the Mod Editor tab.
- 2. Select "Build and Run".
- 3. Check the result in the game (cost was changed a little bit due to the game speed).





Important! It is not recommended to store unused objects within the mod project structure. Please either not export unused objects, or remove unnecessary objects from collections/collections after the mod is created.

4 Game Asset Creation

If you wish to create an in-game object from scratch there are 2 ways to do it.

- Duplicate the existing object and modify all the necessary fields.
- Create the object from scratch.

4.1 Duplicating the existing object

It is the easiest way of creating a new game asset. Simply duplicate the similar one and fill the fields accordingly.

- 1. Go to "2. Data" of the Mod Editor tab.
- 2. Select "Import from Archives".
- 3. Search for the necessary object definition and UI mapper objects. To select the correct object, please refer to the text in parentheses.

Mod Editor # Scene						Project		
1. Configuration	2. Data	3. Export	+ - • All) + ▼ [۹		9 1 1 1 1 1 1 1 1 1 1
			► 🕄 Untitled	-		Assets Assets Assets	workl	
Gameplay Data & Visua	Import from mercurydata	bases.assetbundle	>			Amplitude.Mercu	iry]	
Those type of data are the bread a	<pre></pre>				Extension_Base_Food (Ex	tensionDistrictDefinitio	on)	
Gameplay data are sets of linked v	Extension_Base	Food 3	•	Script	ExtensionDist	ictDefinition		•
Visual mapping (Presentation layer		_F000	•					
elements.	FoodCuriosityG	ained	•					
Import from Archives 2Creat	FoodFromHunti	ng	•					
	FoodFromTerrai		۲					4
Visual Data	FoodFromTerral	nMultiplier	•					
This section will assist you in addi	FoodToDistribut		õ	Constructik				
the game.	FoodWorkplace	GainPerPopulation	۲	Category				•
Sele	GameEffect_Ext	ension_ExploitFood	0	Level				
	GameEffect_Ext	ension_ExploitFood	۲	Unicity				~
Localization	Minfrastructure_F	ood_Family00_01	•	Constructib				⊕
These tools will assist you in editir	□ 🖓 Infrastructure_F	pod_Family01_01	0	District				
displayed in the game.	Infrastructure_F	ood_Family01_01	۲					Ð
Selec	Infrastructure_F	ood_Family01_02	•					
	Infrastructure_F	ood_Family01_Synergy01	٩					€ ×
(Coming Soon) AI (Adv Your project is in a stable state.	Infrastructure_F	ood_Family01_Synergy02 ood_Family02_01	•				~ (€ ×
	Infrastructure_F	ood_Family02_01	٢	Effect_			(€ ×
Clear - Collapse Error Pause Ec	None All	and Eamily(12,172					(€, ×
UnityEngine.Debug:LogForma	(sung,object])		02:03:54.263	I 🔤 Tag_E>				Ð. ×
[14:04:54] Spent 0.033 s to lo	ad		Total datatab – 02:04:54 405	e I Is Replacea	able Or Destroy 🗸			
UnityEngine.Debug:LogFormat	t (string,object[])		AssetDatabas	e Can Be Dov				
[14:04:54] AssetDatabase.Loa	id Default GraphicsFont	FxLowLevel FxData UILow	02-04-54 405	L				

4. Press "Import".

After the objects appear in the project structure window, go to both collections and duplicate the items. The original one should be deleted.

Inspector Inspector	
Constructible Common Ext	ension Definition (Constructible Definition Collection)
Search: * ۹	
Extension_Base_Food	
Extension_Base_Food_TEST	Add >
	Copy 1 Element
	Cut
	Paste as New
	Copy Name
	Rename
Extension_Base_Food (Ext	Delete 1 Element
V()	Duplicate 1 Element

Rename both new objects so their names match from different collections.

0 Inspector	•	:	Inspector	A :
Constructible Common Extension Definition (Constructible Definition		Î	Constructible Common Extension UI Mappers (UI Mappers Collection)	
Search: * 🔍			UIMapper Generator	
Extension_Base_Food_TEST		I.	UIMapper Convert Data	
			Copy 1 Mappers to Clipboard	
		-	Search: * ٩	
			Extension_Base_Food_TEST	

Modify both objects as required and test changes. As it is shown, a new district which produces food and science was created.



4.2 Creating objects from scratch

The more complicated way is to create collections and objects from scratch. You have to know the type of the object, its structure, and UI mappers before you are going to create one.

- 1. Go to the "Project" tab in Unity.
- 2. Select the "Databases" folder.
- 3. Press "Open Editor...".
- 4. Search for the object you are going to create.
- 5. Press "Create New DatatableElementCollection".
- 6. Reuse the window to create a UI mapper collection.



DatatableElementCollection Editor		×
DatatableElementCollection Editor Use this tool to create and manage DatatableElementCollections.		
DatatableElementCollection Type(s)	(९UI	 ×
Amplitude.Mercury.Data.Simulation.BuildingVisualAffinityDefinitionCollection Amplitude.Mercury.Data.Simulation.InfrastructureBuiltNarratorDefinitionCollection Amplitude.Mercury.Data.UI.PinsSubsetConfigDefinitionCollection Amplitude.Mercury.UI.UIFx.UIFxDefinitionCollection Amplitude.UI.Tooltips.UITooltipClassDefinitionCollection Amplitude.UI.UIMappersCollection		
Create New DatatableElementCollect	ion	

After the collections appear in the project structure, you can rename them for more efficient navigation.



Collections are just containers for assets, create the definition and UI mapper objects separately:

- 1. Select the collection.
- 2. Right-click in the inspector window of the selected collection.
- 3. Select the necessary object for creation from the "Add" menu.



Repeat for the UI mapper.

AvatarEditorPresetUIMapper AvatarEditorPresetUIMapper AvatarEditorPresetUIMapper AvatarEditorTabUIMapper AvatarEditorTabUIMapper CivicsUIMapper CivicsUIMapper CivicsUIMapper CompetitiveDeedUIMapper
Project Mod Editor A i O Inspector AvatarEditorSettingUIMapper AvatarEditorTabUIMapper CivicsUIMapper CivicsUIMapper CompetitiveDeedUIMapper
+ ▼ Q Ø Ø Ø Ø AvatarEditorTabUIMapper CivicsUIMapper CivicsUIMapper CivicsUIMapper [Amplitude.Framework] CompetitiveDeedUIMapper
Assets V() CivicsUIMapper [Amplitude.Framework] CompetitiveDeedUIMapper
[Amplitude.Framework]
[Amplitude.Mercury] UIMapper Generator ConstructibleSectionUIMapper
AssetBundles UIMapper Convert Data ConstructibleTypeUIMapper
ConstructibleUIMapper
ConstructibleDefinitionTest
ControlBannerUIMapper
Editor
Localization DiplomaticAbilityUIMapper
DiplomaticActionUIMapper
Piper Pigns Cut DiplomaticAgreementCategoryUIMapper
Paste as New Diplomatic Demand Gain Type II Mapper
Copy Name DiplomaticGrievancel IMapper
Packages Rename Diplomatical evaluation appen
Delete DiplomaticMoralinfluence typeOlMapper
Duplicate DiplomaticStateTypeUIMapper

After the new objects are created in the collections, rename them both so their names match from different collections.

Inspector	Inspector	
Constructible Definition Test (Constructible Definition Collection)	UI Mapper Test (UI Mappers Collection)	
Search: * Q	UIMapper Generator	
Test1	UIMapper Convert Data	
	Copy 1 Mappers to Clipboard	
	Search: * 0	

Modify b	ooth ob	jects to ge	et the pre	eferred re	esult and	test them.
----------	---------	-------------	------------	------------	-----------	------------

Test 1 (Exter	Test 1 (Extension District Definition)						
Script		C Extension	DistrictDefinition				
Key							
Hidden							
Is Obsolete							
Definition	Cons	truction	Prerequisites				
▷ DLC Prerequisite							
Constructible							
Category		Food					
Level		0					
Unicity							
Constructible Visual	Affinity	DistrictVisua			Ð,		
District							
Prototype		Extension_Ba	ase_Food			Ð	
▼ Own Descriptor Re	eferences					+	
Effect_Extension	_Base_Foo	d			Ð	X	
Effect_Extension	_Base_Foo	d_Yield			Ð	X	
Effect_Extension_Base_Science						X	
Effect_Extension_Base_Science_Yield						×	
Effect_Extension		Ð) ×				
Effect_Extension		Ð	X				
Effect_Extension_WorkplaceSlot_Science						x	

Test 1 (Constructible U	I Mapper)	랴 :				
Script	ConstructibleUIMapper					
Title	Test Manual Creation Title					
Description	Test Manual Creation Description					
▼Images		1 items 🕂				
≡ Small	Test	• ×				
Color						
Symbol						
Sort Priority	0					
Constructible Traits		Empty 🕂				

As it is shown, a new district which produces food and science was created.

TEST MANUAL OPEATION	
TITLE	CONSTRUCTIONS
Test Manual Creation Description	ІТЕМ 🔛 🥥 🗄
RESOURCE EXPLOITATION	QUEUE 🥥 B
🌿 🍬 🔘 🏟	ALL 😪
EFFECTS	
+1 ¹ Food -10 [™] Stability +3 [™] Science +1 ¹ Food per adjacent ¹ Farmers Quarter On City or Outpost: +1 [®] Farmers Slot +1 [®] Researchers Slot	
COSTS	
& 25 ★ 2	
CONSTRUCTION TIME	
Turns before completion: 2 😷	2 @
Cannot be done without 2 ★ Influence.	

5 Building and Running the Mod

To test changes made in the modding tool you can:

• Use the "Build and Run" button located in the "3. Export" section of the "Mod Editor" tab. The game will run automatically.

Project	Mod Editor			а
1. Cor	figuration	2. Data		3. Export
Build an You can bui test your mo If everything	d Run Id all your data inf od. g is working corre	to one (or multiple) arch ctly, you can publish yo	ive(s), a ur mod.	nd export them in order to
1 The mo	d has been built (11,	/15/2021 16:48:46).		
В	uild	Run		Build and Run

• Use "Build" and "Run" buttons separately located in the "3. Export" section of the "Mod Editor" tab.

Project	Mod Editor			а	
1. Cor	ifiguration	2. Data 3. Export		3. Export	
Build and Run You can build all your data into one (or multiple) archive(s), and export them in order to test your mod. If everything is working correctly, you can publish your mod.					
The mo	d has been built (11	/15/2021 16:48:46).			
B	uild	Run	Bu	uild and Run	

• Build mod within the editor using the "Build" button, launch the game and select the correct mod in the game menu "Extras" -> "Community". You can see the number of applied mods in the bottom right corner.





6 Shipping the Mod

6.1 Shipping the mod within the site

Once the mod is ready, you can share it with others within the mod.io site:

- 1. Create the account on the <u>https://mod.io/</u> site.
- 2. Login into your account and press "Add mod".



3. Fill all the corresponding fields and press "Save mod and next step" at the bottom of the page.

1	2	3	4
Profile	Media	Files	Team
l Add your mod by following the steps abo	ove, which will guide you through the subr	nission process.	
C 1			
Game*	are listed here. Others will require you to follow the instr	ructions provided in their games profile.	
Humankind		,	~
Name*			
Test Mod			
Summary*			

4. Fill the "Media" tab and proceed or skip at the bottom of the page

Manage Test Mod Media			
	2	3	4
Profile	Media	Files	Team
Add Youtube videos, Sketchfab 3D models an	d images to your gallery, to properly	showcase your mod.	
Images			
Upload up to 30 images Smb maximum			
_			
Voutube videos			
https://www.voutube.com/watch?v=DdlZkb	priV4		m
https://www.youtabe.com/watch.v=bub2kh	5,514		
Add another youtube video			
Sketchfab models			
https://sketchfab.com/models/775d6629622	740de8a5ed61a959c7506		

5. Attach the mod, fill the related fields and proceed.

Manage Test	t Mod Files			Ø	Ŵ	Ħ
(<u></u>	- 📀	3	4		
P	rofile	Media	Files	Team		
Upload the latest b go live. Upload file* For compatibility you sho • Mods which span mu • Mods which overwrif • Must be a ZIP file	uild of your mod and manage its relea uld ZIP the base folder of your mod, or if it is a colk ultiple game directories are not supported te files are not supported	ection of files which live in a pre-existing game folder, yo	ated current release, and your mod must h u should ZIP those files:	nave at lea	st one f	ile to
• 5120mb maximum From PC: V	Вибрати файл Файл не вибрано				Up	load
Version We recommend a consist	ent version scheme like MAJOR.MINOR.PATCH					
1.0.0						

6. Add the teammates to moderate the mod.

Manage Test Mod Team			
	🥥	3	4
Profile	Media	Files	Team
When a member accepts an invite, they will jo profile, including managing other members a	in the team with "moderator" access. ccess. Each level of access gives all of	Promote them to an "administrator" to gi the rights of the lower levels, they are:	ve them full control over this mods
• Moderator - can moderate comments ar	nd content attached		
Manager - moderator access, including u	uploading builds and editing settings	except supply and team members	
Administrator - full access, including edition	iting the supply and team		

6.2 Shipping the mod within Unity editor

Once the mod is ready, you can share it with others within the mod editor:

1. Go to "3. Export" of the Mod Editor tab and login into your mod.io account.

Project Mod Editor					а:
1. Configuration		2. Data		3. Export	
Build and Run					Î
You can build all your data i If everything is working corr	into one (or multiple) rectly, you can publi	archive(s), and sh your mod.	export them in	n order to test your mod.	
The mod has been built (11/15/2021 4:48:46 PM)				
Build	F	Run		Build and Run	
Publish Once you're ready, you can	publish your mod.	Please logi view existin	n (or create a n ng mod(s) or up	nod.io account) in order to load this mod.	
		Email Ad	dress	Security Code	
		Email Address		Create New Accou	nit Int
Profile					
Sync Status: New O	pen Website		\rm Fields mar	rked with a * are required	d.
Name* Project1					8
URL					

2. Fill in the necessary fields of the mod profile.

Project Mod Editor		a :
1. Configuration	2. Data	3. Export
Profile		
Sync Status: New Ope	n Website 🔥 🗚 F	Fields marked with a * are required.
Name*		0
Project1		
URL		0
https://humankind.test.r	nod.io/	C
Visibility		
Public		- C
Summary*		216 characters remaning.
Test Mod for Food/Science o	district	C
Description		0
Test Mod for Food/Science of	district	C
Homepage		
		C

3. Press the "Upload to Server" button once fields are completed.

Mod Cha	nges			
Tell us what o	hanges with this upd			
Version	1.0.0		0	Reset
Changelog*				
Metadata				
		Upload to Server		
	Upload to Serve	r ×		
		Do you really want to upload your mod to the server?		
		<u>U</u> pload <u>C</u> ancel		
4.	Once it is upload	led to the server, go and check it on the website.		
	Upload to Serve	r ×		
	\triangleleft	Your mod "Project1" was successfully updated on the server.		
		Open Website		

HUMANKIND	Project1 for Released Nov 16th, 202	Humank	ind 9,999 with 0	(0 today) dov	vnloads				
Search Q	Published by ukoalooo (mod ID: 6494)							
Mods 140									
	Description		⊕ 14 .	56kb &	۶ (î	Ì	þ	Subscribe	© 0
Profile	Test Mod for Food/Science district							Uprated	- <u>^</u> 0 m 0
Edit									
History 1	Mod								
Contact									
Statistics	Releases							TEST MAGE	- 8
	Filename	Size	Version	Added		Ор	tions		
Learn more	T 132815438760228738_6494.zip	14.56kb				0 2	'		
Add Mod									_
© 2021 modio (test env) About - DMCA - Terms - Privacy Test Environment	Comments			ഹ	~	+	Î		
	Share your thoughts							+	minoment
				Preview	Post	comm	ient		este
Modding Tool Possibilities

With the modding tool it is possible to create different in-game objects from scratch to diversify the gameplay. In the following several chapters, it will be shown how to create or modify different game elements including:

- technology;
- constructible district;
- unit;
- culture;
- narrative event;
- civic;
- battles.

7 Adding a new Technology

Technology is an upgrade located on the Tech Tree which players research with Science to unlock Civics, Building, Units, abilities, etc.

In the game technology consists of:

- a name;
- a description, shown in the tooltip;
- an image;
- a cost (defined by the Ear Tier);
- unlocks.



7.1 Setting up the environment

To modify or create a new Technology, the "Technologies" database has to be used:

- 1. Go to "2. Data" of the Mod Editor.
- 2. Select "Import from Archives".
- 3. Select the "Technologies" database.
- 4. Press "Import".



After you will find the exported database "Technologies" in the project structure:



The "Technologies" database consists of 8 Collections:

- "EraDefinition" has objects which define the era's general attributes and in which era the technology is located.
- "EraUIMappers" has objects which define the era's name, description, etc.
- "ResearchCostModifierDefinition" is used for balancing purposes.
- "RpnDefinitionScience" has objects which define the cost of the technology.

- "TechnologyDefinition" contains technology assets itself with main settings (tier, cost, prerequisites, unlocks).
- "TechnologyUIMappers" contains UI mappers for the "TechnologyDefinition" assets.
- "TechnologyUnlockUIMappers" defines the unlocks of Technologies.
- "TimelineDefinition" is unused.

Important! It is not recommended to store unused objects within the mod project structure. Please either not export unused objects, or remove unnecessary objects from collections/collections after the mod is created.

7.2 Creating the new technology

To create the new technology, a new technology definition must be created:

- 1. Select the "TechnologyDefinition" collection in the project structure.
- 2. Add a new element by right-clicking in the Inspector space and selecting "Add-> TechnologyDefinition" or simply duplicate an existing one.



7.3 Setting up the definition

In the "Definition" area select your desired tier, era reference (in which era Technology is located), and whether it's exclusive to an Era (better not check it). **Era Reference** will take your technology to its necessary class.

Script	TechnologyDefinition	
Key	62	
Hidden		
Definition		
Dlc Prerequisite		
Tier	1	
Era Reference	Era2	, ⊕
Is Exclusive To Era		
Priority	0	

7.4 Setting up the cost

In the "Cost" area set up the cost for the new technology:

- 1. In the "Cost Rpn Reference" field search for "tier".
- 2. Select the corresponding "Technology_Era_Tier_Cost", which will automatically define the cost for your technology. The "Cost Rpn Reference" must match era and tier from the "Definition" area (e.g Tier 2 and Era1 = Technology_Era1_Tier2_Cost).

Tier	2	
Era Reference	Era1	• •
Is Exclusive To Era		ĺ
Priority	0	
Cost		
Cost Rpn Reference	Technology_Era1_Tier2_Cost	▼ ⊕
Prereguisites	RpnDefinition (a tier) ×	
	Technology_Era0_Tier1_Cost	
Technology Prerequisite	Technology_Era1_Tier1_Cost	
Serializable Technology Names	Technology Fra1 Tier2 Cost	ems 🕂
Linia di Deferences	Technology Fra1 Tier3 Cost	
Onlock References		
Simulation Event Effects	Technology_Era2_Tier1_Cost	tems 🕂
SimulationEventEffect_AddFame	Technology_Era2_Tier2_Cost	

7.5 Setting up the prerequisites

The "Prerequisites" section defines if any Technology must be opened before the current one. It is possible to pick several prerequisite Technologies, so the current Technology will be available once at least one of the prerequisites is unlocked.

- 1. Expand the "Technology Prerequisite".
- 2. Click plus on the "Serializable Technology Names".
- 3. Select prerequisite Technologies (can be from different eras BEFORE the current one).

Prerequisites	
Technology Prerequisite	
Serializable Technology Names	2 ite <mark>2</mark> s 🕇
Technology_Era1_03	▼]@ ×
Technology_Era1_05	▼]@ ×

7.6 Setting up the unlock references

7.6.1 Setting up the unlock reference

To add some unlocks to the eechnology:

- 1. Click plus on the "SimulationEventEffects".
- 2. Pick the preferable effect in "Plugin Editor Types" ("AddFame" for the example).
- 3. Set the "UI Mapper Override" field to name the reward correctly. It will be created in the next step.
- 4. Set the "TargetID" to "Empire (MajorEmpire)".
- 5. Set the amount.

Ur	llock References				
Sin	nulation Event Effects				+
	SimulationEventEffect_AddFame				
	Localization Override				
3	UI Mapper Override	FameGains_Test			
	Hidden				×
	►AI				
	Target ID 4	Empire (MajorEmp	pire)	-	
	Amount	•		2000	

7.6.2 Setting up the unlock reference UI mapper

To add the correct display name the UI mapper has to be created.

- 1. Go to the "TechnologyUnlockUIMappers" collection.
- Add a new element by right-clicking in the Inspector space and selecting "Add"->"UI Mapper" or simply duplicate an existing one.
- 3. Rename the object to the same name from the "UI Mapper Override" field.
- 4. Fill corresponding fields.

Technology Unlock UI Mappers (UI Mappers Collection) 72 :							
UIMapper Generator							
UIMapper Convert Data							
Cop	ру 1 Маррен	rs to Clipboard					
Search: * FameGains FameGains_DeathStarReenactment FameGains_GlobalMessiah FameGains_LeadingFromTheStars FameGains_PsychicPowers FameGains_SuperHeroCameo FameGains_Test FameGains_TheoryOfRelativity Fame Gains_Test (UI Mapped)	er)						
Script	🖸 UIMappe						
Title	Test Fame						
Description	Test Fame						
▼Images			1 items 🕂				
🔳 Small		👹 resourceFame	o ×				
Color Symbol			*				

7.7 Mapping the technology to the Tech Tree

To display the technology on the Tech Tree correctly and assign the correct naming/description/location, the new UI mapper must be created:

- 1. Go to the "TechnologyUIMappers" collection.
- 2. Add a new element by right-clicking in the Inspector space and selecting "Add-> TechnologyUIMapper" or simply duplicate an existing one.



3. Rename the newly created object to the same name the "TechnologyDefinition" object has. Names from 2 collections MUST match.



4. Fill the corresponding fields with pictures, name, description, and the location on the Tech Tree of the technology.

Script	C Techn	ologyUlMapper		
Title	Test Tec	hnology Title		
Description	Test Tec	hnology Description		
▼ Images				+
TechnologyPopupBackground		= Test	\odot	x
E Picto		SciencePicto	\odot	×
TechnologyScreenItemBackgro	und	= Test	\odot	x
Color				ð
Symbol				
Tech Tree X	30			
Tech Tree Y	9			
Optional Unlock Technology Movie				

The X axis goes from left to right, the Y axis goes from top to bottom.

EGA Anci	EPTIANS ent Era	X axis	Ancient	► Next	Empire Progression +3 fb Science per (P- (riter by V) (doorn the following keyword Q)	X
Y axi	A CALENDAR				IRRIGATION 15 @	
[DOMESTICATION 4 CP C ALL CALL	CARPENTRY 4 @				
	DITY DEFENSE			A	BRONZE-WORKING 15 @	0
					2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 1 1 1 1 1 1 1 1 1 1 1 1 1

7.8 Testing

After all steps were done - build and start the mod. Start a new game. Go to the Tech Tree and find the new technology.

Assyreans Ancient Era	Previous 🖪	Ancient	▶ NEXT	Empire Progression +0 & Science per (P Fitter by Science the following keywood	X
wife!	C - C - C - C - C - C - C - C - C - C -	TEST ICON	TEST TECHNOLOGY TI Test Technology Description (90	TLE e ()	
	€ − SALING				

Enjoy the result. The Technology is automatically connected to its prerequisites. Once the technology is unlocked, you receive 2000 Fame.



8 Adding a new Constructible District

District is a city component (also known as Quarters and Extensions) that can be built on the map tile, within the chosen region limits. It produces FIMS, as well as influence, religion, stability, population limit, extracts resources, etc.



In the game District consists of:

- a name;
- a description;
- an image;
- a cost;
- game effect;
- prerequisite requirements.

8.1 Setting up the environment

To modify or create a new constructible district, the related collections have to be used ("Settlement" and "TechnologyDefinition" libraries):

- 1. Go to the "2. Data" tab of the Mod Editor.
- 2. Select "Import from Archives".

3. Select related collections from the "Settlement" database ("ConstructibleCommonExtension" collections) and collection "TechnologyDefinition".

▶ 🗸	♀ ConstructibleCommonExtensionDefinition
\triangleright	😚 ConstructibleCommonExtensionDescriptor
\triangleright	♀ ConstructibleCommonExtensionUIMappers

4. Press "Import".

Mod Editor # Scene	: ☐ Hier; ► ☐ :	Project	🖻 : 🙂 Inspector
1. Configuration 2. Data 3. Export	+ - (~ All		* * % 9
		🔻 🗁 Assets	
Gameplay Data & Visual Mapping Those type of data are the bread and butter of Humankin Gameplay data are sets of linked values which define ev gameplay (simulation layer) uses. Visual mapping (Presentation layer) defines how these a graphical elements. Import from Archives Create New Collection Select Visual Data This section will assist you in adding new visual assets (Model, etc) to the game. Select Resources Folder Localization These tools will assist you in editing and managing trans line of text displayed in the game.	A S Mair Dire	 Lamplitude.FRe Lamplitude.Re Amplitude.Re Configurations Configurations Editor Editor Localization Manifests Plugins Resources AssetBundleC AssetBundleC AssetBundleC Packages 	a Import from mercurydatabases.assetbundle A Assets A Assets A Assets A Assets C Arran Sequence C Advilizations C Advilizations C Advilization C Advilization C Advilization A NarratorSentences S SettlementPresentation S SettlementPresentation S SettlementPresentation S SettlementPresentation
I Your project is in a stable state. CCheck Debu	Ъ		Statistics
Console Clear Collapse Col	Console Clear Stick to Last Total datatableEI Os:36:01.460 N Total datatableEI 12:39:39.298 Ne 12:39:39.305 N Amplitude.Frame 12:39:39.305 N Spent 30582.005 12:39:39.305 N	Message Preference ement in cache (14130 one (0), in method 'bu ement in cache (508), E oad AllAssetBundleFlag one (0), in method 'ge work.Path.FullPath set one (0), in method 'Mo one (0), in method 'Mo	Subtites Grading States Grading States

These items will appear in the "Project" structure, inside the "Databases" folder.



Important! It is not recommended to store unused objects within the mod project structure. Please either not export unused objects, or remove unnecessary objects from collections/collections after the mod is created.

8.2 Creating the district definition

Definition allows setting basic properties of the future constructible district.

- 1. Select the "ConstructibleCommonExtensionDefinition" collection.
- 2. Add a new element by right-clicking in the Inspector space and selecting "Add" -> "ExtensionDistrictDefinition" or simply duplicate an existing one.

Mod Editor 📄 Project		a :	Inspector		
+ -	•	7 🔊 9	Constructible Common Extension Defin	nition (Constructible Defini	
▼ Assets ► [Amplitude.Framework] ► [Amplitude.Mercury]			प() Search: * ि		
AssetBundles			Exploitation		
			Extension_Base_AdministrativeCenter Extension_Base_Airfield Extension_Base_Airport Extension_Base_Extport Extension_Base_Extractor Extension_Base_Extractor Extension_Base_Harbour Extension_Base_Industry Extension_Base_Industry Extension_Base_Industry Extension_Base_Military	Add > Copy 1 Element Cut Paste as New Copy Name Rename Delete 1 Element Dudicata 4 Element	AirUnitDefinition AirportDefinition ArtificialDepositDistrictDefinition ArtificialWonderDefinition ColonialDistrictDefinition ConstructibleActionDefinition EmpireWideConstructionParticipationDefinition EmpireWideConstructionParticipationDefinition
GrostructubleCommonExtensionUbescript GrostructibleCommonExtensionUMappe GrostructibleCostModifierDefinition GrOostructibleEmblematicExtensionDefini GrOostructibleEmblematicExtensionDefini GrOostructibleEmblematicExtensionDefini GrOostructibleEmblematicExtensionUMap GrOostructibleEmblematicExtensionUMap GrOostructibleEmblematicExtensionUMap GrOostructibleEmblematicExtensionUMap	ion ptor pers		Extension_Base_MissileSilo Extension_Base_Money Extension_Base_NaturalReserve	(Extension District Defi	ExtensionDistrictDefinition FakeEmDiematrCCamp HolySiteDefinition LandUnitDefinition MissileUnitDefinition NationalProjectDefinition NationalProject_Leveling
GAssets/Databases/Settlement/ConstructibleComm	onExter	sionDe	Hidden NationalProject_NuclearTest		
		:	ls Obsolete		NationalProject_SpaceLaunch

After the new definition appears in the same inspector window, it's strongly recommended to rename the object.

Extension_Base_Food_TEST						
Extension_Base_Food_TEST (Exten	nsion District Definition)					
Script	R E					
Кеу						
Hidden						
Is Obsolete						
Definition	Construction		Prerequisites	AI		
Constructible						
Resource Access Prerequisites						
Minimal Population Prerequisite	0					

8.3 Setting up the "Definition" tab

On the "Definition" tab the properties of the district can be selected.

8.3.1 Setting up the "Constructible" section

This step will set some basic properties of the district.

Constructible			
Category	Food		
Level	0		
Unicity	Any		
Constructible Visual Affinity	DistrictVisualAffinity_Base_Food	•	€
District			
Prototype	Extension_Prototype_BaseEconomy	•	Ð,

1. Select the type of the resource district will be connected with.

Category		None 👻
Level	Search ×	0
Unicity	None	Any 👻
Constru	Food	None 🔹 🔍
District	Industry	
Prototy	Money	None 👻 🔍
Own De	Science	Empty 🕇
Is Repla	City	✓
Can Be	Military	
Additio	Influence	Empty 🕂
Is Immu	Resource	
Allow Be	Faith	

2. Leave level value at "0". This field is used for infrastructures.

Constructible		
Category	None	
Level	0	
Unicity	Any	
Constructible Visual Affinity	None	

3. Set the "Unicity", it will designate how often the district can be built.

Construct	lible		
Category		Food	
Level		0	
Unicitv			
Construc	Search ×	DistrictVisualAffinity_Base_Food	-] (Ð,
District	Any		
Prototyp	One Per Settlement	None	
Own De	One Per Empire		Empty 🕂
le Popla	One Per World	7	
Can Be I	One Per Territory		

 The "Constructible visual affinity" contains a list of visual appearances of the district. Select the related one to the district.
 Note! This field is not modifiable at the moment.

Constructible		
Category		
	0	
Constructible Visual Affinity	DistrictVisualAffinity_Base_Food	Ð,
District	ConstructibleVisualAffinityDefinition	
Prototype	None	
Own Descriptor References	ActionVisualAffinity_CampRelocationCenter	
Is Replaceable Or Destroyable Can Be Downgraded To Ruin	ActionVisualAffinity_CleanRuin	
	ActionVisualAffinity_Reforestation	
Additional Visual Levels	ActionVisualAffinity_SettlementEvolution	
Is Immune To Bombardment	DistrictVisualAffinity_ArtificialWonder	
Allow Borough Extension	DistrictVisualAffinity Base Airfield	

8.3.2 Setting up the "District" section

This step will help to add specific properties to the constructible district.

Prototype 1	Extension_Prototype_BaseEconomy	▼ (€
Own Descriptor References		1 items 🕂
Effect_Extension_Base_Food_Yi	eld <mark>2</mark>	• • ×
Is Replaceable Or Destroyable Can Be Downgraded To Ruin	3	
Additional Visual Levels	4	1 items 🕂
Output Threshold Per Era		2 items 🕂
		× ×
3		×
Is Immune To Bombardment Allow Borough Extension	5	
Allow Connection With Other Boroug		
Protects Neighbours From Ransack		
Zone Of Control Distance	0	
Friendly Unit On Top Status	None 6	▼ ⊕

1. The "Prototype" defines which existing constructible definition will be used as a reference for the new one.

District			
Prototype	Extension_Prototype_BaseEconomy	•	Ð
Own Descriptor References		7 items	+

2. The "Own Description References" defines constructible district properties in addition to the already defined one from the "Prototype" field (like producing FIMS, giving production slots, stability decrease, etc).

Own Descriptor References		7 items 🕂
Effect_Extension_Base_Science		• 🔍 ×
Effect_Extension_Base_Science_Yie		• 🔍 ×
Effect_Extension_Synergy_Science_	_SynergyScience00	• @ ×
Effect_Extension_WorkplaceSlot_Fo	od	• • ×
Tag_Extension_PublicOrderLoss		• 🔍 ×
Effect_Extension_Base_Food		- Q ×
Effect_Extension_Base_Food_Yield		• @ ×

3. The following properties define if the district can be destroyed/replaced with another or be converted into ruins.

Is Replaceable Or Destroyable	 Image: A start of the start of
Can Be Downgraded To Ruin	✓

4. The "Additional Visual Levels" defines the intensity of the visual effects over the district. Value stands for the quantity of the produced resource per turn.



5. In the section below, additional properties can be added.



6. It is possible to apply special status when a friendly unit is on the constructible district tile.

Zone Of Control Distance	0	
Friendly Unit On Top Status	None	
Extension District		

8.3.3 Setting up the "Extension District" section

This section is mostly used to define specifics for districts that extract resources.

Extension District			
Exploitation Rule Reference		ExploitationRule_Neighbours_Food	• (0)
Extract Resource			
Wondrous Resource Type		Count	•
Unit Spawn Type		None	•
Allow Shipping			
Provides Secondary Road			
Provides Rail			
Force River On Terrain			
Serializable Replace Terrain Wit	th	TerrainType_CityTerrain 🗧 🗧	• •

1. The "Exploitation Rule Reference" is used for exploitation bonus from the tiles around the district.



2. For the extractor buildings like mines or stables, the "Extract Resource" option should be checked.



3. If the building produces a wondrous type of resource, it should be chosen exactly which one. Please refer to the end of the guide for the names of the resources.

Wondrous Resource Type	Resource13 🔹

4. The "Unit Spawn Type" sets the unit type, if the building is supposed to produce one.

Unit S	pawn Type	None	-
Allo\ (۹ Search 🛛 🗙		
Prc v	None		
Prc v	Land		
Forc	Maritime		
Sera	Air	l errain i ype_City i errain	્ય
Ass	Missile		

5. In this section additional options can be selected.

Extension District		
Exploitation Rule Reference	ExploitationRule_Neighbours_Food	
Extract Resource		
Wondrous Resource Type	Resource13	T
Unit Spawn Type	None	T
Allow Shipping		
Provides Secondary Road		
Provides Rail		
Force River On Terrain		

6. If the district is supposed to change the tile terrain type, it may be indicated in the "Serializable Replace Terrain With".

ExploitationRule_Neighbours_Food	Ð
Resource13	•
None	•
TerrainType_CityTerrain 🔹	€
	ExploitationRule_Neighbours_Food Resource13 None TerrainType_CityTerrain

8.4 Setting up the "Construction" tab

If the previous "Definition" tab was all about what a constructible district does, then the "Construction" allows setting the material requirements for its creation and the cost.

Definition	Construction	Prerequi	sites	AI
Constructible				
Can Be Bought Out	✓			
Can Be Canceled	~			
Start When Queued				
Can Be Bought Out With Popula	ation 🗸			
Production Cost				
Туре	Prod	ction		
Constant				
Rpn Definition Reference	Prod	ctionCost_Extension_Base	Medium	▼](€,)
Money Instant Cost				
Constant	0			
Rpn Definition Reference	- None			
Influence Instant Cost				
Constant	0			
Rpn Definition Reference	None			
Population Instant Cost				
Constant	4 0			

1. There are some options that could be chosen to manage the construction process. To speed it up or cancel, for example.

Definition	Construction	Prerequisites	A
Constructible			
Can Be Bought Out			
Can Be Canceled			
Start When Queued			
Can Be Bought Out V	/ith Populat		

2. In the "Production Cost" section, the exact resource and its quantity for construction may be set. Or there is an option to choose one of the default patterns via the "RPN Definition Reference" item.

Production Cost	
Туре	Production -
Constant	-1
Rpn Definition Reference	ProductionCost_Extension_Base_Medium

3. Same for the "Money Instant Cost" and "Influence Instant Cost", just without the resource choice.

Money Instant Cost		
Constant	0	
Rpn Definition Reference	None	
Influence Instant Cost		
Constant	0	
Rpn Definition Reference	None	

4. The "Population Instant Cost" works the same way as the previous 2 fields.

Population Instant Cost	
Constant	0

8.5 Setting up the "Prerequisites" tab

8.5.1 Setting up the "Constructible" section

This section is responsible for defining general prerequisites for a constructible district to be created.

Constructible			^
Resource Access Prerequisites			1 items 🕂
Resource01 - D	eposit Count 🗾 0	_ L	×
Minimal Population Prerequisite	0	2	
Resource Supremacy Prerequisite			1 items 🕂
Resource01			- X
Era Prerequisite			
Equal			– (4
Faction Prerequisite			
Operator			•
Faction Names			Empty 🕂
Settlement Status Prerequisite			
Camp Constraint	Not Available		•]
City Constraint	Not Available		-
Religion Affinity Prerequisite			
None			▼€
Settlement Property Prerequisites			1 items 🕂
Property Threshold	0	8	
Property Name			×
Operator	Less		•
Settlement Stability Prerequisite			
Operator	Any		-
Public Order Effects			Empty 🕂
District Count Prerequisites			1 items 🕂
District Definition			▼ ⊕ ×
Desired Count	0		
Action Type Prerequisite			
Operator	None		• •

1. If a building needs access to a resource, it should be pointed here.



- The minimum needed population quantity can be pointed in this setting item.
 Minimal Population Prerequisite
- 3. The "Resource Supremacy Prerequisites" means that building will be available for construction only if the player's empire produces the biggest quantity of a certain resource among other empires.

Resource Supremacy Prerequisite	
Resource01	•]

4. The "Era Prerequisites" allows to designate in which era(s) building can be constructed.



5. If a building is meant to be created only by a certain civilization, then this has to be chosen in the "Faction Prerequisites" item. It is used for emblematic buildings.

Faction Prerequisite		
Operator	Anv	
▼ Faction Names		1 items 🕇
None		
FactionDefinition		
None		
City Civilization_Era0_DefaultTrib	e	

6. The "Settlement Status Prerequisite" defines where a constructible district can be built (city or outpost).

Settlement Status Prerequisite		
Camp Constraint	Not Available	
City Constraint	Not Available	

7. If a building is meant to belong to a certain religion, it can be specified in the "Religion Affinity Prerequisite".

Religion Affinity Prerequisite	
None	
ReligionAffinityDefinition	1 items 🕇
None	
ReligionName01	
ReligionName02	
ReligionName03	

8. If a building needs a certain amount of a settlement's property type, the "Settlement Property Prerequisites" should be filled.

Settlement Property Prerequisites		+
Property Threshold		
Property Name	District	
Operator	Greater Or Equals 🔹	

9. The "Settlement Stability Prerequisites" defines the stability level required for the construction.

Settlement	Stability Prerequisite		
Operator		Any	
▼ Public 0	Order Effects		+
📃 None			
▼ Disti Publ	icOrderEffectDefinition	◄ Search ×	+
Dis No	ne		
Pu Asset	blicOrderEffect_Happy		 ×
Pu	blicOrderEffect_Neutral		
Pu	blicOrderEffect Unhappy		

10. The "District Count Prerequisites" specifies a certain amount of the required districts for the construction.



11. The "Action Type Prerequisites" is recommended to leave as "None".

Action Type Prerequisite		
Operator	None	

8.5.2 Setting up the "District/Own Tile" section

This section will help to set certain requirements for a terrain on which a constructible district can be built.

Own Tile		Neighbouring Tiles	Borough
Over A District Prerequisite			
Tag Operator			
Valid If No District			
Hide In Ul			Empty 📕
Serializable Tags			Empty T
Point Of Interest Prerequisite			
Constraint		None	
Hide In UI			
Serializable Point Of Interes	t Names		Empty T
Constraint		No Constraint	
Hide In UI			
Constraint		Forbidden	
Hide In UI Can Build On Wasteland			
Serializable Terrain Type	Names		3 items ∔
	_		
Biome Prerequisite			
None		▼ None	
Cliff Prerequisite			
Constraint		No Constraint	
		Forbiddon	
Hide In UI			
Tile Visibility Prerequisite			
Constraint		True	
Visibility		Explored	

1. The following example works for a vast majority of constructibles.

Neighbouring Tiles	Borough
All	
~	
✓	
	1 items 🕂
	Neighbouring Tiles All ✓

2. In case a building needs to be placed on a certain resource deposit, it can be designated in the "Point of Interest Prerequisite" section.



3. The "River Prerequisite" defines whether the river is needed or not for the construction.

River Prerequisite		
Constraint	Has To Be Not Present	
Hide In UI		

4. The "Terrain Prerequisite" allows defining on which type of terrain a constructible district may or may not be built.

Terrain Prerequisite		
Constraint	Forbidden	
Hide In UI		
Can Build On Wasteland		
Serializable Terrain Type Names		4 items 🕂
TerrainType_Ocean		- ⊕ ×
TerrainType_CoastalWater		• @ ×
TerrainType_Lake		• @ ×
TerrainType_CityTerrain		▼ ⊕ ×

5. If a building should belong to a special climate zone, then it has to be specified in the "Biome Prerequisites".

Biome Prerequisite		1
Has To Be Present	▼ Biome_Desert	• •

6. The "Cliff Prerequisite" and the "Mountain Prerequisite" define whether a building may be built in these zones or not.

Cliff Prerequisite		
Constraint	No Constraint 🔹	
Hide In UI		
Mountain Prerequisite		
Constraint	Forbidden 👻	
Hide In UI		

7. If land has to be explored for the construction, it may be specified in the "Visibility Prerequisite" section.

Tile Visibility Prerequisite		
Constraint	True 🗸	
Visibility	Explored 👻	

8.5.3 Setting up the "District/Neighbouring Tiles"

 Own Tile
 Neighbouring Tiles
 Borough

 Neighbour Tiles Prerequisite
 Any Tile
 Image: Same Region

 Territory Constraint
 Same Region
 Image: Same Region

 Ignore Cliff
 Image: Same Region
 Image: Same Region

 Terrain Prerequisite
 Image: Same Region
 Image: Same Region

 Constraint
 None
 Image: Same Region

 Hide In UI
 Image: Same Region
 Image: Same Region

 Serializable Terrain Type Names
 Image: Same Region
 Image: Same Region

 River Prerequisite
 Image: Same Region
 Image: Same Region

 Constraint
 Image: Same Region
 Image: Same Region

 District Prerequisite
 Image: Same Region
 Image: Same Region

 Tag Operator
 All
 Image: Same Region
 Image: Same Region

 Valid If No District
 All
 Image: Same Region
 Image: Same Region

 Serializable Tags
 Image: Same Region
 Image: Same Region
 Image: Same Region

Conditions of the neighbour tiles for a constructible district may be set in this tab.

1. Basic conditions may be set in the "Neighbour Tiles Prerequisite".

-	_	_
Neighbour Tiles Prerequisite		
Neighbour Operator	Any Tile	
Territory Constraint	Same Region	
Ignore Cliff	✓	

2. The "Terrain Prerequisite" defines which type of terrain the neighbour tile is supposed to have.

Terrain Prerequisite		
Constraint	None	
Hide In UI		
Can Build On Wasteland		
Serializable Terrain Type Names		Empty 🕂

3. The "River Prerequisite" defines whether a river is needed next to the building tile or not.

I	River Prerequisite	
I	Constraint	No Constraint 🔹
I	Hide In UI	

4. The following example works for a vast majority of constructibles.

District Prerequisite		
Tag Operator		
Valid If No District		
Hide In UI		
Serializable Tags		Empty 🕂

8.5.4 Setting up the "District/Borough"

If a building is supposed to be built on borough land, then it must be specified in a certain tab.

District		
Own Tile	Neighbouring Tiles	
Borough Prerequisite		
Extension Rules	Build In Extendable Borough	

8.6 Setting up the UI and GeoLocalization

To display the newly created district in the game correctly, a new object in the "ConstructibleCommonExtensionUIMappers" collection has to be created.

- 1. Select the "ConstructibleCommonExtensionUIMappers" collection.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add" -> "ConstructibleUIMapper" or simply duplicate an existing one.



3. Rename the new UI object to the same name the district definition object has. Names from 2 collections MUST match

Inspector	: O Inspector
$\mathbf{Q}_{\mathbf{Q}}^{\mathbf{C}}$ Constructible Common Extension Definition (Constructible ‡	Constructible Common Extension UI Mappers (UI Mappers Collection) 🖈
Search: * 🔍	UIMapper Generator
Exploitation	UIMapper Convert Data
Extension_Base_AdministrativeCenter Extension_Base_Airfield	Copy 1 Mappers to Clipboard
Extension_Base_Airport Extension_Base_CityCenter Extension_Base_Extractor Extension_Base_Food_TEST Extension_Base_Food_TEST Extension_Base_Food_TEST (Extension District Definition) ? Scrint ExtensionDistrictDefinition (2)	Search: * _ A Extension_Base_CityCenter Extension_Base_Extractor Extension_Base_Food_TEST Extension_Base_Food_TEST Extension_Base_Harbour Extension_Base_Industry Extension_Base_Industry Extension_Base_Industry
Key 1 Hidden	Extension_Base_Food_TEST (UI Mapper)
Is Obsolete	Script 🛛 🖸 UIMapper
Definition Construction Prerequisites Al	Title
Constructible	Description

4. Fill the related fields for the object.

Extension_Base_Food_TEST (C	Constructible UI Mapper)	Ţ.	::
Script	ConstructibleUIMapper		
Title	Test District		
Description	Give Food and Science		
▼ Images			+
Small	<mark></mark>]Test	\odot	×
Color			8
Symbol			
Sort Priority	5001		
Constructible Traits			+

8.7 Adding the constructible district into the Tech Tree

In order to unlock the building in the game within a Tech Tree, it has to be added into one of the existing technologies. Be sure that the era of the technology corresponds with the building's era prerequisites.

- 1. Go to "Technologies" -> "Technology Definition" inside the "Project" panel.
- 2. Add an item in the "Simulation Event Effects".
- 3. Choose the "SimulationEventEffect_UnlockConstructible".

			_	_
Mod Editor Project = Hierarchy 2 :	Inspector Inspector			a :
+• • Ø9				হ ^
▼ 🗁 Assets ▶ 🖿 [Amplitude.Framework]	Prerequisites			
AccetRupdiec				
 ► Configurations ▼ Databases 	Unlock References			
🕨 🖿 EffectMapper				
Settlement	8 SimulationEventEffect_UnlockConstructible			
► StrechnologyDefinition				
Editor				
Localization				
Manifests				
C Resources		Empire (MajorEmpire)		
▶ In Runtime				
Patkayes	Extension_Base_Food_TEST		* @ ×	
	Circulation Fundat Fife at Union (Construction)			

4. Find the newly added item, click on the "Constructible References" field and choose the "DatatableElementReference".

Extension_Base_Food_TEST (Constru	ictible UI Mapper)	7	
Script	ConstructibleUIMapper		
Title	Test District		
Description	Give Food and Science		
▼ Images			+
Small	lcon	0	×
Color			d.
Symbol			
Sort Priority	5001		
Constructible Traits			+

5. Add an item in the "Constructible References" then select the constructible district created earlier from the drop-down menu.

Simulation Event Effects		+
SimulationEventEffect_UnlockConstructible		
Localization Override		
UI Mapper Override		
Hidden		
⊨ ► AI		
Target ID	Empire (MajorEmpire)	
Constructible References	1 items 🕇	•
Extension_Base_Food_TEST	▼_@]×	

8.8 Testing

After all steps were done - click "Build and Run". Start a new game and go to the needed era.

Open "Technologies" and find the modified one. The constructible district will be shown in the technology card. Point a cursor on it and a name given in the modding tool will appear.



Research this technology and fulfill other prerequisites set for this building. It will become available for construction. Build it and check if the properties correspond with the ones in the modding tool.



If everything is okay, then the constructible district was successfully created.

9 Adding a new Unit

Units - are moveable entities on the map that can perform certain functions (move around the global map, visit points of interest, and fight enemy units).



There are three types of units in the game:

- Air.
- Naval.
- Land.

Each unit has a set of parameters that affect its movement speed, effectiveness in battle, and the presence of unique abilities:

- combat power;
- move points;
- attack range;
- veterancy;
- class and specialty;
- upkeep;
- name, description, and image;
- cost.

9.1 Setting up the environment

To modify or create a new Unit, the "Unit" database has to be exported:

- 1. Go to "2. Data" of the Mod Editor.
- 2. Select "Import from Archives".
- 3. Select "Unit".

4. Press "Import".



Important! It is not recommended to store unused objects within the mod project structure. Please either not export unused objects, or remove unnecessary objects from collections/collections after the mod is created.

9.2 Creating the new unit

In order to create a new unit, a new unit definition object has to be created.

- 1. Decide which type of a unit is going to be created or modified and select the corresponding collection (in our case the collection is "LandUnitDefinition").
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> LandUnitDefinition" or simply duplicate an existing one.

' Hierarchy ■ Project Mod Editor A :	Inspector		
+ • • • • • • • • • • • • • • • • • • •	Land Unit Definition (Constructible Definitio		
 ☞ AirUnitbefinition ☞ AirUnitbecinitor ☞ AirUnitbecinitor ☞ AiruyStripDefinitionCollection ☞ BattleAbityDefinition ☞ BattleActionDescriptor ☞ BattleActionSUMappers ☞ BattleConfigurationDefinition ☞ LandUnitDefinition ☞ LandUnitDefinition 	LandUnit_Era0_Common_Bears 2 LandUnit_Era0_Common_Deers 2 LandUnit_Era0_Common_Mammoths LandUnit_Era0_Common_Tribesmen LandUnit_Era1_Assyria_AssyrianRaiders LandUnit_Era1_Babyion_RoyalGuardsmen LandUnit_Era1_Common_Archers LandUnit_Era1_Common_BatteringRams	Add > Copy 1 Element Cut Paste as New Copy Name Rename Delete 1 Element Durvicato 1 Element	AirUnitDefinition AirportDefinition ArtificialDepositDistrictDefinition ArtificialWonderDefinition ColonialDistrictDefinition ConstructibleActionDefinition EmpirieWideConstructionParticipationDefinition EmpirieWideDistrictDefinition
 Image: Second Se	V() Z		ExtensionDistrictDefinition FakeEmblematicCamp HolvSiteDefinition
Gravatomceminan G	Hidden Is Obsolete Definition	Construction	LandUntDefinition MissileUnitDefinition NationalProjectDefinition
 G RaiseArmyUIMappers G SettlerUnitDefinition M UnitAbility 	▶ DLC Prerequisite		NationalProject_Levening NationalProject_NuclearTest NationalProject_Spaced auroch

After the new definition appears in the same inspector window, it's strongly recommended to rename the object. The newly created unit has a similar structure as a constructible district described in a separate chapter.

LandUnit_Era1_Test01			▼
Land Unit_Era 1_Test C)1 (Land Unit Definition)		≠ :
Script	🕻 LandUnitDe		\odot
Кеу			
Hidden			
Is Obsolete			
Definition	Construction	Prerequisites	AI
DLC Prerequisite			
Constructible			
Category	None		•
Serializable Family	None		▼ (€
Lovel	0		

9.3 Setting up the "Definition" tab

On the "Definition" tab the properties of the unit can be selected.

9.3.1 Setting up the "Constructible" section

The "Constructible" section defines some basic hidden properties of the unit.

Constructible		
Category	Military	•
Serializable Family	UnitFamily_test	▼ (€
Level	3 3	
Unicity	Any	•
Constructible Visual Affinity	5 None	▼ €

	ine eategery er the	
Constructible		
Category		Military
Serializable Family	Search ×	None 🔍 🔍
Level	None	0
Unicity	Food	Any 👻
Constructible Visual Affi	Industry	None 👻 🔍
Unit	Money	
Unit Class	Science	None 🔹 🔍
Unit Specialty	City	None 👻 🔍
Own Descriptor Refere	Military	Empty 🕇
Base Movement Speed	Influence	1.8

1. Set the category of the unit to "Military" (must be used for units).

2. Set the "Serializable Family" to the preferable one. This field defines how the unit will be upgraded in the modern era and not visible to the player. Please refer to the "UnitFamilyDefinition" collection for the upgrades hierarchy.

Category	Military	
Serializable Family	UnitFamily_test	▼ (Q)
Loval	2	

The "UnitFamily_test" example was duplicated from the existing one (unit will be upgraded to mechanized infantry on later game stages).

Unit Family_test (Unit Family Definition)		‡:
Script	UnitFamilyDefinition	
Is Obsolete		
Serializable Next Family Name	UnitFamily_MechanizedInfantry	• 🔍

If you don't want it to upgrade the unit to anything, set the value to "None".

3. Leave level value at "0".



4. Set the "Unicity" defining how many new units can be built per game. If it's set to "Any", it can be built an infinite amount of times.

Unicity		Any 👻
Constructible Visual Affi	Search X	None 👻 🔍
Unit	Any	
Unit Class	One Per Settlement	None 👻 😌
Unit Specialty	One Per Empire	None 🔻 🔍
Own Descriptor Referei	One Per World	Empty 🕇
Base Movement Speed	One Per Territory	1.8

5. Set the "Constructible visual affinity" to "None". This field contains a list of visual appearances of the object and is used for districts.

Constructible Visual Affinity None - 🔍

9.3.2 Setting up the "Unit" section

The "Unit" section defines some basic properties of the unit visible to the player.

1. Select the "Unit Class" of the unit. The class defines which gameplay capabilities a unit has and is displayed to the player.

Unit	None	
Unit Class	UnitClass_AircraftCarrier	Æ
Unit Specialty	UnitClass_Animal	Ð
Own Descriptor References	UnitClass_AntiCavalry	ıs 🕇
Effect_Unit_Era1	UnitClass_ArmouredVehicle	रू ×

All the classes are stored in the "UnitClass" collection. The class consists of:

- Prototype inherits definition from another class. Example of the prototype inheritance: "UnitClass_Cavalry" -> "UnitClass_Prototype_Mounted" -> "UnitClass Prototype LandUnit" -> "UnitClass Prototype Unit".
- Definition gives new abilities to the class in addition to the inherited one from "Prototype" section.

UnitClass_Cavalry				•
Unit Class_Cavalry (Unit Class)				
	🖸 UnitClass			
Prototype				
Prototype	UnitClass_Prototype_Mounted		9	2
Definition				
Own Ability References				÷
UnitAbility_CannotTargetSeafaring			Ð	
UnitAbility_NoMovementPenaltiesFromZonesOf	Control	-	Ð	
UnitAbility_Prototype_Cavalry			Ð	
Auto Resolve Battle Strength Bonus				

If the new class is required, the UI mapper must be created as well. The class abilities are stored in the "UnitAbility" collection.

UnitAbility_Prototype_Cavalry				-
Unit Ability_Prototype_Cavalry (Unit Abilit				
	DuitAbility			
Tags as Ability				
Tag As Ability				
Pathfind				
Movement Ability				
Pathfinding Flags				
Simulation				
▼ Descriptor References				
Effect_UnitPrototype_Cavalry			Ð	
Effect_Unit_RansackStrength2		-	Ð	
Battle				
▼ Battle Ability Reference				
BattleAbility_MoneyFromAnimals				
BattleAbility_AdvancedTerrain		-	Ð,	

2. Select the "Unit Specialty" which defines some extra characteristics and abilities of the unit.

	Chilispecially (disearch	
Unit	UnitSpecialty_LostAtSeaNever	•
Unit Class	UnitSpecialty_MeleeNoRetaliation_Level1	Ð
Unit Specialty	UnitSpecialty_Militia	I Q
Own Descriptor References	UnitSpecialty_MoneyFromCombat_Level1	ıs 🕇
= Effect_Unit_Era1	UnitSpecialty_MoneyFromCuriosity_Level1	2 × .

Class and specialty in the game:

UNIT STATS ② 40 🖒 4 🕀 4 森 0 UPKEEP	ARQUEBUSIERS X
0 35 Class	- Gunner Move or Attack
Gunner: Ranged-combat Unit. Fights at full 2 Combat Strength even when defending against close-combat attacks.	 ∂ 40 ♣ 0 ● -35 Supplied ○ 40 ♣ 0 ● -35 Supplied
Move or Attack: Unit can move or attack during its turn, but not both.	Specialty

3. Assign the "Own Descriptor References" to the unit. It is used to provide the unit with some in-game data like upkeep, strength, spoil of wars, etc. Each unit has its own descriptor and some common one.

Unit Specialty	UnitSpecialty_ChargePushBack_Level1	▼ (€)
Own Descriptor References		4 items 🕂
Effect_Unit_Era1		• • ×
Effect_Unit_Era1_Tier1		- Q ×
Effect_LandUnit_Era1_Test01		• Q ×
Effect_Unit_RansackStrength3		• @ ×
Deve Married On and		

The "Effect_Unit_Era1" adds spoils of war and can be found in the "UnitDescriptor" collection.

The "Effect_Unit_Era1_Tier1" adds some upkeep and can be found in the "UnitDescriptor" collection.

The "Effect_LandUnit_Era1_Test01" adds strength, leadership, range attack, etc to the unit. Existing unit descriptors are stored in the "Land/Naval/AirUnitDescriptor" collections.

The "Effect_Unit_RansackStrength3" gives additional strength for ransack and can be found in the "UnitDescriptor" collection.

- 4. The "Base Movement Speed" is defined by default and must not be edited.
- 5. The "Visual Affinity Era Reference" defines to which Era unit belongs in terms of look.

Base Movement Speed	1.8		
Movement Speed Multiplier Per Type		+	
Visual Affinity Era Reference	Era1	Ð	J

9.3.3 Creating a unit descriptor

The "Unit Descriptor" is used to assign combat strength, lead priority or change the combat range, etc in the "Unit Speciality" field. To add a new descriptor:

- 1. Select the corresponding collection (in our case the collection is "LandUnitDescriptor").
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> Descriptor" or simply duplicate an existing one.



After the new descriptor appears in the same inspector window, it's strongly recommended to rename the object.

- 1. Set the "Starting Type" to "Unit".
- 2. Add as many "Property Effects" as needed.

Effect_LandUnit_Era1_Test01			•
Effect_Land Unit_Era 1_Test 01 (D	Descriptor)	7	
Script	C Descriptor		
Starting Type	Unit		
▼ Effects		1 items 🖣	F
▼ Path			
Unit			
Specific Target Type	None		
Validations		Empty 🕂	
Apply Effect On	Source (Unit)	Target (Unit)	
Source: Unit	Target: Unit		
▶ Properties	▶ Properties		
Help (click to expand)		•	
■ Property Effects		3 items 🕂	`
Add	 LandLeaderPriority 	v	
3000		×	
Add notes here			
2 Add	 LandCombatStreng 	ıth 👻	
		×	
Add notes here			
Add	✓ HealthRegen		
100		×	
Add notes here			
Serializable Category			

9.4 Setting up the "Construction" tab

If the previous "Definition" tab was all about what the unit does, then the "Construction" allows to set material requirements for its creation and cost.

Constructible	
Can Be Bought Out	
Can Be Canceled	
Start When Queued	
Can Be Bought Out With Population	
Production Cost	
Туре	Production
Constant	300 0
Rpn Definition Reference	None
Money Instant Cost	
Constant	10
Rpn Definition Reference	None 👻 🔍
Influence Instant Cost	
Constant	10
Rpn Definition Reference	None 🔍 🔍
Population Instant Cost	
Constant	1

- The "Can Be Bought Out" and the "Can Be Bought Out With Population" define whether players can skip the construction and just build a unit instantly using corresponding resources.
- The "Can Be Cancelled" defines if the production can be canceled.
- The "Production Cost" defies the price of the unit. It can be constant (example above) or relative (example below). Constant "-1" means "none" and forces the game to use the "Rpn Definition Reference".

Production Cost			
Туре	Production		•
Constant			
Rpn Definition Reference	ProductionCost_Unit_Era3_Medium	• 🖸	R)

- The "Rpn Definition Reference" defines the relative cost of the unit. Splitted into high, medium, and low costs per each era.
- The "Money/Population Instant Cost" defines how much resources will be consumed before the production start.

9.5 Setting up the "Prerequisites" Tab

On the "Prerequisites" tab the prerequisite requirements of the unit can be selected.

Definition	Construction	Prerequisites	
Constructible			
Resource Access Prerequisites			
Minimal Population Prerequisite	0		
Resource Supremacy Prerequisite			Empty 🕂
Era Prerequisite			
Greater Or Equal	▼][Era1		▼
Faction Prerequisite			
Operator	Any		
Faction Names			Empty 🕇
Settlement Status Prerequisite			
Camp Constraint	Available Buyou	it Influence Only	•
City Constraint	Available		▼]
Religion Affinity Prerequisite			
			▼[@,]
Settlement Property Prerequisites			Empty 🕂
Settlement Stability Prerequisite			
Operator	Any		
Public Order Effects			Empty 🕂
District Count Prerequisites			1 items 🕇
Reference "Extension_ArtificialV	Vonder_Era1_Stonehenge" is missing or invalid!		
District Definition	Extension_Artific	ialWonder_Era1_Stonehenge	▼
Desired Count			
▼ Action Type Prerequisite			
Operator			▼]

1. Set the "Era Prerequisites" as of when the unit appears.

Era Prerequisite		
Greater Or Equal	▼)[Era1	▼] (Q.)
		1

2. Set the "Settlement Status Prerequisites" to validate where the unit can be built (camp or city).

Settlement Status Prerequisite		
Camp Constraint	Available Buyout Influence Only	
City Constraint		

It is also possible to define whether special resources are needed, religion must be presented or any district presented. Please go through the fields to find out more.
9.6 Setting up the "Al" Tab

The "AI" tab defines how bots treat the unit. Select the related "Unit Type" to help AI treat the newly created unit correctly.

Info		
Gain Values	*Null (Gain[])	
CityPlan		
Base Synergy District		
Synergy District Type	*Null (GainWeight])	
Synergy River	0	
Target Synergy District Type	None	
Unit		
Unit Type		
Ground Naval Air Melee	Ranged Cheap Quick Tough Expe	nsive Weak
Map Slap Wall Breaking Stealth	Anti Air Nomad Aircraft Carrier	Missile Carrier
Settler Spy	Missile	Nuclear

9.7 Adding the UI mapper for the unit

In order to rename and display the unit icon correctly, the UI mapper object has to be created.

- 1. Select the corresponding UI collection (in our case the collection is "LandUnitUIMappers").
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> ConstructibleUIMapper" or simply duplicate an existing one.



3. Rename the newly created object to the same one the definition object has. Names from 2 collections MUST match.



4. Fill the corresponding fields with pictures, name, description. The image must be stored in the "Resource" folder of the project.

Land Unit_Era 1_Test 01 (Constructible UI Mapper)		
Script	ConstructibleUIMapper	
Title	Test Unit Title	
Description	Test Unit Description	
▼ Images		3 items 🕇
Default_Small	Units22	
Default_Tooltip	Units26	
Variation1_Small	⊠None (Texture)	
Color		24
Symbol		
Sort Priority	8000	
Constructible Traits		Empty 🕂

9.8 Creating the unit presentation

To display a 3D model of the unit, the new presentation pawn object must be created. Note! It is highly recommended not to mix melee unit models/assets with ranged unit abilities or vice versa.

9.8.1 Setting up the environment

To modify or create a new unit presentation, the "UnitPresentation" database has to be exported:

- 1. Go to "2. Data" of the Mod Editor.
- 2. Select "Import from Archives".
- 3. Select "UnitPresentation".
- 4. Press "Import".



9.8.2 Creating the new unit presentation

The unit presentation defines how the group of units is presented on the map tile.

- 1. Select the corresponding presentation era collection (in our case the collection is "PresentationUnitDefinition_Era1").
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> PresentationUnitDefinition" or simply duplicate an existing one.

🗄 Hierarchy 📄 Project Mod Editor 🔒 🗄	Inspector Inspector
+ ▼ Amplitude.Framework] ► [Amplitude.Mercury]	Presentation Unit Definition_Era 1 (Presentation Unit Definition Collection)
AssetBundles	
 ▶ ■ Configurations ▼ Databases ▶ ■ Unit ▼ DitPresentation ♀ ↑ PresentationCharlotDefinition ▷ ↑ PresentationDiverDefinition ▷ ↑ PresentationMountDefinition 	PresentationLandUnit_Era1_Assyria_AssyrianRaiders PresentationLandUnit_Era1_Babylon_RoyalGuardsmen PresentationLandUnit_Era1_Common_Archers_Default PresentationLandUnit_Era1_Common_BatteringRams_Default PresentationLandUnit_Era1_Common_Chariots_Default PresentationLandUnit_Era1_Common_Levies_Default PresentationLandUnit_Era1_Common_Levies_Default
ResentationPawnDefinition_Era0	PresentationLandUnit_Era1_Common_Scouts_Default
G PresentationPawnDefinition_Era1 R PresentationPawnDefinition_Era2	PresentationLandUnit_Era1_Common_Spearmen_Default Add PresentationUnitDefinition
 ▷ ⑦ PresentationPawnDefinition_Era3 ▷ ⑦ PresentationPawnDefinition_Era4 ▷ ⑦ PresentationPawnDefinition_Era5 ▷ ⑦ PresentationPawnDefinition_Era6 ▷ ⑦ PresentationServantDefinition ▷ ⑦ PresentationUnitDefinition_Era1 ▷ ⑦ PresentationUnitDefinition_Era2 ▷ ⑦ PresentationUnitDefinition_Era3 ▷ ⑦ PresentationUnitDefinition_Era3 	PresentationLandUnit_Era1_EgyptianKingdom_ChariotArch Copy 1 Element PresentationLandUnit_Era1_HarappanCivilization_Runners Cut PresentationLandUnit_Era1_HittieEmpire_NobleChariots Cut PresentationLandUnit_Era1_HittieEmpire_NobleChariots Cut PresentationLandUnit_Era1_HittieEmpire_NobleChariots Copy Name PresentationLandUnit_Era1_Nubia.Ntchers Copy Name PresentationLandUnit_Era1_OlmecCivilization_JavelinThrc Rename PresentationLandUnit_Era1_OlmecCivilization_Birmes_Default Delete 1 Element PresentationNavalUnit_Era1_Phoenicia_WarGalleys Duplicate 1 Element
 ♀ ♀ PresentationUnitDefinition_Era4 ▷ ♀ PresentationUnitDefinition_Era5 ▷ ♀ PresentationUnitDefinition_Era6 ▷ ♀ UnitVisualAffinityCivilizationDefinition 	Presentation Land Unit_Era 1_Common_Spearmen_Default (Presentation Unit Definition)

3. Set the correct "Unit Definition Reference" to the newly created unit. It is possible to modify other fields but they won't be described in this guide.

PresentationLandUnit_Era1_TestUnit01		-
Presentation Land Unit_Era 1_Test Unit 01 (Presenta	ition Unit Definition)	
	PresentationUnitDefinition	
Unit Definition Reference	LandUnit_Era1_Test01	r Œ
Reference "Formation_Close_5" is missing or invalid!		
Presentation Formation Definition	Formation_Close_5	• •
Formation Behaviour Definition		• •
Choreography Override	Melee	•
Facing Angle Offset	•0	
Min Distance Between Formation Dummies	0	
Restriction Per Slot		pty 🕇
Unit Specification	Soldier	•

9.9 Creating the new unit pawn presentation

The unit pawn presentation defines how the single unit looks like.

- 1. Select the corresponding pawn presentation era collection (in our case the collection is "PresentationPawnDefinition_Era1").
- 2. Add a new element by right-clicking in the inspector space and duplicating an existing one. **Note!** It is highly recommended to work only with the existing objects and duplicate them.

'≡ Hie	rarchy	🖿 Project	Mod Editor	a :	Inspector	1 Inspector	
+•			•	\$	🔿 Present	tation Pawn Definition_Era 1 (Presentation Pawn De	fi
	Assets [Amplitud [Amplitud AssetBur Configura Database	de.Framework de.Mercury] ndles ations es	;]	Î	Search: * Era1_Assyria_ Era1_Assyria_ Era1_Assyria_	_ _Common_Scouts_01 _Common_ScoutsCavalry_01 _Common_Spearmen_01	
÷	 Unit UnitPro Grip Press Grip P	esentation sentationChar sentationDrive sentationMou sentationPaw sentationPaw sentationPaw sentationPaw	iotDefinition erDefinition ntDefinition nDefinition_Fra nDefinition_Fra nDefinition_Fra nDefinition_Fra	a0 a1 a2 a3	Era1_Assyria_ Era1_Babylon Era1_Babylon Era1_Babylon Era1_Babylon Era1_Babylon Era1_As	_Common_Warriors_01 Add > _Common_Archers_01 Copy 1 Element _Common_BatteringRam Cut Paste as New _Common_Scouts 01 Copy Name Rename _Ssyria_Common_Spear Delete 1 Element	De
	► \$\frac{1}{10}\$ Pres ► \$\frac{1}{10}\$ Pres	sentationPaw sentationPaw	nDefinition_Era	a4 a5	Open in Editor Script		

After the new object appears in the same inspector window, it's strongly recommended to rename it.

3. Set the "Presentation Unit Definition" field to the previously created presentation object. Leave other fields with no changes.

Era1_Assyria_Common_TestUnit01				
Era 1_Assyria_Common_Test Unit 01 (Presentation Pawr	n Definition)			
Open in Editor				
Script	PresentationPawnDefinition			
Override Outfit Audio Handle	ଜ୍ୱOutfit.Clothes (Audio Switch Handle)			
Weapon Audio Handle	None (Audio Switch Handle)			
Character Palette	Preview Empire Colors Could not load palette definitions		Reset	
RLUDS Restriction				
Description	Human_Male_0	x ->	Swap	
Animator Override Controller	Human_With_Long_Weapon_And_Shield	x ->	Change	
▶ Attachements		items Synchronise	Clear	
Unit Visual Affinity Reference	UnitVisualAffinity_Era1_Assyria		• •	
Presentation Unit Definition	PresentationLandUnit_Era1_TestUnit01		• 🔍	
Slot Restriction	None			
Projectile	<none></none>			
Second Projectile	<none></none>			

9.10 Testing

After all steps were done - click "Build and Run" to check results. Start a new game and reach the era in which the newly created unit appears (depends on prerequisites).



Test unit appeared in the city and it has exactly the same prerequisites and cost as we put (production is decreased due to game speed).

10 Adding a new Culture

Culture defines which bonuses the player receives through eras. Players are able to combine multiple cultures by adopting a new culture or transcending a previous culture each Era to form their civilization.



The culture choice affects the following parameters:

- 1. The appearance of units and buildings.
- 2. Emblematic Units and Quarters unique to each culture and only available within a specific era.
- 3. Culture Affinities gives the gameplay orientation with special effects and bonuses.
- 4. Legacy Trait unique powerful effects and bonus for that culture till the end of the game.

10.1 Setting up the environment

To modify or create a new culture, the "Civilization" database collections have to be exported:

- 1. Go to "2. Data" of the Mod Editor.
- 2. Select "Import from Archives".
- 3. Select the related collections under the "Civilizations" folder.
- 4. Press "Import".



Important! It is not recommended to store unused objects within the mod project structure. Please either not export unused objects, or remove unnecessary objects from collections/collections after the mod is created.

10.2 Creating the new culture

In order to create a new culture, a new "FactionDefinition" object has to be created.

- 1. Select the "CivilizationDefinition" collection in the project structure.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> FactionDefinition" or simply duplicate an existing one.



After the new definition appears in the same inspector window, it's strongly recommended to rename the object.

10.3 Setting up the "Definition" tab

On the "Definition" tab the properties of the culture can be selected. Fulfill the fields according to needs. Some explanations on the fields are below:

- The "Era Reference" defines in which era the culture is available.
- The "Faction Type" must be "Major" to be playable.
- The "Is Exclusive" defines if only 1 player can select the culture per game.
- The "Is Hidden" technical field to hide the culture in the game.
- The "Is Upgradable" defines if other cultures can be selected after this is picked.
- The "Gameplay Orientation" defines an orientation bonus for the culture.

Civilization_Era 1_Test 01 (Faction Definition)			
Script	FactionDefinition		
Key	0		
Hidden			
Definition	Presentation	MinorFaction	
DLC Prerequisite			
Era Reference	Era1	▼	
Faction Type	Major	•	
Is Exclusive	~		
Is Hidden			
Is Upgradable			
Gameplay Orientation	Scientist	•	

• The "Legacy Trait References" gives the legacy trait for the culture. Objects are stored in the "LegacyTrait" collection.

• The "Trait References" gives additional legacy traits for the culture. Objects are stored in the "CivilizationTrait" collection.

Gameplay Orientation	Warmonger		•
Legacy Trait References			+
LegacyTrait_Era1_HittiteEmpire	•	Ð	×
▼ Trait References			+
CivilizationTrait_Era1_HittiteEmpire	•	Ð	×

- The "Faction Affinity Reference" should be the same as the "Faction Type" and is used for visual culture reference.
- Localized fields are used for special namings on different objects inside the culture. **Note!** At least 1 name must be presented in each localized field.

Faction Affinity Reference	Scientist 👻	Ð
Localized Settlement Names		+
Test City 1) × [
Localized Army Names		+
📃 Test Army		x
Localized Squadron Names		+
Test Squadron		x
Localized Militia Names		+
■ Milita1) ×
Localized Siege Engine Names		+
Siege1		×

10.4 Setting up the "Presentation" tab

On the "Presentation" tab the visual properties of the culture can be defined. Fulfill the fields according to needs and refer to the existing cultures for the example.

Definition		Presentation	MinorFactio	on	
Building Visual Affinities					+
$\equiv rac{Era Index}{Building Visual Affinity Reference}$	erence	0 BuildingVisualAffinity_NoV	/isualAffinity	• •	x
$\equiv rac{Era Index}{Building Visual Affinity Reference}$	erence	1 BuildingVisualAffinity_Era1	I_ZhouChina	• •	×
$\equiv rac{Era \ Index}{Building}$ Visual Affinity Refe	erence	2 BuildingVisualAffinity_Era1	I_ZhouChina	• •	x
$\equiv rac{Era \ Index}{Building}$ Visual Affinity Ref	erence	3 BuildingVisualAffinity_Con	nmon_Asian	• •	x
$\equiv rac{Era\ Index}{Building\ Visual\ Affinity\ Ref}$	erence	4 BuildingVisualAffinity_Con	nmon_Asian	• •	×
≡ Era Index Building Visual Affinity Ref	erence	5 BuildingVisualAffinity_Con	nmon_Asian	• •	×
≡ Era Index Building Visual Affinity Ref	erence	6 BuildingVisualAffinity_Con	nmon_Eastern	• •	×
Unit Visual Affinities					+
Faction Constructible Visual Va	riation	Variation5			•
Reference "AvatarCostume#	\ffinity_Har	rappanCivilization" is missing o	r invalid!		
Avatar Costume Visual Affinity		AvatarCostumeAffinity_Ha	rappanCivilization	•][Ð,
Skin Color References					+
AvatarColor_Skin_11				• 🔍	x
Hair Color References					+
AvatarColor_Haircut_Blond	102			• •	x
Landmark Name Affinity Ref	erences				+
LandmarkNameAffinity_Pla	aceholdeı	rs		• •	x

- The "Building Visual Affinities" is used for visual reference of the culture buildings through eras.
- The "Unit Visual Affinities" is used for visual reference of the culture units through eras.
- The "Faction Constructible Visual Variation" is used for small visual details.
- The "Avatar Costume Visual Affinity" is used for avatar costume reference.

10.5 Adding a UI mapper for civilization

In order to rename and display the culture correctly, the UI mapper object has to be created:

- 1. Select the "CivilizationUIMappers" collection.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> FactionUIMapper" or simply duplicate an existing one.

Project Mod Editor 🛛 🔒 🗄	Inspector Inspector	AvatarEditorSettingUIMapper
+• ٩ 🐝 🕫 🕬 9	Civilization UI Mappers (UI Mappers Collection)	AvatarEditorTabUIMapper
🔻 🚘 Assets	₩	CivicsUIMapper
[Amplitude.Framework]	IllMannar Concreter	CompetitiveDeedUIMapper
[Amplitude.Mercury]		ConstructibleSectionUIMapper
Configurations	UIMapper Convert Data	ConstructibleTypeUIMapper
V Databases		ConstructibleUIMapper
🔻 🗁 Civilizations	Search: * Q	ControlBannerContentIdUIMapper
Grant CivilizationDefinition	Obdite the East Observed and	ControlBannerUIMapper
► G CivilizationTrait	Civilization_Era1_DimecCivilization	CulturalProximityUIMapper
Civilization Frait/Uescriptor Civilization Trait/IIMappers	Civilization_Era1_Test01	DiplomaticAbilityUIMapper
	Civilization_Era1_ZhouChina Z Add >	DiplomaticActionUIMapper
► G LegacyTrait	Civilization_Era2_AksumiteEmpire Copy 1 Element	DiplomaticAgreementCategoryUIMapper
🕨 🎧 Legacy TraitDescriptor	Civilization_Era2_AncientGreece Cut	DiplomaticDemandGainTypeUIMapper
Go LegacyTraitUIMappers	Civilization_Era2_Cartnage	DiplomaticGrievanceUIMapper
Editor	Civilization_Era 1_Test 01 (Fa	DiplomaticMoralInfluenceTypeUIMapper
Manifests	Rename	DiplomaticStateTypeUIMapper
▶ Dugins	Delete 1 Element	DiplomaticTreatyTypeUIMapper
🗅 Resources	Script 2 Duplicate 1 Element	EndGameConditionUIMapper
▶ ► Runtime	Title	EndGameStatisticTypeUIMapper
AssetBundleContentDescriptor	Description	EraUIMapper
P ackages	▼Images 2	FactionUIMapper
	Small	FameReputationUIMapper
		G2GRequestUIMapper

3. Rename the newly created object to the same one the definition object has. Names from 2 collections MUST match.



4. Fill the corresponding fields with pictures, name, description. The images must be stored in the "Resource" folder of the project.

Civilization_Era1_Test01				•
Civilization_Era 1_Test 01 (Faction UI Ma	apper)			
	G FactionUIN	Mapper		\odot
Title	Test Culture			
Description	Test Descrip	tion		
▼ Images				+
Small		⊠None (Texture)	0	×
Medium		UI_Civilization_Era1_Assyria_LeaderPortrait		×
Earge		UI_Civilization_Era1_BabyIon_FactionCard		×
Picto		UI_Civilization_Era1_EgyptianKingdom_Logo	•	×
Tooltip		UI_Civilization_Era1_HarappanCivilization_Tooltip	0	×
Eandscape	5	UI_Civilization_Era1_MycenaeanCivilization_Landsca		×
FactionCard		UI_Civilization_Era1_HittiteEmpire_FactionCard		×
AvatarBackground	<	Missing>	0	×
EraTimeline	<	<missing></missing>	•	×
Color				8
Symbol	[Civilization_	_Era1_Assyria]		
Leader Title				
Leader Description				
Quote	Test Quote			
Adjective	Test Adjectiv	ve		
UI Constructible Culture	Culture_Era1_	_Mesopotamian		
Asset Labels				
				۲

10.6 Creating the new legacy trait

Legacy trait is used to give bonuses or unlock emblematic units within a specific culture. In order to create a new legacy trait, a new "FactionTrait" object has to be created.

- 1. Select the "LegacyTrait" collection in the project structure.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> FactionTrait" or simply duplicate an existing one.



After the new definition appears in the same inspector window, it's strongly recommended to rename the object.

LegacyTrait_Era1_Test01			•
Legacy Trait_Era 1_Test 01 (Faction Trait	t)	72	::
	FactionTrait		Θ
Hidden			
Is Prehistoric			
Simulation Event Effects			+
Commands			+
Capabilities	None		•

10.7 Creating the new legacy trait descriptor

In order to give a bonus effect to a district, city or unit within a legacy trait a new "Descriptor" object has to be created.

- 1. Select the "LegacyTraitDescriptor" collection in the project structure.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> Descriptor" or simply duplicate an existing one.



After the new definition appears in the same inspector window, it's strongly recommended to rename the object.

Effect_LegacyTrait_Era1_Test01			•
Effect_Legacy Trait_Era 1_Test 0	01 (Descriptor)	‡	:
Script	C Descriptor		
! Starting Type is required!			
Starting Type	None		
Effects			+
Serializable Category			

10.8 Setting up the legacy trait descriptor

To give some effect to the descriptor.

- 1. Set the "Starting Type" to "MajorEmpire".
- 2. Add necessary effects.

Note! The targeted object of the descriptor depends on the "Path" under the "Effect" section. Pick the preferable one or refer to existing traits for examples.

E	ffect_LegacyTrait_Era1_Test01					-
6	<pre>Effect_Legacy Trait_Era 1_Test 01 </pre>	l (Descripto	·)			1:
Scr	ipt	🖪 Descripto	or			
Sta	rting Type	MajorEmpir	e 1			•
▼ E	ffects				2 iten <mark>2</mark>	+
	▼ Path					
	MajorEmpire.Settlements				+ - x	
	Specific Target Type	None			•	
	Validations				Empty 🕂	
	Apply Effect On	Source	(MajorEmpire)	Target (Settle	ement)	Ĩ
	Source: MajorEmpire	1	arget: Settlement			_ x
	Properties		Properties			
	Help (click to expand)				•	·
					1 items 🚽	-
	Add	•	ScienceWorkplace	GainPerPopulation	•	
	2				×	3
	Add notes here					

10.9 Setting up the legacy trait

To give the legacy trait some effects, the corresponding descriptor has to be assigned and other fields to be completed.

- 1. Select the previously created legacy trait object.
- 2. Add the "SimulationEventEffects_ApplyDescriptor".
- 3. Set the descriptor reference.
- 4. Set the "Capabilities" field.

L	.egacyTrait_Era1_Test01			•
б	Legacy Trait_Era 1_Test 01	(Faction Trait)		± :
Sc	ript	FactionTrait		\odot
Hic	lden			
ls i	Prehistoric			
Sir	nulation Event Effects		1 ite <mark>n</mark> 2	+
	SimulationEventEffect_ApplyDes	criptor 2		
	Localization Override			
	UI Mapper Override			
	Hidden			×
	►AI			
Ι.	Target ID	Empire (MajorEmpire)	•	
3	Descriptor	Effect_LegacyTrait_Era1_Test01	• 🔍	
Co	mmands			+
Са	pabilities	Better Trade		•

10.10 Adding a UI mapper for the Legacy Trait

In order to rename and display the legacy trait correctly, the UI mapper object has to be created.

- 1. Select the "LegacyTraitUIMappet" collection.
- 2. Add a new element by right-clicking in the inspector space and duplicating an existing one.



3. Rename the newly created object to the same one the definition object has. Names from 2 collections MUST match.



4. Fill the corresponding fields with pictures, name, description. The image must be stored in the "Resource" folder of the project.

10.11 Testing

After all steps were done - click "Build and Run" to check intermediate results. Start a new game and reach the era in which a newly created civilization appears (depends on prerequisites).





As it is shown, the new culture was added to the game. However, the fields "Emblematic Extension" and "Emblematic Unit" look wrong, because unit and district were not assigned to the newly created culture.

10.12 Adding an emblematic district

Adding the emblematic district to the culture works the same way as adding the constructible district from the previous chapter, but the important step is to set the "Faction Names" in the district prerequisites.

1. Create the necessary constructible district with definition, descriptor and UI mapper (in the example the Zhou ED will be duplicated).



2. Select the constructible definition object, go to the "Prerequisites" tab and add the new culture under "Faction Names".

Inspector				≙ :
Extension_Era1_ZhouC	hina_Test			~ ^
Extension_Era 1	_Zhou China	a_Test (Exte	nsion District Definition)	코 :
Script		C Extension	DistrictDefinition	
Кеу		81		
Hidden				
Is Obsolete				
Definition	Const	ruction	Prerequisites	AI
Constructible				
Resource Access Prere	quisites			Empty 🕂
Minimal Population Prere	equisite	0		
Resource Supremacy P	rerequisite			Empty 🕂
Era Prerequisite				
Equal		▼ None)	◄ ④
Faction Prerequisite				•
Operator		Any		-
Faction Names				1 items 🕂
Civilization_Era1_T	est01			▼ @ ×

10.13 Adding an emblematic unit

Adding the emblematic unit to the culture works the same way as adding the unit from the previous chapter, but the important step is to set the "Faction Names" in the district prerequisites.

1. Create the necessary unit with definition, descriptor and UI mapper (in the example the Egyptian chariot archers EU will be duplicated).

0 Inspector	≙ :	1 Inspector	≙ :
Cand Unit Definition (Constructible Definition Collection)	23	Land Unit UI Mappers (UI Mappers Collection)	21
Search: * a		UIMapper Generator	
LandUnit_Era1_EgyptianKingdom_ChariotArchers_Test		UIMapper Convert Data	
		Copy 1 Mappers to Clipboard	
		Search: 1	
		LandUnit_Era1_EgyptianKingdom_ChariotArchers_Test	

2. Select the unit definition, go to the "Prerequisites" tab and add the new culture under "Faction Names".

Inspector Land Unit Definit	ion (Construct	טיייווינים שפוחונומ	on Collection)			_ ⊢:
Search: *						
LandUnit_Era1_Egyptiar	hKingdom_Chari	otArchers_Te	st			
Land Unit_Era 1_	Egyptian Kingo	lom_Chariot	Archers_Test(Land Unit Def	inition) =	t :
Script		🖸 LandUnitD	efinition			
Кеу		43				
Hidden						
Is Obsolete						
Definition	Constru	uction	Prerequ	isites	AI	
Constructible						
► Resource Access Prere	equisites					+
Minimal Population Prerec	quisite	0				
Resource Supremacy Pre	erequisite					+
Era Prerequisite						
Greater Or Equal		▼ None	;		• (Ð,
Faction Prerequisite						
Operator		Any In Factio	ns History			•
Faction Names					1 items	+
Civilization_Era1_Te	st01				▼ . €	×
Settlement Status Prerec	quisite					

Note! Make sure the presentation pawn and unit definitions are created for the new unit.

Presentation Land Unit_Era 1_Egyptian	Kingdom_Chariot Archers_Test (Presentation Unit Definition)	72 :
Script	Dresentation InitDefinition	
Unit Definition Reference	LandUnit_Era1_EgyptianKingdom_ChariotArchers_Test	Ð
Presentation Formation Definition	Formation_1	Æ
Formation Behaviour Definition	None 🔻	Ð,
Choreography Override	None	-
Facing Angle Offset	• 0	
Min Distance Between Formation Dummies	0	
Postriction Dor Slot	Emp	
Open in Editor	.01_Test (Presentation Pawn Definition)	7:
Script	PresentationPawnDefinition	
Override Outfit Audio Handle	ଦ୍ୱାOutfit.Clothes (Audio Switch Handle)	
Weapon Audio Handle	None (Audio Switch Handle)	
Character Palette	Preview Empire Colors Could not load palette definitions	Reset
RLUDS Restriction	Right, Left, Up, Down, Stab, Set, Animal Restriction, Cavalry Restriction	on, A v
Description	Human_Male_0 x ->	Swap
Animator Override Controller	Human_On_Charriots_With_Bow x ->	Chang
► Attachements	37 items Synchronise	Clear
Unit Visual Affinity Reference	UnitVisualAffinity_Era1_EgyptianKingdom) Đ
Presentation Unit Definition	PresentationLandUnit_Era1_EgyptianKingdom_ChariotArchers_Test 🔹	Ð

3. Go to civilization legacy trait and add a new simulation event that will unlock the unit.

L	egacyTrait_Era1_Test01			
L	.eqacyTrait_Era1_Upgrade			•
6	Legacy Trait_Era 1_Test 01 (Faction	n Trait)	ᅷ	
	ipt	FactionTrait		
Hid	den			
ls F	Prehistoric			
Sin	nulation Event Effects		tems	+
	SimulationEventEffect_UnlockConstruction	ble		
	Localization Override			
	UI Mapper Override			
	Hidden			
	► AI			×
	Target ID	Empire (MajorEmpire)	•	
	Constructible References		s 🕇	
	LandUnit_Era1_EgyptianKingdom_Ch	ariotArchers_Test 👻 🗨	ξ×	

10.14 Testing

After all steps were done - click "Build and Run" to check intermediate results. Start a new game and reach the era in which a newly created civilization appears (depends on prerequisites).



Existing emblematic unit and district were added to the culture.

11 Adding a new Narrative Event

Narrative events happen during the game and give short narrative stories with up to 3 decisions that affect the gameplay. Event choices may modify ideological axis, give buffs/debuffs to the Empire, spawn units, unlock civics or reduce technology cost.

Event consist of:

- name;
- narrative story;
- choices with some effects (including ideological axis changes);
- image;
- prerequisites;
- triggers for other events.



11.1 Setting up the environment

To modify or create a new event, the "Narrative" database has to be used:

- 1. Go to "2. Data" of the Mod Editor.
- 2. Select "Import from Archives".
- 3. Select the "Narrative" database.
- 4. Press "Import".



Important! It is not recommended to store unused objects within the mod project structure. Please either not export unused objects, or remove unnecessary objects from collections/collections after the mod is created.

11.2 Create a new narrative event

To create a new narrative event into the game, the event definition object has to be created:

- 1. Select the "NarrativeEventDefinition" collection in the project structure.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> NarrativeEventDefinition" or simply duplicate an existing one.



After the new definition appears in the same inspector window, it's strongly recommended to rename the object.

NarrativeEventDefinition_Test		
Narrative Event Definition_Test (Narrative Event Definition)		
Script Is Obsolete DIc Prerequisite	NarrativeEventDefinition	
Definition		
Is Work In Progress		
Do not forget to select a category.		
Category	None	

11.3 Setting up the "Definition" section

The "Definition" section allows to select the era in which the event occurs and the event's category (related to triggering process and priority).

- 1. Set the event category.
- 2. Add as many eras as required into the "Era Definitions" list (defines in which eras event occurs).

Is Obsolete DIc Prerequisite		
Definition		
Is Work In Progress		
Category	NarrativeEventCategory_Neolithic	▼ (⊕)
Era Definitions		1 ite🚮s 🕇
Era1		▼ (Q) ×
Era2		- ⊕ ×

11.4 Event category

All event categories are stored in the "NarrativeEventCategoryDefinition" collection. It defines the priority of the event's triggers, dead zones for triggering and some other technical stuff.



Each category has the following fields:

- The "Priority of the category" the highest priority will be triggered upon all other categories.
- The "Global" defines if narrative events occur for Al.
- The "Narrative Event Definition Distribution" defines sorting for events upon 1 category.
- The "Need Manual Trigger" is used for linking categories to manual events like building national projects.
- The "Maximum Number Of Concurrent Instances" defines how many events from a category can happen at one turn.
- The "Consume Event Upon Trigger" blocks events from happening again.
- The "Trigger Distribution Range" defines the chance of the event happening within a specific range.
- The "Number of Turns In Dead Zone..." number of turns before the event happens after another event triggering and era changes.

NarrativeEventCategory_Neolithic		
NarrativeEventCategory_Rare		
NarrativeEventCategory_StateShare		
Narrative Event Category_Neolith	nic (Narrative Event Category Definition)	같 :
Script	NarrativeEventCategoryDefinition	
Is Obsolete		
Definition		
Priority	2	
Global		
Narrative Event Definition Distribution	Sort Randomly	•
Trigger		
Need Manual Trigger		
Maximum Number Of Concurrent Instances	1	
Consume Event Upon Trigger	 	
Distributes the chance to trigger an event Set to 0 to disable the distribution.	t within the specified range, expressed in number of turns.	
Trigger Distribution Range	3	
Number Of Turns In Dead Zone After Era Ch	1	
Number Of Turns In Dead Zone After Trigger	3	
No UI		
Picto	⊠None (Texture)	\odot
No Restriction On Timing		

11.5 Setting up the "Trigger" section

The "Trigger" section defines on which conditions the event occurs.

- 1. Set some trigger options as required:
- The "Consume Event Upon Trigger" blocks events from happening again. Same as from category. Please note that if the event with higher priority (higher category) occurred when this function is on, the event won't appear again.
- The "Prevent Event Removal" defines if the event can be repeated.
- The "Is Narrative Consequence" is used for events that appear as a consequence of another event. If this option is selected, the following "Prerequisites" and "Variables" fields can be empty.

Trigger	
Consume Event Upon Trigger	 Image: A set of the set of the
Prevent Event Removal	
Is Narrative Consequence	

 Select the preferable "Simulation Event". It defines when the event occurs (after which action/on which occasion). The simplest way to work with the field is to set the "SimulationEvent_TurnBegin" and make checks within the "Prerequisites" and "Variables" fields (the vast majority of the existing events are built this way).

Simulation Event	SimulationEvent_TurnBegin
Prerequisites	(۹) Search ×
Variables	SimulationEvent_NewWordContinentDiscovered
111	SimulationEvent_NuclearUnitCreated
	SimulationEvent_PopulationChanged
Image Title	SimulationEvent_PrehistoricTraitChosen
Description	SimulationEvent_RepeatableCompleted
	SimulationEvent_SettlementSiegeStarted
Localization Parameters	SimulationEvent_SettlementSiegeSucceeded
GeoLocalization	SimulationEvent_SurrenderSigning
Geo Localization ID	SimulationEvent_TechnologyCompleted
Notes	SimulationEvent_TerritoryAttached
	SimulationEvent_TerritoryOwnerChanged
	SimulationEvent_TerritoryPollutionIncreased
	SimulationEvent_TrainlineConnected
Choices	SimulationEvent_TurnBegin

3. The "Prerequisites" checks the condition on which a simulation event occurs. It is possible to have several prerequisites for 1 event. Different prerequisites have different structures, refer to existing events for more examples. Let's check if the empire 3 more cities within has or eras 1 or 2 using "SimulationEventPrerequesite_Empire_Property".

Prerequisites		1 items 🕂
SimulationEver	٩	
Failure Flags	▶ Plugin Types	1
Entity ID	Plugin Editor Types	
Comparison Or	Amplitude.Mercury.Data.Simulation	
Variables	SimulationEventPrerequisite_Army_BelongToEmpire	
variables	SimulationEventPrerequisite_Army_InEmpiresTerritories	
UI	SimulationEventPrerequisite_Empire_CivicDependency	
Image	SimulationEventPrerequisite_Empire_CivicStatuses	
Title	SimulationEventPrerequisite_Empire_DiplomaticState	
Description	SimulationEventPrerequisite_Empire_EraStars	
Localization Parar	SimulationEventPrerequisite_Empire_FactionDefinition	
GeoLocalizati	SimulationEventPrerequisite_Empire_Property	
Geo Localization I	SimulationEventPrerequisite_Empire_ReligionInfluence	
Notes	SimulationEventPrerequisite_Empire_ResourceExtraction	
1	SimulationEventPrerequisite_Empire_Self	
	SimulationEventPrerequisite_Empire_Technology	
0	SimulationEventPrerequisite_Empire_To_Empire_BaseLineRank	-

4. Fill the related fields of the selected prerequisites. The "Entity ID" has to be "Empire (MajorEmpire)" to interact with the player's one. Our prerequisite will be checking whether the player's empire has more than 3 cities within 2 eras.

Prerequisites		1 items	+
SimulationEventPrerequisite_Empire_Prope	erty		
Failure Flags	None	▼	
Entity ID	Empire (MajorEmpire)		X
Property Name	CityCount	•	
Comparison Operation	Greater Than Or Equal To 🔹 3		

- 5. The "Variables" checks properties of assets for "GeoLocalization", check statuses and properties of objects referred to in "Prerequisites", used for localization. Add the variable "NarrativeEventVariable_Empire_Cities" to make the event appear in the capital.
- 6. Name the variable.
- 7. Set the preferable prerequisites for the variable. The current example checks whether the city belongs to a major empire with the "SimulationEventPrerequesite_Settlement_BelongToEmpire" and checks if the city has a capital flag with the "SimulationEventPrerequesite_Entity_Descriptor".

Note! The best way to learn about all possible variables is to check the existing events.

Va	riables				5	+	
	Narrat	iveEventVariable_Empire_Cities					
6	Name		MyCapital				
	Collec	tion Selector	All				
	Has C	ount Condition					
	Eleme	ent Prerequisites			+		
		SimulationEventPrerequisite_Sett	lement_BelongToEmpire				
7		Failure Flags	None				
1		Entity ID	Iterator (Settlement)		×		
_		Empire ID	Empire (MajorEmpire)			~	
		Inverted					
		SimulationEventPrerequisite_Entit	y_Descriptor				
		Failure Flags	None				
		Entity ID	Iterator (Settlement)		×		
		▼ Must Have One Of Descriptors		s +			
		GameEffect_CityFlags_Capital	• • •	×			

11.6 Setting up the "UI" section

Fill the corresponding fields with image, title and description of the event. Remember to locate the image in the "Resources" folder.

UI		
Image	Events5	\odot
Title	Test Event Title	
Description	Some text inside the event	

11.7 Setting up the "GeoLocalization" section

It defines where the event will occur. In the example it is assigned to the variable "MyCapital" from the previous step.

GeoLocalization		
Geo Localization ID	MyCapital (Settlement)	•

11.8 Setting up the "Choices" section

Choices allow the player to select the preferable effect from the narrative event to solve the dilemma of the event. Currently, up to 3 choices can be displayed simultaneously. To configure choices:

- 1. Add 2 empty choices to the event with a plus button.
- 2. Fill in the title and the description of the choice.

- 3. Define the choice either instant (used for civics or unlocks) or not (for city statuses or some lasting bonuses). It is also possible to define the length of the effect from the descriptor directly.
- 4. Add the "Prerequisites" for the choice if needed. This field defines if the specific choice will be shown to the player based on the game condition. Usually, the field is empty, but if the choice is related to civic status or religion, this field can be configured.
- 5. Add the "Narrative Event Effects" as much as required to give rewards, bonuses, assign statuses or hidden tags.
- 6. Fill in the required narrative effect. The dropdown list of the "Simulation Event Effect" is self-explanatory.

										_			
Cł	ioic	es	;										
Ch	oice	s							1	/ 2		•	+
	N ISI	lon	e (Texture)									\odot	
	Title			Test choice 1	2								
	Des	crip	ption	Give me Fame									
	Inst	ant		✓	2								
	Dur	atic	on	1	•								
	Pre	erec	quisites						4		ipty	+	
	Narrative Event Effects								5			+	
		Re	eversible										
			Simulation Event Effect	SimulationEve	ntEffec	:t_	AddFam	е			•		
	•		Localization Override										~
			UI Mapper Override										^
			Hidden									×	
			►AI										
			Target ID	Empire (Majorl	Empire)					-		
			Amount	•						100			

7. Repeat steps 2-6 for the second choice.

Ch	oices		2 items	•	2	/ 2	•	•	+	
	🛛 Non	e (Texture)							\odot	
	Title		Test choice 2							
	Descri	ption	Give me Influence							
	Instant		~							
	Duratio									
	Prerec	quisites						pty	+	
	Narrat	tive Event Effects							+	
7	Re	eversible								
		Simulation Event Effect	SimulationEventEffect_	AddInflu	ence			•		
		Localization Override								
		UI Mapper Override								
		Hidden							×	
		► AI								
		Target ID	Empire (MajorEmpire)					•		
		Amount	•				200			

11.9 Testing

After all steps were done - click "Build and Run" to check intermediate results. Start a new game, go to the needed era and complete the prerequisite.



3 cities were built and as of the next turn the event occurred.



11.10 Adding a lasting effect

To give the effect/bonus which lasts for several turns, the corresponding definition and descriptor should be created and assigned to the choice. Current lasting effects/bonuses are stored in different databases and splitted by objects which receive the effect.

11.10.1 Adding a descriptor

To give the effect/bonus which lasts for several turns, the corresponding descriptor should be created and assigned to the choice. Current lasting effects/bonuses are stored in different collections and splitted by objects which receive the effect.

- 1. To add the descriptor and the collection press in the "Databases" folder in the project structure. It is also possible to create a descriptor in the existing collection, export the necessary one and skip steps 2-3.
- 2. Press "Open Editor...".
- 3. Select the "...DescriptorCollection".
- 4. Press the button to create a new. Rename collection if needed.



- 5. Select the new collection.
- 6. Add a new descriptor to the collection for the effect for choice 1. Rename object if needed.

🖿 Project	Mod Editor	a :	Inspector	• 🔒 Inspe	ctor	
+• ٩	•	₽ 1 29	🚫 Desc	riptor (Desci	riptor Collectio	n)
▼ Assets ► Assets	itude.Framework1		{ } U			
🕨 🖿 [Ampl	itude.Mercury]		Search: *	۹		
🕨 🖿 Asset	Bundles					
🕨 🕨 Config	gurations					
🔹 🔻 🗁 Datab	ases					
Nai	rative tlement					Add a nev
5 😚 Des	scriptor	6	Add	>	Descriptor	
🕨 🖿 Editor		v	Add		Descriptor	_
📃 🕨 🖿 Local	ization		Сору			

- 7. Select the "Starting Type" for the descriptor. It defines where the effect is applied.
- 8. Add the new effect.
- 9. Add the "Property Effects" as needed and complete the related fields. The example descriptor will be giving the food in the city.

Note! It is possible to assign a more specific path for precise effect on objects and set validation for these objects.

Descriptor Effect Test Food (Descriptor)							
Scr	ipt	Descriptor	\odot				
Sta	rting Type	Settlement	•				
▼ E	ffects		1 itens 🕇				
	▼ Path						
	Settlement		+ - x				
	Specific Target Type	None	•				
	Validations		Empty 🕂				
	Apply Effect On	Source (Settlement) Target (Settlement)				
_	Source: Settlement	Target: Settlement	×				
	Properties	Properties					
	Help (click to expand)		v				
	Property Effects		1 items 🕂				
7	Add		•				
	50		×				
	Add notes here						
Ser	ializable Category						
G	> Descriptor Effect Test Produc	tion (Descriptor)		7	:		
--	---------------------------------	-----------------------------------	---------------------	---	---		
Scri	pt	C Descriptor					
Star	rting Type	Settlement			•		
▼ E	ffects				+		
and the second sec	▼ Path						
	Settlement]+ -				
	Specific Target Type	None		•			
	Validations		Empty	+			
	Apply Effect On	Source (Settlement)	Target (Settlement)	D			
_	Source: Settlement	Target: Settleme	nt		×		
	Properties	Properties					
	Help (click to expand)						
	Property Effects			+			
	Add	 ProductionNet 	▼				
	50			×			
	Add notes here						
Seri	alizable Category						

10. Repeat steps 6-9 to add another descriptor for another effect for choice 2.

11.10.2 Adding a status definition

To assign the descriptor effect properly, the status definition (works as placeholder of the descriptor) must be created.

- 1. To add the status definition and the collection press in the "Databases" folder in the project structure. It is also possible to create a status definition in the existing collection, export the necessary one and skip steps 2-3.
- 2. Press "Open Editor..."
- 3. Select the "...StatusDefinitionCollection".
- 4. Press the button to create a new one. Rename collection if needed.

Project Mod Editor 🔒 🗄	Inspector Inspector	
+ - 959	Databases (Default Asset)	
▼ 🗁 Assets	-	
[Amplitude.Framework] [Amplitude.Mercury]		
AssetBundles	Databases	
Configurations Databases		
 EffectMapper M DescriptorMapperStatusColler 	Open Editor 2	
DatatableElementCollection Editor		×
DatatableFlementCollectio	n Editor	
Use this tool to create and manage Datat		
DatatableElementCollection Type(s)		4 Status ×
Amplitude.Mercury.Data.Simulation.Stat	usCategoryCollection	
Amplitude.Mercury.Data.Simulation.Stat	usDefinitionCollection	
4 Create	New DatatableElementColle	ection

- 5. Select the new collection.
- 6. Add a new definition to the collection. Rename object if needed.

🖿 Project	Mod Editor	a :	🖯 Ins	pector	Inspective	ctor		
+ • ٩		9 🕫	Q	Status I	Definition	(Statu	is Definition	Collection
🔻 🖿 Assets			_V{}					
🕨 🕨 [Ampl	itude.Framework	<]						
🕨 🖿 [Ampl	itude.Mercury]		Searc	:h: * 🔍 ۹				
🕨 🖿 Asset	Bundles							
📃 🕨 🖿 Config	gurations							
🔹 🔽 🗁 Datab	ases							
🕨 🖿 Effe	ectMapper							
🕨 🖿 Nar	rative							
🕨 🖿 Set	tlement							
🔄 🕨 🕅 Des	scriptor						Add a new	one by right
🗧 🖓 Sta	tusDefinition		6	A -1 -1	×		Charles District	
📃 🕨 🖿 Editor			<u>ا</u>	Add	,		StatusDefinitio	on
📃 🕨 🖿 Local	ization			Copy				

- 7. Complete all the fields according to the need:
 - The "Category" defines some audio/visual effects.
 - The "Descriptor" assigns the effect to the status. Created in previous steps.
 - The "Cost Modifier" changes the cost of something.
 - The "Starting Type" defines the objects types on which effects will be applied.
 - The "Inhibited By" defines if the status can be canceled by another category.
 - The "Cancel on Apply" defines which category will be canceled if the current status is applied.
 - The "Status duration" defines how long the effect lasts.

Status Definition Test Food (Status Definition)				
Script	StatusDefinition		\odot	
Only Used By Code			_	
Category	StatusCategory_City_Abundance	•	Ð	
Descriptor	DescriptorEffectTestFood	•	Ð	
Cost Modifier	None	•	Ð	
Starting Type	Settlement		•	
Inhibited By			+	
Cancel On Apply			+	
Status duration				
Ignore Game Speed				
Define a default duration?	✓		-	
Forever				
DefaultDuration	15			

8. Repeat steps 6-7 to create another status for the second choice and the second descriptor.

Status Definition Test Production (Status Definition)				
Script	C StatusDefinition			
Only Used By Code				
Category	StatusCategory_City_Overproduction	▼	Ð	
Descriptor	DescriptorEffectTestProduction	•	Ð	
Cost Modifier	None	▼	Ð	
Starting Type	Settlement		•	
Inhibited By			+	
Cancel On Apply			+	
Status duration				
Ignore Game Speed				
Define a default duration?	×			
Forever				
DefaultDuration	15			

Note! Refer to existing statuses and status categories for more information.

11.10.3 Applying a lasting effect to choices

To apply the new choices to the correct objects (all cities in the example) the variable has to be created in the narrative event. The "Collection Selector" stands for the number of affected cities.

Narrati	veEventVariable_Empire_Cities				
Name		AllCities			
Collect	ion Selector	All		▼	
Has Co	ount Condition				
Eleme	nt Prerequisites			+	
	SimulationEventPrerequisite_S	Settlement_BelongToEmpire	•		•
	Failure Flags	None	•		^
	Entity ID	Iterator (Settlement)		×	
	Empire ID	Empire (MajorEmpire)	•		
	Inverted				
Sort Pr	operty Name	None		•	
Empire	ID	Empire (MajorEmpire)		▼	

- 1. Go to choices and add a new "Narrative Event Effect" to choice 1.
- 2. Set the "Simulation Event Effect" to "...ApplyStatus".

- 3. Set the "Target ID" to the newly created variable of cities.
- 4. Set the "Status Definition" to the recently created status.
- 5. Set the "Status duration" to the default one.

Choices			
Choices	2 items 🖪 🕇 🖊 2 🕨	▼ -	┢
⊠ None (Texture)		\odot	
Title	Test choice 1		
Description	Give me Fame		
Instant	✓		
Duration			
Prerequisites		+	
Narrative Event Effects	2 itens	+	
Reversible		×	
Simulation Event Effect	SimulationEventEffect_AddFame 🔹		
Reversible	✓		
2 Simulation Event Effect	SimulationEventEffect_ApplyStatus		
Localization Override			
UI Mapper Override		>	ĸ
Hidden			
⊨_ ►AI		x	
3 Target ID	AllCities (Settlement)		
4 Status Definition	StatusDefinitionTestFood 🗸 🗸		
Initiator Type	None 🔹		
Status duration			
Use status default duration			
Notes			

6. Repeat steps 1-5 for the second choice.

Choices		2 items	•	2	/ 2	•	•	+
⊠None (Texture)							\odot	
Title	Test choice 2							
Description	Give me Influence							
Instant	✓							
Duration								
Prerequisites							+	
Narrative Event Effects							+	
Reversible							x	
■ Simulation Event Effect	SimulationEventEffect_AddInflue	nce				•		
Reversible	~							
Simulation Event Effect	SimulationEventEffect_ApplySta	tus				•		
Localization Override								
UI Mapper Override								x
Hidden								
⊨ ► AI							×	
Target ID	AllCities (Settlement)					•		
Status Definition	StatusDefinitionTestProduction				•	Ð		
Initiator Type	None					•		
Status duration								
Use status default duration	 							

11.11 Testing

After all steps were done - click "Build and Run" to check the result. Start a new game, go to the needed era and complete the same prerequisites (having 3 cities in the example).



3 cities were built and as of the next turn the event occurred.



Effect on different cities:

ASSTRIANS Ancient Era + + + + + + + + + + + + + + + + + + +	F000 58/€ 0/2 ▲ 0 #/4 ▲ 0/8+1 in 1 €	 INDUSTRY 8 / C⁻ 0/2 6 // 100% 100% 	● MONEY 3/ 0 0/2 ▲ 0 ★/▲ 0/ ★ 0 BALANCED	SCIENCE 3/@ 2 6 // POLICY V		139 +8 par @ 512 +9 par @ 512 +9 par @ 512 +9 par @ 512 # 512# 512# 512# 512# 512# 512# 512#
ASSYRIANS Ancient Ers ************************************	FOOD 53 / € 0/2 ★ 6 #/& 0/8+1 in 1 € 0	0/2 6 0/2 ■ 100% > 100%	MONEY 6 3 / 0 6 0/2 d 6 / 4 0/2 d 6 / 4 0/2 d 6 / 4 0/2 0 d BALANCED / 2 0 2	SCIENCE 3/@ solicy		139 + 8 per @ 512 + 9 per @ 6 0 = 0 5/2 NINUWÄ X
ASSYRIANS Ancient Era + + · · · · · · · · · · · · · · · · · ·	 FOOD 60 / € 0/2 ▲ 6 0/8 +1 in 1 € 0 	0/2 0 4 4	● HONEY 3/@ 0/2 ▲ 0 //▲ 0// ★ 0 BALANCED	SCIENCE 3/@ 2. 6 /A POLICY		139 + 8 per @ 512 + 9 per @ 3/2 @ DÛR-ŜARRUKĪN
-			, de	- Mai	CONSTRU	▲ 0/8 〒 15 ○1 〒1 Bountiful CTION QUEUE (1) MAKINAS QUARUTIN ≪ 31 ●

11.12 Adding narrative consequences

There are 2 main ways to connect different events between each other:

- 1. Use the narrative consequence option.
- 2. Make an invisible tag.

11.12.1 Narrative consequence

To connect 1 event to another as a consequence:

1. Create a new event that will be used as a consequence in the existing narrative collection.



 Fill the event as it was done in previous steps according to the preferable result. Make sure the "Is Narrative Consequence" is checked. The example event will give additional speed to units. Once the "Is Narrative Consequence" is checked, the new "Signature" section appears. It can be manually filled with the variables from the initial event.

Inspector Inspector	·		a :	
NarrativeEventDefinition_Test1			Ŧ	•
Narrative Event Definition_T	est 1 (Narrative Event Definition)	1	± :	
Script Is Obsolete DIc Prerequisite	NarrativeEventDefinition			
Definition				
Is Work In Progress				
Category	NarrativeEventCategory_Rare	•	Ð,	
Era Definitions			+	
Era1		▼ (€	×	
Era2		- (A)	×	ļ
Trigger Consume Event Upon Trigger Prevent Event Removal Is Narrative Consequence	 ✓ 			
Signature			+	
Prerequisites			+	
Variables			+	
NarrativeEventVariable_MajorEmp Name Collection Selector Has Count Condition	ire_Capital MyCapital All	•]	
Element Prerequisites		1 items 🕂		
SimulationEventPrerequisi	te_Entity_Descriptor	•		
Failure Flags	None	•	×	
Entity ID	Iterator (Settlement)			
Must Have One Of Descr	riptors	1 items 🕂	`	•

3. Get back to the initial event and add the new narrative event effect "SimulationEventEffect_TriggerNarrativeEvent" to one of the choices. It will trigger the consequence event.

Ch	oices			
Cho	pices	2 items 🖪 1 / 2 🕨	▼	+
	⊠None (Texture)		Ο	
	Title	Test choice 1		
	Description	Give me Fame		
	Instant	✓		
	Duration			
	Prerequisites		+	
	Narrative Event Effects		+	
	Reversible		•	
	Simulation Event Effect	SimulationEventEffect_AddFame -	î	
	Reversible	✓		
	■ Simulation Event Effect	SimulationEventEffect_ApplyStatus	î.	
	Reversible			
	Simulation Event Effect	SimulationEventEffect_TriggerNarrativeEvent -		
	Localization Override			

 Set the event which will be a consequence and complete fields. The "Fallback" is used to trigger another event if the first one cannot be triggered for some reason.
 Note! Field "Delay" won't give the delay in turns to the consequence event. The event always triggers the next turn.

	Re	eversible				
		Simulation Event Effect	SimulationEventEffect_IriggerNarrativeEv	rent		
		UI Mapper Override				
		Hidden				
		▶ AI				
		Chances To Trigger A Cons	•	50		×
		Delay	1			
		Possible Consequences			+	
4		Narrative Event Definit	NarrativeEventDefinition_Test1) (Ð		
		Fallback	None 🗸	· (÷	x	
		Weight	1			
		Stack	*Null (List <simulationeventeffect_trigger< td=""><td>Narı</td><td></td><td></td></simulationeventeffect_trigger<>	Narı		

11.12.2 Testing

After all steps were done - click "Build and Run" to check the results. Start a new game, go to the needed era and complete the same prerequisites (having 3 cities in the example). Pick the choice which has a narrative consequence and finish the turn.



On the next turn the consequence event will be triggered (or not if the chance is not equal to 100).



11.12.3 Narrative consequence tag

This way allows to trigger an event as a consequence with very different prerequisites and much later in the game. The main goal is to assign a hidden descriptor (tag) with a made choice and check it as a prerequisite.

1. Create a new empty descriptor of type "Empire". The existing collection from city statuses can be used.



2. Rename the descriptor and set the "Starting Type" to "Empire". Other fields will be empty.

Descriptor Test Event Choi	ce 01 (Descriptor)	.z :
Script	Descriptor	\odot
Starting Type	Empire	▼]
Effects		Empty 🕂
Serializable Category		

3. Get back to the initial event and add the new narrative event effect "SimulationEventEffect_ApplyDescriptor" to one of the choices. It will trigger the consequence event (the previous consequence effect was removed).

Choices			1	/2 🕨		+
🖾 None (Texture)					\odot	
Title	Test choice 1					
Description	Give me Fame					
Instant	✓					
Duration						
Prerequisites				Empty	+	
Narrative Event Effects				3 itens	+	
Reversible					¥	
Simulation Event Effect	SimulationEventEffect_AddFame			-	<u>ו</u>	
Reversible						
■ Simulation Event Effect	SimulationEventEffect_ApplyStatus			-	Iî.	
Reversible						×
Simulation Event Effect	SimulationEventEffect_ApplyDescripte	or		•		
Localization Override						
UI Mapper Override						
🗮 Hidden	✓				<u>^</u>	
►AI						
Target ID	Empire (MajorEmpire)			•		
Descriptor	DescriptorTestEventChoice01			• (0)		
Notes						

4. Tick the "Hidden" box to hide the reward from the screen, set the "Target ID" to "Empire (MajorEmpire)" and assign the newly created descriptor.

Choices		2 items	₹ 1	/2 🕨	•	+
⊠ None (Texture)					\odot	
Title	Test choice 1					
Description	Give me Fame					
Instant	✓					
Duration						
Prerequisites					+	
Narrative Event Effects					+	
Reversible					¥	
Simulation Event Effect	SimulationEventEffect_AddFame	е		-	<u>ו</u>	
Reversible						
■ Simulation Event Effect	SimulationEventEffect_ApplySta	atus		-) ^ _	
Reversible						×
	SimulationEventEffect_ApplyDe	scriptor		-		•
Localization Override						
Ul Mapper Override						
Hidden					×	
► AI						
Target ID	Empire (MajorEmpire)			-		
4 Descriptor	DescriptorTestEventChoice01			• •		
Notes						

5. Create a new consequence event and fill the event as needed. In the "Prerequisites" the simulation effect "...Entity_Descriptor" must be added with a descriptor from the initial event's choice.

Prerequisites			+
SimulationEventPrerequisite_Empire_F	Property		
Failure Flags	None	•	
Entity ID	Empire (MajorEmpire)	•	×
Property Name	CityCount	•	
Comparison Operation	Greater Than Or Equal To 🔻 4		
SimulationEventPrerequisite_Entity_D	escriptor		
Failure Flags	None	•	
Entity ID	Empire (MajorEmpire)	•	×
■ Must Have One Of Descriptors		ms 🕂	
DescriptorTestEventChoice01	▼][(€ ×	

11.12.4 Testing

After all steps were done - click "Build and Run" to check the results. Start a new game, go to the needed era and complete the prerequisites (having 3 cities). Pick the event which has a narrative consequence and finish the turn.



Once the city amount reaches 4, the new event will be triggered.





12 Adding a new Civic

A civic is an in-game unlock of societal matters on which the player can position the Empire by making a choice between propositions, and thus modifying the Ideological Axis.

HARAPPANS Ancient Era	Ð	Civics		×
70				
	D ⁷ Natural Right	FOUNDING MYTHS	G Divine Mandate	
	We claim inherent dominion over the land and beasts.	by what right do we rule:	Our supremacy is ordained, for we are the chosen ones.	
He	← ↓ Influence on Main Plaza		→ → → → → → → → → → → → → → → → → → →	
(e	NATURAL MONT 20 *	64	DIVINE MANDATE 20 *	
		Influence		Turn 21

In the game civic consists of:

- a name;
- a description;
- an image;
- 2 decisions with ideological changes and gameplay effects;
- a cost;
- prerequisite requirements.

To unlock the Civic some prerequisites must be met and the narrative event triggered.

12.1 Setting up the environment

To modify or create a new civic, the related collections have to be exported:

- 1. Go to "2. Data" of the Mod Editor.
- 2. Select "Import from Archives".
- 3. Select the related civic collections (from "Empire" and "Narrative" databases).
- 4. Press "Import".



The following collections were exported:

- 1. The "CivicsCategoryDefinition" defines the civic's category to which it is related.
- 2. The "CivicsCategoryUIMappers" defines the civic's category name, description, etc.
- 3. The "CivicsChoicesUIMappers" defines the civic's choices names, description, etc.
- 4. The "CivicsConstructibleCostModifierDefinition" defines constructible cost modifier effects assigned to the civic (e.g. "-20% on Attach Outpost cost").
- 5. The "CivicsConstructibleCostModifierDefinitionUIMappers" defines names, descriptions, etc for "CivicsConstructibleCostModifierDefinition" objects.
- 6. The "CivicsDefinition" defines the civic's settings.
- 7. The "CivicsDefinitionUIMappers" defines names, descriptions, locations on the civic screen, etc for the "CivicsDefinition" assets.
- 8. The "CivicsDescriptor" defines the civic's non-constructible effects.
- 9. The "CivicsDescriptorUIMappers" defines names, descriptions, etc for the "CivicsDescriptor" assets.
- 10. The "NarrativeEventCivicsDefinition" defines narrative events to unlock civics.

11. The "NarrativeEventCategoryDefinition" defines the narrative event category.

Important! It is not recommended to store unused objects within the mod project structure. Please either not export unused objects, or remove unnecessary objects from collections/collections after the mod is created.

12.2 Creating the new civic

To create a new civic, a new "CivicDefinition" asset must be created:

- 1. Select "CivicsDefinition" collection in the project structure.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> CivicsDefinition" or simply duplicate an existing one.



12.3 Setting up the civic definition

The "Definition" section defines:

- 1. The category for the new civic.
- 2. The "Is International" allows other civilizations to see the made choice and can lead to a special grievance for the influencing foreign empires.
- 3. The "Is Reversible" allows to reset the Civic during the game.

Civic_Test 01 (Civic Definition)		‡ :
Script		٥
Кеу		
Hidden		
Is Obsolete		
DIc Prerequisite		
Definition		
Category	CivicsCategory_Army	• •
Is International	 Image: A start of the start of	
Is Reversible	\checkmark	
Priority	0	

12.4 Setting up the empty choices

- 1. Add two empty choices to the new civic to select one of them during the game.
- 2. Name both choices in a simple way.

Ch	oices		_	
Cho			2 itens 🕇	F
	Serializable Name 2	Civic_Test01_Choice01		
=	Simulation Event Effects		Empty 🕂 🔒	ĸ
	Notes			
	Serializable Name 2	Civic_Test01_Choice02		
=	Simulation Event Effects		Empty 🕂 🕇	ĸ
	Notes			

12.5 Setting up the civic descriptors

Civic descriptors usually apply non-constructible effects on "MajorEmpire". Each civic definition must contain related descriptors even if the descriptors are empty and have no effect on the game:

- 1. Select the "CivicsDescriptor" collection in the project structure.
- 2. Add 2 new elements by right-clicking in the Inspector space and selecting "Add-> Descriptor" or simply duplicate an existing one.
- 3. Rename both elements in the following manner: "Effect" + CivicDefinition Name "Choice01" (or Choice02).
- 4. Set the "Starting Type" as "MajorEmpire".

Mod Editor Project d	 Inspector Inspector Inspector Inspector 	
+ -	⁹ Civics Descriptor (Descriptor Collection)	
🕨 🖿 [Amplitude.Framework]		
[Amplitude.Mercury]	Search: * ٩	
🕨 🖿 AssetBundles	Effect_Civic_Test01_Choice01	
Configurations	Effect_Civic_Test01_Choice02 🖌 Add	> Descriptor
🔻 🗁 Databases	Effect_Civics_Army01_Choice01 Copy	1 Element
🔻 🗁 Empire	Effect_Civics_Army01_Choice02 Cut	
GivicsCategoryDefinition	Effect_Civics_Army02_Choice01 Paste	as New
Grant CivicsCategoryUIMappers	Effect_Civics_Army02_Choice02	Namo
Since Strain	Effect_Civics_Army03_Choice01	
Structure	Effect_Civics_Army03_Choice02	ne
Structure	C Effect Civic Test 01 Choice 01 (Descrin	e 1 Element
GivicsDefinition		cate 1 Element
CivicsDefinitionUIMappers		
CivicsDescriptor	Carliet	B Descriptor
Q [*] ₀ CivicsDescriptorUIMappers		Descriptor
🔻 🗁 Narrative	Starting Type	4 MajorEmpire
MarrativeEventCategoryDefinition	Effects	
MarrativeEventCivicsDefinition		
🕨 🖿 Editor	Serializable Category	

12.6 Setting up the civic descriptor UI mapper

To display the civic descriptor correctly:

- 1. Select "CivicsDescriptorUIMappers" collection in the project structure.
- 2. Add 2 new elements by right-clicking in the Inspector space duplicating an existing one.
- 3. Give the same name as to "CivicsDescriptor" objects : "Effect" + CivicDefinition Name "Choice01" (or Choice02).
- 4. Fill the necessary fields for both newly created objects.

Mod Editor ■ Project 금 :	Inspector O Inspector O Inspector O Inspector O Inspector Output Descriptor	3 :		
Assets Assets Assets Assets	Civics Descriptor OI mappers (OI mappers Collection)			
► ■ Documents ► ■ Editor	UIMapper Convert Data			
▷ Im Plugins ▷ Im [Amplitude.Mercury]		Copy 1 Mappers to Clipboard		
AssetBundles Configurations	Search: * 9.			
	Effect.Colvic.ges010.choice02 Effect.Colvic.ges010.choice02 Effect.Colvic.ges010.choice02 Effect.Colvic.ges010.choice01 Effect.Colvics.Amy02.choice01 Effect.Colvics.Amy02.choice01 Effect.Colvics.Amy03.choice01 Effect.Colvics.Amy03.choice01 Effect.Colvics.Amy03.choice02 Effect.Colvics.Amy04 Effect.Colvics.Amy05			
GricsDefinitionUIMappers GricsDescriptor GricsDescriptor	Construction of the second sec			
V Narrative	Script	R UIMaoper		
▷ G NarrativeEventCategoryDefinition ▷ G NarrativeEventClvicsDefinition	Title	CivicDesriptor_Test01_Choice01 Title		
Editor	Description	Desriptor Test01 Choice 01		
Elocalization Manifests 4	= Images	recourseledueter		
 ▶ Im Plugins □ Resources ▶ Im Runtime C: AssetRundleContentDescriptor 	Color Symbol			
▶ ► Packages				

12.7 Fulfilling the empty choices

Add the newly created descriptors to each choice:

- 1. Add the "SimulationEventEffects".
- 2. Pick the "SimulationEventEffects_ApplyDescriptor" in the "Plugin Editor Types".
- 3. Set the "TargetID" to "Empire (MajorEmpire)" and select the newly created descriptor for the choice.

Simulation Event Effects		2 iten s +
SimulationEventEffect_ApplyDescriptor 2		
Localization Override		
UI Mapper Override		
Hidden		
Target ID	Empire (MajorEmpire)	
Descriptor	Effect_Civic_Test01_Choice01	▼ Q

Fulfill each choice with some in-game effects:

- 1. Add the "SimulationEventEffects".
- 2. Pick the preferable effect in "Plugin Editor Types" ("ModifyldeologicalAxis" for the example).
- 3. Set the "TargetID" to "Empire (MajorEmpire)", pick Ideological Axis and set the delta.

Sin	nulation Event Effects			s 🕇
	SimulationEventEffect_ModifyIdeologicalAxis 2			
	Localization Override			
	UI Mapper Override			
	Hidden			
				×
	Target ID	Empire (MajorEmpire)		
	Ideological Axis Reference 3	IdeologicalAxis_Economic	▼][€	2
	Delta	8		
Not				

Hint! Ideological Axis References:

EJ?	Society	\times	1 - Carlos and a construction of the construct
IDEOLOG			h h to h h h
Choice Events			
<i>6</i> 22		■	IdeologicalAxis Economic
E. 🗖			IdeologicalAxis_Geopolitic
2		- &	IdeologicalAxis_Order
<u>ê</u> , ==		■ ⁻ Ŏ́-	IdeologicalAxis_Social

Current example view for both choices:

Simulation Event Effects			
SimulationEventEffect_ApplyDescriptor			
UI Mapper Override			
Target ID	Empire (MaiorEmpire)		
Descriptor	Effect Civic Test01 Choice01		→ (Q)
SimulationEventEffect ModifyIdeologicalAxis			
Localization Override			
UI Mapper Override			
Hidden			
Target ID	Empire (MajorEmpire)		
	o		
bena	0		
Test Choice 01			
est Choice 01			
est Choice 01 rializable Name	Civic_Test01_Choice02		
est Choice 01 rializable Name Effects	Civic_Test01_Choice02	AI	
est Choice 01 erializable Name Effects Simulation Event Effects	Civic_Test01_Choice02	Ai	2 items
est Choice 01 rializable Name Effects Simulation Event Effects SimulationEventEffect_ApplyDescriptor	Civic_Test01_Choice02	Al	2 items
est Choice 01 erializable Name Effects Simulation Event Effects SimulationEventEffect_ApplyDescriptor Localization Override	Civic_Test01_Choice02	AI	2 items
rializable Name Effects Simulation Event Effects SimulationEventEffect.ApplyDescriptor Localization Override UI Mapper Override	Civic_Test01_Choice02	AI	2 Items
rializable Name Effects imulation Event Effects SimulationEventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden	Civic_Test01_Choice02	AI	2 items
est Choice 01 erializable Name Effects Simulation Event Effects UI Mapper Override UI Mapper Override Hidden AI	Civic_Test01_Choice02	AI	2 items
rializable Name Fifects Fimulation Event Effects Simulation Event Effects UI Mapper Override Hidden Hidden Target ID	Civic_Test01_Choice02	AI	2 items
rializable Name Effects imulation Event Effects SimulationEventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden Al Target ID Descriptor	Civic_Test01_Choice02	AI	2 items
rializable Name Fifalizable Name Effects Simulation Event Effects SimulationEventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden AI Target ID Descriptor SimulationEventEffect_ModifyIdeologicalAxis	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02	AI	2 items
rializable Name Fifalizable Name Effects Simulation Event Effects SimulationEventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden AI Target ID Descriptor SimulationEventEffect_ModifyIdeologicalAxis Localization Override	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02	Al	2 items
est Choice 01 rializable Name Effects Simulation Event Effects Simulation EventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden Nal Target ID Descriptor SimulationEventEffect_ModifyIdeologicalAxis Localization Override UI Mapper Override UI Mapper Override UI Mapper Override	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02	AI	2 items
est Choice 01 est Choice 01 erializable Name Effects Simulation Event Effects Simulation EventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden Nal Target ID Descriptor SimulationEventEffect_ModifyIdeologicalAxis Localization Override UI Mapper Override Hidden	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02	AI	2 items • • • •
est Choice 01 rializable Name Effects Simulation Event Effects Simulation EventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden N N AI Target ID Descriptor SimulationEventEffect_ModifyIdeologicalAxis Localization Override UI Mapper Override Hidden N Hidden N N AI	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02	AI	2 items
est Choice 01 est Choice 01 est Choice 01 Effects Effects SimulationEventEffect_ApplyDescriptor Localization Override UI Mapper Override Hidden I arget ID Descriptor SimulationEventEffect_ModifyIdeologicalAxis Localization Override UI Mapper Override Hidden I al Target ID	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02	AI	2 items
est Choice 01 e	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02 Empire (MajorEmpire) IdeologicalAxis Economic	AI	2 items
est Choice 01 est Choice 01 est Choice 01 Effects Simulation Event Effects Simulation Event Effect_ApplyDescriptor Localization Override UI Mapper Override Hidden	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02 Empire (MajorEmpire) IdeologicalAxis_Economic	A1	2 items
Fest Choice 01 erializable Name Effects Simulation Event Effects SimulationEventEffect_ApplyDescriptor Localization Override II Mapper Override Hidden AI Target ID Descriptor SimulationEventEffect_ModifyIdeologicalAxis Localization Override UI Mapper Override UI Mapper Override Hidden AI Target ID Ideological Axis Reference Delta	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02 Empire (MajorEmpire) IdeologicalAxis_Economic -8	Al	2 items
Fest Choice 01 Figure 2 Figur	Civic_Test01_Choice02 Empire (MajorEmpire) Effect_Civic_Test01_Choice02 Empire (MajorEmpire) IdeologicalAxis_Economic -8	AI	2 items

12.8 Setting up the "Prerequisites" section

The "Prerequisites" area defines if any other civic choice must be made before opening the current one or if the civic is blocked by selecting the other one.

- 1. Select the referenced civic.
- 2. Click on the "Serializable Valid Necessary Choice Name".
- 3. Select the necessary choice from other civic.

Prerequisites			
Civic Prerequisite			
Necessary Civic Reference	Civics_Army01	•	Ð
Forbidden Civic Reference	None		
Serializable Valid Necessary Choice Names			• +
Civics_Army01_Choice01			• X

12.9 Mapping the new civic to the Civics screen

To display the new civic on the Civics screen correctly and assign the correct naming/description/location, the new object must be created in the "CivicsDefinitionUIMappers" collection.

- 1. Go to the "CivicsDefinitionUIMappers" collection.
- 2. Add a new element by duplicating the existing one.



3. Rename the newly created object to the same name the "CivicsDefinition" object has. Names from 2 collections MUST match.

Civics Definition (Civi	c Definition Collection)	* : *	Civics Definition UI Mappers (UI Mappers Collection) 🗾 🕫	:
Search: *			UIMapper Generator	
Civic_Test01			UIMapper Convert Data	
Civics_Army01 Civics_Army02			Copy 41 Mappers to Clipboard	
Civics_Army03			Search: *	
Civics_Army04			Civic_Test01	
Civics_Culture01			Civics_Army01	
Civics_Culture02		-	Civics_Amy02 Civics Armv03	
Civic_Test 01 (Civic D	Definition)	23	Civics_Army04	
() ()			Civics_Army05	
			Civics_Culture01	
Script	CivicDefinition			
Key 0			Civic_Test 01 (Civics UI Mapper) 7	
Hidden			N	

4. Fill the corresponding fields with pictures, name, description and the location on the Civics Screen.



Hint! The X axis goes from left to right, the Y axis goes from top to bottom.



12.10 Setting the new civic choices UI mappers

To display the new civic choices correctly and assign the correct naming/description/location, the new object must be created in the "CivicsChoicesUIMappers" collection.

- 1. Go to the "CivicsChoicesUIMappers" collection.
- 2. Add 2 new elements (1 per each new civic choice) by duplicating the existing one.



3. Rename the newly created objects to the same names the choices have in the "CivicsDefinition" object. Names from 2 collections MUST match.

Inspector Inspector	Inspector	≙ :	Inspector	а:
Is Reversible Priority	✓		Civics Choices UI Mappers (UI Mappers Collection)	
	0			
Choices			UIMapper Generator	
Choices	2 ite		UIMapper Convert Data	
Serializable Name	Civic_Test01_Choice01		Copy 84 Mappers to Clipboard	
			Search: * 9	
Simulation Event Effects		T	Civic_Test01_Choice01 Civic_Test01_Choice02	â
SimulationEventEffect_Appl	lyDescriptor			
UI Mapper Override			Civics_Army01_Choice02	
— Hidden			Civics_Army02_Choice01	
			Civics_Army03_Choice01	
	Empire (MaiorEmpire)		Civics_Army03_Choice02	
Target ID	Empire (MajorEmpire)			
Descriptor				
Localization Override	InvideologicalAxis			
UI Mapper Override				
Hidden				
	Empire (MajorEmpire)			
Ideological Axis Reference	IdeologicalAxis_Economic - Q			
Negative orientation : C				
Positive orientation : Lib	peralism			
	8			
Test Choice 01				
Serializable Name	Civic_Test01_Choice02			
Effects				
Simulation Event Effects				
SimulationEventEffect_Appl	lyDescriptor			
			•	
Asset Labels			Asset Labels	

4. Fill the corresponding fields for both objects.

Civic_Test 01_Choice 01 (UI Mapper)	
Script	
Title	Test Choice 01
Description	Test Choice Desription 01
Images	
Color	۲۵
Symbol	

12.11 Creating a new civic narrative event

Unlocking the civics in-game works the same way as triggering narrative events by fulfilling the civic prerequisites. Each existing civic is connected with the corresponding narrative event of a special category and becomes available after the event was triggered.

To create a new civic narrative event, a new object must be created:

- 1. Select "NarrativeEventCivicsDefinition" collection in the project structure.
- 2. Add a new element by right-clicking in the inspector space and selecting "Add-> NarrativeEventDefinition" or simply duplicate an existing one.



12.12 Setting up the "Definition" section

In the "Definition" area select:

- 1. Uncheck the "Is Work In Progress" box to make it available during the game.
- 2. The event category is responsible for events priority and dead zones. The default category for civics is the "NarrativeEventCategory_Civics".
- 3. Add the "Era Definitions" to show the civic event in different eras.
- Note! Era0 cannot be selected.

Narrative Event_Civic_Test 01 (Narrative Event Definition)		# i
Script		
DIc Prerequisite		
Definition		
Is Work In Progress		
Category	NarrativeEventCategory_Civics	- ⊕
▼ Era Definitions		4 itom 🕂
Era1		- € ×
Era2		▼ @ ×
		• @ ×
Era4		▼ ⊕ ×

12.13 Setting up the "Trigger" section

To unlock the civic within a game the specific triggers must be configured in the narrative event.

Add a prerequisite to check whether the newly created civic is unlocked or not:

- 1. Select the preferable "Simulation Event". It is highly recommended to use "SimulationEvent_TurnBegin" as a safe choice.
- 2. Add the prerequisite object "SimulationEventPrerequesite_Empire_CivicStatuses" which checks if the newly created civic is unlocked or not.
- 3. Specify the civic which should be checked before the event triggers.

Trigger	
Consume Event Upon Trigger	✓
Prevent Event Removal	
Is Narrative Consequence	
Simulation Event	SimulationEvent_TurnBegin 👻
Prerequisites	1 it@s 🕇
SimulationEventPrerequisite_Empire_CivicStatuses	
Failure Flags	None
Entity ID	Empire (MajorEmpire) 🔹
▼ Civics	1 items 🕇 🗙
Civic_Test01	√ [@]×
Civics required states	Unknown 🗸

Add another prerequisite to check whether the first civic and the civic "Army 1" were selected:

- 1. Add the prerequisite object "SimulationEventPrerequesite_Entity_Descriptors" which checks whether the first civic was selected.
- 2. Add 2 new descriptors.
- 3. Select the "Tag_MajorEmpire_EventCivicsGovernment01_Justice01" and the "Tag_MajorEmpire_EventCivicsArmy01".

Prerequisites	items	+
SimulationEventPrerequisite_Entity_Descriptors		
Failure Flags None		
Entity ID Empire (MajorEmpire)		
2 ite	As 🕂	×
Tag_MajorEmpire_EventCivicsGovernment01_Justice01	Ð ×	
Tag_MajorEmpire_EventCivicsArmy01	Ð ×	
Must Not Have Descriptors Emp	ty 🕇	

12.14 Setting up the "Variables" section

Within variables it is possible to check the assets statuses and if assets meet specific conditions. Let's check whether the city is the capital of the empire and whether it is besieged or not.

- 1. Add a new variable of type "NarrativeEventVariable_Empire_Cities".
- 2. Rename the variable.
- 3. Add a prerequisite element of type "SimulationEventPrerequesite_Entity_Descriptor" to check whether the city is the capital and is not besieged.

- 4. Assign a related descriptor "GameEffect_CityFlags_Capital" to the "Must Have" field.
- 5. Assign a related descriptor "GameEffect_CityFlags_Besieged" to the "Must Not Have" field.
- 6. Specify the "Empire ID" as "Empire (MajorEmpire)".

Varial	bles					+
1 Na	arrati	veEventVariable_Empire_Cities				
Na	ame		2 CapitalCity			
Co	ollect	ion Selector	All			
Ha	as Co	unt Condition				
	Eleme	nt Prerequisites		1 itens	+	
	3	SimulationEventPrerequisite_Entity_Descr	iptors	-		
		Failure Flags	None			
		Entity ID				×
		Must Have Descriptors		1 items 🕂	×	
		GameEffect_CityFlags_Capital		• @ ×		
		Must Not Have Descriptors		1 items 🕂		
	•	GameEffect_CityFlags_Besieged		• • ×		
Sc	ort Pr	operty Name	None			
En	mpire	ID	6 Empire (MajorEmpire)		•	

12.15 Setting up the "UI" and "GeoLocalization" sections

In the UI area it is possible to set the appearing image of the event, its text and description. The "GeoLocalization" area identifies where the event appears. The current example event will occur in the capital city from the variable created before.

UI		
Image	UI_Event_Common_Era2_3_4_268_AnEnviousEye_fin_3	
Title	Test Narrative Event Title	
Description	Test Narrative Event Desriptor	
Localization Parameters		/ +
GeoLocalization		
Geo Localization ID	CapitalCity (Settlement)	

12.16 Setting up the choice

Events that unlock civics usually have only 1 choice to select. To create a choice:

- 1. Add the new choice.
- 2. Fill the related fields and make sure the civic narrative event is "Instant".
- 3. Add the "Narrative Event Effect".
- 4. Pick the "SimulationEventEffect_UnlockCivics" which will unlock civic during the ingame event.
- 5. Select the "TargetID" and the "Civic Reference". The "Civic Reference" specifies which civic will be unlocked with the civic narrative event (newly created civic in the current example).

Choices		
Choices		+
⊠None (Texture)		9
Title	Test Narrative Choice	
Description 2	Test Narrative Choice Desriptor	
Instant	~	
Duration	10	
Prerequisites	Empty	F.
Narrative Event Effects	1 ite <mark>ð</mark> s 🚽	8
Reversible		
Simulation Event Effect	SimulationEventEffect_UnlockCivics	
Localization Override	Test Override	v
UI Mapper Override		
Hidden Hidden	· · · · · · · · · · · · · · · · · · ·	
►AI		
Target ID	Empire (MajorEmpire)	
Civic Reference	Civic_Test01 🔹 🔍	
Notes		
Al		
Archetypes	*Null (NarrativeEventChoice.ArchetypeWeight[])	

12.17 Testing

After all steps were done - click "Build and Run" to check the results. Start a new game, go to the needed era and complete the prerequisites to trigger the event (have selected civic for Army01 and Justice/Government01).





13 Balancing Battle

Battle is an important part of the game, with the modding tool it's possible to modify different aspects of it (from simple combat strength, to complicated battle actions).



All the necessary collections related to units or battle are stored in the "Unit" database.

.	Unit	
	G AirUnitDefinition	
	G AirUnitDescriptor	
	G AirUnitUIMappers	
	G ArmyStripDefinitionCollection	
	BattleAbilityDefinition	
	G BattleActionDescriptor	
	G BattleActionsUIMappers	
	G BattleConfigurationDefinition	
	G LandUnitDefinition	
	G LandUnitDescriptor	
	G LandUnitUIMappers	
	🞧 NavalTransportDefinition	
	🞧 Naval Transport Descriptor	
	🞧 Naval Transport UI Mappers	
	😚 NavalUnitDefinition	
	😚 NavalUnitDescriptor	
	😚 NavalUnitUIMappers	
	😪 RaiseArmyDefinition	
	RaiseArmyUIMappers	
	G SettlerUnitDefinition	
	G UnitAbility	
	G UnitClass	
	G UnitClassUIMappers	
	G UnitDescriptor	
	G UnitFamilyDefinition	
	C UnitPrototypeDescriptor	
	Control UnitSpecialty	
	UnitSpecialtyUIMappers	
None Al		

13.1 Changing unit's basic stats

Changing some basic unit stats is pretty simple:

- 1. Find the necessary unit in the database definition collection.
- 2. Find the assigned unique descriptor to the unit under the "Definition" tab.

+ 4 4 4 4 -	Mod Editor 🖿 Project 🔒 🗄	Inspector Inspector		a :	
Script Script BattleActionDescriptor Script StatteActionDescriptor Script StatteActionDescriptor Script StatteActionDescriptor Script Script Script Key Script Script Key Script	+ • • • • Assetsumers • • Configurations • • Databases • • Settlement • • • AirUnitDefinition • • AirUnitDescriptor • • • AirUnitDescriptor • • • AirUnitUMappers	LandUnit_Era1_Common_BatteringRams LandUnit_Era1_Common_Chariots LandUnit_Era1_Common_Levies LandUnit_Era1_Common_ScoutCavalry LandUnit_Era1_Common_Scouts	(Land Unit Definition)		
 	 G ArmyStripDefinitionCollection G BattleAbilityDefinition 		LandUnitDefinition		
 Gr. BattleActionsUlMappers Gr. LandUnitDefinition Gr. LandUnitDefinition Gr. NavaITransportDefinition Gr. NavaIITransportDefinition Gr. NavaIITransportDefinition Gr. NavaIITransportDefinition Gr. NavaIITransportUMAppers Gr. NavaIIItion Gr. NavaIIItion	► 😚 BattleActionDescriptor				
Is obsolete	 MattleActionsUIMappers MattleConfigurationDefinition 	Hidden			
Cy LandUnitUsescriptor Durination Construction Therequisite Image: Construction Image: Construction Image: Construction Image: Construction Image: Construction Image: Construction Image: Construction Image: Construction Image: Construction Image: Console Construction Image: Console Image: Console <t< td=""><td>LandUnitDefinition</td><td>Definition Constri</td><td>uction Prerequisites</td><td>ΔΙ</td></t<>	LandUnitDefinition	Definition Constri	uction Prerequisites	ΔΙ	
Constructible Category MavalTransportDefinition NavalTransportDescriptor NavalInansportDescriptor NavalUnitDescriptor NavalUnitDescriptor NavalUnitDescriptor RaiseArmyDefinition RaiseArmyUlMappers SettlerUnitDefinition SettlerUnitDefinition SettlerUnitDefinition NavalUnitDescriptor RaiseArmyDefinition SettlerUnitDefinition SettlerUnitLeral_Common_Scouts SettlerUnit_Eral_Tierl	LandUnitDescriptor LandUnitUMappers	► DLC Prerequisite			
Image: Second	Q NavalTransportDefinition				
Category Military Category Military Category Military Category Military Serializable Family UnitFamily_Scout Category G Serializable Family UnitFamily_Scout Category G Serializable Family UnitFamily_Scout Category Any Category Any Category Any Category G Serializable Family Level Unicity Any Constructible Visual Affinity None Unit Class UnitClass_Melee Unit Specialty Unit Specialty_NoMovementPenaltiesFromForests Own Descriptor References 3 tems Clear Collapse O Category Multary Effect_Unit_Era1_Common_Scouts Q Effect_Unit_Era1_Tier1 Q	► 🖓 NavalTransportDescriptor	Constructible			
Serializable Family UnitFamily_Scout Serializable Family UnitFamily_Scout Serializable Family UnitFamily_Scout Serializable Family UnitFamily_Scout Level Level Level Unicity Any Constructible Visual Affinity None UnitClass Constructible Visual Affinity Unit Unit Unit Unit Unit UnitClass UnitClass_Melee O UnitSpecialty_NoMovementPenaltiesFromForests O UnitSpecialty_NoMovementPenaltiesFromForests O Clear Collapse O O A O O O O C Clear Collapse O O A O O O C Clear Collapse O Clear Clear Collapse Clear Clear Collapse Clear C	MavalTransportUIMappers	Category	Military		
Image: Second secon	Avaluation Descriptor	Serializable Family		<u> </u>	
 GrasseArmyDefinition GrasseArmyUlMappers GrasseArmyUlMappers UnitCity UnitCity Unit Unit Unit UnitClass UnitClass UnitClass UnitSpecialty UnitSpecialty_NoMovementPenaltiesFromForests QrasseArmyUlMappers GrasseArmyUlMappers GrasseArmyUlMappers GrasseArmyUlMappers GrasseArmyUlMappers UnitSpecialty UnitSpecialty_NoMovementPenaltiesFromForests QrasseArmyUlmappers GrasseArmyUlmappers GrasseArmyUlmapper	NavalUnitUIMappers	Level	6		
Constructible Visual Affinity None Constructible Visual Affinity None Constructible Visual Affinity None Constructible Visual Affinity Unit Unit Ability Unit Class Console Console Clear Collapse Collapse O Clear Collapse Console Console Clear Collapse Constructible Visual Affinity None Clear Console Clear Console Clear Collapse Console Console Clear Collapse Constructible Visual Affinity Visual Affinity Clear Console Clear Console Clear Collapse Constructible Visual Affinity Visual Affinity Clear Console Clear Collapse Collapse Constructible Visual Affinity Clear Console Clear Collapse Constructible Visual Affinity Clear Console	► G RaiseArmyDefinition		Any		
Image: Console Image	► Charactering Of Mappers ► Charactering Of Mappers ► Charactering Of Mappers	Constructible visual Aminity	None		
Image: Second	► C UnitAbility	Unit			
Assets/Databases/Unit/LandUnitDefinition.as Unit Specialty UnitSpecialty_NoMovementPenaltiesFromForests Q Montpenalties Clear Collapse Q Assets/Databases/Unit/LandUnitEra1_Common_Scouts Effect_Unit_Era1_ Q Effect_Unit_Era1_Tier1 Q Montpenalties 	▶ 😭 UnitClass	Unit Class	UnitClass_Melee	▼ 🔍	
Image: Console Image	GAssets/Databases/Unit/LandUnitDefinition.as	Unit Specialty	UnitSpecialty_NoMovementPenaltiesFromForests	▼ (⊕	
Clear Collapse 0 0 0 0 0 2 Effect_LandUnit_Era1_Common_Scouts Q × Effect_Unit_Era1 Effect_Unit_Era1_Tier1 O × X	E Console	Own Descriptor References		3 items 🕂	
Effect_Unit_Era1	Clear ▼ Collapse	Effect_LandUnit_Era1_Common_Scouts		▼ @ ×	
Effect_Unit_Era1_Tier1		Effect_Unit_Era1		→ @ ×	
Deep Manageret Cased		Effect_Unit_Era1_Tier1		▼ ⊙ ×	
Base Movement Speed 1.8		Base Movement Speed	1.8		
V Movement Speed Multiplier Per Type		Movement Speed Multiplier Per Type		4 items 🕇	

- 3. Search for this descriptor in the corresponding collection.
- 4. Modify the combat strength, priority or add the necessary effect (speed for example).

Mod Editor Project ² : + ▼ ● ● Ø ▼ ■ Unit ● AirUnitDefinition > ☆ AirUnitDescriptor ♦ AirUnitUMappers > ☆ AirUnitUMappers ● ◆ > ☆ BattleAbilityDefinition ● ☆ > ☆ BattleActionDescriptor ● ☆ > ☆ BattleActionDefinition ● ☆ > ☆ BattleActionDefinition ● ☆	Inspector	ams Ilry Scouts (Descriptor)	: ↓ ↓ ↓ ↓
► M LandUnitDefinition	Script	Descriptor	\odot
LandUnitDescriptor M LandUnitUMappers	Starting Type	Unit	· · · · · · · · · · · · · · · · · · ·
► ♀ NavalTransportDefinition	▼ Effects		1 items 🕇
▷ ♀ Naval TransportDescriptor ▷ ♀ Naval TransportUIMappers	▼ Path		
▶ 😚 NavalUnitDefinition			
NavalUnitDescriptor	Specific larget type	None	Empty 4
	Validations		Empty T
► 🖓 RaiseArmyUIMappers	Apply Effect On	Source (Unit)	Target (Unit)
 ▷ \$\overline	Source: Unit	Target: Linit	
 ▷ \$\chickson UnitClassUMappers ▷ \$\chickson UnitDescriptor ▷ \$\chickson UnitFamilyDefinition 	Help (click to expand)	Properties	
► G UnitPrototypeDescriptor	Property Effects		3 items 🕂
Assets/Databases/Unit/LandUnitDescriptor.a	Add	LandLeaderPriority	
E Console E Console :	2360		
Clear V Collapse			
	Add	 LandCombatStrength 	
	4 130		
	Add	 LandSpeed 	
	Add notes here		

13.2 Testing

Let's check the result of the change - click "Build and Run" and start a new game. Once the Ancient era is reached, the modified scouts will appear.



13.3 The unit abilities

Unit ability gives bonuses to the unit in combat or while moving, and ability itself. Unit ability consists of the following sections which can be modified:

- The "Tag As Ability" defines if the tag works as an ability.
- The "Movement Ability" defines if the ability is related to movement on water or ground.
- The "Pathfinding Flags" defines if the ability allows or ignores some in-game zones/situations.

- The "Descriptor Reference" gives some effects/bonuses (like specialty level) on the unit/target.
- The "Battle Ability Reference" defines how the unit behaves during the battle and assigns the ability formula.

To find the unit ability:

- 1. Find the necessary unit in the corresponding collection.
- 2. Find the assigned specialty to the unit under the "Definition" tab.



- 3. Find this specialty in the "UnitSpecialty" collection.
- 4. Find the ability under the "Ability References" section.



Note! Despite the fact that specialties mostly work as placeholders for abilities and only give a bonus for auto resolve, they are displayed in the game under the unit's description.

5. Find this ability in the "UnitAbility" collection.


13.4 The battle abilities

Battle abilities are assigned to unit abilities and define how the unit behaves during the battle and the assigned ability formula. Some battle abilities are common ("BattleAbility_Common") for units in the game, while some are unique.

To find the battle ability of the unit:

1. Find the battle ability under the "Battle Ability Reference" section in the unit ability asset.



2. Find this battle ability in the "BattleAbility" collection.



There are 2 main types of battle abilities:

• Based on battle tags. If the "Battle Tag As Ability" is selected, the "Battle Action" section is empty. This type is not modifiable from the modding tool (actions are hardcoded).

ction			BattleAbility_MoveOrAttack						
:+	ion		Battle Ability_Move Or Attack (Battle Ability Definition)						
ition			Script			BattleAbilityDefinition			
			Battle Tag As Ability			Move Or Attack			
	۹s	م Search × O None			*Null (BattleAction[])				
ı		Afte	After Attacking Allow Move After Attacking Allow Move And Attack Ignore Line Of Sight			None			
		Afte							
		Igno							
		Mov	ove Until Exhausted						
		Mov	love Or Attack						

• Based on battle actions. The "Battle Tag As Ability" is set to "None" and the "Battle Action" section is filled.

Script	BattleAbilityDefinition	Θ
Battle Tag As Ability	None	•
Battle Actions		+
\equiv > Science gain on murderous	*BattleAction	×
■ Science gain on murderous	*BattleAction	×
	Al	
Al Battle Ability	None	•

The "Battle Action" section is where all the checks and assignments are done. The main approach on this is to assign some descriptor and then remove it.

Explanation on some fields:

- The "Note" is used as a name or a note to the battle action.
- The "Event Type" is a predefined field which is used as a flag in the battle flow.
- The "Is Global" action is owned by a unit but applied to everyone in the battle.
- The "Main Target" defines an entity on which action/effect is applied:
 - The "Battle Action Owner" unit that has been given the battle action.
 - The "Initiator" unit that has triggered the event that caused battle action to fire.
 - The "Target" target of the battle action.

Note! Targeting is a very tricky part. If the bonus didn't work correctly, maybe the target was selected incorrectly.

- The "Filter" isn't used in the game right now.
- The "Operator" defines if all (AND) or only one (OR) condition must be fulfilled.
- The "Condition Block" used for a more detailed approach on the battle conditions and used to fire the battle action only for some specific assets.
- The "Invert Condition Result" is used to prevent effects from stucking on the unit.

Battle Actions					+
▼ Add charge descriptor		*BattleAction			
	Note	Add charge descriptor			
	Event Type	Pre Attack		•	
	Is Global				
		Targeting			
	Main Target	Battle Action Owner		•	
	Filter	None		•	
	Filter Parameter	-1			
		Conditions			
	Operator	And		•	
	BattleCondition[]			+	
	*BattleCondition_HasDe	escriptor : BattleCondition			
		Battle Action Owner		×	
	Descriptor	GameEffect_BattleAction_Charge	- €		×
	*BattleCondition_Same	Entity : BattleCondition			
	Invert Condition Result				
	= Left Target	Battle Action Owner		^	
	Right Target	Initiator	-		
	*BattleCondition_HasM	ovedThisTurn : BattleCondition			
	\equiv Invert Condition Result			×	
	Target	Battle Action Owner			
	Condition Blocks		Empty	+	
		Effects			
	▼ Effects			+	
	▼ *BattleEffect_AddDe	scriptor : BattleEffect			
	Descriptor	GameEffect_BattleAction_Charge	• •	×	
	Duration	Immediate	-		

Explanation of the presented conditions:

• The first one checks whether the target has the assigned game effect descriptor.

*BattleCondition_HasDe	escriptor : BattleCondition				
Invert Condition Result	✓		×		
Target	Battle Action Owner	-			
Descriptor	GameEffect_BattleAction_Charge	• 🔍			

• The second one checks whether the targeted unit (this unit will receive the bonus) is the one who started the action. This is very common and widely used across all actions.



• The third one checks if the unit has already moved this turn. This condition is unique for the charge.

*BattleCondition_HasMo	ovedThisTurn : BattleCondition	
Invert Condition Result		×
Target	Battle Action Owner 🗸 🗸	

The "Effects" section assigns the game effect to the target and gives the bonus strength for the unit for charge. It also defines how long the effect will last.



13.5 The game effect

The game effect is a simple descriptor stored in the separate collection that gives a bonus to a unit. It has the same structure as other descriptors.

To find the game effect:

- 1. Find the effect in the "Effects" section of the battle ability.
- 2. Find this descriptor in the "BattleActionDescriptor" collection.

Mod Editor 🖿 Project 🔒 🗄	6 Inspector		a :
+• • • • • • •	Battle Action Descrip	tor (Descriptor Collection)	
[Amplitude.Framework]			
[Amplitude.Mercury]	Search: * 9		
Configurations	GameEffect BattleAction Bu	IffAlliesStrengthFromStrongerTarget	
▼ 🖻 Databases	GameEffect_BattleAction_Ch	harge	
Settlement	GameEffect_BattleAction_Ch	neatUnit	
Vnit	GameEffect_BattleAction_Ch	neatUnitPower	
► G AirUnitDefinition	GameEffect_BattleAction_Da	imaged	
	GameEffect_BattleAction_De	ebuff LargetMove	
Arrow StripDefinitionCollection	GameEffect BattleAction De	ebuill argetPoison	
► RattleAbilityDefinition			
► 🖓 BattleActionDescriptor	Game Effect_Battle A	Action_Charge (Descriptor)	i ÷ ÷
	-U		
► 🙀 BattleConfigurationDefinition	Script	Descriptor	0
LandUnitDefinition	Starting Type		~
Contracting and the second of the second		Unit	
► 🖓 NavalTransportDefinition	Effects		1 items 🕇
► S NavalTransportDescriptor	▼ Path		
AvalTransportUIMappers			
NavalUnitDefinition	Specific Target Type	None	
NavalUnitDescriptor	Validations		Empty 🕂
RaiseArmyDefinition	Validations		
► G RaiseArmyUIMappers	Apply Effect On	Source (Unit)	Target (Unit)
► G SettlerUnitDefinition			
► 🖓 UnitAbility	Source: Unit	Target: Unit	×
► Y UnitClass ► Y UnitClassUIMappers	■ Properties	▶ Properties	
► G UnitDescriptor			
GO UnitFamilyDefinition			
G UnitPrototypeDescriptor	▼ Property Effects		1 items 🕂
► Mo UnitSpecialty ▼	Add	- CombatStrength	
Chassets/Databases/Unit/BattleActionDescrip	= 1 + 2 + Source Sour	ecialtylevel	×
E Console	Add potes hore		
Clear ▼ Collapse	Add notes here		
UnityEngine.Debug:Log (object)	Serializable Category		
[12:15:39] Unload AssetBundle ui_text			

As it's shown, in the battle action descriptor the actual ability calculations are stored.

13.6 Property effects calculations

Each descriptor has the same property effect section which consists of:

1. Operator - says which type of calculation to apply.



2. Property on which operator is applied.

Property Effects				+
	Add	•	CombatStrength -	
	1 + 2 * Source.SpecialtyLeve	l		×
	Add notes here			

3. Formula bar defines the value applied to the property.

▼P	roperty Effects			+
	Add	CombatStrength	-	
	<pre>1 + 2 * Source.SpecialtyLevel</pre>			×
	Add notes here			

In all formula bars it is possible to use not only constant numbers, but also the keywords ("Source", "Target", "Value") and properties. The list of the properties which can be used with keywords are listed in the modding editor for each source/target separately.

	Source: Unit	Target: Unit	×
	▶ Properties	▷ Properties	
	Help (click to expand)		
	▼ Property Effects		+
	Add	 CombatStrength 	
	<pre>1 + 2 * Source.SpecialtyLevel</pre>		×
	Add notes here		
Se	ializable Category		

Source: Unit	Target: Unit
▼ Properties	▼ Properties
AntiAirCombatStrength AttackRange BaseStrength BombardCenterStrengthBonus BombardSplashStrengthBonus CombatStrength DetectionRange DistrictCombatStrengthBonus ExperienceGainMultiplier HealthRatio HealthRegen HealthRegen HealthRegen HealthRegenAfterBattle HitPoints LandAttackRange LandCombatStrength LandLeaderPriority LandSiegeWorksNet LandSiegeWorksNet LandSiegeWorksNet LandSpeed LandVisionRange LeaderPriority LostAtSeaDamageRatio MovementRatio NavalSpeed RansackCombatStrengthBonus SiegeWorksNet SpecialtyLevel SpoilofWarGains StrikeRadius TransportLeaderPriority TransportLeaderPriority TransportLeaderPriority TransportLeaderPriority TransportVisionRange TrespassingDamageRatio UnitsKilled UnitUpkeep VeterancyLevel VisionRange ZoneOfControlDistance	AntiAirCombatStrength AttackRange BaseStrength BombardCenterStrengthBonus BombardSplashStrengthBonus CombatStrength DetectionRange DistrictCombatStrengthBonus ExperienceGainMultiplier HealthRegen HealthRegen HealthRegen HealthRegenAfterBattle HitPoints LandAttackRange LandCombatStrength LandLeaderPriority LandSiegeWorksNet LandSpeed LandVisionRange LeaderPriority LostAtSeaDamageRatio MovementRatio NavalSpeed RansackCombatStrengthBonus SiegeWorksNet SpecialtyLevel SpecialtyLevel SpecialtyLevel SpoilOfWarGains StrikeRadius TransportLeaderPriority TransportLeaderPriority TransportLeaderPriority TransportLeaderPriority TransportLeaderPriority TransportLeaderPriority TransportLeaderPriority TransportSiegeWorksNet TransportVisionRange TrespassingDamageRatio UnitsKilled UnitUpkeep VeterancyLevel VisionHeight VisionRange ZoneOfControlDistance

The shown charge ability is calculated in the following way:

- 1. It takes the unit specialty level (which is assigned within another descriptor).
- 2. Multiply specialty by 2.
- 3. Adds 1 to the previous result.
- 4. The result is added to the unit combat strength during the charge.

If we check the existing unit (Cuirassiers specialty level is 3) in the battle, we can find a bonus result (1+2*3=7).



The table with the existing operators:

Operator	Inline	Description
Add + adds the number (calculated in the formula b		adds the number (calculated in the formula bar) to the property.
Sub - subtracts a number from the prop		subtracts a number from the property.
Mult * multiplies the property by the		multiplies the property by the number.
Div	/	divides the property by the number.
Pow	^	powers the property by the number.
Percent		takes the percent number of the property.
Max	max	returns max value of the property.
Min	min	returns min value of the property.

13.7 Balancing the battle ability

If we want to change the "Heavier Charge" ability of cuirassiers (French unit from the Industrial era), we have 2 main ways to do it:

- Interesting and	LandUnit_Era5_FrenchRepublic_Cuirassiers						
the state	Land Unit_Era	5_French	n Republic_Cu	uirassiers (Land Unit De	finitio	on) :	2:
			🖸 LandUnit				
	Hidden						
	ls Obsolete						
	Definition	Cons	truction	Prerequisites		AI	
	▶ DLC Prerequisite						
	Constructible						
CUIRASSIERS	Category		Military				
Elite French cavalry, the cuirassiers are	Serializable Family		UnitFamily_M	lodernHeavyCavalry			Ð
a potent and brave strike force that can charge the enemy even when under	Level		33				
heavy fire.	Unicity		Any				
UNIT HEALTH	Constructible Visual Af	finity	None				
100/100	Unit						
UNIT STATS	Unit Class		UnitClass_He	avyCavalry			Ð
ಲಿ55 c>6 रो1 🖧 0	Unit Specialty		UnitSpecialty	/_Charge_Level3			Ð
UNIT CLASS	Own Descriptor Ref	erences					+
Heavy Cavalry : Fast, hard-hitting	Effect_LandUnit_E	ra5_Frencl	hRepublic_Cui	rassiers		Ð) x
enemies. Receives bonus 🌢 Combat	Effect_Unit_Era5					Ð) x
enemies. Unable to climb Fortifications.	Effect_Unit_Emble	matic				Ð) x
Heavier Charge: Receives a much	Effect_Unit_Speci	altyLevel3				Ð	X
higher Combat Strength bonus when charging.	Effect_Unit_Era5_Tier2				Ð	×	

- 1. Rebalance the charge ability of all units.
- 2. Rebalance the cuirassiers' specialty to which the charge ability is referred.

13.7.1 Rebalancing the charge ability

Open the charge ability and change the calculated formula to the preferred one:

Game Effect_Battle Action_Charge (Descriptor)					: :	
Script		C Descriptor				
Starting Type		Unit				
▼ Effects						+
	▼ Path					
	Unit			+ -		
	Specific Target Type	None			•	
	Validations			Empty	+	
	Apply Effect On	Sc	ource (Unit)	Target (Unit)		
	Source: Unit		Target: Unit			×
	▶ Properties		Properties			
	Help (click to expand)					
	Property Effects				+	
	Add		CombatStrength			
	1 + 3 * Source.SpecialtyLevel				×	
	Add notes here					

Now build the mod by clicking "Build and Run" and start a new game. The charge bonus is 10 (1+3*3) now, because the formula was changed.

AND	ATTACK PRE	ATTACK PREDICTION		
A CONSTRUCTION	Cuirassiers	Маммотн	and a second	My Battle Management
e e 1	MIN> MAX.	DAMAGES -100 V	a 1	IN BATTLE (1) REINFORCEMENTS SUPPORT
Mar Lines	55 Combat Strength	14 2 Combat Strength		
Real Const		SANCTUART CARDER		
	The sea of		A alla alla alla	
	-100 @	e e		Cuirassiers 🛛 🗙
SANCTUARY			Contraction of the second seco	$(\mathbb{X}) (\mathbb{C})$
	-5 \$\vee\$: -10 \$\vee\$	a l	40	A Heavy Cavalry Heavier Charge
			A State	ə 55 옮 0 In Forest
All and a second		•		1 10120000000
	6 e 1		en R	a the state of the

13.7.2 Rebalancing the unit specialty

To modify the strength of the ability, the assigned descriptor must be changed. 1. Find the necessary unit's ability and its "Descriptor references".

UnitAbility_Charge_Level3					
Unit Ability_Charge_Level 3 (Unit Ability)					
Script	🖬 UnitAbility				
Tags as Ability					
Tag As Ability	None	•			
Pathfind					
Movement Ability	None	•			
Pathfinding Flags	None	•			
Simulation					
Descriptor References		1 items 🕂			
Effect_Unit_SpecialtyLevel3		- € ×			
Battle					
Battle Ability Reference		1 items 🕂			
BattleAbility_Charge 🗾 🔍 🗶					

2. Find this descriptor in the "UnitDescriptor" collection.



3. Modify the specialty level as required.

Source: Unit		Target: Unit	
= ► Pi	roperties	▶ Properties	
	Help (click to expand)		
▼P	roperty Effects		+
	Max 🔫	SpecialtyLevel 🗸	
			×
	Add notes here		

Now build the mod by clicking "Build and Run" and start a new game. The charge bonus is 9 now $(1+2^{*}4)$, because the specialty was changed.



14 Useful data

Table of resource names:

Database Asset Name	Ingame Name
ResourceDeposit01	Horse
ResourceDeposit02	Copper
ResourceDeposit03	Iron
ResourceDeposit04	Coal
ResourceDeposit05	Saltpeter
ResourceDeposit06	Oil
ResourceDeposit07	Aluminum
ResourceDeposit08	Uranium
ResourceDeposit11	Salt
ResourceDeposit12	Sage
ResourceDeposit13	Coffee
ResourceDeposit14	Теа
ResourceDeposit15	Saffron
ResourceDeposit16	Dye
ResourceDeposit17	Ebony
ResourceDeposit18	Marble
ResourceDeposit19	Obsidian
ResourceDeposit20	Silk
ResourceDeposit21	Incense
ResourceDeposit22	Porcelain
ResourceDeposit23	Pearls
ResourceDeposit24	Gold
ResourceDeposit25	Gemstone
ResourceDeposit26	Ambergris
ResourceDeposit27	Papyrus
ResourceDeposit28	Lead
ResourceDeposit29	Mercury
ResourceDeposit30	Silver
ResourceDeposit31	Weapons