



Realism



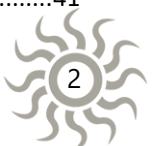
Invictus

Historia est vitae magistra

Manual 3.6

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Realism Invictus

Historia est vitae magistra

Foreword

Realism Invictus (RI) is the Beyond the Sword version of the Civilization 4 mod that was formerly known “Total Realism” when it was being 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.

For many years now, the mod has continued its life and its evolution. 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 (“Invictus”, Latin for “Undeclared”, wound up being in our title for a reason!). 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.

Still, some time ago, I felt that some fundamental explanations were in order, as I found myself answering the same questions again and again. This foreword is my attempt to address this.

Over the many years the mod has been around, I have encountered time and again suggestions and criticisms from players driven by the fact that “the main goal of this mod is realism”, and it is easy to understand why – it’s been in the name this whole time! However, I fear that word tells the wrong story to many people. This is the reason the following text was written. If you are only interested in the gameplay features, you can skip to the next section. If, on the other hand, you are interested in, if you will, the philosophy of the mod, please read on.

The way I see it, we don't really want games (and our mod in particular) to **be** realistic. We want them to **feel** realistic. Let me try to explain the difference...



Something **is** realistic when it closely follows reality. If we are talking about a game, there should be a lot of mechanics and rules that work in the same way as IRL. But the reality is not a game, nor was it designed to be played. When one strives towards that ideal, what one gets, in the end, is a simulation, not a game. It might yield interesting results and even have some predictive power and scientific merit, but ultimately, it won't be a good game (or maybe even not a game at all).

An excellent example occurred when someone asked me how I felt about Jared Diamond (of "Guns, Germs and Steel" fame) and his work. Diamond's theories could actually be implemented in the Civ engine if one tried hard enough. Would the end result be more realistic? Definitely (even if some of his points are dubious, his theory still beats Civ 4 as a scientific theory of historical process). Would it make for a good game? Most likely not, since his ideas are deterministic. What would that spell for players? It would lead to a better simulation of reality while taking a lot of agency away from players by having your final win/lose status basically pre-determined by your starting location. A game that does this is not a good game.

Something **feels** realistic when it evokes the right feelings in the player, and it can be done by vastly different means than **being** realistic. Why do people play Civ? I'd say it is to feel oneself leading a civilization through history, to experience what that might be. That said, I hope we can all agree that actually leading a country is a lot of hard work and often not very fun - what we crave is the fun parts of ruling a country and experiencing history without all the non-fun parts. We need wars and pitched battles, geographic discoveries, and great works of art; we need to see our cities grow, shaped by how we rule them; we need to see our borders spread and our people mastering new technologies. Do we need to feel the day-to-day tedium of government, such as sitting through endless budget meetings, arguing with our ministers, editing the errors out of bills and such? I doubt anyone plays to experience that. So what does it mean to **feel** realistic in this context? I'd say it's mainly about the feelings of:

- a) Progress. We need to feel that, plainly speaking, the thing that comes after feels cooler than the thing that comes before. That is actually not as straightforward as it sounds. For example, in a new unit, it is both the stats and the look that matter - it can't just **be** more powerful; it needs to **feel** more powerful too. One rather realistic thing that likely needs to be sacrificed here is the idea of simulating "dark ages" in any real depth. If you feel that you are regressing instead of progressing, it may lead to a feeling that you've been betrayed by the game you're playing, even if it is happening on a purely emotional level.
- b) Accomplishment. Achieving stuff should feel rewarding. When you reach a certain point in your game, you should feel that you're being rewarded for how smart and persistent you've been up to this point. This point has the least to do with the being/feeling dichotomy above, but one should still keep in mind that the **feeling** of reward is not actually the same as actually **getting** a reward. A better reward from a pure gameplay perspective would be



just a numeric stat increase. Why do we actually have spearmen upgrade to pikemen instead of increasing the power of the spearman unit? It is because upgrading a 4-str spearman to a better-looking, armour-clad 8-str pikeman actually **feels** more rewarding than just getting a +4 str to spearman. Likewise, getting a Great Person with a popup of his portrait and his quote feels more rewarding (and actually more relatable, see below) than just getting a unit with his name.

- c) Relatability. The **feeling** of realism comes from us relating it in our heads to what we know from real-world history. This victory I just had over Persia **feels** like Marathon! This golden age I started in Florence with my Great Artist? It **feels** like the Italian Renaissance! This continent my caravel just discovered? It **feels** like I'm discovering America! And that is another huge difference from **being** realistic. Civ 4, in general, and our mod in particular, makes good use of random maps to create alternative histories. Would, in a hypothetical alternative Earth history, Greeks "starting" in the Amazonia still wear togas and fight as hoplites? I don't think any sane person would argue they would. But if we dress them in feathers and have them lead a hunter-gatherer life in the jungle (which would be the perfectly realistic thing to do), why are we even calling them "Greeks" anymore? They don't **feel** like Greeks. They are no longer relatable as Greeks. Out of all three, this point is the most contentious, as not only do different people relate to different stuff based on their previous experience (unlike the feeling of accomplishment, for example, which is a pretty universal reaction for a set of universal stimuli), but that point even manages to clash with gameplay as well, the obvious example being again the same "jungle Greeks" - being a Greek civ definitely hurts them from a gameplay perspective when they start in the jungle, and yet providing their phalanx with a jungle bonus instead of their normal one in this situation would ruin relatability (my bronze-clad hoplites are better at fighting in jungle how exactly?).

Those three together, I would call the **"feel"** of the game for shortness. I think by this time, we should be on the same page that the feel is composed in equal parts of rules, mechanics, look and sound, "lore" (stuff like authentic-sounding names and such) and some other factors in constant interplay with each other.

All that said, I return to my initial statement. Realism isn't always good for gameplay. That's almost a given. But paradoxically, **being** realistic might also take away the **feeling** of realism, as I hopefully illustrated above, when actual realism starts to clash with the feel of the game. Too often, I see people craving more "realism" in the first sense - they want some elements of the game to **be** more realistic, with no regard for everything else. And I kind of feel that they feel encouraged by the word "Realism" in our name. If I could go back in time, I guess the name would



be more neutral now. I don't think we'll be changing it since, over the years, it kind of became a recognizable brand, but...

Note for Realism Invictus 3.57 players

We know that many of the players who are reading this manual have been previously playing our mod in its different incarnations, including the previous 3.55-3.57 versions. While you will find most of the gameplay and design decisions quite familiar, there are some changes we would like to highlight. In this manual, many sections will have these smaller-font notes intended for veteran Realism Invictus players to bring their attention to the changes Realism Invictus 3.6 has when compared to Realism Invictus 3.57.

This particular version is more focused on bug fixing and user experience, but there are still some important changes compared to 3.57.



Before installing

Versions

This is version 3.6 of Realism Invictus. With each new release, we seek to improve the previous version significantly, and for this reason, our support is focused on the latest release. The saved games are incompatible between versions.

We have two download options: Full and Light versions.

The **Full version** is the download that contains everything that you might need to enjoy our mod as intended.

The **Light version** contains no animated wonder movies (static pictures are used instead), no custom music and no specific Great Person popups. It is otherwise a fully functional version, good for people with a slow connection, limited bandwidth or limited space available on the drive.

Please note that the full and light versions both have the same system requirements and the same performance; they are only different in the installer sizes and the amount of space they require.

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 the vanilla¹ game. While the game itself can run on video cards not supporting 2.0 shaders, you **will** need an SM2.0-capable video card to run our mod without trouble. This means that we cannot guarantee that our mod will run on Intel onboard video cards (often found on laptops).

In addition, due to much more content and functionality compared to the vanilla game, it is hungrier for RAM, VRAM and CPU performance. This is especially true for larger maps and bundled scenarios.

Our mod is designed to be run on Beyond the Sword or Civ 4 Complete, patched to the latest available version (3.19). Note that Civ 4 Complete ships without the latest patch and has to be patched after installation!

Our installer is designed to be compatible with the Steam version of the game as well. For Steam users, it is highly recommended to go to the Betas section and switch to the Original Release, as it behaves much better with mods in general. It also has the LAN multiplayer that the later Steam

¹ "Vanilla" = core game without any mods



version doesn't, which, over a virtual LAN, is a very convenient way for playing RI (or anything else Civ 4-related, for that matter) over the Internet.

Be sure to clean your CustomAssets folder before (or after) installing – it is a common source of trouble with mods in general.

A common source of problems during the installation is Civ 4 located at a non-default install path. In most cases, our installer can handle that, but when there are non-standard Latin symbols in the path or when Civ 4 is installed to Program Files or another protected folder, there can be problems.

Another common problem stems from the way the installer works – it first needs to create a temporary folder to unpack everything, and this might be located on a different drive than the one you're installing to. If the installer suddenly stops mid-extracting files, make sure you have enough space on the drive where your temporary files folder is located!

Game settings

Generally, you are free to choose any game settings you are comfortable with, graphical settings high or low, depending on your performance. One important notice: our mod does not function well with "Frozen animations" option, so it is disabled with no way of activating it while running our mod. You can turn it back on when you play other mods or the unmodded game later.

MAF error

The memory allocation error (MAF error) is, unfortunately, the harsh reality that 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. On 32-bit systems, in Civ4 it begins happening when the save game size hits 1 Mb.

There is no real solution for this error on 32-bit systems, although there are certain methods that allow postponing it. Our mod incorporates a special solution called "**Graphics Paging**" that might mitigate this issue, if not solve it outright. It can be turned on in game options, under the graphics section. Warning: only do it if you are already experiencing MAFs, as it can cause visual glitches and instability. It is not recommended to keep it on all the time.

64-bit systems (and OSes: a 32-bit OS installed on a 64-bit system will have exactly the same problems as a 32-bit system) are much luckier here – for BtS, no action is required at all; you will simply not run into MAF errors until your save games get ridiculously big (over 4 Mb). That size can only be reached on largest maps late in game. If you do, the same advice as above regarding turning paging on applies.



If you play our mod on 32-bit systems on larger maps, you will likely run into MAFs eventually. The only permanent solution for those is upgrading to 64 bit; nevertheless, you can postpone those until much later in the game if you choose smaller map sizes and use graphical paging – 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 am directing you to CFC](#).

Once again, to drive the point home:

If you run a 32-bit OS and play a big map, your game **will** crash sooner or later.

If you run a 64-bit OS, you will **probably** not reach that point **unless** you're playing giant-sized random maps or the huge world map scenario.

Different aspects of Realism: Invictus

Civilizations and leaders

Civilizations

We have done many things to ensure that every single civilization in Realism Invictus offers a very different playing experience. This is done by introducing a vast amount of customization into all playable 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 the vanilla game. Civs are customized on many different levels, and each one offers not only different visual flavours but also somewhat (or vastly) different playing styles. This also means that adding a new civ is a very labour-consuming task, and therefore we have only added a few thus far, but we are working on adding more with each version.

Our very approach to what a civilization is was somewhat different from that of the game's creators and 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 centred around a particular geographic region from ancient times till the 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 the modern nation-state of Italy; therefore, the units you will see for a particular period will not be “fantasy Roman legionaries of WW2” but actual Italian units of that age. The same goes for leaders – Mussolini is as much a leader for Rome in our mod as Caesar is. Other examples include Classical Greece / Macedonian Empire / Byzantine Empire / Modern Greece and Egyptian civ that does not keep “theme-park” ancient Egypt-like units for later periods but correctly displays Hellenic then Arabic influences as it progresses through the ages.

What's new in 3.6: Nothing major, just some rebalance to several national improvements and units.

Meet the new guys

Realism Invictus (RI) has a long history. The playable civilizations somewhat reflect that: you will quickly notice that we did not make most of the BtS-added civs playable. For some of those, like Byzantines or HRE, it will never happen since they don't match our vision of what a civilization actually is (see above); one can say that these civs are already parts of other playable civilizations in Realism: Invictus. For some others, we just did not have enough time to bring to the high standard of what we consider a playable civilization in our mod, but this might happen in the future. Yet some others, while potentially interesting (Khmer, for example), lack enough material



for us to make them into an exciting and realistic playable civ and are thus put on hold until we can get more sources and ideas on how to make those civs more appealing.

Some of the other stock civilizations might seem absent to you at first glance, but they were simply renamed to what we feel is more accurate in the RI context: Mali is now Sahel (so as to include pre- and post-Mali empire states as well), Zulus are now Nguni (a broader group of peoples that gives us more content to draw from), and Vikings are now Scandinavians (as Viking isn't even an ethnicity, but rather a profession – "Viking civilization" is like "Trucker civilization").

Two BtS-added civs, Ethiopia and Mayans, are fully playable. We have also included several other playable civs of our own choice. Let me introduce those:

Armenia

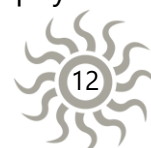
The mountains of Caucasus have been inhabited for almost as long as human civilization has existed; it is believed that Noah's ark landed on top of Mount Ararat after the Great Flood. What is certain is that from roughly 1000 BC ("Urartu" is an Assyrian exonym for Ararat) and to the modern age, these lands had their own indigenous culture, best exemplified by the tri-millennarian history of Armenian people.

Armenia has a long and difficult history. Situated on the crossroads of Eurasia, it was always the destiny of Armenia to be the frontier between superpowers: Greeks and Achaemenid Persians, Romans and Parthian/Sassanid Persians, Byzantines and Seljuks, Ottoman and Russian empires. At times, Armenia was subjugated to one of its mighty neighbours; at times, it retained independence for centuries and even carved out a substantial territory. Whatever the geopolitical situation in the region was, one thing remained constant: Armenians, whether serving their own kings or the new regional superpower. Byzantine generals, Ottoman statesmen, Soviet ministers – they all shaped world history in their ways. As the melting pot of Eastern and Western cultures, Armenian contribution to the development of both is often underplayed: Hellenism fused with Zoroastrianism here, Mithraism was born here, and Christianity was first adopted by a reigning monarch here.

Armenian civilization gives the player many opportunities for both peaceful and military expansion. Armenian armies mix reliable heavy infantry with excellent, hard-hitting heavy cavalry, all while backed by increased cultural output from their UB, the scriptorium. Armenia is probably strongest early on, in the Classical age, which corresponded to the greatest extent independent Armenian kingdom achieved in our history. Their highland pastures provide more versatility to hills early on when windmills are not available yet.

Austronesia

Austronesian peoples, before the era of European colonialism, were the most widespread group on Earth. The lack of attention this vastly important civilization gets in Western historiography is



only recently beginning to be remedied, and I am sure for most people reading this, they would not be an obvious choice for a civ. Let me try to show the reasoning behind it...

Austronesian history begins thousands of years ago, around 4000 BC, around the isle of Taiwan (note to the perceptive: yes, they start elsewhere on our World Maps to stimulate AI expansion along historical lines better). From there, the Austronesians – the first known seafarers in the world – launched an unprecedented colonization campaign into the islands of Southeast Asia, and from there onwards to other parts of the world – the Pacific islands, from Hawaii to New Zealand, and even to the isle of Madagascar. Austronesians were the truest thalassocrats in human history, ruling over archipelagos and along the coastlines, controlling various trade routes of many regions. With the arrival of Western colonialism, most of those island empires fell into European dependency, but Austronesian history is far from over. Indonesia has the world's fourth largest population, is often regarded among the more promising developing countries ("The Next Eleven"), and is set to overtake Japan in terms of GDP by 2050, according to Goldman Sachs.

Austronesian civilization truly shines in island environments. Their early naval NU ensures their ability to safely colonize over bodies of water earlier than anybody else (and is the earliest available ship in RI!), and both their UB and NI are geared towards getting more food and commerce from water tiles. Austronesia is probably not your choice for a big overland war, though, as their land military, especially on the attack, can be found a bit lacking.

Berber

Berber peoples of North Africa have been a part of the Mediterranean civilization exchange for probably as long as it has existed. While other peoples, like Phoenicians or Romans, came and went, they did so against a constant backdrop of Berber locals watching them, learning from them, and resisting them. Both along the coastline and deeper into the desert, numerous Berber states have existed across the ages. Even the eventual Arab conquest has done little to erase their cultural identity, which persists to this day.

Berber lands were rarely united under a single ruler, yet they always shared a special bond and distinct cultural identity. Across the ages, people of Berber descent like Jugurtha, St. Augustine, Terence, Avempace, and Ibn Battuta have made an impact not only on local but on world culture as well. Often falling under the sway of the Great Powers of the age, such as the Roman Empire, Arab Caliphate or Ottoman Empire, they nevertheless never assimilated and always strove to regain their independence. Berber civilization is modelled after this succession of various North African states, starting with ancient Numidia and culminating with modern Morocco (while Carthage, which shares the region with them, proceeds to be represented by modern Tunisia and Algeria).



Both Berber armies and Berber cities are well-suited for desert conditions. Their NI and UB synergize well with oasis, and their unit roster offers powerful light infantry and light cavalry best used at hit-and-run tactics and pillaging raids.

Dravida

I think most people reading this have just encountered the word “Dravida” for the first time in their lives. This mostly comes from the fact that the history of the Indian subcontinent is relatively unknown to outsiders. Nevertheless, India is probably even less culturally monolithic than Europe is – while most of Europe at one point in history was a part of the Roman Empire, imposing its culture on all its subjects, the first time the Indian subcontinent was truly united under one state came only in XX century. Before that, India was often much fractured, and at no point in time were the lands of Dravida united with those north of the Deccan plateau. Invaders came again and again to the North – Aryans, Greeks, Sakae, Kushans, Arabs, Mughals – but, by virtue of both geography and the fierce resistance of the locals, they never advanced southwards enough to reach Dravidian lands. Even later European imperialists had a hard time subjugating the region, as troops of Mysore repeatedly defeated invading British.

While the North could rely on overland routes, the sea was much more important for Dravidians in all eras: Sangam ships traded with the Hellenic world and the Roman Empire, and Chola traders brought Hinduism to Southeast Asia. Prosperous states of South India gave birth to cultural and scientific marvels; religious tolerance gave birth to diverse communities of Hindu, Buddhist, Jain, Christian and Jewish believers.

What Dravida lacks in blunt hitting power, it makes up in other ways. Increased trade incomes and a quality navy can safeguard economic prosperity, guarded by defensively-oriented infantry-centric armies to ensure long-term dominance. It does not really have any exceptional period, with a robust performance across all of its history instead. Moreover, watch out for spices because Dravidians get potent bonuses from them via their NI!

Hungary

There are a lot of civs we already have in the European region, and plenty more we could add. Why Hungary? Why add another civ in Europe at all? Well, Hungary is special. It is probably the only civ in Europe (or rather one of the two, but Finland, while present in RI, is not playable) that doesn't speak an Indo-European language and doesn't have either a Romano-Germanic, Celtic or Slavic origin.

Hungarians are relative newcomers to Europe. Magyar tribes first migrated to the Pannonian plains roughly 1000 years ago; in those times, Magyars (later to be known to their neighbours as Hungarians) were a steppe nomadic people. Gradually, those nomads settled, adopted Christianity, and Hungary became one of the most important kingdoms of medieval Europe.



Hungary lost its independence to Austria after a century of almost constant warfare against the advancing threat of the Ottoman Empire. Despite maintaining their language and culture and constantly struggling for freedom, the Hungarian people only regained their independence after the Austrian Empire fell apart at the end of the First World War. Despite not having formal independence, Hungarian artists, scientists, statesmen and engineers played a very prominent part in the European history of the previous five centuries.

Hungarian civilization undergoes a metamorphosis as it advances through the ages. It first starts as a cavalry-based semi-nomadic civilization, but by the mid-Medieval era, its roster shifts to a more traditional European style, with a good balance between heavy infantry and cavalry. Despite shifting away from their nomadic roots, Hungary retains powerful cavalry throughout the ages, and their unique improvement additionally capitalizes on horses resource.

Poland

The first custom civilization added to Realism: Invictus, back when the mod was called Total Realism for Warlords. Slavic peoples are one of the largest groups of peoples that make up humanity, both in terms of population and especially in terms of territory. It felt unjustified that this large and quite diverse group was only represented by Russian civilization, and therefore we brought in another Slavic civ.

Poland is the most prominent representative of the Western Slavic branch. Unlike their Eastern and Southern brethren, Western Slavs had historically more ties with Western Europe, the Catholic Church and the Holy Roman Empire than with Orthodox Christianity and the Eastern Roman Empire. Poland's geographical position has put it in peril a great many times throughout its history, both from expansionist European powers to the West and from invaders from the East. Nevertheless, for many centuries, Poland managed to not only hold its own but to actually prosper, at times being the largest state in Europe. Polish traditions of self-government, elective power and collective decision-making are in stark contrast with the strict hierarchical practices of many of their neighbours.

Polish civilization offers a player a balanced and flexible playstyle, with good opportunities both for an aggressor and a builder. Poland is most powerful around the Renaissance era, which is historically remembered as the Golden Age of Poland. Polish armies rely on excellent cavalry, both heavy and light, and have otherwise a well-balanced roster.

South China

This civilization is an attempt to fix (or at least alleviate) one of the most common misconceptions a Westerner has about Chinese history. It is very tempting for an outsider to see Chinese history as the history of China, the one, the true and the only. In many historical eras, nothing could be farther from reality. At many different points throughout its history, China was fragmented into



several independent states, more often than not each with culture as distinctive – or even more so - as, say, Spain and England (which, by analogy, we could happily call a “European civilization”, along with Germany, Rome, Scandinavia and so on), numbering from two to dozens. Remarkably, many of these divisions went along North/South geographical lines.

Therefore, South China is our attempt to show more of China’s diverse historical situations: the Warring States period, Three Kingdoms, Southern & Northern Dynasties, the struggle between Song and Liao, between Yuan and Ming, between Nationalists and Communists in XX century – and a lot of others. While we understand that having two civilizations also limits us a lot (note, for instance, the “Three Kingdoms” period above), it is still much better than treating China as a single monolithic entity throughout all of its history.

North Chinese roster, where it is different from South Chinese, draws upon the Northern Dynasties, the Jin (Jurchen) Dynasty, the Qing Dynasty, the Beiyang Government and the People’s Republic of China, while the same units for South China are drawn, respectively, from the Southern Dynasties, the Song Dynasty, the Ming Dynasty, the Nanjing Government and the Republic of China (Taiwan). North China generally has more powerful cavalry, while the South draws more upon ranged units and technological contraptions.

With dynamic names/flags, if only one Chinese civ is left, it will switch to a “unified” name/flag but will essentially remain one of the two Chinese civs in terms of units, buildings, leaders and everything else.

Transoxiana

The ancient lands beyond the Amu Darya (ancient Greek “Oxus”, hence “Transoxiana”) are among the oldest cradles of civilization. Together with the neighbouring region of Khwarazm, various peoples and states have occupied these lands as long as the civilized world keeps records, and likely longer still. This is the place where Europe meets Asia, where the Far East meets the Near East – the land of the Silk Road. For centuries and millennia, these lands witnessed the rise and fall of empires: mighty Persia to the South, then Alexander’s empire to the West, then China and later Mongols to the East, then Russians to the North. It gave birth to its own great conquerors as well, forging mighty empires: Parthian kings, brilliant and ruthless Tamerlane, Indian conqueror and first great Mughal Babur all hail from here.

The Transoxiana region is very important, yet oft-overlooked when it comes to history. Once you get to know it, it is hard to see why it should be like that: opulent cities and booming trade along the Silk Road, great cultural monuments and important scientific discoveries, conquerors and humanists who shaped the face of Eurasia – all that can be found here. Situated literally in the centre of the Eurasian continent, the region both profited and suffered greatly from its location during its long history.



Drawing from the peoples of vast Central Asian steppes, the Transoxian unit roster has some very good cavalry, but its other units should not be overlooked. While they usually lack a bit in blunt power, a good tactician will find the mix of bonuses in the Transoxian roster very appealing. Transoxiana is at its strongest in the late medieval period, at the age of Timurids.

Derivative civilizations

Derivative civilizations are a large subset of civilizations that are not playable through normal means. They are not present at the start of any given typical game (though some are pre-placed in some scenarios) but can appear by being released as colonies, by revolting if the Revolutions component is on, or by settling if the Barbarian civ component is on. As a rule, they do not have a National Improvement and only have one National Unit (you can see their corresponding sections for more details) and usually only one leader.

They are not intended to be playable by humans, at least under normal circumstances (some of them can be played in scenarios). Their primary purpose in RI is to appear through either the Revolutions component (splitting off from another civ) or the Barbarian Civ component (settling down from barbarian cities).

Leaders and leader traits

A leader is a very powerful way of customizing how a civ plays. That is why we concentrated on adding several different leaders for every civ available in Realism: Invictus. There are 5-7 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 a human. Indeed, Mongol hordes led by Genghis Khan are very different from Mongols ruled by learned and intelligent Ulugh Beg!

We tried to supply most leaders we included with historical quotes for additional flavour. Unlike vanilla Civ 4, leaders are represented not by animated cartoon-style leaderheads but by their portraits or artistic renditions.

We reworked many leader traits present in the game and introduced several new traits to give ourselves more opportunities for mix-and-matching. Here is an overview of what is available to a player (of course, all the relevant information can be gotten from Civlopedia (Pedia) in-game at any time):

Chinese Empire
Mao Zedong
Agrarian

- -1.00% 🚫 in empire
- +1 🏠 on Plots with 6 🏠
- 50% Faster Production of Worker (Han)
- 50% Faster Production of Hunter's Cabin, Smokehouse, Granary, Agronomy Station, Agricultural Machine Depot, Ministry of Agriculture, Ministry of Healthcare

Politician

- +2 to diplomatic relations
- +50% 🚫
- 50% Faster Production of Tavern, Labor Camp, Jail

Revolutionary

- -1 to diplomatic relations

- **Administrator** is one of the two traits that formerly comprised **Organized**. It provides +1 health per city, lowers pandemic chance, and gives a 25% bonus to the construction speed for all the National Wonders (including Ministries!) and worker speed.
- **Agrarian** is one of the new traits. It provides +1 food for all squares already producing 6 or more food, lowers epidemic 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 lost its free extra happiness (but still gets it from several buildings). -25% XP required for unit promotions is still a lovely bonus. To compensate for the loss of free happiness, it gets a fancy new ability of +1 relations with all other leaders.
- **Conqueror** is another new trait. It provides experience to all types of cavalry (including tanks later on) and a free city attack promo to your melee/gunpowder units. It allows building knights without the prerequisite civic. It also improves rural logistics (see "Logistics and overcrowding" section for more details).
- **Creative** trait now gives both +20% culture across the board and +1 culture per city, 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 the construction of different culture-related buildings).
- **Expansive** now gives you +50% production for settlers and naval transports, courthouses, and +1 food from the starting city plots. Leaders with this civic can both expand quicker and financially support more cities and in places less hospitable than ordinarily viable.
- **Financial** leaders get +1 commerce from every tile that already outputs 3 commerce and a discount on many cash-related buildings.
- **Humanist leaders** get +50% Golden Age duration and +1 free commerce per city; also, all justice-related buildings can be constructed quicker.
- **Imperialistic** gives you +100% Great General (GG) emergence and added happiness from barracks. 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 with 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.
- **Legislator** is the other half of what was **Organized**. It still reduces civic maintenance and also provides +1 production on city plots.



- **Militaristic** leaders get +3 XP for newly constructed melee and gunpowder units: now you can choose the free promo they get for yourself! It allows building foot knights without the prerequisite civic. Additionally, it improves both rural and urban logistics.
- **Philosophical** trait now offers only +50% Great People points (GPp) generation, but it aids in the construction of more research-related city buildings.
- **Political** leaders get +50% espionage point output and +2 relations with other leaders, as well as a discount on espionage-generating buildings.
- **Progressive** leaders get a 50% discount on upgrading units and +5% research across the board, and, of course, build all research-related buildings faster.
- **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. The only real change is improved urban logistics.
- **Seafarer** is a new trait in our mod. It offers all naval units a free promo increasing their combat abilities, and +1 trade route in coastal cities.
- **Spiritual** is largely as you knew it: no anarchy and faster construction of all religious buildings. Therefore, this trait and its gameplay value are almost unchanged.

What's new in 3.6: nothing major; Humanist now has a construction bonus for printing press building line instead of hospital building line.

Leader drawbacks

In addition to two positive leader traits, each leader has a drawback, reflecting their weaknesses. Just as ordinary traits, these can dramatically affect your playing style – and you will find that most AIs keep them in mind when formulating their strategies as well... Most drawbacks act as direct opposites to certain positive traits. Note that, in rare cases, a leader can have both a positive trait and its anti-trait! The leader drawbacks in RI are as follows:

- **Anti-clerical:** -1 happiness from temples. Local clergy offers no support to these leaders. Temples are rather useless for them, except for being a source of culture.
- **Barbaric:** -25% culture. This leader never got any formal education and sees little point in all this fancy stuff "civilized" people do.
- **Arrogant:** -20% espionage. This ruler sees other rulers and civilizations as vastly inferior and often dismisses spy reports that show otherwise.



- **Cruel:** +20% XP needed for unit promotion. This ruler often treats their subjects as their little playthings, especially at times of war – much fewer soldiers survive to actually see the promotions for ridiculous feats he demands from them.
- **Excessive:** -10% gold. The extravagant lifestyle of this leader and their court puts a real strain on the state budget.
- **Fanatical:** -25% Great Person birth rate. This leader judges the people based on their piety first and their other merits later. Some of the more controversial but talented people choose to avoid his court.
- **Foreign:** -25% worker speed and worker production. This leader rules a people different from their own. While the higher classes in society are more open-minded, this can be a problem for simpler folks.
- **Idealistic:** -5% strength to melee, archery and gunpowder units. This leader does not believe in violent means of solving the conflicts, which isn't precisely inspirational to their troops.
- **Isolationist:** -25% foreign trade route income. This leader believes in self-sufficiency up to the point of shutting off their borders to outside influences.
- **Megalomaniac:** -20% wonder production. Why settle for second best if you can have it all? This leader already sees themselves as the ruler of the world and spends additional effort to commemorate themselves with ridiculously huge projects.
- **Poor commander:** while this leader can have many talents, leading the troops is undoubtedly not one of them. -5% strength for recon, cavalry and armoured units.
- **Populist:** +25% civic upkeep. This leader owes their success to popular support, and they must spend extra to keep it.
- **Revolutionary:** -2 relations with other leaders. This leader came to power violently and thus lacks legitimacy in the eyes of other world leaders.
- **Schemer:** -40% Great General emergence. This leader can't stop trying to stab every back turned to them and views everyone else with inherent mistrust as well. This often leads to purges in officer corps in an effort to put out the conspiracies to overthrow them – real or imaginary.
- **Temperamental:** Recon, archery, melee and gunpowder units have fewer first strikes. This leader's impulsive behaviour can ruin even the best-laid-out battle plans.

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

What's new in 3.6: nothing significant.

At the start of the game

Game speed, game options and difficulty

For your first game, if you are not a veteran Realism mod series 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 BtS. You will notice that Tech Trading is off by default 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 does not break our mod, but if you do so, you should probably turn off Tech Transfer, as the two are not meant to co-exist.

Some components of RI can be turned on or off in the custom game menu. RI adds these new options:

- Tech transfer on/off. See above.
- Unit cost scaling on/off. Turns off an increase of unit production costs based on how many you have built already. Remember that RI is balanced with this option being on in mind, so turning it off will lead to many more units being produced.
- Tech cost scaling on/off. Turns off an increase of technology costs based on how many cities you have. Remember that RI is balanced with this option being on in mind, so turning it off will lead to much faster tech progress.
- Holy city migration on/off. This determines if non-state religion Holy Cities will migrate to other civs. You can read more about that game mechanic in the religious section of the manual.
- Protect Valuable Units on/off. This option changes the rules for which unit is considered the best to defend with. When turned on, valuable units like great generals, national units, units with lots of experience, and medics may be withheld in favour of another unit even though they have the highest odds of winning. This happens when another less valuable



unit has comparable odds or the odds of winning are very poor. It does not affect the mechanics of actual combat, only the order in which defenders are selected.

- AI plays to win on/off. If turned on, AI will be aware of different victory conditions available and choose a particular strategy focused on winning the game with the selected kind of victory. Whether to turn this on or off depends on your playing style – whether you yourself play to win or play for fun. If turned off, AI players will try maximizing their score, basically always aiming at Time victory.
- Barbarian Civs on/off. If turned on, barbarians can settle down, forming new civs, if their presence in any given region is sufficiently large (and if there aren't too many civs in the game already).
- Revolutions on/off. If turned on, all cities have a measure of separatism, influenced by many factors, which can lead them to start a revolt and form a new civ. It is off by default (see the appropriate section for an explanation).
- Religious shock on/off. If turned on, founding a new religion will create a "religious shock" around the new Holy City, purging all old religions.
- Dynamic civ names on/off. If turned on, civilizations' names will reflect their actual civics and historical development instead of being simply "... Empire".
- Dynamic city names on/off. If turned on, cities will get renamed based on their owners, where appropriate, and leaders will use leader-specific city lists that reflect the situation in their times.
- Dynamic civ flags on/off. If turned on, civilizations' flags will change based on their civic, leaders, current era and other circumstances².
- Slave/serf rebellions on/off. If turned on, there is a risk of armed revolt when running Slavery or Serfdom (not to be confused with revolt events that function the same way as all other random events – and will only be active if actual revolts are off, no need to do the same thing in two different ways)
- Ahead of time technology cost adjustment on/off. If turned on, the costs of technologies will be adjusted based on the current date to better pace technological development throughout the game. Note that since the adjustment is upwards, turning it off will result in quicker overall tech progress.

² There is an unfortunate bug that we're unable to fix so far that causes flags displayed on units to sometimes not change to the new ones outright; saving-loading the game fixes the flags, and moving the unit usually does too.



- Influence-driven war on/off. If on, combat will result in culture changes on the corresponding tile for both the winner and the loser. Additionally, cities with high culture will have a chance to automatically draft additional defenders if left unprotected.

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. Likewise, a longer playing speed is also available for those in no hurry.

What’s new in 3.6: two new toggleable options: IDW and ahead-of-time tech costs.

Random Maps and the Scenarios

Another choice you have to make before starting the game is the map you wish to use. Realism Invictus comes with three bundled scenarios, and much of our effort went into balancing those.

Their very nature actually causes their one drawback – all of them are huge, with many civs. Therefore, any of them **will** strain your system³, and older PCs will experience very long turn loading times as the game progresses to more advanced eras. In addition, of course, the map is fixed; therefore, although it can be played and enjoyed many times (as our testing shows), you will still get used to it.

All these reasons may make you turn to random maps, and you will not be disappointed. Our mod is designed to be compatible with most random map generators – both vanilla and player-made. Moreover, RI now comes bundled with several popular scripts tailored specifically for use with the mod. A couple of words of warning are in order, however.

Firstly, we have sometimes experienced that smaller Archipelago maps can lack some resources due to the simple fact that they do not 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 correctly, it is much recommended to generate a map and inspect it with WorldBuilder to see if all resources have appropriately spawned and nothing is wrong otherwise. Some scripts do not place custom RI terrain features (scrubs, marshes, reefs etc.). It will not break the mod, but several civs (like Aztecs, England or Japan) have national improvements ([see appropriate section](#)) that are dependent on those features and thus will be somewhat weaker without access to them. In addition, without fertile soils placed on the map, the cultivation feature ([see appropriate](#)

³ Note that later eras in Huge World Map scenario are likely to become **unplayable** due to MAFs because of the immense size of the scenario. We actually contemplated removing it altogether, but decided against it, as it can still be enjoyable up to a certain point (and some people do protest too much).



[section](#)) will not work. Still, the mod has been designed so that the absence of custom terrain features should not be game-breaking.

Lastly, we must warn you that no premade map for the vanilla game or other mod will likely be playable “out-of-the-box”. These maps will lack custom resources added by the game, some of which (like sulphur) are critical for the proper development of a civ. Most of the custom maps will just crash on start since they have the wrong starting number of players specified. It is technically possible to make almost any map work with RI, but it is pretty time-consuming.

You can get an overview of the scenarios that come with RI in their dedicated sections.

What’s new in 3.6: Nothing major, some rebalancing tweaks to the existing scenarios and map scripts.

Game interface

User convenience is a significant concern for us; therefore, RI comes bundled with BtS Unaltered Gameplay mod (BUG), which dramatically improves the user interface and, in our opinion, is essential for any Civ 4 player regardless of any gameplay changes present. One of the nicer things about BUG is that it is highly configurable. You can find the configuration options by clicking the briefcase-shaped button on the upper left of the screen.

Moreover, we introduced many of our own tweaks to the user interface, and probably the most important of them is the totally rewritten pedia, which is powerful, easy to use, presents a lot more information and is better organized than the one in the vanilla game. This particular pedia layout is (to our knowledge, at least) exclusive to our mod.

We also tried to adapt the aging Civ 4 interface to modern screen resolutions by making lots of game windows scale dynamically and manually tweaking different interface elements. Certain interface elements will behave differently at different resolutions (for instance, there are two separate main interface layouts for resolutions above and below 720p); the mod should be playable on the lowest resolutions as well, though the interface might be somewhat uncomfortably cramped.

What’s new in 3.6: lots of interface tweaks to ensure the best experience across the whole range of available resolutions.

Technological development

Tech Transfer system

Tech Transfer is a feature of Realism Invictus mod that is intended to replace an unrealistic aspect of the vanilla game that has civilizations diplomatically trading technologies – something that was not there until at least the mid-XX century. Historically, technological developments spread passively, and all the kings and governments could do was encourage or prevent that process through general diplomacy.



Therefore, in RI, when a civ is researching a technology that another civ with open borders to this one already knows, it gets a significant discount towards the cost of that technology: 50% for the first such civ and an additional 25% for every next civ. Vassals also get a massive extra tech transfer bonus from their masters.

Open borders treaties, thus, become a crucial decision with many possible implications to consider. Since the 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. Therefore you will have to choose the civs you want to sign open borders with carefully and also keep in mind other essential aspects of having open borders with another civ: the free passage of troops, trade routes and spread of religions. Note that AI is well aware of this feature and will be pragmatic about whom to sign open borders with.

Tech conquest

When you capture an enemy city in RI, you will get some progress towards a tech known by your enemy but unknown to you. This may sound familiar to the veteran players who enjoyed the previous instalments of the Civilization series, but this mechanic was cut from Civ 4. We brought it back!

The amount of research gained is a percentage of that tech's cost and is dependent on the size of the city, with a random factor. Large cities can give you a whole tech when taken, while those with a population of 1-2 will provide about a third of a tech.

Tech cost scaling and "Ahead of Time" penalties

Technology costs scale with the number of cities one has (unless that mechanic is turned off in the custom game setup). Each new city a civilization owns increases its technology costs by a fixed amount, dependent on map size.

In practice, this means that larger and smaller civs with roughly equally developed territories research at approximately the same pace, while under vanilla rules, a bigger civ would almost always research faster. This introduces an additional incentive to pace your territorial expansion and gives more chances to smaller civs to resist the aggression of larger neighbours (where previously, their armies would usually be not only larger but also more advanced).

An additional factor that has been introduced in 3.55 is that the techs from all eras beyond Ancient start with a significant increase to their costs (from +100% to Classical to +500% to Modern), which goes down in 50% decrements as time goes by – as in, by reaching particular in-game dates. One can always check the current costs and the time remaining until the subsequent decrease in a mouseover on the icon next to the research bar.





Classical tech:	+100%
Medieval tech:	+200%
Renaissance tech:	+300%
Industrial tech:	+400%
Modern tech:	+500%
=====	
Next change:	2000 BC
Classical tech:	+50%
Turns until change:	150

Icon and mouseover stats for the game start

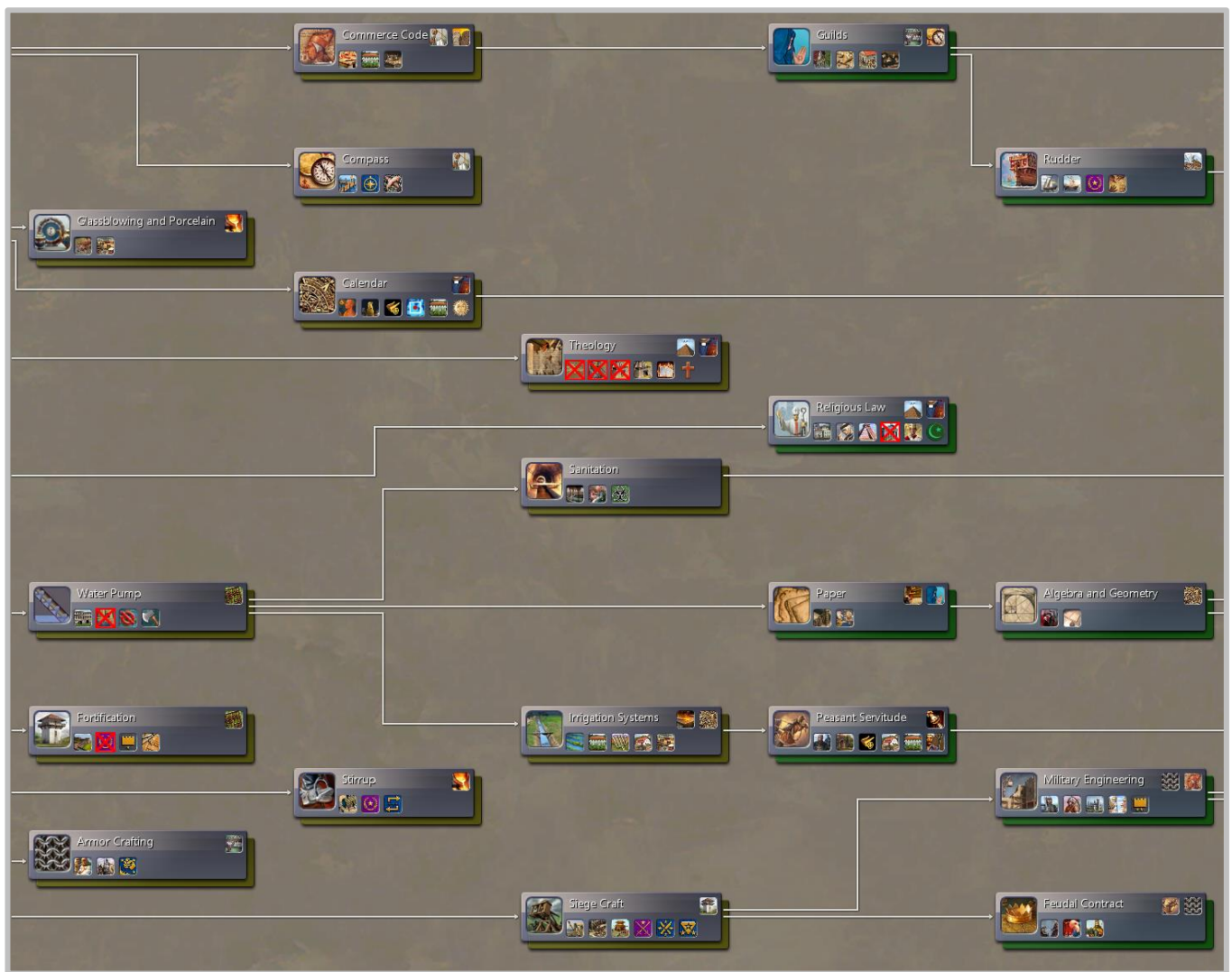
Tech tree and Eras

You will quickly notice that we almost completely overhauled the vanilla tech tree to suit the needs of our mod. The number of techs 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 useful: this gives players time to secure them by the time other techs unlock the first units/buildings requiring them.

Eras of technological advancement are no longer just cosmetic changes to your city art. As you progress technologically, people in your civilization become more refined in their tastes and start making increased demands – which, in game terms, means that each new era (except Classical) brings one or more points of unhappiness and unhealth to all your cities. Because of that, it is not really recommended to “beeline” to the next-era techs; the later you advance to the next era, the better you are prepared for that. Therefore, it is also recommended that before moving to a new era, all your cities are at least 2 below the happiness limit – or they will become unhappy after you advance into the new era.

It is a good idea to research most techs belonging to the current era before pressing onwards to the next era unless you feel very confident about the happiness of your cities. This is also one of the reasons why it is not recommended to start the game in advanced eras – not past Classical and definitely not past Medieval: your cities will be very unhappy right from the start (especially on higher difficulty levels), and you won't have the economic/industrial base that you are assumed to have when you advance to later eras naturally – although Advanced Start feature can help alleviate this somewhat.



A fragment of the tech tree in the late classical / early medieval era; note the different-coloured underlays that are used to indicate the era the tech belongs to

Information on techs belonging to specific eras is provided in the tooltip for any particular techs. They are also colour-coded for your convenience in the tech screen (you can see in the screenshot above that medieval techs have a green underlay – this is an interface option you can toggle on or off; if you don't see the underlays, it is likely turned off or you are viewing the tech tree from the main menu); the colour underlay can be toggled on/off, and the colours changed in the Interface settings menu in "Era Colours" section.

What's new in 3.6: smaller tweaks, such as rearranging some technology prerequisites for a more logical progression.

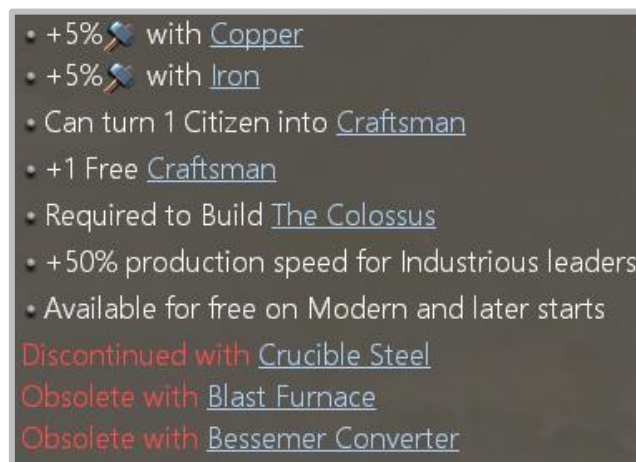
Building up your cities

When it comes to buildings and wonders you can construct to improve your cities, you will first notice that there is **a lot** of new stuff. Several important categories of buildings are not present in the vanilla game but are nearly essential to properly developing your civ in Realism: Invictus. It would not be reasonable to cover each of the hundreds of new buildings and wonders in detail

here, especially since in-game Pedia does an excellent job at that. Still, we will try to cover some of the broader categories here.

“Discontinued” vs “Obsolete”

There are two kinds of things that can happen to old buildings as technology progresses – they can get either discontinued or obsolete. A discontinued building continues to do its job in your cities; you just cannot build any new instances of it. Obsolete buildings stop working entirely. Usually, buildings get discontinued with a tech that gives you a better version of the building – for example, forges are discontinued with the tech that brings blast furnaces. It then obsoletes with (“upgrades into”) the newer building when it is constructed. This way, you aren’t “punished” for researching new technology by immediately losing the functionality of older buildings.

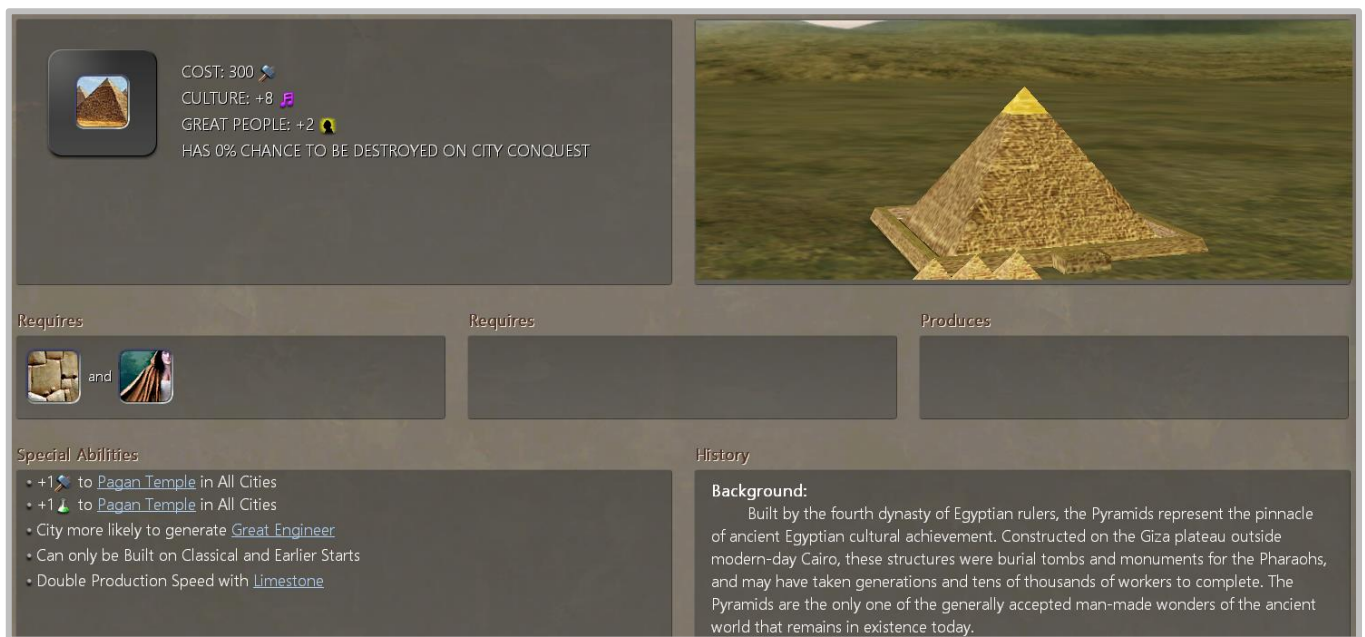


Here you can see forges getting discontinued with Crucible Steel to be replaced by Blast Furnaces.

Yield modification

One of the effects that weren’t there in vanilla. Civ 4 is the ability of buildings to modify yield outputs of everything – terrain improvements, specialists, and even other buildings. For instance, all temples now give +1 gold to priests, sawmills provide +1 production to lumbermill improvements within the city radius, and Roman Castrum (their new UB) provides a yield bonus to three different other buildings!

Of course, wonders now also make good use of these abilities. You will find that many wonders have new effects along those lines.



Pyramids are an example of one such reworked wonder; they provide significant bonuses to pagan temples.

Luxuries and your cities

In the vanilla game, as soon as luxuries are hooked up by a terrain improvement and a road, your cities start getting happiness. Very few luxuries work this way in Realism Invictus (the only exception that immediately comes to my mind is tobacco). Most luxuries will only have an effect if you construct a specific building in your cities. The same goes for most health-related resources.

This has an important implication that your cities will start with low base happiness even if they are connected to your trade network from the start – you will have to build up their happiness infrastructure. This also means that you will probably have significant problems managing the happiness of a large city you took from your enemies.



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

For example, gold bars are not by themselves doing anything for the local population – but if you construct a jeweller, it provides a way to turn this gold into jewellery that gives happiness to the population. Such buildings should be individually constructed in every city and provide benefits only to the city in that they are built.

Also, note that many resources are revealed much earlier than the buildings required to utilize them in a useful manner. That is intentional: it gives you time to scout out the resources in advance and have them at hand by the time you need to use them.

What's new in 3.6: many buildings were reworked, some radically so – look at city squares and clock towers, for example.

Industrial buildings

This category is totally new compared to the vanilla game. These buildings take one or more resources and convert them 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 as those harvested on the map – all your cities connected to the trade network will benefit from them, and you can trade them via diplomacy.

Both strategic resources and luxury resources can – and indeed should – be produced that way. From the early industrial era on, you will not be able to have a modern military that is not backed by steel mills, armament industries, artillery yards and other such buildings. Likewise, many luxuries and even some health resources are only available through the industrial system.



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

Input resources **are not** “consumed” by these buildings and can still be used to construct units and otherwise benefit your civ. The reason it works that way is quite simple, really, come to think

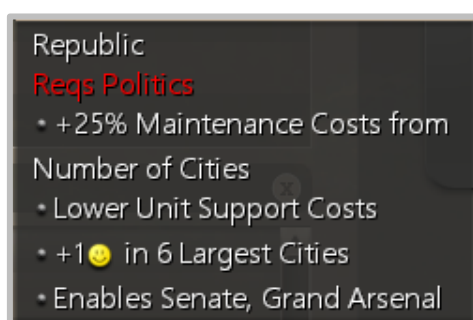
of it, and comes from the way that resources were initially implemented by Firaxis: if one iron can be used to construct an infinite number of swordsmen, why can't it be used to construct infinite swordsmen **and** to make enough steel to build infinite ironclads?

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. Let me stress this again: the buildings **do not** consume resources away! One unit of coal can power one steel mill (with iron) and, simultaneously, one brick factory. You are not faced with a choice of directing your resources down one of the several different production paths (mainly because we do not trust AI to make wise choices there) – you can put every resource you have to all the possible uses it has at the same time.

What's new in 3.6: nothing significant.

Civic dependencies

Several buildings and wonders in our mod require specific civics to be constructed and 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 construct those. If you switch out of that civic, these buildings and wonders stop functioning.



As you can see, Republic enables you to construct Senate and the Grand Arsenal wonder

A particular case of that is Democracy – its two types of the constitution are mutually exclusive national wonders that let you fine-tune the civic to your liking.

What's new in 3.6: effects of certain civics were rebalanced in a minor way.

The Ministries

The ministries are special national wonders that become available later in the game. They aim 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 do not waste time constructing them in each city. They do not provide any additional benefits, so they should only be constructed if you have several undeveloped cities that can benefit from their effects.



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

Note that ministries are affected by the same traits that provide bonus construction speed to the buildings they provide. Also note that due to the abundance of different national wonders in Realism: Invictus, we have lifted the limits on national wonders per city; you can build as many as you like in any one city, and they aren't even called "wonders" anymore, but rather "limited buildings".

What's new in 3.6: one ministry was removed as it no longer made gameplay sense.

Craftsmen and production

There is a new class of city specialists specific to Realism: Invictus, the craftsman. They are a keystone of the big production rebalance we did that we feel captures well the advancement of production technologies and accompanying social changes throughout history.

In Realism: Invictus, there are almost no buildings that provide %production bonuses to cities, in contrast with vanilla Civ 4, where factories and such directly increased city production. Likewise, the workshop terrain improvement that allowed you to increase the production output of flat squares is gone. Instead, almost all the cities' extra production as time advances comes from the craftsmen.

At the start of the game, cities can have few craftsmen, and other specialists often offer better bonuses, especially since the craftsman is the only specialist that doesn't output Great People points (in this way, treat them more as city population working an invisible map square that provides only production output). Yet, as technology advances, craftsmen benefit from numerous bonuses that increase their production output and buildings that create new craftsman slots.

As agriculture improves, more and more citizens can be reverted from working the fields around the city to working in the factories as craftsmen, increasing production output. Where at the beginning of the game, most of your population will be rural (that is, working the map squares around your cities), as time goes on, more and more people will instead work inside your city.

A flatlands city surrounded predominantly by farms is no longer doomed to always have low production: in time, it will be able to sustain a large population of factory workers, shifting the production centre of your empire from those hilly regions.

What's new in 3.6: nothing significant.

Military aspects

Land combat

Our mod vastly broadens the range of different units available to players. Even those units that are nominally the same as in the vanilla game are very likely to occupy different niches from the ones they had there. Here is 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 the vanilla game: axemen, swordsmen, men-at-arms (macemen) etc. Later they make a transition to the gunpowder line, starting with line infantry (note that line infantry isn't the first gunpowder unit available to players – but earlier arquebusiers are weak on defence and are closer to archery units in their tactical applications).
- **Irregular units.** These units are weaker than heavy infantry and have no special abilities but can be fielded in great numbers due to their cheapness. Also, since they require no resources, they will be available to you regardless of your economy and infrastructure. One more notable feature of irregulars is the fact that they, like settlers and workers, use excess food in addition to hammers when they are constructed.
- **Recon units.** Recon units handle scouting/skirmishing tasks in your army. They generally should not be expected to engage heavier infantry or cavalry one-on-one in the open field and to defend cities, but they are able scouts and can soften enemy troops before your main force attacks. Later recon units can become powerful specialized units for infiltrating enemy territory and holding key terrain points.
- **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 so that they will only have powerful crossbowmen or longbowmen (and indeed are not even guaranteed to have both). Civs that have good longbows, like England or Korea, can use longbowmen for most applications, like assaulting cities.

- **Charge cavalry.** Charge cavalry is the cavalry that relies primarily on the brunt force of their charge when they are deployed, whether they are armed with lances like knights or have gunpowder weapons like later cuirassiers. It is primarily heavy cavalry, but light cavalry that lacks ranged weapons such as bows can also be considered charge cavalry. This kind of cavalry requires some skill to use gainfully. Although some of them are very powerful (and expensive) units, there are many tactical situations where weaker units will slaughter them. The application where they are especially remarkable involves, of course, level terrain outside cities (or cities that have had their defence brought down to zero). Heavy cavalry does small amounts of collateral damage when attacking but gets severe penalties when attacking fortified cities (the penalty goes away once city defence drops to zero).
- **Ranged cavalry.** Ranged cavalry is the predominantly light cavalry armed with some form of ranged weapon (bows or firearms; later “ranged” also includes light lancers due to the fact that their harassment tactics are more in line with how true ranged cavalry works) that prefers to engage enemies from range, avoiding direct confrontation. These units are very special; 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, ranged cavalry is very hard to wipe out due to an outstanding combination of mobility and bonuses against all melee units (including heavier cavalry). In field engagements, ranged cavalry can devastate enemy stacks and retreat unscathed. In addition to the 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 do not 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. Sometimes civs that do not have advanced horse archers also get access to medium cavalry (considered charge cavalry, not ranged), which is a nice all-around battlefield tool, cheaper and less specialized than heavier knights, and very good against ranged cavalry.
- **Siege units.** Siege units work much differently from the vanilla game. Rams of all kinds have almost no strength, so they are close to useless in direct combat – the only real use they have is bringing down city defences. Later catapults and trebuchets can more or less successfully attack units but can’t bring them down all the way to 0%. Gunpowder artillery, starting with bombards, can perform ranged strikes on enemy units instead of a head-on

confrontation. Generally, they will not be able to kill enemy units that way (functionally, this is very similar to how bombers work). They will still defend in a classical manner if attacked. Also, there is now a separate class of immobile heavy artillery that will be emplaced in cities: with their ranged attacks, these guns can attack any besieging forces.

- **Armoured units.** Despite being very similar to the vanilla game, armoured units have an important difference: they cannot capture cities. So you must follow your blitzkrieg breakthroughs with infantry if you want to gain territory.

What's new in 3.6: some fine-tuning and rebalancing of certain units, but nothing radically new.

Air combat

In addition to significantly expanding the air and anti-air units roster, the air interception mechanic has been reworked compared to vanilla. In vanilla Civ 4, there are two separate stats, "interception chance" and "evasion chance" – the first is a flat chance to intercept, which does not check against the actual unit being intercepted – WW1 biplane and a jet fighter have the same chance; the second is a flat chance to evade – a stealth bomber with 50% would have this chance to evade anything trying to intercept it.

In RI, these are turned into "interception power" and "evasion power" and are checked against each other. For instance, if the intercepting unit has 300% interception power and the evading unit has 340% evasion power, the real chance to evade will be $(340 - 300) = 40\%$. There are also promotion lines that increase both interception and evasion, adding dynamism to air combat.

One more significant change for air combat is that all missions except for recon now yield experience – a bomber can improve with experience just as much as a fighter.

What's new in 3.6: all major changes to air combat listed above are recent.

Naval combat

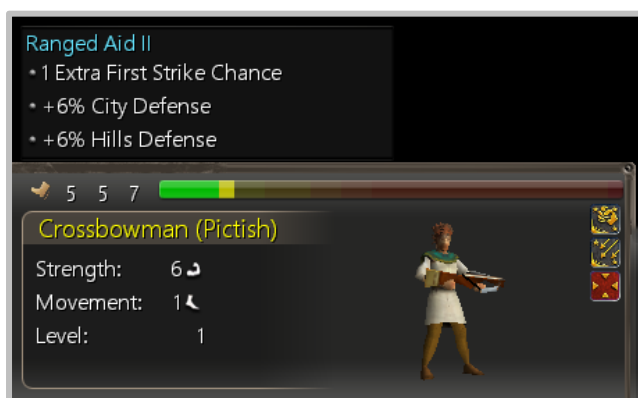
Naval units have also been significantly reworked in our mod. Although early naval combat is very similar to the vanilla game, starting from Renaissance onwards, it gains in complexity, with different classes of ships having different niches in combat. This brings it closer to the "rock-paper-scissors" 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 Realism: Invictus:
Trade Ship (Cog), Sloop, Paddlewheeler, Steam Frigate, Modern Destroyer.

A notable impact that naval combat can have on land is the shore bombardment effect that 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 to aid your ground troops is a good idea when planning to have an overseas military campaign.

What's new in 3.6: nothing significant.



Combat aid system

Realism Invictus has a system of combat aid bonuses to represent the effect of combined arms. All combat units in a stack can provide each other with bonuses depending on their type and combat strength. The amount of aid a unit receives is decided on the combined strength of all the units of a certain 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 do not intend to use this in combat, just for the aid they provide.

Although most naval combat units do not provide aid, there are some late-game cases where combat vessels provide a useful aid to other ships. In addition, naval vessels that carry cannons (starting with frigates) are able to provide shore bombardment detriment to enemy land units on adjacent coastal squares of several different magnitudes, depending on the guns that particular vessel carries.

What's new in 3.6: nothing significant.

Logistics and overcrowding

In vanilla Civ 4, you could stack an infinite number of units on one square without any negative consequences. This is colloquially known as “stack of doom” and is a common cause of discontent for civ players. We in the RI team have our own take on the problem.

As more and more units gather on a square, progressively worse penalties start applying to them. This makes each individual unit in such a stack much less capable.



All info on logistics is readily available through the interface and tooltips

The number of units that can be on one tile without any penalties is your logistics value. Your logistics is divided into urban logistics, which applies inside cities, and rural logistics, which applies everywhere else. Usually, urban logistics value is higher than rural, but both these values can be modified by traits. As time passes, some technologies raise your logistics, allowing you to field bigger armies without penalties.

What's new in 3.6: nothing significant.

Unit costs and roles

Unit costs in Realism Invictus are not fixed. Each combat unit built increases the costs of similar units by some amount (light/weak units usually less than specialized/elite ones). One should consider this effect when creating armies – building 5 units of three different types is often much better than building 15 of one (even when it is the strongest one). It is now significantly harder to have an army composed of a single unit type.

The prices are calculated based on **unit roles**. For instance, archers, composite archers, crossbowmen and longbowmen all belong to the same role, “Ranged Support”, which means that each new unit of this role built increases the costs for all units of this role. This has a side effect of keeping unit upgrade costs fixed, unless upgrading a unit to a different role. Things get more complicated (and usually costly) if a unit is upgraded from one role to another, but this does not happen often.

A unit can have more than one role – then it increases the costs of all the roles it has by an equal amount. One of the roles may be shared with other units, while another is not. For example, both Tactical Bombers and Strategic Bombers are Bombers, but each has another separate role. This means each built Tactical Bomber will increase the cost of new Strategic Bombers as well, but not as much as it increases the costs of new Tactical Bombers.

Note that it is possible, though not recommended, to upgrade units from other roles to irregulars. While this is very cheap, it should only be used in a real emergency, as it is very costly to upgrade such units back from irregulars (since the cost increase dynamics usually means irregulars are much cheaper than all other units).

What’s new in 3.6: nothing significant.

National units

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

These units are not “replacing” any regular unit, so they can be unlocked by techs that do not 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). It might be useful to keep your NUs around even after they become obsolete as a fighting force for the sake of the aid alone.





One of the Polish national units is the awe-inspiring Winged Hussar

Some national units will have unique units they can upgrade to. These units won't be as powerful and distinctive as NUs – generally on par with regular units of their age – but still, they can offer interesting opportunities. For instance, Persian Immortals, a heavy infantry unit, can upgrade to heavy cavalry later. These are not "true" NUs, and don't count in NU limit calculations outlined above.

Remember that although all national units are powerful, that does not 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 in most of their conquests in any given game, but they are not national units – they are not limited in numbers.

What's new in 3.6: some NUs got reworked or replaced.

World units

Another new concept in Realism Invictus is the concept of World Units. There are six such units, one for every era after Ancient, plus one extra for Industrial. These units basically act as World Wonders in that there can only be one instance of any such given unit built per game. They are understandably more expensive than regular units and usually pack more punch at what they do as well or have special abilities. These go as follows:

1) Classical Era: Helepolis ("the Taker of Cities"). A giant mobile siege tower, originally built by the Greeks in IV century BC, the biggest siege tower ever constructed. Beware of its terrain restrictions! You may want to bring some workers to chop those forests along its path.

2) Medieval Era: Great Bombard. This unit represents several pieces of early artillery with huge calibres, even by modern standards. The two most well-known pieces are probably the Tsar Cannon, holding the record for being the largest bombard in the world, and the Dardanelles Gun, that was cast for Mehmed II and still present for duty more than 340 years later in 1807, when it was fired at the Royal Navy force during the Dardanelles Operation.

3) Renaissance Era: Armoured Carrack. The Knights of St. John launched the original ship, and it was a truly magnificent vessel. Its hull was armoured with metal plates, it carried enough guns and crew to take cities and rout flotillas on its own (both are recorded facts of this ship's biography), and it even had its own smithies, windmills and gardens aboard!

4) Industrial Era: Heavy Siege Howitzer. XIX and early XX centuries were all about bigger guns. Until the advent of tanks and planes revolutionized warfare, the big war-deciding weapons were the artillery guns, both on land and at sea, mounted onto grand warships. This unit, modelled after the German-made WW1-era "Big Bertha", is the ultimate artillery piece.

STRENGTH: 20
MOVEMENT: 1
COST: 250
RANGE: 2

Requires: Iron, Gunpowder, Siege, Artillery, and [Technology]

Upgrades To: [Tank]

Special Abilities:

- World Unit (1 Allowed)
- Provides [Siege Aid](#), [Inspiration](#), [Anti-tank Gun Aid](#)
- Cannot Enter [Jungle](#), [Swamp](#), [Forest](#)
- Can Only Defend
- Cannot Capture Enemy Cities or Units
- Doesn't Receive Defensive Bonuses

History

Strategy:
The **Big Bertha** is a unique costly heavy howitzer. Despite a short range and a lack of manoeuvrability, Big Bertha is the perfect siege weapon: even the strongest fortifications will be doomed by the impressive shells.

Background:

The heaviest artillery you can get

5) Industrial Era: Zeppelin. A Zeppelin was a type of rigid airship named after the German Count Ferdinand von Zeppelin, who pioneered rigid airship development at the beginning of the 20th

century. Zeppelin's notions were first formulated in 1874 and developed in detail in 1893. After the outstanding success of the Zeppelin design, the word *zeppelin* came to be commonly used to refer to all rigid airships. During World War I, the German military made extensive use of Zeppelins as bombers and scouts, killing over 500 people in bombing raids in Britain.

6) Modern Era: Superheavy Tank. Every great power of the WW2 era toyed with the idea of superheavy tanks; most sides even launched their first prototypes. The war was over before most of those saw actual combat, but we give you an opportunity to see how they would fare if deployed in time to have a real impact.

Doctrines and traditions

Doctrines and traditions are a major overhaul of how Great Generals (GGs) work in the 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 particular 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 your units have already acquired will go nowhere, though, and you will be able to promote those remaining units further.

What's new in 3.6: nothing significant.

Religious matters

We have reworked religions extensively in Realism: Invictus. They are no longer one-size-fits-all creeds that are only different due to different flavour graphics. Each religion now has a different feel and plays entirely differently. Moreover, Confucianism (which is not a religion at all) was replaced with Zoroastrianism, a faith that was at a time very influential in the Middle East and a major influence on the development of Abrahamic religions. There is also one brand new (and



somewhat catch-all, being an amalgamation of at least four different religious traditions from all over the world) religion – Solar Cult.

Let us have a look at several aspects of different religions as they currently are in Realism: Invictus:

Spread and missionaries

The way all religions spread at the same rate in the 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 Realism: Invictus, 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 (around the time the late religions are founded). Also, earlier religions simultaneously have fewer missionaries than later ones, and those missionaries are more expensive. Please note that Monasticism or monasteries **will not** enable you to build the missionaries until you have the proper tech that enables them for your particular religion! For Christianity and Islam, this is not an issue since their missionaries are, as before, available as soon as the religion is founded, but for all other religions, their missionaries come with a later tech.

Islam has one unique feature: it spreads by conquest. If an Islamic civ captures a city, it automatically gets Islam spread to it. Its founder is also awarded a substantial amount of Mujahedeen, so some early conquering should be easier. This ability lasts until the Industrial era, at which point it reverts to normal.

Religious shock

If this feature is not turned off, founding a new religion will trigger a “religious shock”, wiping out all religions in the cities surrounding the new Holy City. The later in the game the religion is founded, the bigger radius of the shock zone.

While this does not automatically spread the new religion to those cities, this feature gives new religions founded in places with sizeable religious presence from older religions a fighting chance; generally, this leads to a more fluid religious scene.

Holy cities and religious restrictions

There is now little to no incentive to founding more than one religion; although having multiple religions is still a positive factor under Free Religion, 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 the Holy Cities of a religion you have not adopted as your official one. If at least one civilization 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 be destroyed! Running Free Religion prevents non-state religion Holy Cities from migrating.

Religious disunity can be fought under Theocracy, which allows you to conduct inquisition in your cities, purging them of non-state religions.



Islamic civs do not get health from swine and happiness from wine and alcohol

Many religions also have some restrictions that are placed on their followers. For example, followers of Judaism and Islam do not eat pork, and they will never get any health benefits from tapping swine resource. All such restrictions are properly represented in the 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. Please note that the gold bonus from Shrines no longer scales to the number of cities that follow a particular religion – it is now a fixed amount.

New to these lines are Great Temples, which are World Wonders constructed by Great Prophets (like Shrines), providing additional use for Prophets once you have constructed the shrine. The effects of these Great Temples vary greatly from religion to religion (see below).

There are also Holy Places, which are constructed the conventional 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 a “Blessed” promo to units constructed in that city (+5% strength) and gives one type of specialist a bonus.

Remember also that instead of going obsolete, monasteries are simply discontinued – no reason to delay your scientific progress in fear of losing their 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. Their great synagogues (cathedrals) give +1 happiness with gems.
- 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 the Hall of Hundred Columns, Zoroastrian artists provide +1 commerce. Zoroastrian Fire Temples (cathedrals) give +1 health with spices.
- **Hindu** temples provide happiness from cows (since their religion restricts them 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. Mandir (cathedral) gives +1 happiness from cows.
- **Buddhist** temples provide healing for military units, their Stupas (cathedrals) can inspire awe in the population with their sculptures (resulting in additional happiness from stone and marble), and their Great Temple, Pha That Luang, heals units extra 20% Damage/turn and gives +2 happiness with gold. With Bamyán Buddha Statues, Buddhist priests get +1 production (especially powerful when coupled with Angkor Wat).
- **Taoist** temples and Pagodas (Taoist Cathedral) provide not +1, but +2 base happiness (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 gives +1 health with hemp. Their Great Temple, the Temple of Heaven, 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 an extra +1 gold. The Christian Cathedral gives +1 happiness with wine.



- **Islamic** temples serve as hubs of a 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. Mosque (cathedral) gives +1 happiness with gold.
- **Solar Cult** temples and great temples (cathedrals) reinforce the authority of rulers, lowering city maintenance. Great temples provide additional +1 happiness with gold. The Platform of Eagles and Jaguars increases military unit production and reduces war weariness while raising it for enemies. With the Temple of the Moon, all engineers get +1 production. Solar Cult is the only religion to have a flavour version – many civs in the Mediterranean region will refer to it as the cult of Sol Invictus instead, with different names for wonders, buildings and units, but the same effects; the same goes for African and Middle Eastern civs and Atenism, and for Oriental civs and State Shinto.
- **Orthodox Christianity** is only available in the Crusades and Deluge scenarios for now. It is a special religion in that instead of providing gold with the Great Shrine, it gives +5% gold to temples, thus awarding the city owner instead of the owner of the Holy City. Hagia Sophia is now Orthodox Great Temple, providing additional culture from religious buildings. Mount Athos Monastery gives +1 production to priest specialists. Orthodox Cathedral can turn two citizens into priests and gives +1 happy to gold or incense. There is **no way** to found Orthodox Christianity in a regular game; it is scenario-only.

Paganism and Animism

One more crucial religious aspect that was not there in the 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, Pyramids, Stonehenge and the Statue of Zeus are geared specifically towards a pagan civ and will not provide any significant benefits to non-pagan players.

Especially if you manage to build one or more of the above wonders, and you have a pagan temple with bonuses that are to your liking, sticking to Paganism for a long while can be a very viable tactic. Eventually, though, you will likely have to switch to one of the major religions, as pagan temples go obsolete in the Medieval era. Notably, this is not necessarily an all-or-nothing process; you can still have a state religion under Paganism civic, and cities that don't have any religion in it will continue to enjoy pagan temple benefits while the ones with the state religion present will be able to build the respective religious structures.

Another, even more unique, case is the Animism civic – it grants massive bonuses to worked improved jungle tiles, but disallows any organized religion, be it one of the major ones or even pagan temples. It is a significant trade-off that is viable in predominantly jungle starts.

Free Religion and Cult of Personality

One thing the players should be aware of is that all religious buildings now require their religion to be constructed and function. Therefore, under early-game civic Animism and late-game civics of Free Religion and Cult of Personality, you will not be able to build *any* religious buildings. This is very much intentional, as it represents the secular outlook of many modern societies, where religion is no longer a matter of state and the suppression of religion in totalitarian countries with strong leader cults, respectively.

Instead, if you adopt Free Religion, you can create Religious Communities in cities to better capitalize on your religious diversity, with unique effects for each religion, in addition to +1 culture from each:

- Jewish community provides +25% foreign trade route yield.
- Zoroastrian community gives additional +10% culture.
- Hindu community reduces war exhaustion by 25%.
- Buddhist community gives +1 research and heals wounded units.
- Taoist community provides +1 health.
- Christian community gives +2 production.
- Islamic community provides +1 trade route.
- Solar cult community lowers the city maintenance by 10%.
- Orthodox community increases military unit production.

In addition, every community allows the construction of a representative of the respective religion. Representatives function as missionaries but are more limited in number and more expensive.

What's new in 3.6: religious communities moved to a later tech than Free Religion itself becomes available.

Great People

Several kinds of Great People and their abilities were significantly reworked in RI. Some of their abilities were taken away to be replaced by somewhat more involved mechanics. Changes to Great Generals were covered in the "Doctrines and traditions" section above; here are some changes to other kinds of Great People.



Great Artists

The immediately noticeable thing about Great Artists in Realism Invictus is that they can no longer create a Great Work (or “Culture bomb”, as it is colloquially known among players). Instead of this big one-time culture boost, a variety of specific Great Works of Art is available to them. Those works not only provide the cities they are built in with a steady income of culture but also have additional beneficial effects (more often than not culture-related).

Note that the particular works your Artists are able to create are determined by the Art Era you are in. Art eras are successively constructed as they are unlocked by technology and the construction of required buildings, and they increase your total cultural output, in addition to unlocking new Works of Art.

Great Scientists

Like Great Artists, Scientists can create a variety of Great Works of Science, providing additional utility to this GP type. The effects of the Academies they create were reduced somewhat to compensate.

Unlike Works of Art, the available scientific works are updated automatically as your technology advances, with six available in each scientific era (except for industrial, which has twice that amount). They get obsolete after two scientific eras.

Only one Great Work of Science from a given era can be constructed in a city. If you have enough Great Scientists, you can construct several Great Works from different eras in one city or several Great Works from the same era in different cities.

Great Prophets

As outlined above in the religion section, Great Prophets have utility beyond building Great Shrines in that they can also construct Great Temples.

Great Merchants

Great Merchants, in addition to their existing abilities, have extended utility in the Industrial-Modern eras. They are able to create enterprises – national wonders that provide your civilization with otherwise hard-to-come-by resources. There are four types of enterprises a merchant can construct: a glasswork, a car factory, a pharmaceutical company and a movie studio. One is available in the late Classical era, while the other three are only unlocked in the Industrial.

Glasswork provides you with Glassware – a happiness resource that is specific to this building and one Great Work of Art.

A car factory provides you with Cars – a strategic resource that provides your troops with mobility. Infantry can be Motorized and Mechanized with cars, raising their movement rate.



A pharmaceutical company provides you with Pharmaceuticals – a health resource that gives your civilization (or whomever you decide to sell them to) extra health.

Likewise, a movie studio gives you Hit Movies – a happiness resource you already know from Hollywood wonder.

All three industrial-era enterprises have their World Wonder counterparts as well (Ford Motor Company, Bayer AG and Hollywood, respectively), which are the only ways to get these resources without expending a Great Merchant. Glassware, as mentioned above, can also be acquired through Great Artists.

What's new in 3.6: Glasswork is an all-new enterprise; some Great Works of Art have had their effects buffed or outright changed.

Other aspects

Revolutions

We implemented an experimental version of the Revolutions component in 3.5. It is not directly based on any of those already available in other mods, though it is a distant cousin of Platyping's python Revolutions. This component is **off** by default due to the amount of additional micromanagement it requires from human players, negative performance impact and detrimental effect on AI players (though they are aware of separatism and manage it to an extent, they are less effective at that than a skilled player)

This component gives each city a measure of separatism that is dictated by plenty of in-game factors and can be negative (which one should strive for) or positive (which means something terrible is about to happen).

Suppose the resulting measure of separatism is over 10%. In that case, the city has a chance each turn equal to its separatism first to begin *rioting* (as shown by an effect "building" appearing in the city, as well as the separatism indicator on the city billboard turning red), and if the *riots* are already in effect, to outright declare independence (along with other nearby similarly inclined cities), with the actual chance each turn being equal to the measure of separatism. Note that while a city with positive separatism below 10% cannot declare independence on its own, it may join other revolting cities when they claim theirs.

When a city first begins *rioting*, the player is offered to deal with the separatists; the methods for that vary greatly depending on the government civic that the player is currently running, ranging from bribes to oppression, but they usually carry certain drawbacks with them. If/when the separatism level in a city drops below 0%, riots are removed.

If those measures are unsuccessful, either a new civ will declare independence, the city reverts back to its original owner, or to barbarians (if both previous options are impossible), expelling all



the stationed troops and possibly dragging along any other cities with positive separatism (the closer they are to the revolters, the higher the chance). As mentioned above, other cities may opt to join the rebellion if their separatism is positive (even if it is below 10%).

Newly created civs will start as “rebels” if dynamic civ names/flags are on and they have fewer than three cities, but this distinction is purely cosmetic to easier see which civ has revolted recently. It goes away when said civ has three or more cities. Note that this new civ starts at peace with the old one, though, of course, nothing really prevents either from declaring war on the other one at any point.

Cities under risk will display separatism symbols on their name billboards – yellow background if separatism is between 0 and 10%, orange if it is above 10% and red if the city is rioting.



The red background here shows the city is rioting and can declare independence

The negative factors increasing separatism in a city are:

- Unhappiness (the single most potent factor)
- Unhealthiness
- Wrong religion (for each non-state religion; also for lack of state religion)
- Foreign culture (which can also determine the actual revolter civ)
- Rioting
- Amount of population (which means larger cities are harder to keep in line)

In addition, those negative factors can be modified globally by the civ in question having a high war weariness or being ahead of everyone else in score or military power⁴.

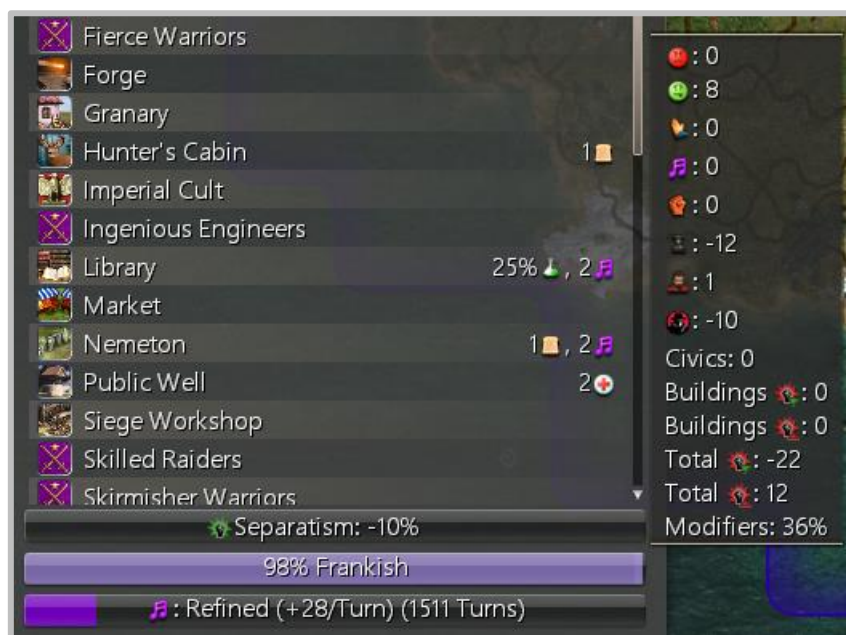
The positive factors reducing separatism are:

- Certain civics
- Military occupation (the initial “grace period” after the city has been conquered)
- Military presence (all land military units are equal in the amount of separatism they reduce; the actual amount is dependent on *sovereignty definition*, see below)
- Espionage generated in that city (note that the spy **unit** has nothing to do with separatism mechanics, only espionage **points** generated)
- Effects of dealing with rioting (represented by effect “buildings”)

⁴ If this seems counter-intuitive to you, outside of gameplay reasons this can be interpreted as lack of viable external enemies that would otherwise create a pressure for greater solidarity in the society. In the absence of external existential threats, internal problems come to the fore, along which the grievances of national minorities.

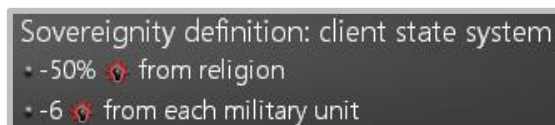
- Government centre buildings, such as palaces (many other buildings can affect separatism indirectly by generating espionage or culture)

An additional potent positive global modifier only comes into play relatively late, if ever. When the total number of alive and independent (non-vassal) players drops below half the initial number, the era is Renaissance or later, and one player is at least 50% ahead of everyone else in score, the "*End of History*" modifier kicks in, reducing separatism by -100% per each fewer civ below the threshold (capped at -90%). This can quickly offset the mounting penalties for being ahead in score and power, and for a player going for conquest victory, this should make the late-game clean-up less tedious. Note, though, that this modifier kicks in for all civs, not just the leading civ in question.



All factors affecting separatism can be seen in the tooltip

As time passes and technologies advance, the relative weight of particular factors influencing separatism changes. The "*definition of sovereignty*" depends on the **average** era for all in-game civs (except for barbarians) unless one civilization is two or more eras ahead of said average (in which case it will be the driving force for the change). Generally speaking, separatism becomes harsher as the eras advance (though, of course, the arsenal of instruments for dealing with it also increases).



Each era has its own challenges

The rundown of factors influencing separatism in a given city can be seen in the tooltip of the separatism bar in the city screen. Additionally, a summary of separatism for all cities and the global

modifiers can be accessed at the dedicated Separatism Advisor screen, available through a button in the upper left corner. If the game option for revolutions is turned off, all interface elements concerning revolutions and separatism tracking will be hidden.

The AI is aware of factors causing separatism and will try counteracting them. Do not expect AI to be brilliant at that, though – the evaluation is somewhat simplistic, and having this component on is probably a net benefit for human players.

NB: a lot of checks need to be made each turn by the revolution code. This means that when turned on, this game option has a noticeable performance impact.

What's new in 3.6: separatism received further rebalance for 3.6, though it is still off by default. War weariness has a much less direct impact on separatism, and AI has been taught to emphasise espionage output in precarious situations more.

Barbarian civilizations

Unless this is specifically turned off in custom game settings, the barbarians, upon reaching a critical number of cities and population, can settle down, forming new civilizations. This civilization will include all barbarian cities and units on a given landmass where the barbarian presence was the highest.

The actual critical threshold that barbarians need to cross to be able to settle down is dependent on the number of civs already in the game and the number of civs already created this way.

Since in some scenarios there are a lot of pre-placed barbarian cities, those scenarios will generally have the Barbarian civ component turned off to prevent all of the map's barbarians from immediately settling down from the get-go.

What's new in 3.6: the particulars of the barbarian settlement have been tweaked so that barbarians settle a bit later, usually forming larger, more powerful civs.

Epidemics

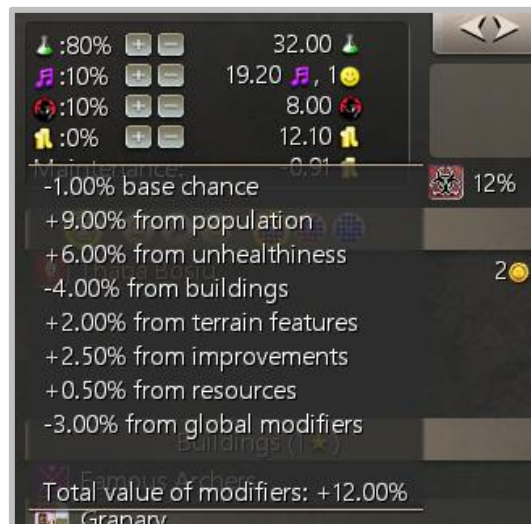
Deadly epidemics can strike cities that neglect sanitation. Each city has an epidemic chance indicated in the city screen. Unless that chance is zero, an epidemic can hit a city, killing its population each turn until it ends.

Many factors influence epidemic chances: epidemics can be induced by surrounding terrain (flood plains, jungle and swamps), by contact with other epidemic-hit cities, by unhealthy population, etc. You can always review the factors affecting epidemic chances in a city through a tooltip that appears when hovering the mouse pointer over the epidemic chance.

To counter epidemics, 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 epidemics).



You can get a detailed tooltip if you hover your mouse over the epidemic chance indicator in the upper left part of the city screen

Epidemics can never reduce a city's population below 4. Still, they can start in such cities and, while not reducing the population of their original city, they can spread to other cities from there. Also, a city experiencing an epidemic will suffer a drop in its commerce and productivity for its duration, so even a city of size 4 or less will be hurt by epidemics.

What's new in 3.6: nothing significant.

Healthcare Advances

Starting with the Renaissance era, healthcare advances will be available to you. These big projects raise total health and lower epidemic chances across your empire, which is crucial as the population keeps increasing. They are not cheap but are worth it in the long run, as they enable your civilization's population to grow further.

What's new in 3.6: nothing significant.

Terrain

Terrain-wise, we tried to keep changes in our mod somewhat limited. There are no new terrain types, and most changes concern terrain features. Mostly, this was done to keep it compatible with the majority of random map generation scripts out there. There are several new terrain features that were added to our mod: marsh, savannah, hot springs, reefs and islands (and fertile soils, but those are a special case covered elsewhere in the cultivation section).

Marshes are nasty pieces of terrain that rarely contain useful resources, negatively impact the health of neighbouring cities while providing almost no yields and, unlike most other terrains, negatively influence 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.

Savannahs are sparsely wooded areas near equatorial latitudes that work as “light versions” of forests. They offer a modest defensive bonus, can be chopped for production, etc. No resources are exclusive to savannahs, and almost no resources will spawn there normally.

Hot springs are a rare terrain feature that can be found at extreme latitudes. In later eras, one can exploit them to create balneological health resorts on them, providing health and happiness to their populations (and additional benefits to Germans, whose version comes earlier and is more powerful).

Reefs and islands are water features – something that was completely absent in vanilla game. Reefs are a nasty feature that will slow down and damage passing ships; try using them to your advantage, as reefs close to your borders can give your fleets a good defensive chokepoint. A special promotion available to naval units allows them to ignore the damage from reefs.

The islands feature represents pieces of land too small to count as one full land tile in Civ 4 terms; it is still considered a water tile – ships can cross it, while land units cannot. Islands offer a moderate defensive bonus to ships, a fact that potentially adds a bit more depth to naval engagements. Cold climate islands provide 1 more food than temperate ones, mostly for gameplay reasons, since they will usually spawn near much less hospitable terrain.

Note that while certain resources can spawn in those new terrain features (like oil in swamps), none are exclusive to them – so when a map generator doesn’t place any custom features, it results in maps that are more bland but still playable, lacking no critical resources.

When it comes to improvements, you will notice that there are a lot of them – and more, they tend to increase their outputs with certain techs and buildings. Some of them will be covered in more detail in the following sections. Take special note of the fact that certain city buildings can improve the yields of your improvements – indeed, some of them (lumber mills, for example) will be pretty useless if you don’t build those buildings.

One important distinction from vanilla BtS in our mod is the route system. Roads no longer get a magical movement bonus as soon as some tech is researched. What you’ll get now is a new improved route type that you will have to lay down with your workers. Railroads worked this way in vanilla Civ4 – now, there are several consecutive route types, and most require a resource to be constructed. To build quality paved roads, you will have to have access to limestone (or masonry materials from brickworks)!

What’s new in 3.6: routes have been made more expensive to build, and some have been moved later in the tech tree.



Food production

A very important change that you should notice is that each citizen now eats 3 food. Most terrains and non-farm improvements have their food yields unchanged – so where does the food come from?

The answer to that is that farming (and fishing, where it applies) is now a much more important part of gameplay. Historically, much of any given civilisation's success depended on its agricultural effectiveness; until the XIX century, more than 90% of people worldwide were enrolled in food production. In contrast, in vanilla Civ 4 and earlier versions of our mod, a city – or a whole civilization indeed – could easily prosper without building a single farm, except for tapping crop resources, and farms were one thing that a player cared least of all when losing to pillagers.

With our new balance, farms (and fisheries) become essential for the growth of your cities, and there are many factors influencing their effectiveness. Your food production early on is fairly inefficient, but as technologies advance, your farms will become more effective – and sometimes, you will have some harder choices laid out before you.

Early on, if you have enough cattle resources, you might opt to forego agriculture as a whole, switching to Pastoral Nomadism civic, which severely enhances your pastures while making your farms almost useless. It is not likely that you will want to stay that way for long, though, since farms will likely be your main food source later. Some civs have special national improvements that allow them to viably cling to Nomadism for a much longer time than most others.

Slavery is now, first and foremost, as it was historically, about food production: when it first becomes available, slave farms are the most effective way to produce food. Their major drawback, though, is that they do not benefit from technologies, so by about Medieval era, food production on regular farms becomes just as efficient – and with Serfdom even more so.

Another transition occurs around the Industrial era – new Mechanized farms become available. These do not benefit from Serfdom the way normal farms do, but as time goes on, they become much more efficient through technology and special buildings, like fertilizer factories. Eventually, they outpace normal (even Serfdom-powered) farms in terms of food production, so at some moment, you will be willing to abandon now-useless Serfdom in favour of other civics.

Other improvements will also increase their effectiveness with technology and certain civics, but things are much more straightforward with those, so I will not be going into details here.

What's new in 3.6: many improvements have been rebalanced again, especially in the Industrial era.

Cultivation

Cultivation is a method of getting crops you do not have in the late game or simply getting more food. There are special “fertile soil” tiles that should be placed at map creation. Not only do they



provide +1 food, but later on, they can be used to create an instance of a crop resource (corn or rice on grasslands, wheat or potato on plains).

Some civs also have specific cultivation techniques that allow them to create additional resources (see below). These can mitigate the randomness inherent in having a unique improvement specialising in one resource. Note that most scenarios that come with RI don't feature fertile soils, as the resources there have been pre-placed by hand with consideration to starting civs' locations.

National Improvements

One very significant addition you must know about is that every playable civilization now has a unique improvement only they can build. These improvements vary greatly in their effects, ranging from things that can be constructed almost everywhere (like Mongol Grazing Grounds) to something that dramatically improves one specific resource (like Ethiopian Coffee Plantations).

Some of the improvements allow the civs in question to make good use of features that would be detrimental to all others (for instance, Aztecs can improve swamps and turn them into useful tiles), while yet some others allow their civs to use certain terrains in unconventional ways (for instance, Incas can basically build their farms on hills).

Some powerful improvements are dependent on one particular resource – examples include France, whose improvement depends on wine, and Dravida, which is dependent on spices. In those cases, to avoid being 100% luck-based, from Botany tech civs in question are able to cultivate their required resource (see above if you want to learn more about cultivation):

Carthage	Dyes	Andosol
Dravida	Spice	Andosol and Chernozem
Ethiopia	Coffee	Andosol
France	Wine	Chernozem

What's new in 3.6: nothing significant; small rebalance of some improvements.

Events

As Beyond the Sword has introduced the event system, our mod now takes limited advantage of that. We did not introduce any new events, but existing ones were extensively tweaked to match the realities of our mod. Some were even deactivated, as they no longer made sense: for instance, Rifled Artillery is now a tech that everyone can research, and representing it as an event was no longer necessary. Some events now work better thanks to the stuff that was already in our mod; barbarian-spawning events will now, for example, spawn appropriate flavour units for that particular barbarian tribe.

What's new in 3.6: nothing significant.



Civics

There are many new civics to use in Realism Invictus mod, and even most of the old civics are reworked in some way. Each civic category now has eight 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. Many civics can drastically alter your gameplay style and are not applicable to all situations and playstyles.

One change that has a major impact on early-game tactics is the rework of Slavery. As mentioned in the previous sections, Slavery allows civic-specific farms that (at the time of their initial availability) produce more food than regular ones and boosts some other improvements. Additionally, Slavery enables the capture of slaves through winning combat, which can be used as weaker workers or for a one-time building production boost in cities. What Slavery does **not** enable, in contrast with vanilla Civ 4, is sacrificing population to rush production in cities (a much later civic Forced Labour now unlocks this).



Note that there is a significant side effect to running Slavery or Serfdom: rebellions. These revolts may occur near any of your cities if you have those civics (unless you turn this feature off in custom game options). The strength of rebel units roughly corresponds to your military technology – some key military techs (for example, Flintlock Musket) cause the rebels to become stronger. As

a rule of thumb, the tech that gives you better irregular units (warband, levy, irregulars etc.) also buffs rebels.

What's new in 3.6: some civic effects and tech prerequisites have been tweaked, Civil Service civic got a major facelift.

Diplomacy

Generally speaking, diplomacy is relatively unchanged compared to vanilla Civ 4, but 3.5 introduced some significant changes as well as quality-of-life features.

The most significant practical difference is the overhaul of a previously barely functional diplomatic modifier for being ahead of another civ. Now starting with being 25 points ahead and up to being more than 50% ahead in score, a civ gets a diplomatic "ahead of us" penalty from its inferiors. The amount of penalty is based on the personality of the leader.

Speaking of which, one very significant feature is the ability to see in pedia the description of parameters that influence a leader's personality. The players can now use the pedia to easily estimate what to expect from AI leaders (to our knowledge, this is the first time in all Civ series a detailed AI personality information is made available to players in-game).

Since open borders are now more important (see Tech Transfer section above), AI is now much more nuanced when evaluating whom to sign it with. The base attitude requirement that was really an all-or-nothing trigger in the vanilla game is now just a starting point for weighing in many additional factors, such as proximity, power ratios and technological parity.

What's new in 3.6: further tweaks to Open Borders AI; the behaviour should now be smarter and far more consistent.

Espionage

Espionage is another BtS-specific feature that found its cosy place in Realism: Invictus. While we did not touch the essential nature of espionage compared to vanilla BtS, we implemented much additional content for it. There will be several new espionage-associated buildings that will help you generate more espionage and even a couple of new espionage-oriented wonders. Espionage is fun!

Note also that if you play with revolutions on, espionage gets a new important role in the game as it's one of the major factors keeping separatism at bay (and espionage missions can be crucial in provoking it in your opponents' cities).

What's new in 3.6: nothing significant.

Corporations

Corporations are yet another BtS-introduced feature and, as such, were not an integral part of the Realism mod before that. We saw no easy and realistic way to integrate them into our mod, and

in our BtS release, they are simply disabled. We have a whole other system for industrial-era economy and resources, so corporations are somewhat redundant for RI.

Dynamic Flags & Names

If appropriate game options are turned on (and they are on by default), civilizations change their names and flags during the game according to the situation. This is a purely cosmetic feature meant to enhance the gameplay flavour but not to affect the balance in any way.

Flags and names are, whenever possible, taken from the historical context of those civilizations. If no appropriate historical context exists, generic names like "... republic" will be used, and the most plausible flag (if not of a state, then of a political party or other entity) will be used. For some earlier cases where actual flags did not exist yet (such as tribal societies and many classical-era entities before the advent of heraldry as we know it), plausible historically inspired symbols are used. The main factors are civics from the Government category (plus Planned Economy for communist names/flags):

- Tribal union – various starting names and flags represent tribes before actual statehood develops. Flags are obviously not historically accurate, as prehistoric societies were not known for their colourful heraldry but usually feature prominent national symbols or otherwise appropriate imagery.
- Autocracy – all empires end up here. The name will have the "... empire" format with the appropriate flag.
- Confederation – loose collections of small entities (city-states, principalities etc).
- Republic – not only classical republics in the strictest sense but all entities that were not monarchies (usually oligarchic in nature).
- Monarchy – non-imperial and usually limited (elective, constitutional etc.) forms of monarchy can be found here.
- Theocracy – theocratic forms of government, where they were historically available (which is surprisingly often), or else national churches where applicable
- Democracy – modern republics end up here. As a modern civic, expect to see relatively modern flags. The flag can additionally change dependent on the type of constitution one adopts.
- Dictatorship – modern non-democratic non-leftist forms of government. Usually, military dictatorships or fascist states.

- **Planned Economy** – irrespective of government civics, if you're running Planned Economy, you will have a communist(ish) flag and name.

In practice, for all playable civs, the flags and names are also influenced by other factors, such as particular leaders (Brian Boru's Celts will be the *High Kingship of Ireland*, whereas Robert Bruce's will be the *Kingdom of Scotland*), game era (medieval England will use age-appropriate quartered flag, while in later eras the same civs will display the Union Jack) and various combinations thereof. Derivative civs will generally only use generic dynamic names, and their flags will change based on the game era but usually not other factors. A vassal civilization will always use a generic flag and a name that reflects its dependent status.

Flags will usually have a vertical format in the early game but will gradually switch to a horizontal format hanging sideways around Renaissance/Industrial era – when modern horizontal flags became the universal worldwide norm. In some cases, when a country actually has an official vertical flag version, this is used in modern times instead of a sideways-hanging horizontal.

In historical-based scenarios (Crusades and Deluge), dynamic flag changes are turned off, as the most era-appropriate flags have been hand-picked and assigned to all civilizations.

NB: This means, in practice, that if you play with dynamic flags, you will likely see at least some historical fascist/communist imagery. If this is not acceptable to you or illegal in your country, please turn this game option off.

NB2: if flag and name changes confuse you and keep you losing track of which civ is which, but you don't want to turn this functionality off, a good idea is to switch the scoreboard to display not only the civ name but also the leader name in Interface Options. Leader names never change during the game.

What's new in 3.6: added more content to many civs.

Some multiplayer advice

Realism Invictus should be stable in multiplayer. In several test multiplayer games, one run until the mid-Industrial era, we did not run into any Out-of-Sync errors. Nevertheless, we had reports of OOS occurring between several players with different OS'es (though don't take that as a guarantee of errors – some of our games featured a Win7 system playing with WinXP system with no problems). Make sure the host has the most powerful and stable (preferably 64-bit) system. Also, running a pitboss server leads to much more stable multiplayer games.

Remember that for Direct IP play, if using the Steam version, you will have to revert to the original non-steam Civ 4 by selecting a "beta" in Steam (Properties->Betas). This is, in practice, not a beta but rather the definitive pre-steam version of the game, which has Direct IP play enabled and generally works better with mods. To set up this kind of multiplayer, unless you have a real LAN,

you'll need some kind of virtual LAN (ZeroTier has been tested to work quite well and is free, but there are probably many other options as well).

Scenarios

World maps

World Map (huge)

The first scenario we developed for Realism Invictus when it was ported to BtS. This map is really, really large – it is much larger than the maps that the “huge” random map setting generates. It is also distorted a bit from strict geographic proportions, mainly to accommodate more civs in Europe and the Middle East – otherwise, it would be too crowded there.

Another factor that adds to its immenseness is that it features 55 civilizations. Many of them are not playable: these civs represent local uncivilized tribes, semi-barbaric states and influential local kingdoms (somewhat like city states in Civilization 5, but usually occupying a rather large territory).



East coast of North America at the start: tribal territories

These are basically flavour barbarians meant to represent local tribes without any real united statehood behind them; they will always be at war with all players. They hold many cities from the start, covering a lot of territory, but their tech progress is very slow. Therefore, they will grow less and less of a threat as the game advances. They should be seen as natural areas of expansion for their neighbours past the initial stages of the game. They are unable to expand except via

conquest, and their ability to work their territories is quite limited. Their unit roster is also much simpler than that of playable civs, missing most of the fancier unit types.

Warning: due to the immense size of this map, it is not recommended that you try to run it on anything but modern powerful PCs and only on a 64-bit OS. In the late game, it will run very slowly even on those and can start crashing due to memory allocation problems. If you are not prepared for long waits between turns (several minutes in the late game!), you should probably select a smaller map instead. If you have a 32-bit OS, you may not even be able to start this map.

World map (large)

This is a smaller world map we previously used in the Total Realism mod for Warlords. It was specifically brought back so that the players would have the option to play on a world map that is not as demanding on their hardware. Please note though, that even while this map runs significantly faster than its huge cousin, it is still more taxing than most random maps you'll be able to generate. Some minors are absent from this map due to a simple lack of space for them, but all civs playable on huge are present here as well.

What's new in 3.6: nothing significant.

Europe

European map for RI is a close relative of the World Maps; it also comes with certain pre-placed barbarian cities and lets players select some of the civilizations not usually available in normal games.

As this map focuses on Europe and the Mediterranean region (with North Africa and the Middle East), it lacks the Far East and the New World. Since certain resources shouldn't normally be present in the Old World, it includes several empty "islands" near the Western edge of the map, representing potential New World colonies for those civs that are able to reach them.

It is also rather large and, performance-wise, can be compared to the large world map.

Triassic Period Earth

This is a fantasy map that places classical RI civilizations on the Earth map of the late Triassic Period (Rhaetian Age, for you paleogeology buffs out there) – the original Pangaea! All civilizations' starts are placed at the spots roughly corresponding to their starts on contemporary Earth (which, when accounting for continental drift, leads to some surprising neighbours!).

In addition to all the major playable civilizations, we have placed several of the better-developed derivative civilizations as playable on the map, so the players can interact or even play as them



(though all the usual limitations of derivative civs apply – they don't have any National Improvements and only one National Unit per civ).

This map has almost no landmasses other than the vast supercontinent that will later divide into all the continents we know and a bit of islands off its coasts here and there. Large amounts of unclaimed land, especially in the Southern Hemisphere part (later to be known as Gondwana), lead to a lot of barbarian activity, which makes some civs' starts much more challenging – but on the other hand, the central part of the map is pretty crowded, and, while safe from barbarians, offers very little room for peaceful expansion.

Crusades era

Crusades era: overview

This map, unlike the world maps included in our mod, focuses on a specific period in Eurasian history. It covers 420 years from 1110 AD, the era of the Crusades, Mongol conquests, and the birth of the Renaissance. There are several scenario-specific changes that you will not encounter elsewhere.

Firstly, there is a nemesis system. Since the starting situation, unlike our World Maps, reflects a historical situation with a significant past behind it, to simulate that, we gave almost all civilizations one or more nemesis. Such civs will never be able to have decent diplomatic relations and will be a constant threat to each other. There is no way to get rid of that modifier other than eliminating the civ in question.

Secondly, there is Orthodox Christianity. This is a particular religion that is inaccessible outside the two historical scenarios. Unlike other religions, Orthodoxy relies on autonomous churches; instead of providing gold to their Holy City, each Orthodox city provides gold to its owner via the temple.

Thirdly, the Mongols are a special-case civ that is designed to be AI-controlled. They get a lot of bonuses ordinary civs lack and, despite lacking in techs, will conquer large territories. If you start in China, be sure to get ready, as Mongol hordes **will** come for you. A start with any civ bordering Mongols is probably the hardest you can get in this scenario (though admittedly, they rarely, if ever, live up to their astonishing historical success, but they do wreak havoc on Asia).

Note that while the scenario was designed to try and accurately depict the historical situation in 1110 AD, we had to make some concessions to both playability and plausibility: for instance, the very same Mongols shouldn't start their rampage for another 100 years from the start, but AI would be too inefficient a conqueror if held back another 100 years, and if Aquitaine were free at the start as it should historically be, there would be no in-game way to bind it to England later. Likewise, we did not represent some separate entities due to the simple fact that we ran out of



civilization slots. Therefore, while we are aware that, for instance, separate Aragon is a good idea, to add it we would have to remove someone else.

The scenario is won by whoever has the highest score at the end in 1530 (with the exception of Mongols, who will, if left unchecked, always lead by a large margin in the end – but they are a special case civ and are ignored when the winner is calculated). Obviously, for some civs, this will be much easier than others, so the actual difficulty of this scenario is primarily determined by whomever you choose to lead to victory.

The map is based on a surprisingly detailed and complete medieval *Mappa Mundi*, which introduces a new twist to the familiarity with Earth's geography most players tend to have. While the outlines of the world as we know it are guessable, it still leaves a pleasant deal of surprise for an explorer. The map also has several "Easter eggs" to find for those who dare to navigate the high seas (especially if you don't spoil it for yourself by examining it in the WorldBuilder).

By the way, having north to the right of the map instead of the top was customary in those days.

Crusades era: regions and kingdoms

Some highlights for players who would like a primer on the historical situation they are facing:

- Byzantine Empire: due to the efforts of Alexios Komnenos, the empire has somewhat recovered from a disastrous defeat by Seljuks in 1071. Not a lot of ground has been regained since, but the Empire is now in good shape to start reclaiming what has been lost. You start with an excellent territory and are #1 in score, so basically, all you have to do to win is keep this up. This will not be a walk in the park, though, as you will not find any lasting friends anywhere, and your enemies are among the most powerful there are.
- Crusader kingdoms: the Kingdom of Jerusalem and the Principality of Antioch are both facing a grim situation. They are threatened from all sides, and there is hardly anyone willing and able to provide them with meaningful help. Still, they start with formidable armies, and what some see as threats can become an opportunity if you are able to topple the Fatimids, the Seljuks or maybe even the Eastern Roman Empire. Armenian Cilicia can also be considered a crusader state, and it is able to provide even more challenge as its starting position is even more precarious.
- Muslim Middle east: the Fatimids and the Seljuks are the two major powers in the region. The Fatimids are probably the easiest overall civ to win with, as their position is relatively safer than that of the other "big boys" of the scenario. It is quite possible that you will be able to win just by defending your borders and building up peacefully. If you are playing the Seljuks, beware – the Mongols will likely come after you in the second half of the

scenario. There is also a number of smaller Muslim states in the region for those who want more challenge.

- Holy Roman Empire: just as in the Byzantine case, you start near the top, and your position is central, presenting you with opportunities and threats wherever you turn. Keep in mind that you will likely need to bring down both Byzantines and France to feel safe. A good idea would be to rein in the popes as soon as possible.
- France: the second most powerful player in Europe. Seek opportunities wherever they arise – participate in the Reconquista, subjugate England, meddle in Germany or Italy, or even go on a private crusade. You will probably have to bring down one or more of the major players who threaten your hegemony...
- The British Isles: a tangled web of old rivalries, with a measure of outside threats as well. Scotland, Eire, England, Gwynedd – whomever you choose, you will have enough knives pointed at your back. Due to the fact that the Mappa Mundi this scenario is based on was made in England, this is the most detailed and upscaled region on the map. A fun self-imposed challenge for the Irish player is to try retracing the voyage of St. Brendan and find the Garden of Eden (yes, it is possible if you have carracks and are sufficiently determined!).
- The Iberian Peninsula: Reconquista is just starting. The kingdoms of Castille, Leon, Galicia and Aragon (represented by a single civ) and the soon-to-be-kingdom of Portugal have a clear goal ahead of them: reclaim Iberia. Conversely, as Almoravids, you will start very powerful, but you'll have to deal with invading armies of various Christian entities. A fun self-imposed challenge when playing Spain is to colonize America by the end of the scenario.
- Eastern Europe: Poland and Hungary are both stuck between two larger neighbours. It is probably not wise to engage them one-on-one, but if you wait for the right opportunity, such as when they are engaged on other fronts, you may well claim your share and become a major power.
- Scandinavia and Rus: Scandinavian kingdoms are in a rare position that basically allows them to freely choose their own targets. They are relatively large, and their natural isolation ensures that there are no immediate threats to them. Kievan Rus is experiencing its historical golden age at the start, and if it manages to eliminate the immediate threats (first of all, the Cumans), it has a good shot at winning.
- Africa: Makuria and Ethiopia in the East both challenge Fatimid supremacy in the region. If either of them triumphs, they could become a new dominant power on the continent. Mali's relatively isolated position is both their asset and disadvantage – the ability to

expand freely can be the key to winning, but at the same time, measures should be taken to establish trade contacts with Europe and Asia.

- Indian peninsula: India is on the brink of Islamic invasion. Ghurids are ready to carve themselves a sultanate out of the Rajput territory. Further south, the Chola empire is seeking to expand its influence. Whichever side you choose, the fight will be brutal, but the rewards will be great.
- Far East: Mongols dominate this region. While China is currently split in two, whichever side you choose, your most significant problem will still be the Mongol hordes. Japan is living through one of the calmer periods in its history, and its geographic location protects it from Mongol invasion better than other civs in the area. The Mongols should be treated more as a force of nature than as a regular civ; try to use them to your advantage, preying on civs they hit, grabbing a city or two. Due to starting close to Mongols, civs in this area are among the hardest to play.

What's new in 3.6: this scenario has seen some rebalancing, with the aim of making smaller players more competitive.

The Deluge scenario

The Deluge: overview

This is another RI map that focuses on a particular historical period. It also has less global scope to it, covering only Central Europe. It covers the years 1648-1728, a period that brought drastic changes to geopolitical balance in the region, saw empires rise and fall, and generally is an exciting era and region to depict.

Thirty Years War is over, and Western Europe is just beginning to recover from this calamity. From the war, a new (and rather unexpected at the moment) power was born in the North – kingdom of Sweden. With its powerful army and newly acquired European holdings, it seems ready to continue its expansion, and Central Europe seems to be just the place for it. Meanwhile, trouble is brewing within Polish-Lithuanian Commonwealth, the local hegemon – its Orthodox subjects are in open revolt under the banners of Cossack hetman Bogdan Khmelnytsky and seek to establish self-rule. Further to the East, the vast Russian Tsardom is recovering from the catastrophic Time of Troubles, and the powerful Ottoman Empire is contemplating another push into the European heartland...

Like the Crusades scenario, Deluge is won by whichever civ has the highest score at the scenario end. Unlike the Crusades, though, there are five Great Powers of the era whose strengths are roughly equal (Poland-Lithuania, Sweden, Russia, Ottomans and Austria), and several second-tier nations that can catch up to them in skilled hands.



Since the scenario depicts only a part of the world, several resources (such as New World crops or elephants) are not generally available on the map. However, to simulate the contact with other parts of the world, two special civs are used – Far East and New World. They can't be reached by units (nor can they reach you) but can trade resources not normally available otherwise. Also, note that to trade with the New World, you have to research Merchant Adventures first.

Many civilizations in this scenario start with special buildings pre-placed in their cities to likewise simulate off-map interactions, such as ongoing colonization of the Urals for Russia or Egyptian resources for Ottomans. These are basically "special abilities", and most civs have one.

Like in the Crusades scenario, many nations have diplomatic penalties against each other, representing established feuds. They are usually not as strong as in the Crusades case, but nevertheless, they serve as a good indicator of the side you should expect trouble from.

The Deluge: nations

- Poland-Lithuania: you start at the peak of your power, but your central position surrounded by powerful competitors on most sides means you need to prepare to fight to keep your lead. Your country is religiously divided between Catholic and Orthodox, and you also have the breakaway Cossacks to deal with. I'd say your hands are going to be rather full for the next 80 years or so...
- Sweden: Thirty Years War has left you with a large and modern army and some possessions around the Baltic. Could this be a jumpstart to forming Swedish Empire that will dominate the region? Remember that your starting territories are rather poor (even if Sweden proper is well-developed), and your initial advantage will start to fade if you do not move quickly.
- Russia: you enjoy the second-largest territory in this scenario at the start. The problem is it is almost totally undeveloped, and your economy is in shambles. It is probably a wise idea to build up a little before trying to expand, but keep in mind that your sprawling lands put you at a disadvantage when it comes to catching up in tech.
- Ottomans: knocking at Vienna's gate, you are an empire in its prime. With the largest territory, many vassals and a safe hinterland, this is probably the most leisurely start in the Deluge. However, bear in mind that due to your size, the Western powers will likely out-tech you in the end.
- Austria: you start with a well-developed core territory and a big vassal, but Ottomans will likely be a source of major trouble for you. Are you prepared to deal with their invading armies?

- Brandenburg-Prussia: in the land of sprawling empires, you are a beacon of efficiency - small, well-developed, with powerful armies. You will likely keep ahead in tech as well - so why not try carving an empire of your own out of Central Europe?
- Zaporozhian Host: you are definitely not a minor power, but your start is probably the most challenging one. Not only do you start at war with a major power, but even after that, you will likely find no friends among your neighbours. However, pick your fights wisely, and you may yet rise to greatness!
- Denmark-Norway: you are mostly a spectator to the troubles in Central Europe, but your relatively large, safe and well-developed territory allows you an opportunity to become something more if this is what you desire...
- Venice: your heyday is already gone, and the Ottomans, whom you start at war with, threaten what remains of your trading empire. Yet, Venice is still a rich commercial hub, and your fleet is still formidable. Do you have what it takes to make a comeback?
- Other nations: there are several other minor nations starting with one-two cities each. While they may be fun to play with in skilled hands, they stand little chance of actually winning the scenario. That said, experienced players might find the challenge interesting...

What's new in 3.6: this scenario has been tweaked slightly but is mostly the same.

Conclusion

Despite being over 60 pages long, this manual is by no means exhaustive and does not pretend to tell you everything you need to be an expert Realism Invictus 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 by playing anyway. If you are struggling with some aspects of gameplay or want to share your own tips and strategies, please visit our community:

Realism Invictus thread on CFC: <https://forums.civfanatics.com/threads/realism-invictus.411799/>

Realism Invictus section on CFC: <https://forums.civfanatics.com/forums/civ4-realism-invictus.202/>

Thank you for reading it, and I hope you have found it helpful. Now go play!

Frequently Asked Questions

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- [Q: What is Realism Invictus?](#)

A: It's a mod for Civ 4 Beyond the Sword. Sure, yeah, we know Civ 5 has been around like forever, and Civ 6 is already here as well. We decided that we have not yet done everything we wanted with Civ 4. We're funny that way. And the fact that thousands of people still download the latest versions of our mod means we're probably doing something right...

- [Q: Have you been around for long?](#)

A: We sure have been. The first public version of the Realism mod for vanilla Civ 4 was released in November of 2005, thus making the mod almost two decades old already, one of the oldest mods (probably the oldest mod continuously being developed) for Civ 4. From February 2006, the mod ended up in the hands of Houman, who has been the team leader for a long while. Since March of the same year, we have been based on Sourceforge, and the Sourceforge SVN repository has proven to be an excellent way of organizing our work. In December 2006, we ported the mod to Warlords, adopting the name "Total Realism Gold".



February 2011 saw the first Beyond the Sword release and another name change to “Realism Invictus”.

- [Q: I liked some element from your mod \(piece of artwork, concept etc.\), and I want to use it in my own mod. May I?](#)

A: By all means, you should do it! Realism Invictus itself draws heavily on the creations of other Civ4 community members, especially on CFC. We would be delighted if some part of our mod would help fellow modders create better stuff.

- [Q: I have a question/bug report/suggestion. Where do I go?](#)

A: You can (and should) ask in our CFC subforum here or the main RI thread:

<http://forums.civfanatics.com/forumdisplay.php?f=202>

<https://forums.civfanatics.com/threads/realism-invictus.411799/>

- [Q: I liked your mod very much. How can I help your team?](#)

A: At this point, the active development of RI is basically over, and as such, there is nothing to help with (and basically no team to speak of). That said, you are free to develop your own modifications (“modmods”) for RI.

- [Q: I feel you treated some group/ideology/nation/religion unfairly in your mod. You give it too much/too little credit. :-\)](#)

A: We are VERY sorry you have come to this conclusion. We’re trying to be fair and to carry out a balanced approach to all the stuff. After all, this mod started as an attempt to correct some unfairness/one-sidedness present in vanilla Civ4. If you think we should know your opinion, please share it with us at our forum (see above), and we’ll discuss it. We are always eager to discuss the reasons for our decisions; as our experience shows, they are not always immediately apparent.

- [Q: Can I use a custom map with your mod?](#)

A: No. Unfortunately, custom maps don’t work with RI, at least “out of the box”. The reason behind it is all the new resources we add that will obviously be missing on a map not explicitly made for our mod and some dll changes (maximum number of players) that will cause normal maps to just crash at the start. If you have enough experience, you can make a map RI-compatible by creating enough empty “players” and placing all the appropriate resources on it by hand – if you ever do so, feel free to send it to us; we will likely include it in our next release. The only custom maps you can play RI on are the world maps that come with it and the Crusades, Europe, Triassic Earth and Deluge scenarios.



- [Q: Can I use custom map generation scripts with your mod?](#)

A: Unlike the previous question, the answer is most likely “yes, you can”. The majority of map generation scripts, if they weren’t made specifically for some other mod, will generate perfectly playable random maps in RI. Of course, we haven’t tested every single script out there, but some of the more popular ones, like PerfectWorld and Tectonics, can give you an excellent RI playing experience, better than the scripts that come bundled with Civ 4 (though their versions modified for compatibility with RI also come with the mod). We recommend you experiment and find the one that suits your needs. Moreover, some of the best random map generators out there were tweaked to better work with RI and have been included with the mod since the 3.2 version.

- [Q: Will you extend your mod to the future? There is so much cool stuff you could add...](#)

A: No, extending the tech tree to the future is beyond the scope of our mod. As it is, even expanding it to the present is beyond it – currently, it is considered to extend as far as roughly the year 2000. That’s why we also aren’t including any contemporary leaders – they are simply beyond our scope. We strive to model human history, and contemporary events (and even more so hypothetical future events) have not become history yet.

- [Q: Will you add more civs? At least my favourite one\(s\)?](#)

A: Not likely your favourite ones, and there are several reasons for it. While we try to add new civs, and there are already several in our mod, most of the more popular ones aren’t getting added for several reasons. First of all, our World Map is pretty cramped as it is. Then, with the amount of attention every civ gets in our mod (leaders, units, Great People, etc.), it is a titanic job to add every single one – since it is not a matter of simply adding a couple of leaders, a UU and a UB. A “civ” that is considered a standard on CFC, for example, would look terribly incomplete in our mod and require much more work to blend in than what already went into its making. This also means that some potentially interesting civs will not be added at all due to the fact that there is very little material available on them (the first example that comes to mind for that is Khmer). We have added several custom civs so far, and as you can see, they are likely not the ones that would be your first choices. Lastly, but probably most importantly, it is unlikely there will be any major new additions to RI going forward, as 3.5 was the last release that included major new features.

- [Q: Why don’t you use animated leaderheads?](#)

A: Once again, several reasons. The first and the strongest of those is that I’m the person responsible for adding these, and I don’t like Firaxis-style animated cartooney leaderheads. Ever since Civ 3, I always substituted them for beautiful works of art I could find. These painters are worth checking out! There are also two additional reasons that reinforce this principle: since I can make those static leaderheads myself, I am not bound to wait for someone to make an animated leaderhead – and thus, we can put in any leader I can



possibly find and you will notice that we have more leaders than most other mods. Lastly, static leaderheads eat up much less system resources. In a mod as big as ours, every little bit counts. –WH.

- [Q: Can you make it so that civs found cities in historic places and appear at historic periods? Rhye's does it.](#)

A: No, implementing these features (as well as some other stuff present in Rhye's) would limit our mod to the world map only. While we consider the work of Rhye to be a top-class mod, we are developing a more flexible product that is suitable for a broad spectrum of random maps. We will probably implement emerging new civs at some point in future, though.

- [Q: Why are the cardinal directions in the Crusades Era map so confused?](#)

A: The Crusades Era map is based on a genuine medieval map of the world and reflects all its peculiarities. Of course, the map is not 100% geographically accurate and even contains some fictional places (believed to be real by the authors of the map back when it was made). The issue with cardinal directions, though, is a simple case of cultural dissonance: medieval European maps were made with East, not North being the "top" of the map, as this direction was considered to be holy.

- [Q: Why did you turn off tech trading?](#)

A: We have implemented the tech transfer component instead. If any civ you have open borders with knows the tech you're researching, you will research it much faster. We feel it does a better job at simulating tech spread than Civ4 default "tech trading" (which really only happened from late XIX century IRL). You can turn tech trading back on if you don't like that feature, but then don't forget to turn our Tech Transfer component off in the game options, as the two aren't meant to function together.

- [Q: Why is AI cheating so much? Can it not play fair?](#)

A: This is a complex question to answer. Firstly, did you feel that AI was cheating in vanilla Civ 4? Because it was, and massively so, if you played on any difficulty level above Noble. And it is a good thing too, or it wouldn't have been able to provide you with enough challenge to entertain you. Compared to vanilla, AI cheats **less** in RI. You are welcome to compare the difficulty-level related bonuses in vanilla and RI XML. Secondly, if you feel that because you're playing the same difficulty level as you were used to in vanilla and losing, then I suggest just lowering the difficulty a bit – AI doesn't cheat more, but it is certainly smarter and more aggressive than in vanilla, so until you firmly find your legs with the mod, it is suggested that you play on lower difficulties.



- [Q: Why do you release new versions so rarely?](#)

A: Well, we are a team of perfectionists (or, rather, at this point, a single perfectionist), and we like to ensure that everything is as complete as we can before we release a major version. Therefore, we only release major versions once every half a year or so. That doesn't mean that you are locked out from whatever we are currently doing: everyone can check out our latest internal build from our Subversion (SVN) repository, which will provide you with exactly what we ourselves have at the moment, and you will be able to keep it up-to-date. Our forum thread has a handy guide on how to do that:

<https://forums.civfanatics.com/threads/realism-invictus.411799/>. But please keep in mind that this IS an internal build not intended for release. While we try to provide support to users playing our SVN versions, please remember that they are essentially betas. And please remember the revision number you're playing (BTW, it is a **very** bad idea to update your SVN revision during an ongoing game – more often than not, it will render your current saves unplayable, and even if it doesn't, it can cause all manner of strange side effects). At this point, no new major versions are expected to be released in the future.

- [Q: Do you need beta testers?](#)

A: Yes, we do. See the previous question on how to get your hands on our latest internal build and play it! Then report your findings to us on our forum, and that's that – you are helping us. We really appreciate this kind of help. Any major bugs found will still be fixed, even if no major releases are planned anymore.

- [Q: Where can I get more info on how stuff works and advice on how to play your mod?](#)

A: Well, you **are** looking at the manual that tries to help you with that. Also, in-game hints have been rewritten to provide useful RI-specific advice (and if you didn't know, you can read all hints in the Pedia!). And, of course, feel free to drop by our forum and simply ask! We love talking to people ourselves, and there's still a very active player community.



Credits and thanks

Team members who worked on the current version (in alphabetical order of nicknames on our forum):

- **Walter Hawkwood** (UK)

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

- 12monkeys (Germany)
- AbsintheRed (Hungary)
- Anasztasioch (Poland)
- Ankenaton (USA)
- charly1977 (Germany)
- Cruel (Brazil)
- el_zozo (France)
- Hian the Frog (France)
- Houman (UK/Persia)
- israfil (Canada)
- jaynus
- Josh (USA)
- Kristine
- Mexico (Slovakia)
- Nightravn
- Phatlip
- PTFeilong
- Tahnkout (Turkey)
- Vitez (Poland)

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

Very special thanks to people who have contributed their work directly to our mod, by helping develop some of its specific parts (in alphabetical order of nicknames on our forum or on CFC):

- Arian (Netherlands)
- AspiringScholar (USA)
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- Lib.Spi't
- MatteM (Sweden)
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- Routalempi (Finland)
- Stolenrays
- Ungomma (Russia)

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- | | |
|---------------------------|-------------------------|
| • aantia | • Narxysus |
| • Ahnarras | • microlyte (USA) |
| • AntmanBrooks | • paichtis |
| • Ambassador | • pecheneg |
| • amrod (Hungary) | • pioswa |
| • arizzi | • PKSRoman |
| • arythm1a | • plasmacannon (USA) |
| • aod (Brazil) | • riesscar |
| • awh1979 | • rkade8583 (USA) |
| • BareJag (Finland) | • sami_snow |
| • buck_beach | • Sathar (USA) |
| • Burebeesta | • sazhdapec |
| • cfeyyaz (Turkey) | • Shimicakan |
| • CivEikka2 | • Shuikkanen (Finland) |
| • civman110 | • Sinaherib (Russia) |
| • Darkphoenix | • Snowygerry (Belgium) |
| • Deder | • splaskan_kur |
| • ederl | • SR-71 (Spain) |
| • Erfeo | • Sukkels88 |
| • eXalted | • Sword_of_Geddon (USA) |
| • Fantasieprodukt | • Taylor (Cuba) |
| • Freakwave (Netherlands) | • teks (USA) |
| • gforce (Canada) | • Terkhen |
| • HannibalBarca (France) | • TheBirdMan (Denmark) |
| • haroon | • ThirdOrbital |
| • Harrier (USA) | • Tingyun |
| • lamwinterborn | • tmk |
| • Ignacio (Argentina) | • RonZeroRange (USA) |
| • Jayman1000 | • vamperium |
| • JohnCarterOfMars | • VenGence (Canada) |
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| • Lord Brooks | • [Y] |
| • Matsuda123 | • Zap0 |
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Some artwork was taken from the following games:

- OAD,
- Age of Empires 3,
- Age of Mythology,
- Anno 1404,
- Anno 1701,
- Axis & Allies,
- Blitzkrieg and other Blitzkrieg Engine games,
- Cossacks 3,
- Crusader Kings 2,
- Crusader Kings 3,
- Empire Earth 2,
- Empire Earth 3,
- Empires: Dawn of the Modern World,
- Endless Legend,
- Europa Universalis: Rome
- Europa Universalis 3,
- Europa Universalis 4,



- Grand Ages: Rome,
- Hearts of Iron 3,
- Hearts of Iron 4,
- Humankind,
- Imperator: Rome,
- Knights of Honor II Sovereign,
- Kohan 2: Immortal Sovereigns,
- Making History,
- North and South Pirates,
- OldWorld,
- Rebel Inc.,
- Rise and Fall: Civilizations at War,
- Rise of Nations,
- Sid Meier's Colonization,
- Sid Meier's Pirates!,
- Sid Meier's Railroads,
- Supreme Ruler Ultimate,
- Tanktastic,
- The Elder Scrolls 3: Morrowind,
- Victoria 2,
- Wargame: Airland Battle and other Wargame titles,
- Wind of Luck,
- World of Tanks

Additionally, many units are directly based or inspired by these user-created mods to Total War, C&C: Generals, Blitzkrieg, Cossacks 3 and Mount & Blade game series:

- Broken Crescent,
- Brytenwalda,
- CSLA,
- Europa Barbarorum,
- European Wars,
- Kosovo Sunrise,
- Lithuania Mod,
- Magyar Mod,
- Napoleonic: Total War,
- Ogniem i Mieczem,
- Peace Mission,
- Rome Total Realism,
- Rusichi,
- Stainless Steel,
- State vs Country,

- The End of Days,
- Visual Reality Mod,

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The main menu theme of this mod has been created by Kai Engel and is licensed and used in RI under [Attribution-NonCommercial 4.0 International \(CC BY-NC 4.0\)](#) license.

