A detailed historical map of London, showing the city's layout, including the River Thames, the Temple, the Tower of London, and various streets and landmarks. The map is rendered in a classic woodcut style with red and green ink.

Total Realism Gold
for Civilization IV Warlords



Player's Manual

A historical illustration showing four people in 16th-century attire. On the left, a man in a green and red outfit holds a sword. Next to him, a man in a red and white robe. On the right, two women in dark, patterned dresses. They appear to be in a conversation or a formal meeting.

Version 2.4

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SID MEIER'S CIVILIZATION WARLORDS TOTAL REALISM

Foreword

Total Realism Gold 2.4 is the last version of our mod to be developed for Warlords expansion pack of Civilization 4. Our mod has been with Civ since the earliest days; it was, back when it was called just "Realism", among the first comprehensive modpacks seeking to rebalance the game.

Although it had its highs and lows, it is still going strong today, and truly stands for what can be called a project of Civ 4 community. Over the years of its existence, it has given a lot to other Civ 4 community projects, and it has incorporated even more of other people's work. It was never intended, and could never happen, as anyone's personal project - at any given time of its existence, the mod had a team of several people working on it, and it was always their collective vision that brought it forward.

Before installing

Requirements.

Since this is a mod for Civilization 4, all the requirements that apply to the game itself apply to the mod too, of course. Still, due to the advanced nature of the mod, its requirements are a bit higher than these of vanilla* game. While the game itself can run on videocards not supporting 2.0 shaders, you **will** need a SM2.0-capable videocard to run our mod without trouble. Also, due to much more content and functionality compared to vanilla game, it is more hungry for RAM, VRAM and CPU performance. This is especially true for larger maps and for the bundled World Map.

Our mod is designed to be run on Warlords or Civ 4 Complete patched to latest available version (2.13). Be sure to clean your CustomAssets folder before (or after) installing - it is a common source of troubles with mods in general.

MAF error

The memory allocation error (MAF error) is, unfortunately, the harsh reality we cannot really do anything with. This is the error inherent in the game itself; moreover, it is not even Civ4-specific. I encountered it while playing Half-Life 2 mods! Basically, this error happens due to the way 32-bit operating systems handle memory. The more memory

the system needs to allocate, the more likely the dreaded Memory Allocation Failure is to occur. There is no real solution for this error on 32-bit systems, although there are certain methods that allow to postpone it. 64-bit systems and OSes are much luckier here – the only thing that needs to be done in this case is to patch the warlords.exe to handle large amounts of memory, and the error will not bother you anymore. It can be, for instance, done with this program:

<http://www.ntcore.com/exsuite.php>

If you play our mod on 32-bit systems on larger maps, you will likely run into MAFs sooner or later. The only permanent solution for those is upgrading to 64 bit; nevertheless you can postpone those till much later in game if you choose smaller map sizes – late enough for the game to be decided at that point anyway. If you have a decent 32-bit system, there are certain methods that you can use to play without errors longer. For these, I'm directing you to CFC:

<http://forums.civfanatics.com/showthread.php?t=225205>

Different aspects of Total Realism

Civilizations and leaders

Civilizations

Total Realism adds only one new playable civilization (civ), Poland. Still, we have done many things to ensure that every single civilization offers a very different playing experience. This is done by introducing a vast amount of customization into all vanilla civs. All civs in our mod have much more than one unique unit (UU), one unique building (UB) and one or two leaders that they have in vanilla game. Civs are customized on many different levels, and each one offers not only different visual flavors, but also somewhat (or vastly) different playing styles. This also means that adding a new civ is a very labor-consuming task, and therefore we only added one thus far. Upon moving to BtS, we will probably incorporate several (but not all) civs added by that expansion, and maybe – maybe – one or two other civs.

Our very approach to what a civilization is was somewhat different from that of the game's creators and of many fellow modders. Instead of regarding civilizations as fixed to a single culture/locale/time period, we tried to treat a civilization as a continuum of cultures, influences and nations that were centered around a particular geographic region from ancient times till modern age – which, given Earth's history, gives almost any place in the world a continuous cultural heritage.

For example, Romans also include later Italian states like Milan or Tuscany, and also modern nation-state of Italy; therefore, the units you will see for a particular period will not be “fantasy Roman legionaries of WW2”, but real Italian units of that age. Other examples also include Classical Greece/Macedonian Empire/Byzantine Empire/Modern Greece and Egyptian civ that doesn't keep “theme-park” ancient Egypt-like units for later periods, but correctly displays Hellenic then Arabic influences as it progresses through the ages.

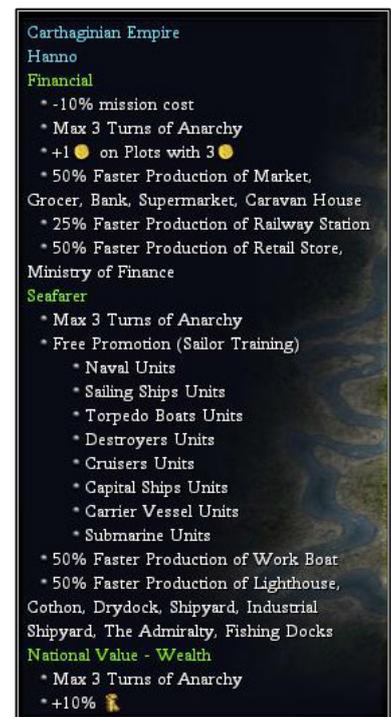
Leaders and leader traits

A leader is a very powerful way of customizing how a civ plays. That's why we concentrated on adding several different leaders for every civ available in Total Realism. There are 3-4 leaders for every civ, and each one will behave differently when played by AI and offer a different feel for a civ when played by human. Indeed, Mongol hordes led by Genghis Khan are very different from Mongols that are ruled by learned and intelligent Ulugh Beg!

Many leader traits present in game was reworked by us, and we also introduced two new traits to give ourselves more opportunities for mix-and-matching. Here's an

overview of what is available to a player (of course, all the relevant information can be gotten from Civilopedia (Pedia) in-game at any time):

- **Agricultural** is one of the two new traits. It provides +1 food for all squares already producing 5 or more food, and lowers pandemic chances (see below for this aspect of the game) across the empire, and allows for faster production of workers and food-related city buildings.
- **Charismatic** trait is largely unchanged – it is all about extra happiness (both raw and from several buildings). -25% XP required for unit promotions is also a very nice bonus. Extra happiness is especially important in our mod at higher difficulty levels, since base happiness levels are lower and luxuries are harder to tap for happiness.
- **Creative** trait no longer offers free culture; now it gives +25% culture across the board, so while early on you get less culture, later on the bonus from the trait can give you vast amounts of additional culture if you invest in it (it also makes this easier, aiding in construction of different culture-related buildings).
- **Expansive** now gives you -50% civic upkeep for easier management of large empires and +50% production for settlers and naval transports, as well as courthouses. Leaders with this civic can both expand quicker and financially support more cities.
- **Financial** leaders get +1 commerce from every tile that already outputs 3 commerce, and also get a discount on many cash-related buildings.
- **Imperialistic** gives you +100% Great General (GG) emergence and added happiness from barracks and castles. Leaders with this civic will likely find themselves as the recipients of more doctrines and traditions (see below for that aspect of the game).
- **Industrious** now gives +1 hammer to all tiles that have 3 or more hammers, and also boosts the construction of several production-related buildings. Now industriousness impacts all aspects of a civ's life, not just Great Wonders.
- **Militaristic** leaders get +3 XP for newly constructed units: now you can choose the free promo they get for yourself! Also, of course, this trait hastens the construction of all military training-related structures.
- **Organized** leaders have little trouble with keeping their cities healthy. Not only they get free health and lower pandemic chances, they also get a discount on many health-related buildings.
- **Philosophical** trait now offers only +50% Great People points (GPp) generation, but it aids in



- construction of more research-related city buildings.
- **Protective** trait is largely unchanged from vanilla Warlords, offering free promos for archery and gunpowder units and more Great General points (GGp) inside a civ's borders, as well as quicker construction of protective structures such as walls.
 - **Seafarer** is the second new trait in our mod. It offers all naval units a free promo increasing their combat abilities, and quickens the construction of many coastal structures.
 - **Spiritual** is largely as you knew it: no anarchy and faster construction of all religious buildings. Therefore, this trait and its gameplay value is almost unchanged.

National values

In addition to leader traits, your civilization will be characterized by a national value. While listed among leader traits, every leader for a given civ will have the same national value, so it is really an attribute of a civ, not a leader. National values offer smaller bonuses than leader traits, but these bonuses are often more direct and can have a pronounced effect on a civ. The various national values are:

- **Equality:** +25% Gp (Russia, Vikings)
- **Liberty:** +1 happiness per city, +1 from Courthouse (America, Celts, France, Poland).
- **Order:** +1 happiness and health per city (Germany, Rome, Turks)
- **Power:** +1 XP to all new units, +10% military unit production (Aztecs, Mongols, Zulus).
- **Progress:** +5% research (Greece, Korea).
- **Spirituality:** +1 happiness from temples and monasteries (Arabia, Persia, Spain).
- **Tradition:** +10% culture (China, Egypt, India, Japan).
- **Wealth:** +10% gold (Carthage, England, Inca, Mali).

Remember that you can review the effects of your leader's traits and your national values at any time during the game via a tooltip displayed while hovering the mouse pointer over your civ's flag in lower right part of the screen.

At the start of the game

Game speed, game options and difficulty

For your first game if you are not a veteran Total Realism player, you should probably pick a lower difficulty level to familiarize yourself with the aspects of the mod. As you get the hang of it, the mod is balanced to be played at Prince-Emperor difficulty range, although of course both higher and lower difficulties are available for players, especially relevant if there is a need to give a handicap to beginner players in a multiplayer game.

Most game options for custom games are the same as in vanilla Warlords. You will notice that Tech Trading is off by default – that is because our mod implements an alternative Tech Transfer system*, where instead of exchanging techs via diplomacy, they are transferred from civ to civ via Open Borders treaties. Turning Tech Trading back on doesn't break our mod, but if you do so, you should probably turn off Tech Transfer, as the two aren't meant to co-exist.

The mod was developed and balanced for Realistic game speed, which gives an extended “epic” scale to the games. Nevertheless, for players who are short on time, we also provide several other game speeds that lead to faster-paced games. Still, for full enjoyment of all the features in our mod, Realistic speed is recommended.

Random Maps and the World Map

Another choice you have to make before starting the game is the map you wish to use. Total Realism comes with bundled World Map scenario, and a lot of our effort went into balancing it. Its one drawback is actually caused by its very nature – it is a huge map with many civs. Therefore, it **will** strain your system, and older PCs will experience very long turn loading times as the game progresses to more advanced eras. Also, of course, the map is fixed, and therefore, although it can be played and enjoyed many times (as our testing shows), still sooner or later you will get used to it.

All these reasons may make you turn to random maps, and you won't be disappointed. Our mod is designed to be compatible with most random map generators – both vanilla and player-made. A couple of words of warning is in order, though. Firstly, we have sometimes experienced that smaller Archipelago maps can lack some resources, due to the simple fact that they don't have enough land to place them all; still, strategic resources have never been reported as missing, and therefore these maps will definitely be playable. Secondly, when you use a custom map generation script for the first time, to ensure that it is working properly, it is very recommended to generate a map and inspect it with WorldBuilder, to see if all resources have spawned properly and nothing is wrong otherwise. Some scripts (especially player-made) can generate maps that don't have marches, but this is totally acceptable, as their presence is in no way critical for the game.

Lastly, we must warn you that no premade map for vanilla game or other mod will likely be playable “out-of-the-box”. These maps will be lacking custom resources added by the game, some of which (like sulfur) are critical for proper development of a civ.

The Interface

If you are a long-time Warlords player, you will notice that interface looks different. This is due to the fact that our mod has integrated large parts of BtS Unaltered Gameplay (BUG) mod, which provides numerous interface aids for players.

* - you can learn more about Tech Transfer system in Technology section, on the next page

The best news about all that stuff is that it is fully configurable. By pressing Ctrl+Alt+O or selecting “Interface options” from the game menu, you will be able to configure almost every aspect of the added interface features. By the nature of BUG mod, although most of its features give additional comfort for the player, none of them provide any information or ability that the player couldn’t get in vanilla game – in other words, none of them are “cheating”.

We would also like to draw your attention to the numerous tooltips that will give you lots of info on how the new features of the game work, as well as a vastly improved CiviloPedia that contains lots of information on every aspect of the game. All the tips shown at the loading screens can also be found there – and we tried to make those really useful tips!



Technological development

Tech Transfer system

Tech Transfer is a feature of Total Realism mod that is intended to replace an unrealistic aspect of vanilla game that has civilizations diplomatically trading technologies – something that wasn’t there till at least mid-XX century. Historically, technological developments spread passively, and all that the kings and governments could do was encouraging or preventing that process by means of general diplomacy.

Therefore, in our new system, when a civ is researching a technology that another civ with open borders to this one already knows, it gets an additional significant research bonus towards that technology: 50% for first such civ and additional 25% for every next civ.

Open borders treaties, thus, become a very important decision with a lot of possible implications to consider. Since tech transfer process works both ways, if you have a tech lead, you will be aiding tech advancement of other civs that have open borders with you – so you will have to choose the civs you want to sign open borders with carefully, and also keeping in mind other important aspects of having open borders with another civ: free passage of troops, trade routes and spread of religions. Additionally, if your relations with another civ are high, you will get bonus culture from having open borders, as your peoples exchange their cultural trends with each other.

Tech tree and Eras

You will quickly noticed that we almost completely overhauled vanilla tech tree to suit the needs of our mod. The number of tech is increased more than twofold, and every single technology unlocks some benefits for your civilization. Some aspects of technological progress are handled slightly differently from vanilla game: for example, many strategic resources are revealed by techs much earlier than they really become



Buildings such as this Jeweler are required to harness the potential of your luxury resources – and they almost always offer additional benefits too!

For example, gold bars aren't by themselves doing anything for the local population – but if you construct a jeweler, he provides a way to turn this gold into jewelry that provides happiness to the population. Such buildings should be individually constructed in every city and provide benefits only to the city that they are built in. Unlike...

Industrial buildings

This category is totally new compared to vanilla game. These buildings take one or more resource and convert it into another one. For example, a steel mill takes one iron and one coal and turns them into one steel. These output resources are treated just like those harvested on the map – all your cities connected to the trade network will benefit from them and you can trade them via diplomacy. Input resources aren't "consumed" by these buildings and can still be used to construct units and otherwise benefit your civ.



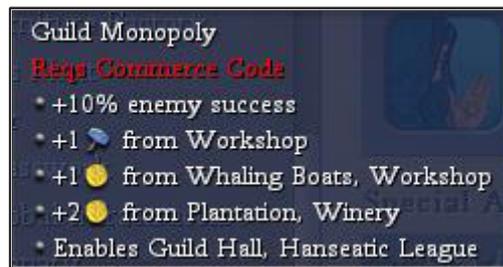
You could trade excess coal and iron away, but a better strategy would be to build a Steel Mill and get the benefits it provides to the city, while selling away the steel it outputs instead

The reasoning it works that way is quite simple really, come to think of it, and comes from the way that resources are initially implemented by Firaxis: if one iron can be used

to construct an infinite number of swordsmen, why can't it be used to construct infinite swordsmen **and** to make enough steel to construct infinite ironclads? Still, if you have more than one instance of a prerequisite resource, you will have to construct more than one instance of that industrial building to get multiple output resources.

Civic dependencies

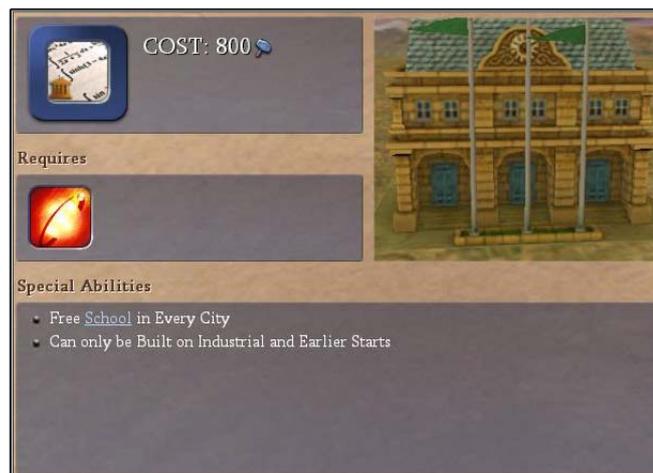
Several buildings and wonders in our mod require specific civics to be constructed and to be operational. They are usually a means to "augment" a civic and extend its effects. Some civic-related buildings have drawbacks as well as advantages, and thus a player can choose to construct or not to construct those. If you switch out of that civic otherwise, the buildings and wonders will stop functioning.



As you can see, Guild Monopoly enables you to construct Guild Halls and the Hanseatic League

The Ministries

The ministries are special national wonders that become available later in game. Their aim is to lessen the amount of micromanagement for the player: each ministry provides the benefits of some basic building (sawmill, school etc.) to all the cities of a civ, so you don't waste time constructing them. They don't provide any additional benefits, so they should only be constructed if you have several undeveloped cities that can benefit from their effects. Also notice that due to abundance of different national wonders in Total Realism, we have lifted the limits on national wonders per city; you can build as many as you like in any one city.



Each ministry costs as much as 5 instances of the building tied to it

Military aspects

Land units

Our mod vastly broadens the range of different units available to players. Even those units that are nominally the same as in vanilla game are very likely to occupy different niches from the ones they had in vanilla game. A quick overview of what will be at your disposal:

- **Heavy/line infantry.** The most straightforward type of units available to the player. These units will likely constitute the core of most armies, and are pretty universal on the battlefield, having few particular weaknesses and strengths. Initially these will be melee units, probably the least changed compared to vanilla game: axemen, swordsmen, men-at-arms (macemen) etc. Later they make a transition to gunpowder line, starting from fusilier (note that fusiliers aren't the first gunpowder units available to players – but earlier arquebusiers are weak on defense, and are closer to archery units in their tactical applications).
- **Light infantry and recon units.** These units are cheaper and weaker than heavy infantry; they are poorly suited for defense, but their mobility and withdrawal chances make them well-suited for skirmishing from a besieged city or in open field and for scouting. Also, since they require no resources, they will be available to you regardless of your economy and infrastructure. One more notable feature of light infantry is the fact that they, like settlers and workers, use excess food in addition to hammers when they are constructed.
- **Archery units.** Most of the time, archery units are only suitable for defending key positions, like cities, hill forts etc., but are poorly suited for attacking cities and field engagements. One thing to note: most of the civs are designed in such a way that they will only have powerful crossbowmen **or** powerful longbowmen. Civs that have good longbows, like England or Korea, can use longbowmen for most applications, like assaulting cities.
- **Heavy cavalry.** Heavy cavalry requires some skill to use properly. Although they are by their nature very powerful (and expensive) units, there are many tactical situations where they will be slaughtered by weaker units. The application where they are especially awesome involves, of course, level terrain outside cities (or cities that have had their defense brought down to zero). Heavy cavalry does small amounts of collateral damage when attacking, but gets severe penalties when attacking fortified cities.
- **Light cavalry.** These units are very special, and you will learn to love them when you have them and hate them when they are used against you. Despite not having defensive bonuses, like all cavalry, light cavalry is very hard to wipe out due to outstanding combination of mobility and bonuses against all melee units (including heavier cavalry). In field engagements, light cavalry can devastate

enemy stacks and retreat unscathed. In addition to basic horse archers, formidable on their own, several civs, like Mongols, later get improved horse archers that can prove extremely devastating against pre-gunpowder armies. The civs that don't have improved horse archers later get early gunpowder light cavalry. The age of horse archer dominance on the battlefield ends with the arrival of gunpowder weaponry, but later on light cavalry still has its uses as raiders and scouts.

- **Siege units.** Early siege units work much differently from vanilla game. Rams of all kinds cannot attack and have almost no strength, so they are useless in direct combat – the only real use they have is bringing down city defenses. Later catapults, trebuchets and early bombardars can successfully attack units in cities, but are almost completely useless in open field. Only later gunpowder artillery, starting with cannons, can be successfully used as field artillery.
- **Armored units.** Despite mostly being same as in vanilla game, armored units have an important difference: they cannot capture cities. Therefore, you have to follow your blitzkrieg breakthroughs with infantry if you want to actually gain territory.

Naval combat

Naval units have also been significantly reworked in our mod. Although early naval combat is very much similar to vanilla game, starting from Renaissance onwards it gains in complexity, with different classes of ships each having different niches in combat. This brings it closer to “rock-paper-scissors” of land combat. Capital ships, expensive and devastating, can be vulnerable to torpedo boats, which are, in turn easily countered by destroyers, etc., etc.



Several new ship types available in Total Realism:
Cogge, Sloop, Paddlewheeler, Steam Frigate, Electronic Countermeasures Destroyer.

A notable impact that naval combat can have on land is the shore bombardment effect capital ships starting from Ship of the Line have. Enemy land units on coastal tiles adjacent to a capital ship will have their combat effectiveness significantly reduced, representing the effects of artillery shore bombardment. Battleships are, of course, most effective at this, and, while they might be too expensive to form the core of your fleets, having at least one of those in your fleet for aiding your ground troops is a good idea, when planning to have an overseas military campaign.

Combat aid system

To represent the effect of combined arms, Total Realism has a system of combat aid bonuses. All combat units present in a stack will provide each other with bonuses depending on their type and combat strength. The amount of aid is decided on combined strength of all the units of that type in a stack compared to the strength of that unit. For 100-200%, 200-300% and >300% difference, levels 1, 2 and 3 of aid respectively will be administered.



Therefore, it is wise to keep several different types of units in any given stack, because then each of them will be getting several different aid types. Sometimes, it is wise to bring some units along even if you don't intend to use this in combat, just for the aid they provide.

Although most naval combat units don't provide aid, there are some late-game cases where combat vessels provide useful aid to other ships.

There are also some specific cases of aid that can also be encountered. One notable instance that you need to be aware of is the penalty for overcrowding. Every stack exceeding 15 units will get overcrowded penalty representing logistic difficulties in controlling and coordinating such a large amount of men.

National units

Building upon unique unit idea of vanilla Civ 4, Total Realism introduces the concept of national units. Every civ has one or two civ-specific national units: powerful and/or unconventional units available in limited quantities.



Polish national unit is the awe-inspiring Winged Hussar

These units are not “replacing” any regular unit, so they can be unlocked by techs that don’t provide any units to other civs. If a civ has two different national units, available at different eras, the allowed quantity for both will be cut in half.

National units, in addition to conventional aid bonuses that every land combat unit provides, also either inspire friendly units in the stack by their presence (providing additional “Inspiration” aid bonus on top of other aids), or frighten the enemies (giving them “Fear” detriment that negatively affects their first strikes).

Bear in mind that although all national units are powerful, that doesn’t mean that all non-national units are just expendable decoys. Most civs also have powerful or at least above-average variants of regular units that can be used just as effectively. For example the famous Mongol horse archers will likely be instrumental for most their conquests in any given game, but they are not national units – they are not limited in numbers.

Doctrines and traditions

Doctrines and traditions are a major overhaul of how Great Generals (GGs) work in game. You can no longer settle Great Generals in your cities, giving newly built units obscene amounts of free experience. Instead, they are able to establish military traditions and create great doctrines.

Traditions, once established, provide a small bonus to all newly constructed units of a particular type. They act as national wonders, meaning that any amount of civs can have the same tradition simultaneously. There are no special prerequisites to be able to establish a tradition, except for being able to construct units of a given type. Traditions exist only for land units.

Doctrines, unlike traditions, work as Great Wonders. Any given doctrine can only be founded by one civ in any given game, and will benefit only that civ. Like traditions, doctrines affect a certain type of newly constructed units. Unlike traditions, doctrines provide no immediate benefits, but instead unlock a new line of promotions, which are generally much more powerful than conventional promotions. Doctrines are unlocked by specific technologies, and thus it can be wise to save one great general for a doctrine you are planning to found as soon as you research its tech. There are different doctrines available for many kinds of units, from ships to helicopters. Most doctrines, except for end-game ones have a limited lifespan, and will eventually go obsolete. The promotions that your units have already acquired will go nowhere, though.

Religious matters

We have reworked religions extensively in Total Realism. Now they are no longer one-size-fits-all creeds that are only different due to different flavor graphics. Each religion now has a different feel and plays completely differently. Moreover, Confucianism (which is not a religion at all) was changed to Zoroastrianism, a faith that was at a time very influential in Middle East and a major influence on the development of Abrahamic

religions. Let us have a look on several aspects of different religions as they currently are in Total Realism:

Spread and missionaries

The way all religions spread at the same rate in vanilla game, the world was almost invariably dominated by the religions that were founded first – in other words, the world was almost always split between Judaism and Hinduism, and other religions were regional at best. In Total Realism, religion spread speed is inversely proportional to the time that religion is usually founded. Therefore, Judaism, Hinduism and Zoroastrianism have it slowest, while Christianity and Islam are lightning-fast spreaders.

Additionally, earlier religions no longer come with pre-enabled missionaries. Their missionaries become available at later techs (although not later than late religions are founded). Also, earlier religions can simultaneously have less missionaries than later ones, and those missionaries are more expensive.

Islam has one unique feature: it is spread by conquest. If an Islamic civ captures a city, it automatically gets Islam spread to it.

Holy cities and religious restrictions

There is now little to no incentive in founding more than one religion; although having multiple religions is still a positive factor under free religions, all other civics will somehow penalize you for religious disunity in your lands. You will never be able to construct and operate temples and other religious structures of your non-state religion, and you will likely not be able to hold onto Holy Cities of a religion you haven't adopted as your official one. If there is at least one civilization that follows that religion, the Holy City will eventually migrate to its territory. Note that if you have constructed a shrine in it using a Great Prophet, it will get destroyed! Religious disunity can be fought under Theocracy, which allows you to conduct inquisition in your cities, purging them of non-state religions.



Islamic civs don't get health from swine and happiness from wine

Many religions also have some restrictions that are placed on their followers. For example, followers of Judaism and Islam don't eat pork, and they will never get any

health benefits from tapping swine resource. All such restrictions are properly represented in Pedia, for your convenience. Also note that many of those are counterbalanced by some other advantage.

Religious structures

Although all religions still have the basic temple-monastery-cathedral-shrine building line, each particular religion provides unique advantages or drawbacks for its buildings. Also new to these lines are Great Temples, which are Great Wonders constructed by Great Prophets (like Shrines) providing additional use for Prophets once you have constructed the shrine, and Holy Places, which are constructed the traditional way, but require you to have a certain number of cathedrals beforehand, so you have to put some effort into furthering your state religion before you can construct them. All Holy Places work almost the same way: each of them provides "Blessed" promo to units constructed in that city (+5% strength) and give one type of specialist a bonus.

- **Judaism** has temples (synagogues) that additionally serve as places where business matters are discussed, thus providing commercial benefits. Their Great Temple, Qumran, provides additional research benefits to all your cities by promoting Jewish scholarship. With the Ark of Covenant, Jewish scientists get +1 production.
- All religious structures of **Zoroastrianism** are more expensive than their counterparts, but provide more culture. Their Great Temple, Adur Farnbag, additionally increases this bonus for all cities. With Shah Name, Zoroastrian artists get +1 gold.
- **Hindu** temples provide happiness from cows (since they are restricted by their religion from drawing health benefits from them, this essentially makes them a luxury resource) and health from spice. Their Great Temple, Kamakhya, provides additional health and happiness for the continent it is located on. Vijay Stambha - the Tower of Victory - provides additional +1 production to citizen specialists (can anyone spell "Agricultural Subsidies"?).
- **Buddhist** temples provide healing for military units, their Stupas can inspire awe in population with their sculptures (resulting in additional happiness from stone and marble), and their Great Temple, Pha That Luang, completely stops all unrest in a city where it was built. With Bamyán Buddha Statues, Buddhist priests get +1 production (especially powerful when coupled with Angkor Wat).
- **Taoist** temples and Pagodas provide not +1, but +2 happiness for free (this compensates for the fact that Taoism draws no happiness from gold, silver, gems and pearls, which makes Taoism ideal for civs poorer in resources), and their Great Temple, Porcelain Tower, increases Great Person birth rate throughout the civilization. The School of Confucius grants all scientists +1 production.
- **Christian** temples provide unhealth due to regular meetings of large crowds, but also provide a small productive bonus due to public works. Christian Great Temple, Mont St. Michel, provides additional happiness from monasteries,

representing the strength of Christian monasticism. With St. Peter's Cathedral, all Christian priests bring in additional +1 gold.

- **Islamic** temples serve as hubs of pan-Islamic commercial network, providing extra trade routes and also additional happiness from gold and incense. Their Great Temple, the Kaaba, turns the city into an unbelievable commercial hub. With the Spiral Minaret, Islamic merchants enjoy +1 production.

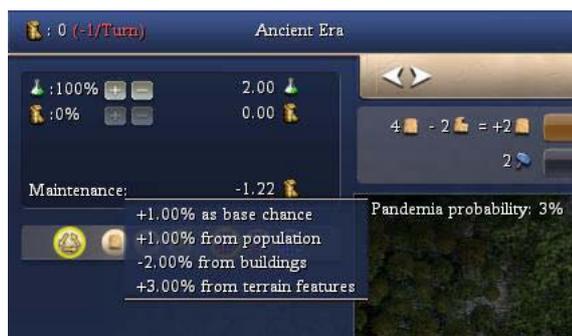
Paganism

One more important religious aspect that wasn't there in vanilla game is paganism. Every civ has a pagan religion associated with it, represented by pagan temples giving different bonuses. These bonuses can be further augmented by some civics and wonders, thus making sticking to paganism a viable choice instead of adopting a major religion as soon as one is available to you. In particular, Stonehenge and Statue of Zeus are geared specifically towards a pagan civ, and will not provide any significant benefits to non-pagan players. There is also a somewhat later wonder, the Pantheon, that will prove a valuable asset to you if you choose to stick to paganism.

Other aspects

Pandemics

Deadly pandemics can strike cities that neglect sanitation. Each city at any time has a pandemic chance indicated in the city screen. Unless that chance is zero, a pandemic can hit a city, killing its population each turn until it ends. There are many factors that influence pandemic chances: pandemics can be induced by surrounding terrain (flood plains, jungle and swamps), by contact with other pandemic-hit cities, by unhealthy population, etc. You can always review the factors affecting pandemic chances in a city through a tooltip that appears when hovering mouse pointer over the pandemic chance.



You can get a detailed tooltip if you hover your mouse over pandemic chance in the city screen

To counter pandemics, you have to research medical techs and build medical/sanitary structures in your cities, keep the population healthy and especially get rid of unhealthy terrain (flood plains can't be removed in any way, so a city having many flood plains in its radius needs special attention regarding pandemics). Pandemics can never reduce a city's population below 4, but they can start in such cities and, while not harming their original city, they can spread to other cities from there.

Terrain and improvements

Terrain-wise, there are surprisingly few changes in our mod. Mostly, this was done to keep it compatible with most random map generation scripts out there. There is only one new terrain feature that was added to our mod: marsh. Marshes are nasty pieces of terrain that rarely contain useful resources, negatively impact health of neighboring cities while providing almost no yields and, unlike most other terrain, negatively impact the defensive abilities of units that stand in them. This provides what probably is the only real positive use for marshes: luring enemies there to slaughter them more efficiently. Marshes can be drained with sufficiently advanced technology.

Likewise, the only new improvement in Total Realism is the settlement, constructed on the oasis. Nevertheless, you will notice that many terrain improvements shift their usefulness with advancing technologies: for example, mines initially can be almost useless (a mined hill provides exactly the same production as a forested hill) – but later, there are in total three techs that raise their production yields, and by late industrial age, production output provided by mines is unsurpassed by other improvements and especially unimproved terrain.

Civics

There are many new civics to use in Total Realism mod, and even most of old civics are reworked in some way. Each civic category now has 6-7 civics in it, and they don't necessarily form a linear progression – newer civics are not always better. In fact, in some cases you might want to stay with some of your initial civics throughout most of the game. AI leaders are also aware of this, and will try to choose a civic combination that most fits their playing style; in any case, you won't see them blindly adopting all new civics they come across, and you aren't advised to do that either.

The screenshot displays the civics menu in the Total Realism mod, organized into two rows of five panels each. Each panel represents a civic category and lists its specific civics and associated effects.

Category	Civics
GOVERNMENT	Barbarism, Monarchy, Oligarchy, City States, Paliamentarism, Dictatorship, Federalism
LEGAL	Rule of Fear, Plutocracy, Aristocracy, Bureaucracy, Nation State, Representation, Social Justice
LABOR	Tribalism, Slavery, Serfdom, Caste System, Indentured Servitude, Hired Labor, Labor Union
ECONOMY	Natural Economy, Guild Monopoly, Merchant Princes, Mercantilism, Free Market, State Property, Welfare State
RELIGION	Paganism, Organized Religion, Theocracy, Pacifism, Free Religion, State Atheism
BARBARISM	Low Upkeep, +50% Maintenance Costs from Distance to Palace, -5% mission success, -5% enemy success, -1 in 6 Largest Cities
RULE OF FEAR	Low Upkeep, +10% Military Unit Production, -5% mission success, -50% War, Enables Mob Justice
TRIBALISM	Low Upkeep, -5% enemy success
NATURAL ECONOMY	Low Upkeep, +10% mission cost, Enables Hunter's Cabin
PAGANISM	Low Upkeep, Enables Khermet, Temple, Augurs Temple, Carthagian Stelle, Celtiber Temple, Temenos, Cult of the Elder, Choson Temple, Ziqurat of Marduk

Some multiplayer advice

Unfortunately, we couldn't make TR 2.4 100% free of Out of Sync (OOS) errors. Still, I can confirm that multiplayer games can indeed be played over network (hotseat doesn't have OOS issues at all, so you will have no trouble there at all), as several of my recent test games show, one played till early industrial age. One piece of advice: **use Pitboss!** It offers a radically more stable multiplayer experience, and it will be the key to enjoyable TR multiplayer for you.

Conclusion

This manual is by no means exhaustive, and doesn't pretend to tell you everything you need to be an expert Total Realism player. It is here merely to give you an idea of what to expect. The best way to get the hang of all features is playing anyway. Anyway, thank you for reading it, and I hope you have found it helpful. Now go play!

Credits and thanks

Current team members (in alphabetical order of nicknames on our forum):

- **Anasztasioch** – Simon Sienko (Poland)
- **Hian the Frog** – Yann Dubois (France)
- **Houman** (UK/Persia)
- **Josh** – Josh Sjoding (USA)
- **Mexico** – Peter Bodnar (Slovakia)
- **Vitez** – Tomasz Stępczyński (Poland)
- **Walter Hawkwood** (Russia)

Former team members (in alphabetical order of nicknames on our forum or on CFC):

- 12monkeys (Germany)
- Ankenaton (USA)
- charly1977 (Germany)
- el_zozo (France)
- israfil (Canada)
- jaynus
- Kristine
- Nightravn
- Phatlip
- PTFeilong
- Tahnkout (Turkey)

Thank you very much, for without your input, Total Realism would never get where it is today!

Special thanks go to the people who have provided a great deal of help to us testing our mod and giving us lots of useful feedback (in alphabetical order of nicknames on our forum):

- BareJag (Finland)
- Cruel (Brazil)
- Freakwave
- gforce (Canada)
- Harrier
- Iamwinterborn
- Ignacio (Argentina)
- riesscar
- spleskan_kur
- Sukkels88
- RonZeroRange (USA)
- VenGence (Canada)

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Some artwork was taken from the following games (every single of them is very nice, so give them a try!): Sid Meier's Pirates!, Sid Meier's Railroads, Sid Meier's Colonization, Axis & Allies, Kohan 2: Immortal Sovereigns, Blitzkrieg, Empire Earth 2, The Elder Scrolls 3: Morrowind, Age of Empires 3, Anno 1404, Anno 1701.

Additionally, many units are directly based or inspired by these user-created mods to Total War game series: Rome Total Realism, Europa Barbarorum, Ogniem i Mieczem, Napoleonic: Total War, European Wars, Rusichi, Broken Crescent.

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