



## TAC Event Construction Kit

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With this construction kit you can easily create your very own TAC events.

How? Well, it's really quite easy ...

### +++ Files and where to store them +++

Please start by creating backup copies of the existing TAC files *CIV4EventTriggerInfos.xml*, *CIV4EventInfos.xml* and *CIV4GameText\_Colonization\_Events.xml*. You will start editing these files and it's better to be safe than sorry!

Have a look into the TAC user manual, it will explain where to find the TAC mod directory. Two of the files, *CIV4EventTriggerInfos.xml* and *CIV4EventInfos.xml*, can be found in folder *Assets\XML\Events*. The last file, *CIV4GameText\_Colonization\_Events.xml* can be found in *Assets\XML\Text*.

Note: Place backup files outside of the TAC folders as they can cause unexpected issues when running TAC, including XML errors when your start Colonization.

### +++ Programming Basic Events +++

Basic events can be created using XML files - text files in a special format. Use a suitable text editor, we recommend for example Notepad++, a freeware which can be found at <http://notepad-plus.sourceforge.net/de/site.htm>.

Your new event consists of three different parts

- \* Trigger definition - under what conditions do you want the event to start?
- \* Event definition - what do you want to happen?
- \* Event texts - multilingual text that will be displayed

As a first step, define the trigger conditions for your new event. It's easiest to start by copying an existing event trigger in file *CIV4EventTriggerInfos.xml* that is similar to what you want to achieve. Copy the complete trigger (starts with `<EventTriggerInfo>` and ends with `</EventTriggerInfo>`) and paste it at the end of the file - but before the `</EventTriggerInfos>` line. After that, rename the event trigger and start editing the trigger conditions. In the file *EventTrigger\_Documentation.xml* you will find an explanation of all entries that you can edit. The possibilities are not endless, but there is a lot you can do without any programming knowledge!

As a second step, you can define the events that are supposed to happen when the event triggers. Again, it is the easiest way to just copy an existing event, rename it and modify the XML entries. *EventInfos\_Documentation.xml* will give you all the information you need to modify the values.

Last but not least, create new texts in *CIV4GameText\_Colonization\_Events.xml*. Again, use existing entries, copy, paste them at the end of the file and rename them.

Note: If you edit XML tags that have been empty in your copy template, make sure that you use the correct format to fill them. Search for other events that use these tags. Small errors can cause the complete event file to create errors when starting or loading a game.

### +++ How to test events +++

- A new event is only available in a new game started after you have added the event trigger to the XML file. You will never succeed in testing a new event if you continue from an old save. Trust me; I have been there before ...

- Changes to an event or additional event options added to an existing event trigger can be tested with a save without starting a new game. You have to re-start TAC however to make the new XML settings available.

- Activate the cheat mode of Colonization: In *CivilizationIV.ini* change **CheatCode = 0** to **CheatCode = chipotle**. In addition you should activate a game option that allows new random numbers after loading a save. Look for **GAMEOPTION\_NEW\_RANDOM\_SEED** in the file *CIV4GameOptionInfos.xml* and change value **bVisible** from **0** to **1**. With the next start of Colonization you will have a new game option called "random seed" - activate it.

- When you start TAC after editing XML files, make sure to delete the cache. You can do that by either pressing SHIFT at the game start process or by changing **DisableCaching** from **0** to **1** in your *CivilizationIV.ini* file. Note: This may slow down the starting process of TAC

- For event testing, create the trigger conditions using the world builder (**Ctrl+W**). Go back to the game and call the event cheat menu (**Ctrl+Shift+E**). Select your new event - it should be at the very end of the list if you followed the above instructions.

Note: An event can only be started with the cheat menu if all trigger conditions are fulfilled. The event menu only bypasses the random roll for events but not any other trigger condition. For some events that make use of additional python coding, take special attention to any conditions that may not be visible in the XML files. See section "Programming Advanced Events" for more details

## +++ Programming Advanced Events +++

Sometimes the options in the XML files just don't cut it. You want to do something fancy or use Colonization specific functionalities (e.g. founding fathers, goods, buy/sell prices). Well, for exactly this reason we have introduced 4 additional entries in the event XML files called **iGenericParameter1** to **iGenericParameter4**. It's up to you what you want to do with these values! The downside: You need at least a little python programming knowledge or you are restricted to the ready-made functions that come with TAC.

Each event trigger has 4 entries that allow you to call Python functions. The most important one is **<PythonCanDo>**. Specify a python function here with additional trigger conditions. Python functions must be added to `\Assets\Python\EntryPoints\CvRandomEventInterface.py`.

TAC comes with a number of pre-configured python functions for a number of trigger conditions:

- Check for bonus resources on the trigger plot, e.g. **hasSilverBonus** or **hasFoodBonus** and even **hasNoBonus**
- Check for player type: **isPlayable** (Player is not a native and not a European king)
- Check if all buildings mentioned in the trigger exist in a given city: **hasAllBuildings** (standard behaviour is that only one of the listed buildings is sufficient to trigger an event)
- Set a fixed probability for an event trigger: **TriggerChance**.

Usually, events in CIV (and therefore in TAC as well) are based on weighting factors and not fixed probabilities. The higher a weighting factor, the higher the chance for this event to trigger. However, the probability itself is based on the total amount of available events in this game turn and a specific player. You can never exactly determine in advance what the probability will be. If for whatever reason your event must have a probability of 1% per turn, this function is the one you want to use.

*EventTrigger\_Documentation.xml* has an overview of all available trigger functions (Well not all actually - most of the generic ones anyway. You will have to learn some python and figure the other ones out yourself. )

For event effects, we also provide various pre-configured python functions. The functions can be influenced by setting the proper **iGenericParameter1** to **iGenericParameter4** parameters.

It is possible to e.g. create a new bonus resource or reward the player with founding father points of a specific category by using these generic functions. Have a look into *EventInfos\_Documentation.xml* for a list of available functions and how to use them.

Note: Make sure that you create proper help texts explaining the effects that your python function has. For example if you use the function **ChangeFatherPoints** you should always use it in combination with **getHelpChangeFatherPoints** so that the correct mouse-over help text is shown for the event effect.

### +++ Additional Information +++

Please use the following thread <http://www.civforum.de/showthread.php?t=67209> to ask for help with events or quests. You can either use German or English.

There are currently about 50 different events and quests in TAC, ranging from natural disasters over disputes with your neighbours to your King's demands. Keep some money as you never know when the next event hits you – extra money might give you the opportunity to avoid a catastrophe or to gain an advantage.

An overview of all events, trigger conditions and effects can be found in a spreadsheet in folder *AC Dokumentation\Dokumentation Events*.

*Have fun with your new events or quests!*