FIELD_{of}GLORY]]

Game Manual





CONTENTS

1. INTRODUCTION	1
1.1. System Requirements	3
1.2. Installing the Game	3
1.3. Uninstalling the Game	3
1.4. Product Updates	4
1.5. Multi-Player Registration	4
1.6. Game Forums	4
1.7. Need Help?	4
2. HISTORICAL OVERVIEW	5
3. FACTIONS	8
3.1. Romans	8
3.2. Hellenistic Kingdoms	10
3.3. Carthaginians	17
3.4. Syracuse	18
3.5. Spanish	18
3.6. Numidians and Moors	19
3.7. Celts	21
3.8. Illyrians	23
3.9. Thracians	23
3.10. Spartacus's Slave Revolt	24
3.11. Jewish Kingdoms	25
3.12. Skythians/Saka	26
3.13. Sarmatians	26
3.14. Parthia	27
3.15. Armenia	28
3.16. Indians	28
4. PLAYING THE GAME	29
4.1. New Players	29
4.2. Starting a Single Player Game	29
5. QUICK BATTLES	30
6. CUSTOM BATTLES	32

6.1. Armies	32
6.2. Scenario Types	34
6.3. Force Size	35
6.4. Map Size	36
6.5. Мар Туре	36
6.6. Force Selection	37
6.7. Advanced Options	37
7. EPIC BATTLES - HISTORICAL SCENARIOS	37
8. MULTI-BATTLE CAMPAIGNS	39
8.1. Sandbox Campaigns	39
8.2. Preset Campaigns	42
8.3. Campaign Battles	42
8.4. Unit Advancement	43
8.5. Losses	44
8.6. Garrisons	44
8.7. Strategic Decisions	45
8.8. Recruitment	45
8.9. Replays	45
8.10. Difficulty	45
8.11. Victory	46
9. BATTLE	46
9.1. Camera Controls	46
9.2. Force Selection	47
9.3. The Battlefield	48
9.4. Battlefield Display	48
9.5. Unit Recognition on the Field	53
10. GENERALS	55
10.1. Command Range	55
10.2. Line of Command	57
10.3. Generals in Close Combat	57
10.4. Moving Generals	57
10.5. Rallying Units	58
11. Deployment	58

12. BATTLEFIELD ORDERS	59
12.1. Move	59
12.2. Move Whole Command	61
12.3. Pass Through	62
12.4. Turn	62
12.5. Turn Whole Command	64
12.6. Fall Back	65
12.7. Form Square and Leave Square	65
12.8. Undo	66
12.9. Move General	67
12.10. Shoot	67
12.11. Turn and Shoot	69
12.12. Charge	70
12.13. Fight Melee	75
12.14. Switch Command	76
13. Shooting	76
13.1. Range	76
13.2. Arc of Fire	77
13.3. Points of Advantage	77
13.4. Overhead Shooting	78
13.5. Shooting and Moving	78
13.6. Cover	78
13.7. Armour	78
13.8. Skirmisher Target	79
13.9. Large Targets and Enfilade	79
13.10. Morale/Disorder	79
14. CLOSE COMBAT	79
14.1. Combat Strength	79
14.2. Points of Advantage	80
14.3. Combat Results	83
14.4. Push Backs and Follow Ups	84
14.5. Break Offs	84
14.6. Continuing Combat (Melee)	84
14.7. End of Close Combat	85

15. Cohesion (Morale)	85
15.1. Cohesion States	85
15.2. Cohesion Tests	85
15.3. Rallying	87
15.4. Autobreak	87
15.5. Flank/Rear Attacks	88
15.6. Routing and Pursuing	88
16. Unit State - Banners	89
17. TERRAIN	90
17.1. Difficulty	90
17.2. High Ground	90
17.3. Visibility	91
17.4. Close Combat on the Edge of Terrain	91
17.5. Obstacles and Fortifications	91
18. OTHER CAUSES OF DISORDER	92
19. VICTORY CONDITIONS	92
20. BATTLE REPORTS	93
21. LOAD/SAVE	93
22. Settings	94
22.1. Difficulty	94
22.2. Mouse Button Mode	95
22.3. Tooltips: Simple/Detailed	95
22.4. Close Combat Log: On/Off	96
22.5. Close Combat Reports: Off/Simple/Detailed	96
22.6. Question Marks On/Off	96
22.7. Hotseat Mode	96
22.8. Anti-Aliasing	96
22.9. Game Resolution	97
23. MULTIPLAYER	97
24. HINTS AND TIPS	99

25. Making a Map in the Map Editor	103
25.1. Tiles	104
25.2. Hills	105
25.3. Water	106
25.4. Objects	106
25.5. Units	107
25.6. Copy & Paste	108
25.7. Edging and Style	108
25.8. Conditions	109
25.9. Reinforcements Mode	109
25.10. Deployment Mode	110
25.11. Custom AI Dialogue and Teams	110
25.12. Plugin Tools	111
25.13. Scenario Description	112
25.14. Text Markers	113
25.15. Generals	114
25.16. Custom Unit Names	115
25.17. Side0/Side1	116
25.18. Point Allocation	116
25.19. Scenario Script	116
26. MODDING	117
27. TECHNICAL SUPPORT AND GAME FORUM	117
28. USEFUL HOT KEYS	117
29. Appendices	119
29.1. Representational Scales	119
29.2. Troop Types	119
29.3. Combat Capabilities	120
29.4. Glossary	121
30. Example Battle – After Action Report	122
31. TACTICS	134
32. DESIGN NOTES	143
33. CREDITS	150

1. INTRODUCTION

Welcome to Field of Glory II!

Italy, 280 BC. Having defeated its Italian neighbours and annexed their territories, the Roman Republic was on the brink of greatness. But first it must repel the invasion of southern Italy by King Pyrrhos of Epeiros. For the first time two great military systems would come into conflict – the legions of Rome versus the Macedonian pike phalanx.

Having fought Pyrrhos to a standstill and encouraged him to seek alternative fields of conquest, Rome continued to expand. Two epic wars against the north African Phoenician colony of Carthage and its empire resulted in the



Introduction **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Load / Save Making a Map in the Map Editor **Technical Support** and Game Forum Appendices **Example Battle Design Notes** Credits

ultimate defeat of Carthage and the complete conquest of Italy and most of Spain by 202 BC. Carthaginian north Africa was annexed in 146 BC after a brief third war.

The defeats of Kings Philip V and Perseus of Macedon in 197 and 168 BC respectively led to the annexation of Macedon in 148 BC and Greece in 146 BC. The defeat of King Antiochos the Great of the Seleucid Kingdom in 190 BC led inexorably to the annexation of the middle east as far as the northern Euphrates by 63 BC. Celtic Gaul was conquered by Julius Caesar between 58 and 50 BC. Ptolemaic Egypt was annexed in 30 BC.

None of these conquests was easy. Each of Rome's opponents had its own unique culture. Tactical systems varied enormously, but they all gave Rome a good fight – as well as fighting amongst themselves. Only the Parthians in the East, with their army consisting mainly of light horse archers supported by fully-armoured cataphract lancers, proved too hard a nut for the Romans to crack, and put a halt to their seemingly inexorable advance.

Instead, with their empire now stretching from modern France and Spain to Iraq, the Romans fell to fighting amongst themselves. The death-throes of the Roman Republic were marked by epic civil wars ranging from Spain to Egypt. At the end of it all one man came to rule this vast Empire, Octavianus, ruling as Augustus, the first Roman Emperor, from 27 BC. *Field of Glory II* is a turn-based tactical game set during this epic period of history. It covers the whole of the known western and near-eastern world from Britain to India from 280 to 25 BC.

Take command of any nation of the Ancient world, each one relying on its own tactical system. Lead your chosen army and its generals to victory in set-piece historical battles or "what-if" custom battle situations against an AI or human opponent. Take on the mantle of some of the greatest generals in history as you lead their armies from victory to victory through their epic careers – or bring their career to a premature end.

There are single player and multiplayer battle modes – the latter using Slitherine's easy-to-use PBEM++ Multiplayer system.

1.1. SYSTEM REQUIREMENTS

Minimum Spec

Windows 7, 8, 10 2GHz processor 4 GB Ram, 2 GB of HD space DirectX Compatible Sound Card 1 GB DirectX 9 Compatible Graphics Card Slower Intel integrated video cards will require the game to run on lower graphics settings

Recommended Spec

As above but:

2 GB dedicated DirectX 9 Compatible Graphics Card

Please ensure your graphics and sound drivers are up to date before playing the game or you may experience graphical glitches or more serious errors. Check your manufacturer's website for the latest version, as new drivers are released regularly.

1.2. INSTALLING THE GAME

Please ensure that your system meets the minimum requirements listed above.

If you purchased from the Slitherine or Matrix site you will have been provided a download link for the games installer. Have your Serial Number ready as you will need to enter it as part of the installation process. The Serial Number is included in the order receipt for downloads, or printed on the disk or box for hard copies. To install the game, either double click on the installation file you downloaded or insert the game's disk into your drive (if you have disabled the auto run function on your CDROM doubleclick on the installation archive file, then double click on the file that is shown inside the archive). Follow all on-screen prompts to complete installation. If you have redeemed a Steam key or purchased via Steam you can also launch the game on Steam.

1.3. UNINSTALLING THE GAME

Please use the Add/Remove Programs option from the Windows Control Panel or the Uninstall shortcut in the games Windows "Start" menu folder to uninstall the game. Uninstalling through any other method will not properly uninstall the game.

Introduction

Historical Overview Playing the Game **Ouick Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**

1.4. PRODUCT UPDATES

In order to maintain our product excellence, Slitherine releases updates containing new features, enhancements, and corrections to any known issues. All our updates are available free on our website (www.slitherine.com) and can also be downloaded quickly and easily by clicking on the "Update" link in your Game Launcher or by using the "Update Game" shortcut in your Windows "Start" menu folder for the game. If you have the Steam version, Steam will update it according to your settings.

1.5. MULTI-PLAYER REGISTRATION

If you bought the game directly from us, we highly recommend registering your game first before playing. You can simply do this through the game menu, from Multiplayer or directly at Slitherine's website at:

https://www.slitherine.com/members/signup.asp

This is because you will need a registered account to play Multiplayer games on Slitherine's PBEM (play by e-mail) server. When registering you can choose to sign up to the newsletters to receive regular updates, offers and discounts on the rest of Slitherine's catalogue so it is worth registering!

Steam users cannot currently register though are able to play multiplayer.

1.6. GAME FORUMS

Our forums are one of the best things about Slitherine. Every game has its own forum with our designers, developers and the gamers playing the game. If you are experiencing a problem, have a question or just an idea on how to make the game better, post a message there.

Go to www.slitherine.com and click on the Forums hyperlink.

1.7. NEED HELP?

Go to www.slitherine.com and click on the Forums hyperlink.

2. HISTORICAL OVERVIEW

This game allows you to fight the battles of Rome and its enemies and allies from 280 to 25 BC. During this period Rome expanded from Italy to gain an empire including the whole of the Mediterranean and the surrounding regions.

By 280 Rome had conquered its main Italian rivals, including the Etruscans and Samnites, controlling most of Italy by a network of forced alliances. The Greek city of Tarentum, in the heel of Italy, appealed to King Pyrrhos of



Introduction **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Load / Save Making a Map in the Map Editor **Technical Support** and Game Forum **Example Battle Design Notes** Credits

Epeiros for aid against Rome. This was the first clash between the legions and the Hellenistic pike phalanx. Although Pyrrhos won hard-fought victories, he soon lost interest and moved on elsewhere, allowing Rome to complete its control of southern Italy.

In 264 a dispute over the city of Messina at the north-eastern tip of Sicily resulted in the 1st Punic War against Carthage. The war lasted until 241, ending in Roman victory. Carthage was forced to surrender Sicily to Rome. In 237 Corsica and Sardinia were also annexed.

Carthage consoled itself by conquering a new empire in Spain. In 218 their general, Hannibal, instigated the 2nd Punic War by attacking a Roman ally. He then invaded Italy and inflicted numerous severe defeats on the Roman armies. Things looked bleak for Rome. Hannibal never managed to capture Rome itself, however, and the Romans were not quitters. They gradually managed to contain Hannibal in the far south of Italy, while in Spain their armies defeated the Carthaginians and conquered their Spanish empire. Eventually the Romans invaded North Africa to threaten Carthage itself. Hannibal was recalled, but was defeated at Zama in 202. The former Carthaginian empire was reduced to modern Tunisia.

In 215, during the 2nd Punic war, Rome first came into conflict with the Hellenistic kingdom of Macedon to the north of Greece. After the 4th Macedonian war, in 148, Macedon was annexed by Rome.

In 192, an attempt by the eastern Hellenistic Seleucid kingdom to intervene in Greece provoked Roman intervention. The Seleucids were defeated in two battles, and lost their territories in Asia Minor, which were parceled out amongst Rome's allies.

In 149 Rome found pretexts to declare war against Carthage again, and after the short 3rd Punic War destroyed Carthage and annexed her remaining territories.

In 133, King Attalos III of Pergamon bequeathed his kingdom in western Asia Minor to Rome. In 88, an attempt to check the expansionist ambitions of Mithridates of Pontus resulted in initial disaster for the Romans with the loss of the whole of Asia Minor and much of Greece. However, the Roman counterattack swiftly defeated the Pontic armies and swept Mithridates out of his newly conquered territories. Two further wars led to the final defeat of Mithridates in 63 and further territorial gains for Rome and her client allied kingdoms. The Syrian remnants of the Seleucid kingdom were annexed at this time.

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From 58 to 51 the Romans, under Julius Caesar, conquered Gaul (modern France). Britain was also invaded briefly, but to no lasting effect. In 53, an attempt to invade the Iranian Parthian kingdom in the east resulted in disaster at the battle of Carrhae.

From 49 a series of civil wars wracked the Roman empire. In the last phase, the Hellenistic Ptolemaic kingdom of Egypt became involved on the losing side, with the result that Egypt was annexed in 30 BC. Following this, Octavian, great-nephew and adoptive heir of Julius Caesar, was in sole control of the Roman world, becoming the first emperor, under the name of Augustus. By this time the Roman world included Italy, Spain, Gaul, North Africa, Greece, Asia Minor, Syria and Egypt. A series of small client kingdoms in the east acted as buffers against Parthia.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Load / Save Making a Map in the Map Editor **Technical Support** and Game Forum **Example Battle Design Notes**

3. FACTIONS

The following notes cover just some of the many colourful factions available in the game. Each had its own distinct culture, organisation and tactical system.

3.1. ROMANS

Rome's military success was based on her heavy infantry legions. At the start of this period the legions had recently been reformed following the Samnite wars.

3.1.1. LEGIONS OF THE MIDDLE REPUBLICAN PERIOD

According to Polybios, legions of this period were theoretically 4,200 strong, consisting of 1,200 hastati, 1,200 principes, 600 triarii and 1,200 lightly equipped velites. Each legion also had 300 cavalry. Allied alae, which were usually present in equal numbers to legions, were similarly organised but had three times as many cavalry.

A legion would form up in three lines, the hastati in front, principes in the second line and triarii in the third. Each "line" consisted of maniples of 120 men,



separated by intervals large enough for a maniple of the line behind to fill. This is the famous chequerboard formation, which gave the legion much greater flexibility in the advance than a solid phalanx as used by the Carthaginians and the Hellenistic kingdoms. It is uncertain how this formation worked in practice on contact with the enemy, as the gaps would appear to be a liability. However, as a unit of 480 men represents 4 maniples, we do not need to worry about this fine level of detail. Instead each unit of hastati and principes is assumed to comprise maniples of both types in chequerboard formation.

At this time Roman legionaries carried a large oval shield (scutum). The semicylindrical shield of the 1st and early 2nd century AD had not yet come into use, nor had the lorica segmentata (banded armour). Instead, those able to afford it wore chain mail, while the poorer men were issued a small square bronze breastplate by the state. The hastati and principes fought with a heavy throwing spear (pilum) and short sword (gladius). The triarii still carried the old thrusting spear (hasta). The hastati were drawn from the youngest and fittest men, the principes were experienced men in their prime, and the triarii were the veterans – less active but steady, and the last hope if anything went wrong.

3.1.2. LEGIONS OF THE LATE REPUBLICAN PERIOD

After the reforms of Marius, circa 105 BC, legionaries were no longer divided into hastati, principes and triarii, but were uniformly equipped with oval shield, mail, pilum and sword. Maniples were replaced by larger tactical units



Late Republican Romans.

Historical Overview Factions Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Appendices **Example Battle Design Notes** Credits

called cohorts. Each legion had ten cohorts, each of 480 men at full strength. Later legions, though possibly not those of this period, had one larger senior cohort of 800 men.

The general quality of the legions was high, but some veteran legions became especially renowned for their prowess (e.g. Julius Caesar's 10th legion). Others on long term postings in peaceful areas sometimes lost their edge.

Cavalry and light troops were recruited from conquered and adjacent areas, but not yet organised into regular units. They included Spanish, Gauls, Germans, Macedonians, Numidians, Thracians, Illyrians, Greeks, Syrians and others.

3.2. HELLENISTIC KINGDOMS

The Hellenistic kingdoms of this period resulted from the break-up of Alexander the Great's empire on his early death. The mainstay of their armies was the Macedonian pike phalanx, supported by lighter infantry (thureophoroi spearmen, Thracians, and assorted light infantry with bows, javelins or slings), war elephants and excellent lancer cavalry.

3.2.1. THE MACEDONIAN PHALANX

Developed by King Philip II of Macedon in the 4th century BC, used by his son Alexander the Great to conquer the Achaemenid Persian Empire and by Alexander's successors, the Macedonian phalanx was the invincible infantry of its day. Armed with the 18ft (5.5m) pike (sarissa), the spear points of the first 5 ranks projected beyond the front rank, forming an impenetrable wall of spears. The commonest formation was 16 ranks deep, although other formations were used at times.

In a straight ahead fight, in good terrain, the phalanx was supreme, but it could come unstuck in less favourable circumstances. The Roman victories against Hellenistic armies were mostly a result of the Romans exploiting their more flexible formations to catch the phalanx at a disadvantage. For example, at Kynoskephalai (197 BC) they charged the engaged phalanx in the rear, and at Corinth (146 BC) in the flank. At Pydna (168 BC) the phalanx was disordered by uneven ground. At Magnesia (190 BC) the phalanx was forced to remain static due to the threat of outflanking cavalry until assorted missiles hurled at the elephants in the intervals between the phalanx blocks drove the elephants to panic and break up the phalanx.

3.2.2. THUREOPHOROI

During the early Hellenistic period the heavily-equipped hoplite spearmen of classical Greece came to be replaced by lighter-equipped thureophoroi.

Thureophoroi carried a large oval shield (thureos), and usually wore a helmet but no body armour or greaves. When fighting in the main battle line, they used an 8ft (2.5m) thrusting spear, with a sword as secondary weapon. Sometimes they operated as euzonoi, substituting javelins for their spears and deploying as skirmishers. Some thureophoroi wore chainmail body armour and were called thorakitai.

Most mercenary infantry in the Eastern Mediterranean during this period served as thureophoroi, who could be used to support the flanks of the pike phalanx.

3.2.3. XYSTOPHOROI

The archetypical heavy cavalrymen of the Hellenistic era, following the tradition of Alexander the Great's Companions, xystophoroi fought as charging armoured lancers, rather than using the skirmishing tactics of earlier Greek cavalry.



Historical Overview Factions Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**

3.2.4. CATAPHRACTS

The ultimate development of ancient lancers, cataphracts were armoured from head to toe, riding armoured horses.

3.2.5. WAR ELEPHANTS

Used by the Hellenistic kingdoms, the Carthaginians and even the Romans, war elephants were a major feature of warfare in this period. They were feared by all troops, but were particularly effective against cavalry, whose horses they terrified.

As well as being hard to obtain and expensive to maintain, they were something of a risky weapon. Notable successes include defeating the Roman cavalry at Heraclea (280 BC), routing the Galatian cavalry and chariots at "the Elephant Victory" (273 BC), trampling the Roman legions at Bagradas (255 BC) and breaking the Macedonian left wing at Kynoskephalai (197 BC) and Pydna (168 BC). Notable disasters include panicking and disrupting their own cavalry at Zama (202 BC) and their own phalanx at Magnesia (190 BC).

3.2.6. SCYTHED CHARIOTS

Used by the Seleucid and Pontic kingdoms and bristling with razor-sharp blades, scythed chariots were designed to strike fear into the hearts of the enemy. When successful, such as at the Battle of the River Amnias in 88 BC, their effect could be devastating. However, they were fairly easy to counter



Seleucids at Magnesia.

with light foot archers, slingers and javelinmen, who could shoot at the horses while dodging out of the way of the chariots.

This happened at the Battle of Magnesia. The Seleucid chariot horses, maddened by their wounds, stampeded through their own cataphracts and camelry. The Pergamene cavalry (allied to the Romans) following closely behind were able to sweep away the Seleucid wing and threaten the flank of the phalanx. Unable to safely advance, the phalanx had to stand under a hail of missiles from the Roman foot until the elephants in the intervals between the phalanx blocks panicked and broke up the phalanx, completing the Seleucid defeat.

3.2.7. PYRRHOS OF EPEIROS (318 – 272 BC)

Named by Hannibal as the second greatest general of all time after Alexander the Great, Pyrrhos is famous for his "Pyrrhic victories" against the Romans in which, although he won, his armies suffered exceptionally heavy casualties. As he was the only Hellenistic general to defeat a major Roman army in battle, his victories can nevertheless be regarded as great achievements. He also campaigned against the Carthaginians in Sicily and against various rivals in Greece and Macedonia. He was killed in a street battle in Argos in 272 BC, after being stunned by a roof tile thrown by an old woman.

3.2.8. THE ANTIGONID MACEDONIAN KINGDOM

Following the death of Alexander the Great, Macedon, north of Greece, was one of the three main kingdoms into which Alexander's empire was divided after the initial round of civil wars between his successors. (The others were the Seleucid kingdom in Asia, and the Ptolemaic kingdom in Egypt). Until the advent of Rome, the Kingdom of Macedon was the dominant force in Greece. Between 215 and 148 Macedon fought a series of wars against the expanding Roman Republic. After the 4th Macedonian war, in 148, Macedon was annexed by Rome.

By the time of the Wars with Rome, Antigonid Macedon had replaced its lancer cavalry with javelin armed types.

3.2.9. THE SELEUCID KINGDOM

The Seleucid Kingdom was the largest in land area of the Hellenistic Successor kingdoms that formed after the death of Alexander the Great. At its height it stretched from the eastern shores of the Aegean Sea to India. Circa 250 BC

Historical Overview Factions Playing the Game **Ouick Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**

it lost Bactria in the north-east to local Greek rebels. Following Antiochos III's war against the Graeco-Bactrian kingdom circa 210, the Seleucid cavalry were upgraded to fully armoured cataphracts. In 192 Antiochos invaded Greece, but was defeated by the Romans at Thermopylae in 191 and again at Magnesia in Asia Minor in 190. Following these defeats, the kingdom lost most of Asia Minor. Soon after, the Parthians, under King Mithridates I (170-138), took over most of the eastern Seleucid provinces, leaving only Syria and Mesopotamia. Constant civil wars took further toll, and in 63 BC the Romans deposed the last Seleucid princes and made the remnants of the kingdom into a Roman province.

The Seleucid army was the most heterogeneous of the major Hellenistic armies, drawing as it did on the many nations dwelling in its huge territory.

3.2.10. THE PTOLEMAIC KINGDOM

The Ptolemaic kingdom in Egypt was the other major Hellenistic kingdom resulting from the breakup of Alexander the Great's empire. As well as Egypt, the early Ptolemies used their substantial fleet to control much of the eastern Mediterranean coast. By the second quarter of the 2nd century BC, their territories had been reduced to Egypt and Cyprus. About this time, a reorganisation of the army has been postulated in which infantry drilled in Roman legionary tactics were introduced. The kingdom was annexed by Rome in 30 BC after the defeat and death of Marcus Antonius and Cleopatra.



Ptolemaic army.

3.2.11. GREEK CITY STATES

During this period the city-states of mainland Greece were very much in decline, and often subject to a greater or lesser extent to Macedon. Nevertheless, they continued to field armies. Traditional heavily-equipped hoplite spearmen were initially replaced by lighter-equipped thureophoroi.

Later, some cities fielded Macedonian-style pike phalanxes.

3.2.12. THE GRAECO-BACTRIAN KINGDOM

The Graeco-Bactrian Kingdom was founded circa 250 BC when Diodotos, the Seleucid governor of Bactria, Sogdiana and Margiana, seizing his opportunity while King Antiochos II was otherwise occupied with a war against Ptolemaic Egypt, declared his territory independent. At its greatest extent, the kingdom covered modern Uzbekistan, Turkmenistan, Tajikistan, Afghanistan and parts of Iran and Pakistan. Circa 210, Bactria was invaded by the Seleucid King Antiochos III. This war, however, ended in a negotiated peace, in which Antiochos recognised King Euthydemos.

Circa 180, Demetrios son of Euthydemos invaded India, which was in some disarray following the fall of the Mauryan Empire. By 175 the Indo-Greek kingdom had been established. Soon after this, the overthrow of the Euthydemid dynasty in Bactria led to the Bactrian and Indian sections of the kingdom splitting apart.

The Parthian conquest of the eastern provinces of the Seleucid kingdom, under Mithridates I (170-138) cut the Graeco-Bactrian and Indo-Greek kingdoms off from direct contact with the west. Following this, the territories of the Bactrian kingdom were eroded by the nomadic Yue-chi and the last Graeco-Bactrian king, Heliokles, abandoned Bactria and retreated to his Indian holdings circa 130.

Graeco-Bactrian armies consisted of a mixture of Hellenistic infantry and local lancer cavalry, some very heavily armoured, and horse archers.

3.2.13. GRAECO-INDIAN KINGDOMS

Circa 180 BC, The Graeco-Bactrian King Demetrios invaded India, which was in some disarray following the fall of the Mauryan Empire. By 175 the Indo-Greek kingdom had been established. Soon after this, the overthrow of the Eythydemid dynasty in Bactria led to the Bactrian and Indian sections of the kingdom splitting apart. Under King Menander I, who ruled from circa 155 to **Historical Overview** Factions Playing the Game **Ouick Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**

130, the Indo-Greek kingdom was greatly expanded, covering much of northwest and northern India. Thereafter, there were at least two separate Indo-Greek kingdoms, in the east and west of the Greek ruled territories. The Yue-chi took over most of the western kingdom circa 70 BC. The last Indo-Greek king, Strato II, ruled in the eastern Punjab until overthrown by the Indo-Skythians circa 10 AD.

Graeco-Indian armies consisted of a mixture of Hellenistic and local Indian troops.

3.2.14. THE ATTALID KINGDOM

Eumenes I, governor of the great city of Pergamon in western Asia Minor, declared independence from the Seleucid kingdom in 262 BC. Pergamon was allied with Rome against Macedon in the 1st, 2nd and 3rd Macedonian wars, and against the Seleucid kingdom in the Syrian war. After the Roman and Pergamene victory over the Seleucids at Magnesia in 190, Eumenes II was granted all the Seleucid territories west of the Taurus. The kingdom was bequeathed to Rome by Attalos III on his death in 133 BC. His illegitimate half brother, Aristonikos, rebelled but was suppressed by 129 BC.

Although Hellenistic in culture, the Pergamene army lacked a pike phalanx until its territorial gains after the Battle of Magnesia.

3.2.15. PONTUS

Pontus was a small Hellenistic kingdom south of the eastern Black Sea which secured its independence during the wars of the Successors circa 281 BC. From 115 BC, under the rule of Mithridates VI, it began to expand, taking control of the Bosporan Kingdom in the Crimea. When Mithridates began to encroach on his neighbours in Asia Minor, he was forced to withdraw by decree of the Roman senate. Open war broke out in 88 BC, when an attempted invasion of Pontus by local Roman and allied forces was soundly defeated, and the victorious Pontic armies went on to annex the whole of Asia Minor and advance into Greece. There, however, they were defeated by the Romans, and Mithridates was forced to withdraw and accept peace. Two more Mithridatic wars followed, Mithridates eventually fleeing to the Bosporus where he committed suicide when his son Pharnaces staged a coup in 63 BC. Pharnaces attempted to regain Pontus during the Roman Civil War, but was defeated by Caesar at Zela in 47 BC.

The Pontic army consisted of a mix of local Hellenistic and Kappadokian troops, supplemented by mercenaries from many of the surrounding tribes. After his initial defeats, Mithridates reorganised his infantry as imitation legions.

3.2.16. THE BOSPORAN KINGDOM

The Bosporan kingdom, ruled initially by the Hellenized Thracian Spartokid dynasty, and subsequently by Mithridates VI of Pontus and his descendants, latterly as clients of Rome, was based around the Greek colonies of the Crimean and Taman peninsulas north of the Black Sea. Its armies consisted of a mix of mercenaries, local militia, and nobles equipped as Sarmatian-style lancers.

3.3. CARTHAGINIANS

The North African city of Carthage, now a suburb of Tunis, was a colony of the Phoenician city of Tyre. At the start of the period, Carthage ruled a commercial empire in North Africa, Sicily, Sardinia, Corsica and southern Spain. After losing Sicily, Sardinia and Corsica to the Romans in and after the 1st Punic War, the Carthaginians concentrated on expanding their empire in Spain under the command of Hannibal's father Hamilcar Barca. After Hamilcar's death in 228, his son-in-law Hasdrubal the Fair took command. He, however, was assassinated in 221, following which Hannibal became commanderin-chief. His siege and capture of Saguntum, a Roman ally in Spain, in 219 triggered the start of the 2nd Punic War.

Hannibal is famed as one of the greatest generals of all time. His march across the Alps in 218 to bring the war to the Romans at home is justly hailed as one of the outstanding feats of military history, though most of his elephants were so out of condition after the trek that they died after the Battle of the Trebia. He won victory after victory over the Roman armies whenever they were foolish enough to engage him in battle, the most famous being that of Cannae in 216, but he never succeeded in capturing Rome itself. Eventually the Romans learned to avoid open battle and merely contain Hannibal in southern Italy. Meanwhile their armies conquered the Carthaginian possessions in Spain. Eventually they landed in North Africa and threatened Carthage itself. Hannibal was recalled, but was defeated by Scipio Africanus at the Battle of Zama in 202. He died in exile circa 183 – committing suicide rather than be handed over to the Romans. **Historical Overview** Factions Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**

Having accepted a humiliating peace and the loss of most of its empire at the end of the 2nd Punic War in 201 BC, Carthage was no longer a great power. In 149 BC the Romans declared war again on a flimsy pretext. When Carthage fell in 146 the city was destroyed and its citizens killed or sold into slavery.

3.3.1. CARTHAGINIAN ARMIES

Carthaginian armies followed neither the Roman nor the Hellenistic system. They did not use a pike phalanx. Instead their armies largely consisted of mercenaries recruited from all over the Western Mediterranean, including Numidians, Libyans, Spanish and Gauls, amongst others. Their heaviest infantry was organised as a spear-armed phalanx. They tended to recruit large numbers of good quality cavalry, usually giving them a cavalry advantage against the Romans. They also used war elephants.

3.4. SYRACUSE

Syracuse, on the south-east coast of Sicily, was founded in the 8th century BC by Greek settlers from Corinth and Tenea. She became the dominant power in eastern Sicily, while (prior to the First Punic War) Carthage controlled the west. The two states were in frequent conflict.

In the Second Punic War, Syracuse allied with Carthage against Rome, thus sealing her own fate. After a three year siege, the city was captured and sacked by the Romans in 211 BC. During the siege, Archimedes, the great Syracusan mathematician and engineer, devised various "secret weapons" that were used in the defence of the city. These included his famous "death ray", used to set fire to Roman ships by focusing the rays of the sun with mirrors, and the "ship shaker" which used a claw on a crane to capsize them. Recent modern experiments have attempted to duplicate these weapons, and have pronounced them feasible. Archimedes was killed during the sack of the city.

The Syracusan army consisted mainly of conventional Greek hoplite spearmen, supplemented by various mercenaries.

3.5. SPANISH

The tribes of the Iberian peninsula in this period were divided into three main tribal groupings – Iberians, Lusitanians and Celtiberians.



Called scutarii by the Romans because of their large oval shield (scutum), Spanish (Iberian) foot were much sought after as mercenaries or allies by the Carthaginians and Romans. Armed with heavy javelins and sword, their charge was fierce and hard to resist. They were undisciplined when victorious but resolute in defeat, often making desperate suicidal charges or even committing mass suicide rather than surrender when besieged. They were famous for their mobility over the craggy wooded hills of Spain. They were fond of ambushes and all forms of guerrilla warfare - the Roman pacification of Spain was a long and painful process and was not completed until the end of this period. Their skirmishers were called caetrati by the Romans after their smaller round shield (caetra). Their cavalry were few in number but of good quality.

The Celtiberians were of Celtic origin. Their scutarii were similarly equipped to Iberians, but less adept in rough and broken terrain.

Lusitanian foot were all caetrati rather than scutarii, but a proportion at least were equipped for close combat, some even wearing mail.

3.6. NUMIDIANS AND MOORS

The ancient Numidians and Moors were semi-nomadic Berber tribes living in North West Africa. The Numidian kingdom was west of Carthage and the Moorish kingdom beyond that. **Historical Overview** Factions Playing the Game **Ouick Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**



Numidian and Moorish cavalry and foot fought mainly as javelin skirmishers, in which role they were expert, harassing the enemy with javelins but using superior speed and agility to evade their charges. The Carthaginians made much use of Numidian cavalry and foot during the Punic Wars against Rome. At the Battle of Cannae in 216 BC, the Numidian cavalry on the Carthaginian right wing skirmished with the opposing Roman cavalry and kept them out of the battle long enough for the Spanish and Gallic cavalry on the Carthaginian left to be able to defeat the Roman cavalry facing them, ride round the Roman rear, and attack the cavalry of the other Roman wing before falling on the rear of the Roman infantry. They were fond of ambushes and other tricks, and made excellent use of terrain. They were at their best in pursuit of fleeing enemy, but when put to flight themselves would flee for two or three days before risking stopping.

Under the influence of the Romans, various attempts were made to develop drilled close fighting foot. King Juba I of Numidia was allied to the Pompeian side in the Roman Civil War. Bogud (Bogus) of Mauretania was allied to Caesar.

3.7. CELTS

3.7.1. GAULS

The history of the relationship between Gauls and Rome is one of conflict lasting centuries. In 387 BC the Senones under Brennus defeated the Roman army and sacked Rome itself. This trauma was forever to colour Roman relations with the Gallic tribes. The Gauls in Northern Italy (Cisalpine Gaul) remained a danger, inflicting a number of defeats on the Romans until the Gallic defeat at Telamon in 225 BC. When Hannibal invaded Italy at the start of the Second Punic War seven years later, the Boii and Insubres joined him and took part in his many victories over the Romans. In 121 BC southern Gaul (Transalpine Gaul) was incorporated as a Roman province. In 58 BC a mass migration by the Helvetii gave Julius Caesar the opportunity to commence his conquest of Gaul, culminating in the siege of Alesia in 52 BC, which represented the last effective defence of the Gauls, under Vercingetorix, against their age-old enemies. Contrary to the popular view of Gauls as "wild barbarians", their infantry usually advanced in good order in close formation, the advance culminating in a fierce massed charge. The bravest warriors, such as the Gaesati, often fought naked apart from their shields and weapons.

Gallic infantry mainly fought in close order, often with overlapping shields, and were disadvantaged in rough terrain, but some hill tribes probably fought in looser order in their familiar terrain. Gaesati were a Gallic warrior society.



Historical Overview Factions Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes** Credits

They fought naked, but with the usual Gallic shield and weapons. Large Gallic armies were usually coalitions of several tribes.

Gallic armies also fielded high quality cavalry, often in large numbers.

3.7.2. ANCIENT BRITONS

The Romans under Julius Caesar landed forces in Britain in 55 and 54 BC, but made no lasting conquest at that time. It was not until 43 AD that the Emperor Claudius launched a full scale invasion of Britain under Aulus Plautius.

The lowland British tribes made much use of their extremely manoeuvrable light chariots, which drove rapidly about the battlefield inspiring terror in the enemy. Their cavalry were lighter than their Gallic equivalents, but were ideal for operating in close cooperation with the chariots. However, the bulk of most armies consisted of foot. Most of these charged fiercely with javelin and sword, but large numbers of slingers could also be fielded, particularly by the south-western tribes. In 54 BC, after an initial defeat, Cassivellaunus sent most of his infantry home and fought a guerrilla campaign against Caesar using his 4,000 charioteers.

3.7.3. GALATIANS

The Galatians were a group of Celtic tribes who invaded Macedonia, Greece and Thrace in 280 BC. They were eventually ousted by Antigonos Gonatas of Macedon. Three tribes, the Trocmi, Tolistobogii and Tectosages crossed over to Asia Minor at the invitation of Nicomedes I of Bithynia, who wanted their help against his brother. They proceeded to devastate Asia Minor. They were eventually defeated by the Seleucid king Antiochos I at the "Elephant Victory" in 273 in which their cavalry, chariots and scythed chariots were panicked by the Seleucid elephants. Following this they settled in central Anatolia, this region subsequently being known as Galatia. They supported themselves by raiding and by hiring themselves out as mercenaries.

In 189 they were defeated by the Romans under Gnaeus Manlius Vulso. Thereafter their power declined. During the reign of Mithridates VI of Pontus, they came under Pontic hegemony. In 64, following the defeat of Mithridates, Galatia became a Roman client state under the chieftains (tetrarchs) of the three tribes. The tetrarch of the Tolistobogii, Deiotarus, was soon after raised by the Romans to the status of king. He re-organised his army as Roman style legionaries – raising two full legions. After suffering heavy losses in the defeat of Domitius by Pharnaces of Pontus, the survivors were regrouped into one legion, and took part in Caesar's victory over Pharnaces at Zela in 47. When Galatia was annexed as a Roman province in 25 BC, these troops became the Legio XXII Deiotariana. They were posted to Egypt where they were stationed at Alexandria. The legion was probably destroyed by the Jews during the revolt of Simon Bar Kokhba (132-135 AD).

3.8. ILLYRIANS

Illyria occupied the area east of the Adriatic Sea and north-west of Greece. The Illyrian tribes were fond of raiding by land and sea for slaves and loot. Unlike most ancient peoples, they armed their slaves, who fought alongside them in battle.

In this period the Illyrians fought in formed bodies of spearmen. Rome fought a series of wars against them from 229 BC onwards, the last tribes being subjugated in 9 AD.

3.9. THRACIANS

The Thracians, living in a large area of south-eastern Europe, north and north-east of Macedon and Greece, spent much of their time fighting among



Historical Overview Factions Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**

themselves. Parts of Thrace intermittently came under rule by the Macedonians and eventually the Romans.

In the Hellenistic period many of their foot were armed with the dreaded two-handed rhomphaia, a curved blade with the cutting edge on the inside of the curve, on the end of a long handle. This was capable of lopping off limbs. They also had many light cavalry with javelins or bow, and a few armoured noble cavalry.

3.10. SPARTACUS'S SLAVE REVOLT

In 73 BC Spartacus was one of 70 gladiators who broke out of the school of Lentulus Batiatus in Capua. The rebels initially used kitchen implements to break out but obtained several carts of gladiatorial equipment during their escape. They then defeated a small force sent to recapture them, taking their arms and armour to add to their arsenal. Over the next few weeks the rebels moved to a more defensible position on the slopes of Mount Vesuvius and many more escaped slaves swelled their ranks. A larger Roman militia force besieged the slaves but by using vines and ladders some of the slave force made its way down the impassable slopes and attacked the Roman camp from the rear. The resulting battle saw the Romans comprehensively defeated.

The army of Spartacus continued to grow and defeated yet another Roman force under Publius Varinius. By the end of 73 the total size of the slave army was 70,000 men, women and children. In 72 the slaves moved north and their still growing force split into at least two. The smaller portion, led by Crixus, was caught and defeated by a regular Roman army under Lucius Gellius Publicola. Spartacus, however, was by now rather too near Rome for the comfort of the Senate. Several more hastily raised legions were sent to bar Spartacus' route to Rome while Gellius moved to trap the slave army. Spartacus then split his army, a small force kept the main Roman force busy while he turned on and defeated Gellius then returned with his whole force to defeat the blocking force as well.

At this point Spartacus declined to attack Rome and instead headed back to the south with his total force now numbering 120,000 or more. The following year, with the revolt now recognised as a serious issue, a force of eight legions under Marcus Licinius Crassus was sent after the slaves. The slave army was trapped in the toe of Italy. Crassus sent two of his legions under Mummius to try to get behind Spartacus with orders not to engage. Seeing an opportunity for glory, Mummius disobeyed and attacked, only to be defeated. Crassus then attacked with his main force and for the first time the main slave army was beaten with several thousand casualties.

Spartacus then tried to find ways to escape by sea to Sicily but was unable to do so. The slaves retreated towards Rhegium, in the toe of Italy, followed by Crassus whose legions built a line of fortifications across the isthmus to pen the slaves in. With further veteran Roman troops under Pompey approaching, the slaves made a desperate break-out but were caught by Crassus' legions and defeated in detail in two further battles. Spartacus is believed to have died fighting. 5,000 fleeing slaves were caught by Pompey and slaughtered, the 6,000 slaves captured by Crassus were crucified along the road between Capua and Rome.

3.11. JEWISH KINGDOMS

In 167 BC, Mattathias the Hasmonean, a Jewish priest, began a revolt against the Seleucid king Antiochos IV Epiphanes in response to decrees banning Jewish religious practice. His son Judah Maccabee led the Jewish rebels to victory over the Seleucid forces on several occasions, but was killed in the defeat of Elasa in 160. His brothers Jonathan and Simon continued the fight, eventually securing Judaean independence and establishing the Hasmonean dynasty of Priest Kings.

Civil wars and Roman intervention resulted in the replacement of the Hasmoneans by the Idumaean Herod the Great, who gained full control by 37 BC. He ruled as a Roman client until his death in 4 BC. His kingdom was divided among his three sons by the Emperor Augustus: Herod Antipas in Galilee, Philip in the Golan heights region; and Herod Archelaus in Judaea (including Samaria and Idumaea). The latter ruled so badly that he was deposed by the Romans in 6 AD at the request of his subjects. Judaea became an autonomous part of the Roman province of Syria.

From the evidence of one of the Dead Sea Scrolls, "The War of the Sons of Light against the Sons of Darkness", it appears that the Hasmonean Jewish army largely consisted of Hellenistic-style thureophoroi, supported by light infantry and heavy and light cavalry. Whether a pike phalanx was ever fielded is unknown. Later armies may have included imitation legionaries. **Historical Overview** Factions Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**

3.12. SKYTHIANS/SAKA

At the start of this period the Skythians/Saka were the dominant nomadic tribes of the Eurasian steppe. Saka was the name given by the Persians to their eastern tribes, including the Massagetae, the Dahae (including the Parni who became the Parthians) and possibly the Yueh-chi prior to their conquest of the Graeco-Bactrian kingdom circa 130 BC. Several Indo-Skythian kingdoms were founded in western India in the early 1st century BC.

Skythian/Saka armies consisted mainly of horse archers and specialised in skirmishing tactics.

As the period continued they were gradually pushed out of their western territories by the Sarmatians.

3.13. SARMATIANS

During this period the Sarmatians pushed the western Skythians out of much of their territory. At the height of their power, they ruled from the Volga to the Danube.



The main strength of Sarmatian armies was their horsemen. Iazygian and Siracae cavalry were mostly lancers by this period, carrying but not making much military use of bows. Scale armour for man and horse was popular, sometimes metal, mainly of horn or lacquered leather. Many Siracae lancers were unarmoured. The Rhoxolani were slow to adopt the lance, most of their cavalry retaining an older style of equipment comprising bow, light spear, wicker shield and leather armour.

Some Sarmatian women fought as warriors, wearing the same costume as the men, but with long braided hair. Sarmatian armies could also include a fair number of subject foot.

3.14. PARTHIA

The Parthian Kingdom at its height covered the whole of modern Iran as well as parts of the surrounding regions. Founded in the pre-existing province of Parthia south-east of the Caspian sea circa 250 BC by the nomadic Parni (a branch of the Saka Dahae), the kingdom was ruled by the Arsacid dynasty. Parthia expanded east, south and west, taking over the eastern provinces of the Seleucid Kingdom. Eventually it came into conflict with the expanding Roman empire. The Parthians successfully halted Roman expansion in the east, their combination of light horse archers and heavily armoured



Historical Overview Factions Playing the Game **Ouick Battles Custom Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Appendices **Example Battle Design Notes** Credits

cataphracts proving more than a match for the legions. The two empires continued as uneasy neighbours until the Parthian kingdom was overthrown by its Sassanid Persian vassals in 225 AD.

3.15. ARMENIA

The mountains of Armenia allowed the kingdom to maintain its independence from the great empires throughout this period.

During the reign of Tigran the Great (95-55 BC), Armenia filled a power vacuum left by the weakening of the Parthian kingdom by nomad invasions and the collapse of the Seleucids, gaining a short-lived empire including Mesopotamia, Syria and Media-Atropatene. Allied with Mithridates VI of Pontus, whose daughter, Cleopatra, he married, Tigran allowed Mithridates to seek refuge in Armenia after his defeat by the Romans under Lucullus in 70 BC. The Romans demanded that Mithridates be handed over to them. Tigran refused. The following year Lucullus invaded. He defeated the Armenian army twice, at Tigranocerta and Artaxata, but failed to capture Tigran or Mithridates and was recalled. Mithridates returned to Pontus with 8,000 men. In 66 BC, with a new Roman army under Pompey the Great advancing into Armenia, Tigran capitulated. He was forced to give up his empire, but was allowed to keep his original kingdom, and ruled it as a Roman client until his death in 55 BC at the age of 85.

Armenian armies consisted of a mixture of cataphracts, horse archers and large numbers of mountain infantry with javelins or bows.

3.16. INDIANS

Ancient Indian armies consisted of a fourfold division into elephants, chariots, cavalry and infantry, in decreasing order of prestige. The elephants and chariotry were formidable, but the cavalry was of no great quality. The vast majority of the infantry were unarmoured archers, although some were instead equipped with javelins and shield.

4. PLAYING THE GAME

4.1. NEW PLAYERS

New players should start by playing through the Tutorial scenarios, as this will introduce the basics of movement, shooting, close combat, morale and important troop interactions. After completing the tutorials, start with a Quick Battle. Once you have played a few of these you can move on to the more flexible Custom Battles with larger armies or try the Campaigns or Epic Battles. Feel free to adjust the difficulty as needed in the Settings screen (see Settings below). The settings button is in the top left of the Main menu screen. However, we recommend that you start by using the default settings.



Field of Glory II Main Menu.

4.2. STARTING A SINGLE PLAYER GAME

If you have not played before, select the Tutorial from the main menu.

When you have played through that, we suggest you select Battles from the first menu and then Quick Battles.

This will set up a moderate sized battle between historically opposing armies chosen from historically accurate army lists appropriate to the date of the battle. Or, if you want to play larger battles, or with more control over the options, pick Custom Battle. Or, you can select Epic Battles to play one of the iconic historical battles of the period. Most of these can be played from **Historical Overview** Factions **Playing the Game Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**



Battle type selection screen.

the point of view of either side. The historical scenarios are arranged in chronological order, but you can play them in any order you like. You can adjust the difficulty in the Setting menu.

Once you are familiar with the system, you may like to try one of the campaigns and lead your army to victory through a series of connected battles.

5. QUICK BATTLES

For an instant battle, click on "Fight Now!" which will randomly pick a battle from the available Quick Battles. Otherwise, click "Quick Battles", which will allow you to choose which quick battle to fight.

Quick Battles are smallish battles useful for when you are exploring the game or just want a quick battle. They are hypothetical battles between historical opponents representing some of the smaller actions that took place during their wars. Detailed accounts are often lacking for such battles, giving us licence to speculate.

The battle map, orders of battle and scenario type are generated afresh automatically each time you play these scenarios.

First pick your side.

30


Then pick the enemy side.



Then pick the conflict.



Historical Overview Playing the Game **Quick Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Battle Reports the Map Editor Technical Support Useful Hot keys **Example Battle**

- Tactics
- Design Notes
 - lits

Then click on "Create" to start the battle.

If you want greater control over the battle setup, select "Custom Battle" in the main game menu.

6. CUSTOM BATTLES

Custom Battle mode allows an infinite number of what-if scenarios to be played. The player (or challenger in the case of multiplayer games) can choose the size of the forces involved, the size of the map, and the nationality and date of the opposing forces. The battle will be fought on a computergenerated battlefield.



Custom Battle – Setup.

6.1. ARMIES

The armies for Custom Battles are chosen from historically-based army lists for a particular nation and date range.

You can select with army you will use using the top button.

The list of armies can be sorted either alphabetically, by start date, geographically from west to east, or geographically from north to south.



Custom Battle – Own Army.

If you select "Pot Luck", the computer will set up a battle between two historically possible opposing forces of the same date and geographical region.

If you choose to select the nations involved, you can either pick them from historically possible opponents or turn the Date and/or Geographical filters off.



Custom Battle – Enemy Army.

If you click the "Preview Army Options" button for either army, a preview of the army selection options will be shown. The minima and maxima of each unit type will vary according to the currently set battle size. **Historical Overview** Playing the Game **Quick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle**



Army Options Preview.

6.2. SCENARIO TYPES



Custom Battle – Scenario Type.

6.2.1. OPEN BATTLE

Both sides are eager for battle on an open battlefield.

6.2.2. REINFORCEMENTS (ENEMY)

The enemy is expecting reinforcements. Best defeat him before they arrive.

34

6.2.3. REINFORCEMENTS (OWN)

You are expecting reinforcements. Can you hold the enemy off until they arrive?

6.2.4. SEND FLANK MARCH

You have decided to send part of your forces on a flank march, to catch the enemy at a disadvantage. Alternatively he might overrun you before they arrive.

There is no scenario selection to make the enemy send a flank march, but they may choose to do so in any of the other scenario types.

6.2.5. REARGUARD

The enemy are advancing with overwhelming force. You have been left in command of a rearguard, with orders to slow down the enemy advance to allow the rest of our army to escape. You must hold out for as many turns as possible.

6.2.6. ADVANCE GUARD

Your army and the enemy army have blundered into each other on the march. The main armies will not arrive before nightfall. You must make best use of your advance forces as they arrive to secure the battlefield before nightfall, whatever the cost.

6.2.7. REMOVE THE HEAD

The enemy are led by a charismatic C-in-C. If you can kill him, they should break. Of course, you also need to protect your own C-in-C.

6.2.8. ESCORT BAGGAGE TRAIN

Your army is advancing through hostile territory. You must protect your baggage train at all costs, otherwise your army will be forced to withdraw. Your task is to get at least half of your baggage train safely to the far side of the map before nightfall, while avoiding defeat by the enemy forces.

6.3. FORCE SIZE

You can choose the size of battle you wish to fight. There are preset Very Small, Small, Medium, Large and Very Large sizes, or you can specify other sizes in the Advanced section. The points balance between the two sides in the preset **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

options will depend on the scenario type, difficulty setting (in Single Player games) and whether you opt to choose your own force or let the program do it automatically for you.

6.4. MAP SIZE

You can choose the width of the battlefield. The program will automatically increase the map width setting for larger force sizes unless you set the map width manually in the Advanced section.

6.5. MAP TYPE



Custom Battle – Map Type.

The general terrain type of the region in which the battle will take place can be specified. The types are Agricultural, Hilly, Wooded, Mountains, Steppe, Desert or Tropical. The first four have Mediterranean, North European and Middle-Eastern variants.

The terrain type and region modify the parameters the random map generator uses to set up the map, but note that even in mountainous regions there may be some valleys wide enough to allow a fairly open battlefield.

6.6. FORCE SELECTION

You can choose whether to have the computer pick the armies (few historical commanders had the luxury of choosing the forces available to them) or allow the player(s) to tailor their forces within specified limits. If you choose the latter option in single player games you will get a slightly smaller force.

6.7. ADVANCED OPTIONS

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Custom Battle – Advanced Options.

The Advanced Options panel allows you to customise the Turn Limit, Map Width, Map Height and Force Size for each side.

7. EPIC BATTLES -HISTORICAL SCENARIOS

Each of the scenarios in the Epic Battles section of the game is a historical battle, and is closely modelled on the real battle. Most of them can be played from either side. Victory conditions vary from scenario to scenario, as specified in the scenario briefing, but an army will generally break when a certain proportion of its units are routed or destroyed. The commonest goal is to defeat the enemy army.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

You can select the scenario to play in the scenario selection screen. The location of each battle is shown on the map.



Historical scenario selection.

You can pick which side to play as by clicking on the buttons at the bottom of the panel. The currently selected side's banner moves.

Each historical scenario starts with a popup scenario briefing, which shows brief information about the forthcoming battle. You see the briefing again by opening the briefing panel using the button at the top left of the screen.



Briefing scroll.

8. MULTI-BATTLE CAMPAIGNS

Campaigns allow you to fight a series of connected battles, with the core of your army progressing from one battle to the next, gaining experience and elan with each victory.



Campaign – Choose Campaign.

8.1. SANDBOX CAMPAIGNS

The sandbox campaign ("Rise of Rome Campaigns") allows you to pit any nation against any other. Depending on the nations and dates selected, other historically allied nations may join in as allies to either side during the campaign.



Campaign – Sandbox Setup.

	I
ntroduction	
istorical Overview	I
actions	I
laying the Game	
uick Battles	I
ustom Battles	I
pic Battles – Historical Scoparios	
Iulti-Rattle	I
Campaigns	I
attle	1
enerals	Į
eployment	Ī
attlefield Orders	-
hooting	l
lose Combat	I
ohesion (Morale)	
nit State – Banners	l
errain	I
ther Causes of Disorder	I
ictory Conditions	
attle Reports	L
oad / Save	I
ettings	
lultiplayer	
ints and Tips	I
laking a Map in the Map Editor	Ī
lodding	-
echnical Support	
and Game Forum	I
seful Hot keys	
ppendices	
xample Battle	I
actics	
esign Notes	
redits	

8.1.1. ARMIES

The armies for Sandbox Campaigns are chosen from historically-based army lists for a particular nation and date range.



Campaign – Own Army List.

The list of armies can be sorted either alphabetically, by start date, geographically from west to east, or geographically from north to south.

If you select "Pot Luck", the computer will set up a campaign between two historically possible opposing forces of the same date and geographical region.



Campaign – Enemy Army List.

If you choose to select the nations involved, you can either pick them from historically possible opponents or turn the Date and/or Geographical filters off.

If you click the "Preview Army Options" button for either army, a preview of the army selection options will be shown. The minima and maxima of each unit type will vary according to the currently set first battle size.



Campaign – Army Options Preview.

8.1.2. FIRST BATTLE SIZE AND LAST BATTLE SIZE

You can choose the size of the first and last battles in the campaign. Other battles during the campaign will scale between these values. The last battle must be larger than the first battle.

8.1.3. NUMBER OF BATTLES

You can choose between a 3, 5 or 7 battle campaign.

8.1.4. DIFFICULTY SETTINGS

You can set the difficulty level to be used for the campaign. You can also choose whether the difficulty level should remain constant during the campaign, or gradually increase by one level between the first and last battles of the campaign. Whichever is chosen, losing more than 15% losses in a battle will make subsequent battles harder, as recruitment points will need to be used to make up losses rather than recruit new units. Losing less than 15% losses in a battle will tend to make subsequent battles easier, as more points will be available to recruit

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios Multi-Battle** Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

new units. However, if the "Progressive" difficulty setting is chosen, the gradual increase in difficulty from the first battle to the last battle will tend to offset this.

8.2. PRESET CAMPAIGNS

The preset campaigns follow a historical narrative – often following the career of a particular historical general. To reflect historical events, they often involve fighting against multiple different foes during the course of the campaign, with or without various allies.

Field of Glory II ships with four such campaigns, following the careers of Pyrrhos of Epeiros, Hannibal, Mithridates the Great of Pontus and Julius Caesar.

The campaign system is designed so that more preset multi-battle campaigns can be added without difficulty by user scenario designers.

8.3. CAMPAIGN BATTLES

Campaign battles are fought on randomly generated maps appropriate to the current campaign circumstances. After each battle, the campaign stage screen appears.

Winning each battle is required in order to progress to the next stage of the campaign. If a battle is lost, the player must replay that stage of the campaign until he is victorious before he can proceed with the campaign.



Campaign – Strategic Decision.

In preset campaigns based on the life of a particular individual, the death of that individual will mean that the campaign stage has to be replayed even if the battle was won. Note that if he is wounded during a battle, this does not necessarily mean he will die.

If a player wins a battle, but feels he did not win it well enough, he also has the option to replay that campaign stage instead of proceeding to the next battle.

8.4. UNIT ADVANCEMENT

Units in the core field army usually persist through the campaign, gaining experience and elan as a result of previous victories.

Units on the victorious side will normally gain experience and elan. However, units that suffer no losses at all in a battle do not gain experience – on the assumption that they did not fight. Units routing or dispersed at the time the battle ends lose elan even if their side won the battle.

The current state of your army can be viewed by pressing the "Review Army" button in the Campaign Stage screen.

Enemy armies are generated fresh for each battle in the campaign, so that they remain a challenge.



Campaign – Review Field Army.

8.5. LOSSES

Although losses can usually be replaced by recruitment (see below) the number of points for recruitment for the next battle are calculated based on the expected surviving forces from the previous battle. This estimate is based on the assumption that the previous battle was won decisively.

If it was not won decisively, the points available for recruitment for the next battle may not be enough to keep the strength of the army up sufficiently to match the enemy army for the next battle.

Therefore, if losses were too high in the previous battle, it may be better to replay the stage rather than proceed to the next battle.

As a general guide, 15% losses in a battle will allow your army to maintain the balance against the enemy for the next battle. Higher losses will mean that the odds are moving against you, and lower losses will move the odds in your favour.

8.6. GARRISONS

After a victory, garrisons must usually be left in the captured or recaptured territory. The player can choose which units to leave as garrisons in the Review Army screen.



Campaign – Assign Garrisons.

Troops to be left as garrisons are simply moved from the Field Army window on the left of the screen, to the Garrisons window on the right. Normal Windows conventions for using SHIFT and CTRL keys to select multiple units apply.

If more points worth of troops are moved into garrison than the minimum required, the extra points are added to the available recruitment points for the next battle.

8.7. STRATEGIC DECISIONS

At various points in the campaign the player will have a choice between two strategic options affecting the next battle.

8.8. RECRUITMENT

Depending on the strategic situation, points may be available to recruit new units and/or bring existing units up to full strength for the next battle.

As noted above, excessive losses from a previous victory may mean that the available recruitment points are not sufficient to keep the next battle from becoming more difficult.

8.9. REPLAYS

After a defeat or the death of the campaign's hero, the campaign stage must be replayed. It can also be replayed voluntarily if the player does not feel he won the battle decisively enough.

When a campaign stage is replayed, the player can change any strategic decision he made, which troops are placed in garrison and which are recruited. The battle will be fought on a newly generated map.

8.10. DIFFICULTY

Campaign battle difficulty is based on the difficulty level set by the player. If the Progressive difficulty option is selected, the difficulty level gradually increases by one level between the first battle in the campaign and the last. The battles in between scale accordingly. **Historical Overview** Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios Multi-Battle** Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

However, as noted above, if losses in a previous battle exceed 15%, subsequent battles will be more difficult than the above estimate, and if they are less than 15% subsequent battles will be easier than the above estimate.

8.11. VICTORY

To achieve ultimate victory, the player must achieve the required victory conditions in all stages of the campaign. Replaying individual campaign stages does not prevent victory in the campaign.

9. BATTLE

9.1. CAMERA CONTROLS

9.1.1. SCROLL

The map can be scrolled by moving the mouse cursor to the edge of the screen or by holding down the left mouse button and dragging. Alternatively: W scrolls the map up, S scrolls the map down, A scrolls the map left, D scrolls the map right

9.1.2. ZOOM

The map can be zoomed using the mouse wheel or the up and down arrows. Alternatively: F zooms the map out. R zooms the map in.

9.1.3. ROTATE

The map can be rotated using the left and right arrows, or by holding down the right mouse button and dragging. Alternatively: E rotates the map clockwise, Q rotates the map anticlockwise

9.1.4. PITCH/TILT

The map can be tilted by holding down the right mouse button and dragging. Alternatively by using SHIFT-up and down arrows.

9.1.5. OTHER HOT KEYS

A full list of the standard keyboard shortcuts can be seen by pressing the F1 key.

9.2. FORCE SELECTION



Force Selection

At the start of each battle, unless the forces for the scenario are preset, or you have chosen auto-selection or pot luck in a custom battle, you will see the force selection display. Some units are fixed, these are the core units in the historical army. The rest are available for selection according to your choice. You can select units from those available up to the points limit specified. The points available will often depend on the difficulty level you have set. When you mouse over the unit list, the moused over unit's appearance and stats are shown, along with a basic text description.

L-clicking on the unit list adds a unit to the forces you will deploy for the battle, R-clicking removes it. You can also remove purchased (brown-highlighted) units by R-clicking on them on the map when no unit is selected on the map. In epic battles you can also choose as yet unpurchased (blue-highlighted) units by clicking on them on the map.

You can auto-purchase units to fill up your remaining points by hitting "Autofill". After an Autofill you can still remove units and replace them with different ones.

In most epic battles the position of the units is fixed – according to the historical deployment. In some, however, and in custom battles, you can rearrange the deployment of your troops during or after force selection. You can move the units manually into position by clicking or dragging, or select Autodeploy to automatically put the currently selected units into a sensible formation. After an Autodeploy you can still move the units around manually.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios Multi-Battle** Campaigns Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**



The battlefield is covered with an invisible square grid. Each unit occupies one square (tile). Units move from square to square and never end up part way between squares. Units can face in any of 8 directions. Diagonal movement costs 1.5 times the AP (action points) of straight movement.

There can never be more than one unit in a square (although light infantry can pass through other units, ending up on the far side).

Buildings, woods and hills block line of sight. You will only see enemy units on tiles you have line of sight to and that are within visibility range. Squares you cannot see into are darkened - representing the "fog of war".

Squares on the edge of concealing terrain that might be concealing enemy are marked with yellow question marks if that option is turned on.

Different terrain types have different effects – see the Terrain section below.

9.4. BATTLEFIELD DISPLAY

Information about the currently selected unit appears on the left-hand side of the screen. Information about any non-selected friendly or enemy unit appears on the right-hand side of the screen when the mouse is hovered over the unit. The unit's available AP, troop-type, quality rating, armour, combat capabilities and cohesion state are also displayed.



Battle – Unit UI.



Detailed unit info.

More detailed unit information can be displayed by selecting Toggle Detailed Unit Info from the right hand tools menu (see below) or CTRL-L-clicking on the unit.

9.4.1. CURRENT SCORE

At the top left of the screen the % of each side's units currently routed or dispersed is shown. The difference in rout % is also shown – in green if the side is winning, in red if it is losing.

9.4.2. BRIEFING PANEL



Battle – Briefing Panel.

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save the Map Editor **Technical Support** Useful Hot keys **Example Battle**

The briefing panel is opened using the button at the top left of the screen.

The briefing panel shows the victory conditions for the battle as well as any briefing notes provided. It also contains the Retreat button and the Settings button. If the Retreat button is selected and confirmed, the player is deemed to have conceded victory to the enemy.

9.4.3. END TURN BUTTON

The End turn button is in the top right hand corner of the screen. When this is clicked, you are asked to Confirm that you really want to end your turn. You can cancel End Turn by clicking anywhere other than on the Confirm button.

The End Turn button also show the current turn number and any turn limit.

9.4.4. TOOLS MENU BUTTONS

There are buttons at the bottom left and right of the screen that open the tools menus. These contain the following buttons:

TOGGLE BRIEFING

This opens and shuts the briefing panel.



Battle – Tools Menus.

TOGGLE UNIT LIST (L HOTKEY)

A list of your units (excluding those that are irretrievably dispersed or currently off the battlefield) can be obtained by selecting the Tools button at



Unit List.

the bottom left of the screen and then selecting Toggle Unit List or by hitting the L key on the keyboard. Units that have already moved are greyed out. Units with a shooting capability that currently have a valid shooting target and have not yet shot this turn have "Can Shoot" shown in yellow. Those who have a melee to resolve this turn have "Melee Due" shown in orange. You can select a unit by clicking on it in the list.

CASUALTIES (K HOTKEY)

This shows a display of both sides losses so far.



Casualties.

TOGGLE COMBAT LOG (C HOTKEY)

This toggles on the combat log. This shows details of all the factors and modifiers applying to each close combat resolution during the game.



Combat log..

TOGGLE TOP VIEW (M HOTKEY)

This toggles between top down and isometric views.

LOAD/SAVE

This allows you to save the current game or load a previously saved game.

NEXT UNMOVED (TAB HOTKEY)

This cycles through your units that have not yet performed any action this turn.

NEXT UNSHOT (B HOTKEY)

This cycles through your units that have not yet shot this turn and have a target.

TOGGLE LINE OF FIRE - LOF (1 HOTKEY)

This toggles on the Line of Fire display for the selected unit. Note that this only takes into account the effects of terrain, it does not take into account the blocking effect of intervening units.

TOGGLE LINE OF SIGHT - LOS (2 HOTKEY)

This toggles on the Line of Sight display for the selected unit. Note that this

only takes into account the effects of terrain, it does not take into account the effect of intervening units blocking shooting.

TOGGLE COMMAND RANGE (3 HOTKEY)

This toggles on the Command range display for the selected general.

TOGGLE DETAILED UNIT INFO (CTRL-L-CLICK ON UNIT)



Detailed unit info.

Shows more detailed information about the selected or clicked on unit.

In addition to the stats shown in the battlefield display, this shows all of the Points of Advantage (POAs) that apply to this unit in close combat against various opposing unit types.

9.5. UNIT RECOGNITION ON THE FIELD

9.5.1. MODELS

Each unit is made up of a number of historically representative models in an appropriate formation.

For infantry and cavalry, one model represents 60 men when the scenario uses the standard representational scale.

However, some scenarios and campaigns use a different representational scale, in which case all numbers of men or casualties will be reported accordingly.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys** Appendices **Example Battle Design Notes**

Models are removed from the unit in proportion to casualties suffered. Note that in campaigns units may sometimes start the battle understrength, in which case they will have less models from the start of the battle. Their autobreak point (see the Cohesion section below) will be based on their strength at the start of the battle, not the full strength for their unit type.

9.5.2. BANNERS

Each unit has a banner providing the following information

- The colour of the banner shows which side the unit is on.
- The facing of the banner shows the facing of the unit.
- The size and ornateness of the banner shows whether the unit includes a general or not.
- The cloth part of the banner become progressively tattered as the unit suffers losses.
- The upper section of the banner becomes yellow when the unit is Disrupted and red when the unit is Fragmented. When the unit is Routed the whole banner becomes white.
- See the Cohesion (Morale) section below.
- Player unit banners are darkened when the unit has moved.



Banners.

10. GENERALS



Command highlighting.

At the start of the battle, your army is divided into commands. In quick battles, custom battles and campaigns, all non-light commands have their own general. In historical scenarios, the allocation of generals will be part of the scenario design.

You can only switch units from one command to another during the deployment phase (if there is one).

When you select a unit, the commanding general and the other units in his command are highlighted.

When you select a general's unit, and toggle the 3 hotkey, tiles within his command range are highlighted.

10.1. COMMAND RANGE

Units that are out of command range of a general in line of command have reduced command control. They lose the free 45 degree turn that is allowed to troops that are in command range. (This may sound like a minor handicap, but in practice it can cause significant inconvenience). The exception is that they can move at least one square even if this does involve a turn of 45 degrees.

Command range is determined at the start of the player's turn. Troops that are in command range at that time will be deemed to be in command range until the player's next turn, unless the general from whom they were taking **Historical Overview** Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns Battle Generals **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**



Command range.

command control is disabled. Troops that are out of command range at the start of the turn will remain out of command range until the player's next turn, even if the general moves into range before that.

Units that are in command range this turn have their tiles highlighted when any unit of their command is selected. Units that are out of command range don't.

In the screenshot, the selected unit of chariots is in command range. The light horse are not. The light horse have "Reduced CC" displayed in their information panel at the bottom of the screen.



In and out of command range.

Command range varies with the command ability of the general. You can see the command range for each of your generals by selecting his unit and toggling on the Command Range display (see above). "Troop Commanders" have a command range of 4 squares, "Field Commanders" 8 squares and "Great Commanders" 12 squares.

Generals have no command range when in close combat, pursuing or routing, so if any of these apply at the start of the player's turn, their units will have reduced command control unless there is another general in line of command within command range.

10.2. LINE OF COMMAND

The C-in-C can provide command control to any troops. A sub-general can provide command control to any non-allied troops. An ally-general can only provide command control to the units in his own command.

10.3. GENERALS IN CLOSE COMBAT

A general whose unit is in close combat is deemed to be fighting in that combat. He adds +50 Points of Advantage (POAs) to his unit's combat capability. He also adds a +1 modifier on Cohesion Tests for friendly units within (command range / 4) squares while he is in close combat (but not otherwise). Allygenerals can only inspire units of their own command.

However, he is at risk of being killed or wounded in the combat. This is much more likely to occur if his unit loses the combat.

If a general is killed or wounded, all friendly units within 1 square if the general was a sub-general, or 2 squares if the general was a C-in-C or ally-general must take a Cohesion Test. Ally-generals only affect units of their own command.

If a general is incapacitated in a campaign game, he may or may not survive to fight again later in the campaign.

10.4. MOVING GENERALS

Generals normally move with the unit they are with. However, unless their unit is in close combat or pursuing, they can move once per turn to another unit in line of command within 4 squares. (See Battlefield Orders below). **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns Generals **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

• 57

10.5. RALLYING UNITS

Disrupted, Fragmented or Routed units have a chance of testing to rally at the start of each of their side's turns if eligible (see the chapter on Cohesion/ Morale below).

A unit with a general tests every time. (Units without a general have a much lower chance of testing). Generals can therefore be used to greatly increase the chance of unsteady troops rallying.

11. DEPLOYMENT

Some scenarios allow you to redeploy your troops before the battle proper starts (some don't). You can drag, move or swap units into any permitted square (see below), and also set their initial facings.

When you select one of your units, its potential redeployment area is highlighted. Redeployment is restricted to specified areas. In most cases, nonlight troops (see "light troops" in Glossary) can only be redeployed within the rectangle defined by the extremes of the current battlefield width occupied by your non-light troops and your rear map edge. Light troops have a somewhat larger redeployment area, defined by the extremes of the current positions of your light troops and your rear map edge.

You can redeploy a unit in any of the highlighted squares, but bear in mind that moving a unit too far from its commanding general will impair its command control and hence manoeuvrability. You can, however, switch the unit to be part of another command – see the Switch Command order section below.

[Note that Heavy Artillery cannot be dragged, but can be redeployed by clicking on them and then on the target square].

Once you're happy with the starting positions of your troops, you can start the battle.

12. BATTLEFIELD ORDERS

When the default Left/Right UI mode is in use, units are selected with the left mouse button, and orders are issued with the right mouse button. Units are deselected by left-clicking on another unit or an empty square, or pressing SPACE.

When the optional Left Only UI mode is in use, units are selected and orders are issued with the left mouse button. Units are deselected by right-clicking on any square, or pressing SPACE.

The order system is simple. The following actions are permitted. Each has its own icon, which shows when you hover over the target square.

12.1. MOVE

Apart from heavy artillery, which cannot move, all units can potentially move to any square within reach of their AP (action points). In Open Ground, moving one square generally costs 4 AP if the move is straight and 6 AP if it is diagonal. Other terrain types may have higher movement costs for some or all troop-types. A unit can move to any square where the total cost of reaching it does not exceed its total AP. There may be additional AP costs if the overall move includes a turn – see "Turns" below.

Moves cannot go between units in close combat or between pursuers and routers.



Move.

12.1.1. ZOC (ZONE OF CONTROL)



ZOCs.

Movement is restricted when close to the enemy, as follows:

- Each unit exerts a primary ZOC (zone of control) into the square directly in front of it.
- It also exerts a secondary ZOC into the two squares either side of the primary ZOCd square.

A unit's move can enter an enemy unit's primary or secondary ZOC, but not pass beyond it.

When you select a unit, any enemy ZOCs affecting its potential movement are indicated on screen, using red highlighting for primary ZOCs and yellow for secondary ZOCs. Dots of the same colour indicate which unit is exerting the ZOC.

A unit that is already in an enemy ZOC cannot make a normal move except away from that enemy – which (owing to turning restrictions) means that this is mostly only possible for light troops. The direction of movement must be less than 45 degrees from directly away from the enemy unit. Movement off to the sides is not permitted – this is specifically intended to reduce the slipperiness of light troops. If a unit is in the ZOC of multiple enemy units, the game will decide which one it must move away from – prioritizing primary ZOCers.

Primary and secondary ZOCs affect normal movement equally, but primary ZOCs have additional effects on turns and charges – see those sections below.

The following troops exert no ZOCs:

- Units in close combat.
- Units in square.
- Routing troops.
- Artillery.
- Baggage.

Non-light troops ignore the ZOC of light troops. Evaders, routers and pursuers ignore ZOCs completely.

ZOC restrictions apply equally to player and AI units

12.2. MOVE WHOLE COMMAND

This order is only available if no unit in the command is within 5 squares of any enemy.

All units in the command will attempt to move on a parallel course with the selected unit.

Units that have already made single-unit moves this turn are excluded. Units that will take part in the order are marked by a triple arrowhead icon.



Move Whole command.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle** Design Notes

12.3. PASS THROUGH

Light foot can pass through friendly units, but only directly from front to back or back to front. They cannot pass through friends that are in close combat.



Pass Through.

12.4. TURN

Units can face any of the 8 squares adjacent to their own. Facing is very important because arcs of fire are restricted and flank or rear attacks can be deadly (see below).



Turn.

12.4.1. FREE TURNS

Each game turn non-light units that are in command range are allowed one free turn of up to 45 degrees. Units that are out of command range of their general lose this.

Light troops (light foot and light horse) are allowed one free turn in any direction.

12.4.2. UNMANOEUVRABLE UNITS

Some units are Unmanoeuvrable and never get a free 45 degree turn.

These include:

- Undrilled Heavy Foot
- Warriors
- Cataphracts
- Heavy Chariots
- Scythed Chariots
- Elephants
- Artillery
- Large units (original strength 10 or more models) including standard pike phalanxes.
- Raw or untrained units. Note that some units (such as Poeni Foot) have high elan but are poorly trained, so they are still unmanoeuvrable even though their overall quality is average.

12.4.3. TURN COSTS

Apart from the free turns listed above, turns are costed as follows:

- Turns of up to 90 degrees cost 8 AP
- Larger turns cost the unit's full starting AP.
- 45 degree turns by troops that are unmanoeuvrable or out of command range cost 4 AP.

Any turn required to reach the chosen square in a Move order is costed similarly. Note that only the angle between the original facing and the line between the **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**

starting tile and the final position is taken into account, so that sometimes a unit can make multiple twists and turns along the way that are not costed. This is particularly true of AI units, which use a different route finding algorithm taking into account terrain preferences. The route they take may sometimes include multiple changes of direction, but as usual only the overall angle between the original facing and the line between the starting tile and the final position is taken into account. This may appear to favour the AI, but in fact they end up moving to the same final position that they would have reached using the direct route if they were a player unit.

All this means that most non-light foot troops cannot turn more than 45 degrees and also move in the same turn. Most non-light mounted troops can turn 90 degrees and still move a square or two, but use their entire movement allowance to turn 135 or 180 degrees.

12.4.4. OTHER RESTRICTIONS

Turns are also restricted by enemy proximity. A unit that is in the primary ZOC of an enemy unit (marked in red) cannot turn except to reduce the threat of a flank charge or face another enemy unit in whose primary ZOC it is. Note however, that non-light troops ignore the ZOCs of enemy light troops.

ZOC restrictions apply equally to player and AI units

12.5. TURN WHOLE COMMAND



Turn Whole Command.

This will turn all units in the command in the same direction as the selected unit.

Units that have already made single-unit moves this turn are excluded. Units that will take part in the order are marked by a triple arrowhead on their tile.

12.6. FALL BACK

Units can fall back one or two squares straight backwards while maintaining their original facing. Such moves could panic the troops if performed close to the enemy. Consequently, if a fall back move is performed when within charge reach of a non-routing non-light enemy unit (whether or not that enemy is actually in a position to charge), the falling back unit will take a Cohesion Test (see Morale below).



Fall back.

12.7. FORM SQUARE AND LEAVE SQUARE

Pike units can form square. This uses the unit's entire move allowance for the turn. Units in square:

- Are immune to flank or rear charges.
- Exert no ZOC.
- Cannot charge.
- Never pursue even if raw.
- Use their entire movement allowance to move 1 square, turn or leave square.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles – **Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**



Form Square.

A unit cannot form or leave square while in close combat. A unit in square automatically leaves square when it routs.

Leaving square also uses up the unit's full movement allowance for the turn.

12.8. UNDO

The Undo order can be used to cancel the last single or group move or turn. Only the last unit or group moved can have its last move Undone.

Undo is prevented in the following circumstances:




- If the unit charges or shoots.
- If the move resulted in the unit (or any unit in the group) seeing previously unseen enemy. This is to prevent Undo being used to scout.
- If a fall back move results in a cohesion test (whether passed or failed).

12.9. MOVE GENERAL



Move general.

A sub-general or ally-general can move once in a turn to another unit of his command that is within 4 squares (even if the general's unit has already moved this turn). A C-in-C can also move to a unit of one of his sub-generals' commands.

Generals cannot move from a unit that is in close combat or pursuing, and cannot move to join an artillery, baggage or scythed chariot unit.

12.10. Ѕноот

Units with shooting weapons can shoot in their own turn only.

All shooting must be ordered. **If you forget to order a unit to shoot it will not shoot automatically.** This is because ammunition is limited (see below), so holding fire might be deliberate.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**



Shoot.

12.10.1. SHOOTING TOOLTIP

If the Simple Tooltips option is toggled on (see Settings), the tooltip shows the range bracket (if long range), arc of fire, cover modifier (if any) and range of casualties that shooting will inflict. If the Detailed Tooltips option is toggled on, the tooltip gives additional information.

12.10.2. RANGE

Shooting weapons can shoot if in range. Some weapons have a long and a short range – shooting at half effect at long range.

12.10.3. ARC OF FIRE

All units have an arc of fire. If the target unit is outside 45 degrees of straight ahead they can't shoot at it. If the target unit is between (approx.) 22.5 degrees and 45 degrees of straight ahead, they can only shoot with half their men. (They do not get to use the other half against a different target).

Potential target units are indicated by a full or half arc of fire icon on the unit's tile. Full arc is indicated by three arrows and full brown highlighting on the target tile. Half arc is indicated by a single arrow and half brown highlighting on the target tile.

Line of Fire can be displayed on the map by selecting Toggle Line of Fire from the right-hand Tools menu, or using the "1" hotkey. Note that this does not take into account the blocking effect of intervening troops.

12.10.4. LINE OF SIGHT

Line of sight is blocked by higher ground, woods and built-up areas – though not by individual buildings which are not large enough to block LOS through the whole square.

For shooting purposes, it is also blocked by units. The line of sight algorithm for shooting past troops is fairly generous, however – it assumes that there are large enough gaps to shoot through between units in chequerboard formation.

Artillery can shoot over other units.

Line of Sight can be displayed on the map by selecting Toggle Line of Sight from the right-hand Tools menu, or using the "2" hotkey. Note that this does not take into account the blocking effect of intervening troops.

12.10.5. AMMUNITION

Units are assumed to carry enough ammunition for 5 turns of shooting at full effect.

Once they have shot 5 times, they are assumed to be low on ammunition, relying on passing out spare ammunition from men who have some left, scrounging spent ammunition from the battlefield or limited resupply. Units with low ammunition shoot at half effect.

The ammunition rules are suspended for some historical scenarios – such as the Battle of Carrhae, where the Parthian commander had taken the precaution of bringing a large train of pack camels carrying spare arrows.

12.10.6. SPECIAL CASES

Late Roman units with only 20% bow cannot distance shoot. Instead the bows are treated the same as Darts in providing an impact POA against enemy charging the unit.

12.11. TURN AND SHOOT

Units that are not directly facing their target can be ordered to turn and shoot as a single order if they have the necessary AP to do so. The unit will turn to face the target, shoot, and then remain facing the target.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**



Turn and shoot.

12.12. CHARGE

Troops in adjacent map squares are not automatically in close combat. Those that **are** in close combat are indicated by close combat indicators between the units as well as close combat animations.

When you select a unit, any currently chargeable enemy units will be indicated by a crossed swords chargeable icon on the enemy unit's tile.

Charges are triggered by the Charge action. The unit has to have sufficient AP to enter the square that the enemy is in – although the unit is not actually



Units in close combat.



Chargeable icon.



Charge.

moved into the square. The enemy are assumed to have made a short countercharge if that would be appropriate to the matchup, and not if not, but their unit is not physically moved from its square. There is no special bonus for the unit that initiates the charge – the combat factors already take into account the appropriate enemy response – counter-charge or stand to receive.

Charges can only be launched against units that are within 45 degrees of straight ahead at the start of the move.

To charge a unit you need to click on the Charge icon twice.

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save the Map Editor Modding Technical Support and Game Forum Useful Hot keys **Example Battle**



After clicking once on the Charge icon, the charge tooltip appears. If the Simple Tooltips option is toggled on (see Settings), the tooltip shows approximate Win:Draw:Lose chances for the Impact combat and first round of Melee combat. If the Detailed Tooltips option is toggled on, the tooltip gives a full breakdown of the factors affecting the combat. The Detailed Tooltip mode can also be temporarily turned on by holding down the CTRL key.

Note that the Win:Draw;Lose chances are estimates calculated from a sample of 1000 test resolutions of the combat in question – so each time they are recalculated the result may be slightly different. This also explains why the Win:Lose chances for an equal combat may not be shown as exactly equal.

12.12.2. EFFECT OF ENEMY ZOCS ON PERMITTED CHARGES

An enemy unit which is **directly** facing a square has a primary ZOC (Zone of Control) into that square.

A unit that is in the primary ZOC of an enemy unit (marked in red) cannot charge a different enemy unit unless it is also in the primary ZOC of that unit.

In the screenshot, the cavalry cannot charge the cohort directly to their front because they are in the primary ZOC of the other cohort.

This restriction also applies if the charge path passes through a (primary) ZOCd square.



ZOC prevents charge.

Non-light troops ignore the ZOC of enemy light troops.

Sometimes, when the default charge path chosen by the program passes through a ZOCd square, the charge may still be possible by moving the unit to a different intermediate square first.

ZOC restrictions apply equally to player and AI units.

12.12.3. NON-PERMISSIBLE CHARGES

Light Foot cannot charge unbroken non-light troops (other than artillery) in open terrain, even in flank or rear.

Artillery, baggage and units in square cannot charge.

FRAGMENTED troops (see Cohesion/Morale section below) cannot charge.

12.12.4. EVASION

Light troops (light foot and light horse), non-lancer cavalry/camelry and light chariots can attempt to evade charges. The AI decides for the (player or AI) unit whether it will evade, based on its chance of winning the combat and its chance of successfully getting away. The charging unit pursues with its remaining APs, so that it is more likely to catch the evaders if it starts its charge in an adjacent map square. Evaders and chargers may get a random addition or deduction of 4AP to/from their current AP. Evaders who are caught are treated as having been charged in the rear.

If they do escape, evaders may go off the battlefield, in which case they do not count as lost and may possibly return to the battlefield later. Chargers never follow evaders off the battlefield.

If the chargers' pursuit path goes adjacent to another enemy unit (within 45 degrees of straight in front of the chargers), they will charge it if they (the AI on their behalf) fancy their chances and they have enough AP left to charge them.

12.12.5. FLANK/REAR ATTACKS

Charges by units that start their (whole) move behind the flank of a unit count as flank/rear attacks.

To count as being behind the flank, the unit must be on or behind a line extending the target unit's flank as shown in the diagram. The left hand

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**



Flank Charges.

cavalry unit starts its move behind the legionary unit's flank, so its charge will count as a flank attack. The right hand cavalry unit is not behind the flank, so even if its charge contacts the legionary unit's flank, it will not count as a flank attack. If the right hand unit moves on to the line and then charges, its charge still won't count as a flank attack, because in order to do so, it must start its whole move behind the flank.

If the flank-charged unit is already in close combat against another unit, or evaded this turn, it automatically drops 1 cohesion level (see the Cohesion/ Morale section below), and the impact combat is fought on a guaranteed net POA (see Points of Advantage in the Close Combat section below) of +200 to the flank attackers, unless any of the following apply:

- Non-light troops are charged by light troops.
- Mounted troops (not elephants) are charged by infantry.
- Elephants are charged by mounted troops (not elephants).
- Infantry are charged across an obstacle (irrigation ditch, fortification etc.), or while in a built-up-area.
- If the flank-charged unit was neither already in close combat, nor evaded this turn, or one of the above exceptions applies, the unit does not drop a cohesion level. The flank chargers instead get a guaranteed net POA of +50 if their non-flanking net POA would be less than +50.
- Units in square are immune to flank/rear attacks.

Barring these exceptions, being charged in the flank is VERY bad. The AI does its best to avoid it and so should the player. The AI will not miss any chance offered.

A unit can only suffer one automatic cohesion drop in a turn from flank/rear attacks, even if charged by multiple units.

Unengaged mounted troops who are charged in flank or rear by foot can immediately turn and break off after the impact combat.

12.13. FIGHT MELEE



Melee due.



Fight Melee.

Four pairs of crossed swords on each unit's tile indicates that a melee is due to be fought this turn. You can activate these melees at any point in your turn, and in any order, using the Fight Melee order.

Any melees that have not been resolved when the End Turn button is pressed will be resolved automatically.

12.14. SWITCH COMMAND

This order can only be used in the Deployment Phase, to switch a unit from one command to another. Note that a unit with a general cannot switch commands without moving the general to another unit of the original command first.



Switch Command.

13. Shooting

The effects of shooting are modified by various factors, not least the number of men shooting.

13.1. RANGE

Some weapons have a long and a short range – they shoot at half effect at long range.

SHOOTING RANGES	SHORT	LONG
Foot bow	2	4
Mounted bow, sling	2	-
Javelins	1	-
Heavy artillery	6	9
Light artillery	6	-

13.2. ARC OF FIRE

All units have an arc of fire. If the target unit is outside 45 degrees of straight ahead they can't shoot at it. If the target unit is between (approx.) 22.5 degrees and 45 degrees of straight ahead, they can only shoot with half their men.

13.3. POINTS OF ADVANTAGE

The casualties inflicted by shooting depend on the number of shooters, range, arc of fire, unit cohesion and movement. In addition there are a number of other factors that can modify the effect of shooting depending on the shooting weapon and the target. Points of Advantage (POAs for short) are used to define these factors. 100 POA is roughly equivalent to a 33% modifier to casualties inflicted.

Note that the POA table below is provided only as a guide to various factors that may influence the effectiveness of shooting. Some of the modifiers are applied at different stages in the shooting calculation, so you cannot work out the overall modifier by simply totalling the POAs. The detailed shooting tooltips show the applicable modifiers.



Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Shooting Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**

	VS FOOT	VS MOUNTED	VS ARTILLERY	VS ELEPHANTS
Bow/Sling	-50	0	-50	-50
Javelins	-50	0	-50	+50
Additional modifier for bow, javelins or sling vs protected or armoured targets	-50 to -200 depending on completeness of armour	-50 to -200 depending on completeness of armour		
Artillery	-100	0	-200	+100
Additional modifier for target being in cover	Up to -225	Up to -225	Up to -225	Up to -225
Additional modifier for artillery vs large or enfiladed target	+100	+100	+100	+100
Additional modifier for shooting at skirmishers (light foot, light horse)	-100	-100		
Additional modifier for shooting at pursuers	-150	-150		-150
Additional modifier for all except javelins when it is raining or snowing	-50	-50	-50	-50
Additional modifier for quality of shooting unit	-50 to +100	-50 to +100	-50 to +100	-50 to +100

13.4. OVERHEAD SHOOTING

Only artillery can shoot over other units.

13.5. Shooting and Moving

Stationary units shoot more effectively than units that move or turn. Artillery cannot shoot after moving or turning.

13.6. COVER

Terrain and obstacles provide varying degrees of cover in various circumstances (see the Terrain section).

13.7. ARMOUR

The effects of armour are on a sliding scale depending on the amount of armour worn by the target unit.

13.8. SKIRMISHER TARGET

Casualties inflicted when shooting at skirmishers (Light Foot or Light Horse) are reduced because of their dispersed formation.

13.9. LARGE TARGETS AND ENFILADE

Large units such as warbands and pike phalanxes and units shot at from behind their flank will suffer higher losses from artillery fire.

13.10. MORALE/DISORDER

Shooting is reduced by disorder and low morale/cohesion.

14. CLOSE COMBAT 14.1. Combat Strength

In shooting and close combat, infantry units larger than standard cohort-sized units of 480 men fight only with 480 men, and cavalry units larger than 240 men with 240 men, the extra troops being mainly extra rear ranks. The extra rear ranks do, however, provide resilience. Note: These numbers assume that the standard representational scale (1 foot or mounted model = 60 men) is being used. When other representational scales are in use, everything is scaled accordingly.

In impact combat, only the men who actually make contact fight, so if a smaller unit charges a larger one, or vice versa, both sides initially fight with the strength of the smaller unit.

Note that the "strength" is not the strength in actual men, but the relative combat strengths of the units. Mounted troops generally have 33% more combat strength per man than foot. Nevertheless, standard cohort-sized units of approximately 480 men are large enough that they have 50% higher overall combat strength than standard 240 man mounted units.

In continuing combat (melee), a unit with lower combat strength will be overlapped, so the higher combat strength unit fights with extra strength equivalent to half the difference between the units' actual combat strengths. **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Shooting **Close Combat** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**

However, because of the limitation on the maximum number of men that can fight, a full strength 960-man pike unit does not count for this purpose as having higher combat strength than a full strength 480-man cohort. In practice it will still get some combat strength bonus because after both units have suffered losses, the pike phalanx will still have 480 men available to fight, but the cohort won't.

As standard cavalry units have lower overall combat strength than standard infantry units, a standard infantry unit such as a cohort or a pike phalanx will have 50% more combat strength than a standard cavalry unit, which will give it a +25% combat strength bonus in melee.

In melee, a unit that is fighting more than one unit fights them each in turn, but suffers a 20% reduction in combat strength per extra enemy unit, with a maximum reduction of 50%.

14.2. POINTS OF ADVANTAGE

In addition to relative combat strength, there are a number of other factors that will affect the outcome of a combat. Troop type, armour, combat capabilities and situational factors will all make a difference. **Points of Advantage** (POAs for short) are used to determine who has the upper hand.

Combat efficacy depends on the net difference between the POAs applying to the opposing units. 100 POA difference is roughly equivalent to a 33% combat modifier.

The POA difference can never be above 200 – additional POAs beyond that are ignored.

The POA tables are below.

14.2.1. IMPACT POA TABLE

IMPACT POAS			
Impact foot.	+200	vs any foot	
	+10	if 3 or more ranks of models deep vs any foot	
	+100	vs elephants or any mounted, unless the foot are charging mounted shock troops	
Pike, if not FRAGMENTED or SEVERELY DISORDERED	+100	If 3 or more ranks of models deep vs any troops (except mounted shock troops that the pikes are charging)	
Pike, if not DISRUPTED or DISORDERED	+100	If 4 ranks of models deep vs any troops in open terrain	

80

Offensive Spearmen, if not FRAGMENTED or SEVERELY DISORDERED		+100	vs any troops unless the spearmen are charging mounted shock troops.		
Defensive Spearmen, if not FRAGMENTED or SEVERELY DISORDERED		+100	vs any troops if not charging, or vs defensive spearmen		
Mounted light spe	ar	+50	vs any		
Foot light spear		+100	vs any troops, unless the foot are charging mounted shock troops		
Darts (with Light Spear)		+66	if receiving a charge vs armoured foot or heavily armoured mounted troops		
		+100	If receiving a charge vs other troops		
Heavy weapon		+100	vs any foot		
Artillery		+100	vs any troops, if defending an obstacle and not FRAGMENTED or SEVERELY DISORDERED		
		-200	vs any troops if not defending an obstacle		
Elephants		+250	vs any		
		+100	vs any mounted except heavy lancers		
Lancers		+100	vs foot, unless these are steady, non-charging pike, offensive spearmen or defensive spearmen		
Heavy Chariots	Only in	+100	vs any troops except lancers, elephants, light foot, light horse or steady non-charging foot who are pike, offensive spearmen or defensive spearmen		
Scythed Chariots	terrain	+250	vs any troops except lancers, elephants, light foot, light horse or steady non-charging foot who are pike, offensive spearmen or defensive spearmen		
Mounted except scythed chariots		+100	vs light foot, bowmen or mob		
On higher ground (height difference <= 75)		+25	vs any		
On higher ground (height difference >= 100)		+100	vs any		
Foot defending light or medium fortifications		+100	vs any		
Foot defending heavy fortifications		+200	vs any		
Missile troops (not darts) defending other obstacles, if not FRAGMENTED or SEVERELY DISORDERED		+100	vs any mounted		
Any foot defending other obstacles if the above does not apply		+25	vs any		
General with the unit		+50	vs any		
Charge counting as on flank or rear		+50	Final minimum overall net POA if charge vs unengaged unit, or by foot vs mounted, mounted vs elephants or light troops vs non-light troops		
		+200	Final overall net POA regardless of all other factors if vs engaged or evaded unit and none of the above exceptions apply		

Historical Overview Playing the Game Epic Battles -Multi-Battle Campaigns **Battlefield Orders Close Combat** Battle Reports the Map Editor Technical Support Example Battle

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14.2.2. MELEE POA TABLE

MELEE POAS				
	+100	vs mounted		
Mounted Swordsmen	+100	vs foot, unless these are steady and pike, offensive spearmen, defensive spearmen or defending an obstacle.		
	+100	vs mounted		
Foot Swordsmen	+100	vs foot, unless these are steady and offensive spearmen, defensive spearmen or defending an obstacle.		
	+50	vs foot who are steady and offensive spearmen, defensive spearmen or defending an obstacle.		
Pike, if not FRAGMENTED or SEVERELY DISORDERED	+100	If 3 or more ranks of models deep vs any troops		
Pike, if not DISRUPTED or DISORDERED	+100	If 4 ranks of models deep vs any troops		
Offensive or Defensive Spearmen, if not FRAGMENTED or SEVERELY DISORDERED	+100	vs any		
Heavy Weapon	+100	vs any		
Artillery	+100	vs any troops, if defending an obstacle and not FRAGMENTED or SEVERELY DISORDERED		
	-200	vs any troops if not defending an obstacle		
Elephants	+100	vs any		
Better Armour	Up to +50	vs any except heavy weapon, artillery, chariots or elephants		
On higher ground (height difference <= 75)	+25	vs any		
On higher ground (height difference >= 100)	+100	vs any		
Foot defending light or medium fortifications	+100	vs any		
Foot defending heavy fortifications	+200	vs any		
Missile troops (not darts) defending other obstacles, if not FRAGMENTED or SEVERELY DISORDERED	+100	vs any mounted		
Any foot defending other obstacles if the above does not apply	+25	vs any		
General with the unit	+50	vs any		

14.2.3. TROOP QUALITY

In addition to the POAs specified in the tables above, there is a final POA adjustment of between -50 and +100 POA for troops that are below or above average quality.

14.2.4. MOUNTED

These include Cavalry, Light Horse, Cataphracts, Camelry, Light Chariots, Heavy Chariots and Scythed Chariots. Elephants are not included in "Mounted" or "Foot".

14.2.5. STEADY

A unit is only STEADY for combat purposes if it is neither Disrupted, Fragmented or Broken, nor Moderately or Severely Disordered.

14.2.6. DEPTH

POAs that depend on unit depth are reduced proportionately as the unit loses casualties. Thus an incomplete 3rd or 4th rank of models will have a partial depth effect.

14.2.7. OPEN TERRAIN

A combat does not count as "in open terrain" if either unit is in non-open terrain or the combat is across an obstacle.

14.3. COMBAT RESULTS

At the end of the combat calculation, the combat round will either be a draw or one side will have won. The losing unit will take a Cohesion Test (see Cohesion below) and may drop morale. It will also suffer more casualties.

A detailed report of the combat is printed to the Combat Log. It can be toggled on and off using the left-hand Tools panel, the "C" hotkey or the Settings menu.

14.3.1. SCYTHED CHARIOTS

Scythed chariots were driven at the enemy to cause panic. If the enemy did not flinch, the drivers would usually jump out at the last moment and the scythed chariots would crash into the enemy line. Consequently, if scythed chariots have not routed their opponents by the end of the first melee phase, they are **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders Close Combat** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

considered destroyed, and are removed from the map. Unlike a normal rout by scythed chariots, this does not cause nearby friends to test cohesion.

Scythed chariots are considered expendable. Whether destroyed in combat or routed, scythed chariots do not count towards the army's % routed.

14.4. PUSH BACKS AND FOLLOW UPS

If foot lose badly in close combat against foot Shock Troops (see glossary) who originally initiated the close combat, they will be pushed back and the enemy will follow up.

14.5. BREAK OFFS

One of the units may break off - this is determined by the AI.

Mounted troops will break off from enemy foot if they don't fancy their chances in the continuing combat. They will break off from enemy mounted if they lose badly in close combat. They can only break off from mounted enemy Shock Troops (see glossary) if they themselves initiated the close combat.

Foot will break off from enemy foot if they lose badly in close combat and are not followed up.

14.6. CONTINUING COMBAT (MELEE)

If neither side breaks or breaks off after the impact combat, the close combat continues each subsequent turn until it is decided.

If you mouse over one of your units that is in close combat, unless another unit is selected you will see an approximate estimate of your unit's Win:Draw:Lose chances in the next round of Melee combat. If the Detailed Tooltips option is toggled on, the tooltip gives a full breakdown of the factors affecting the combat. The Detailed Tooltip mode can also be temporarily turned on by holding down the CTRL key.

Note that the Win:Draw;Lose chances are estimates calculated from a sample of 1000 test resolutions of the combat in question – so each time they are recalculated the result may be slightly different. This also explains why the Win:Lose chances for an equal combat may not be shown as exactly equal. If you mouse back and

84 😑

forth between your units in close combat (with no unit currently selected) you will see the estimates change slightly each time as they have been recalculated.

14.7. END OF CLOSE COMBAT

When a close combat ends as a result of one side breaking or breaking off from melee, the victors and breakers off cannot move again or shoot in the same turn. They may be able to turn 45 degrees if they are in command range and not unmanoeuvrable.

Close combats that end in the enemy turn do not affect movement in the following turn.

15. COHESION (MORALE)

15.1. COHESION STATES

There are 4 states of Cohesion.

STEADY DISRUPTED FRAGMENTED BROKEN (ROUTING)

DISRUPTION and FRAGMENTATION reduce a unit's fighting capability. FRAGMENTATION also reduces its AP. FRAGMENTED units cannot charge.

BROKEN units flee away from the enemy. If they leave the battlefield or continue to rout for several turns they are considered irretrievably dispersed.

Cohesion states and losses are indicated visually by a banner above the unit – see below. Losses are also indicated by models "dying".

15.2. COHESION TESTS

Troops take a Cohesion Test if they suffer significant total shooting casualties (> 10%) in a turn, lose a round of close combat (inflict significantly less total close combat damage in the turn than they suffer), see a friendly unit break or a general in line-of-command incapacitated nearby, or attempt to Fall Back when in the charge range of enemy non-light troops.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders Close Combat** Cohesion (Morale) Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

The cohesion test is based on the equivalent of two six-sided dice added together, with some "re-rolls" depending on troop quality. There are shades of quality, and the effect of these variations is fully represented mathematically by the game engine. However, as a general guide, Untrained troops re-roll 6s, Superior troops re-roll 1s, Elite troops re-roll 1s and 2s. A score of 6 (after modifiers have been applied) is required to pass the test. If a unit fails it drops a cohesion level, and can sometimes drop two levels if the score is bad enough. (It cannot double drop from shooting, nor from close combat unless it lost badly).

СОНЕ	SION TEST					
MODIFIERS						
Unit suffered heavy total shooting casualties this turn (> 16%)*		-1	Unit is heavy or mixed foot	+1		
Unit suffered significant total close combat damage this turn (> 5%) **		-1	Unit is inspired by a friendly general fighting in close combat within (command range / 4) squares. (Allied units are only inspired by their own general, and ally-generals only inspire their own units)			
Total close combat damage suffered this turn exceeds total close combat damage inflicted by a large margin		-1				
Unit has lost over 25% of its original men		-1	Current Cohesion State			
Unit has lost over 50% of its original men		-1	Disrupted or Severely Disordered	-1		
			Fragmented	-2		
Foot battle troops with threatened flank		-1	Broken	-3		
Any troops shot at by artillery*						
Any one of	Any troops testing for having lost close combat even partly against elephants or scythed chariots**		 * Only applies when testing as a result of shooting. The modifier for being shot at by artillery applies whether or not they inflicted any casualties. ** Only applies when testing as a result of losing a close combat. The modifier for fighting specific enemy troop types applies whether or not 			
	Medium foot, warriors, bowmen, light foot or mob testing for having lost close combat even partly against mounted troops or mixed or heavy foot in open terrain**	-1				
	Any troops testing for having lost impact phase combat even partly against lancers or heavy chariots **		these inflicted more damage on the unit than it inflicted on them. Other tests do not use these modifiers even if they occur in the same phase.			
	Foot testing for having lost impact phase combat even partly against impact foot**					

As a unit may have to take multiple cohesion tests for the same reason in the same turn, the random cohesion test score for each of shooting and close combat is retained for the whole turn. (But replaced in the enemy turn). This means that

86

(for example) subsequent cohesion tests for shooting after the first will get the same result unless there are additional modifiers – such as -1 for being shot at by artillery, or -1 for the total shooting casualties this turn exceeding 16% of the unit. The program remembers if the unit has already been shot at by artillery this turn, so it does not matter which order the shooting is done in. For example, if the unit is shot at by artillery first, it might not reach the threshold of 10% shooting casualties this turn necessary to trigger a Cohesion Test. If it is subsequently shot at by archers, and the total losses from shooting this turn exceed 10%, a Cohesion Test will be taken, with a -1 modifier for being shot at by artillery.

Moreover, a unit cannot drop cohesion twice in the same turn from shooting, nor from impact close combat, nor continuing close combat. (But can drop once for each, and in some circumstances can double drop). Also, a unit that is Fragmented may break (without waiting to be contacted) if charged by another unit, even if it became Fragmented as a result of a previous impact close combat this turn.

Note also that the % casualties calculation only takes into account up to 12 ranks of men - equivalent to 3 ranks of models. Thus very deep units such as pike phalanxes will be deemed to have suffered 10% or 16% casualties when the overall % losses are somewhat lower - the logic being that beyond a certain depth, extra ranks do nothing much to counteract the morale effect of casualties on the front rank.

15.3. RALLYING

There is a chance at the start of each of its side's turns that a Disrupted, Fragmented or Routed unit will take a Cohesion Test to improve its cohesion state. The chance of testing is much lower if it is routing. However, a unit with a general will always test.

If it does take a test and scores 6 or more, it rallies and goes up one cohesion level.

Units cannot test to rally if they dropped Cohesion in the previous own or enemy turn. Routing units cannot test to rally if they are being pursued, or if they suffered more than 10% losses from shooting in the previous enemy turn.

15.4. AUTOBREAK

In addition units will Autobreak if their losses get too high. For example an average quality unit will autobreak if it falls below about 50% of its original

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders Cohesion** (Morale) Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

strength. Higher quality units will stick it out longer and Raw units won't hang around as long.

15.5. FLANK/REAR ATTACKS

Troops may also automatically drop a cohesion level if charged in flank or rear (see the Flank/Rear Attacks section under Battlefield Orders > Charge).

15.6. ROUTING AND PURSUING

If a unit breaks, nearby friendly troops take a Cohesion Test, unless the broken unit was artillery or baggage, or the broken unit was light troops and the nearby friends aren't.

Units normally only have to take such tests if they are in a square adjacent to the breaking unit when it breaks, but this distance is increased to 2 squares if the breaking unit is Elephants or Scythed Chariots.

Broken units rout. Their close combat opponents will sometimes pursue:

- Mounted troops and elephants normally pursue at least once.
- Foot warbands normally pursue foot at least once if they originally initiated the close combat, and have a 25% chance of doing so if they didn't. They have a 10% chance of pursuing mounted or light troops.
- Raw or untrained foot also have a chance of pursuing, but this is never more than 25%. They have a 10% chance of pursuing mounted or light troops.
- Other foot never pursue after close combat. However, foot units that charge fragmented enemy who break before contact will pursue the routed enemy on that turn only.

If pursuers end their pursuit move within 2 map squares of the routers they are still considered to be pursuing, and will inflict some casualties on the routers.

After each turn, routers will rout again. Pursuing units test to see if they continue to pursue, the chance of which depends on their troop type.

Troops pursuing routers cannot perform any other actions until the unit decides to stop pursuing. However, if the pursuers meet fresh enemy in an

adjacent map square that is within 45 degrees of straight ahead, they will charge them if they have enough move left and they (the AI on their behalf) fancy their chances. For the purpose of determining whether such charges count as flank/rear attacks, the starting position of the charger at the beginning of the pursuit is what is taken into account, not its starting position at the start of the whole turn. If the charged unit breaks and the pursuer pursues again, the starting position is once again reset.

If the routers go off the battlefield they are considered irretrievably dispersed. The pursuers test to see if they follow them off. If they do, they subsequently have a chance each turn of returning to the battlefield close to the place where they left it.

Routers that have no route of escape are dispersed. Routers are also dispersed if they have not rallied after 5 consecutive rout moves.

16. UNIT STATE - BANNERS

The banners above each unit become progressively more tattered as the unit suffers losses. They also show a yellow upper section if the unit is Disrupted or a red upper section if the unit is Fragmented. If the unit is Broken, the banner turns white.



Unit banners showing Disrupted and Fragmented unit status.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Cohesion (Morale) Unit State - Banners Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**

17. TERRAIN

17.1. DIFFICULTY

Terrain is divided into 4 difficulty levels: Difficult, Rough, Non-Open and Open. These affect movement and order to varying degrees. (Heavy and Medium Fortifications count as Difficult to troops attacking them but cause no ill effects on troops defending them).

Difficult terrain includes Woods, Marsh and Difficult Slopes. It does not disorder Light Foot. It disorders Medium Foot, Warriors, Bowmen and Mob. It causes severe disorder to other types.

Rough terrain does not disorder Light Foot, Medium Foot, Warriors, Bowmen or Mob. It severely disorders Cataphracts, Heavy Chariots and Scythed Chariots. It disorders other types.

Non-Open terrain (e.g. Enclosures, some Streams) does not cause disorder, but stops combats counting as "In Open Terrain" thus reducing Impact POAs for some troops.

Open has no effect.

Streams vary in difficulty level according to the size of the stream.

Built-up areas protect occupying foot from the ill effects of flank/rear charges.

Impassable Terrain, Water squares (including moderately large rivers except at bridges or fords) are impassable to land troops.

Mountains and Cliffs are impassable to all troops.

Difficult terrain is impassable to chariots.

17.2. HIGH GROUND

Troops on higher ground gain an advantage in close combat. This is minor (+25 POA) if the height differential is 75 or less, but significant (+100 POA) if the differential is 100 or more. Squares for which no height is shown on the tooltip are height 0.

17.3. VISIBILITY

Woods, Buildings and Marsh offer concealment to stationary foot troops inside.

Woods, built-up areas and higher ground block line of sight. (Some individual buildings don't, if they are not large enough to block a whole square).

17.4. CLOSE COMBAT ON THE EDGE OF TERRAIN

If troops inside a terrain feature are in close combat with troops outside, then the troops outside will suffer the disorder penalties as if inside the terrain if they are attacking into it, but not if the enemy is attacking out of it. Either way the combat will not count as if "in open terrain".

17.5. OBSTACLES AND FORTIFICATIONS

17.5.1. OBSTACLE POSITIONS

Linear obstacles are on or close to tile edges. Foot troops in a tile with an obstacle along an edge gain benefits when defending it against troops beyond an imaginary line extending that edge. Fortifications only protect the tile edges where fortifications are depicted.

17.5.2. OBSTACLE EFFECTS

Foot defending obstacles count as "Protected" against mounted troops (see combat charts) and against the ill-effects of being flank/rear charged across the obstacle. Depending on the nature of the obstacle they may also count Cover – reducing incoming shooting casualties (see below).

Irrigation ditches, low walls and hedges can protect stationary foot whichever side of them they are on. Cover is lost if the unit moves, even to change facing. Fortifications only protect foot inside the fortification, but cover is not lost if the unit turns or moves.

Troops that charge enemy across an obstacle lose all benefits that they would have had if the enemy charged them.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Terrain Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**

17.5.3. OBSTACLE TYPES

Irrigation ditches – these give "Protection" but no Cover.

Hedges/Low walls - these give "Protection" and 33% Cover.

Field Fortifications (Light Fortifications) – these give "Protection", 33% Cover, and a + 100 POA bonus in close combat to troops defending them.

Enhanced Field Fortifications (Medium Fortifications) - these give "Protection", 66% Cover, and a +100 POA bonus in close combat to troops defending them, and also count as Difficult Terrain for troops assaulting them across the fortifications.

Heavy Fortifications - these give "Protection", 75% Cover, and a +200 POA bonus in close combat to troops defending them, and also count as Difficult Terrain for troops assaulting them across the fortifications.

18. OTHER CAUSES OF DISORDER

Cavalry (all types) or camelry in a square adjacent to enemy elephants are disordered. If the elephants are friendly the cavalry are slightly disordered.

Cavalry (all types) in a square adjacent to enemy camelry are disordered. If the camelry are friendly the cavalry are slightly disordered.

19. VICTORY CONDITIONS

These will depend on the individual scenarios. However victory conditions depending on losses are based on units routing or dispersed rather than casualties or destroyed units. The size of units is taken into account.

Default victory conditions are that an army breaks and the side loses if 60% of its original troops are routed or dispersed, or if 40-59% are routed or dispersed and the enemy have loss at least 25% less. Thus a side will fight on longer if the battle is hard fought than if it is a disaster.

Note that if the game is not decided before the time limit, the default victory conditions vary according to the type of game. For player reinforcement battles, the player will win even if he has a higher % routed. For enemy reinforcement

battles and baggage protection scenarios, the enemy will win if the victory conditions are not achieved before the time limit, even if the enemy has a higher % routed. For open battles, the AI will win timed-out games in single custom battles, even if it has a higher % routed, whereas in MP games and campaign games the side who has the lower % routed at the time limit wins.

In SP games, the player is given the option to play on and conduct mopping up operations after the enemy army is defeated.

20. BATTLE REPORTS

When a scenario is won (or lost!) you get a report showing each side's losses resulting from the battle. This takes into account additional losses suffered in the pursuit, and the recovery of some walking wounded.



Battle Report.

21. LOAD/SAVE

The Load/Save menu allows you to load and save games.

When engaged in a battle or campaign you can save your progress at any time except during the enemy turn. Saved games are located in "Documents\My Games\FIELDOFGLORY2\SAVES".

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Terrain **Other Causes of** Disorder **Victory Conditions Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**



Load Save.

22. Settings



Settings.

The Settings menu allows you to set the difficulty level and set various UI display, audio and screen options.

22.1. DIFFICULTY

There are six difficulty settings: Centurion, Tribune, Legate, Governor, Emperor and Deity. Centurion is the easiest and Deity is the hardest.

In most battles the only effect of these difficulty settings is to adjust the size of force available to the player. In a few of the historical scenarios, there may instead be special historical factors modified by the difficulty setting. The lowest and highest difficulty settings adjust the quality of the troops slightly.

The setting at which the two sides forces are most evenly balanced is the default Tribune setting. (Although with Pot Luck armies or Auto force selection, the player will actually have a slight advantage).

Note that the "size" of forces is determined by a points system, in which better troops are more expensive. Thus, depending on the composition of the armies, one side in an equally balanced battle may have many more men than the other. If so, this is because his men are less well equipped, of lower quality, or otherwise less effective.

All combat, cohesion tests and other troop interactions are exactly the same on all difficulty levels, and do not favour the AI in any way. The random number generator is not biased towards either side. (Though it is easy to imagine otherwise when luck goes against you).

Multiplayer games ignore the difficulty setting entirely.

22.2. MOUSE BUTTON MODE

The default UI mode is called Left/Right UI mode. In this mode the left mouse button is used to select units and the right mouse button is used to issue orders. Units are deselected by left-clicking on another unit or an empty square (or by using the SPACE bar).

The alternative UI mode is called Left only UI mode. In this mode the left mouse button is used to select units and issue orders. Units are deselected by right clicking or by using the SPACE bar. (They can also be deselected by left-clicking on another unit, but this is not recommended as it will instead result in the first unit executing a turn action if the second unit is on an adjacent square).

22.3. TOOLTIPS: SIMPLE/DETAILED

Detailed tooltips display the factors affecting shooting or close combat in much greater detail. However, detailed tooltips can be temporarily turned on by holding down the CTRL button while mousing over the target unit. **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Settings Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

22.4. CLOSE COMBAT LOG: ON/OFF

You can toggle the detailed combat log on or off in the Settings menu, or during a battle in the left-hand Tools menu or using the "C" hotkey. When the close combat log is turned off, the most important close combat information can still be seen as floating text above the units.

Also close combats are reported to the log whether or not it is visible, so you can toggle it on if something unexpected happens and find a report of the combat in question.

22.5. CLOSE COMBAT REPORTS: OFF/SIMPLE/DETAILED

The default setting is for close combat reports is Off. However, you can set the game to show simple or detailed close combat reports after each close combat is resolved. This will effectively pause the action after each combat.

22.6. QUESTION MARKS ON/OFF

When this option is on, question marks appear to warn of terrain that might conceal hidden enemy units.

22.7. HOTSEAT MODE

When this is turned on, it allows you to play any of the single player single battle types in Hotseat mode. Thus you can either play both sides or play one side each with a friend using the same computer, without going through the MP server or having to watch the replays.

22.8. ANTI-ALIASING

The game defaults to no anti-aliasing, to allow it to run smoothly on as many systems as possible. However, you can improve the look of the graphic elements by turning on Anti-Aliasing. Some systems will be able to cope with the maximum level of anti-aliasing without affecting game performance. Older machines may not.



Anti-aliasing.

22.9. GAME RESOLUTION

This allows the game resolution to be selected. Changes do not take effect until the game is restarted.



Game Resolution.

23. MULTIPLAYER

Field of Glory II includes a very comprehensive and easy to use multi-player system. To reach it, select Multiplayer from the main game menu. If you

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save Settings Multiplayer Making a Map in the Map Editor Modding **Technical Support Example Battle**



MP Lobby.

already have a Slitherine forum username or have previously played other multiplayer games on our server, choose the login option and enter your details. If you are new to Slitherine, register your username and password in game. You can use these details to log in to the Slitherine forum and view stats or chat to other players.

The revolutionary PBEM (Play by E-Mail) system does not require you to organise games in advance; you do not even need to be online at the same time as your opponent. It is as simple to play as a single player game, removing all the barriers to entry of other multiplayer games.

It really needs to be tried to be believed!

When you arrive in the Lobby, you'll see 3 tabs. The first tab, "My Games", lists any games you currently have going. The middle tab is how you issue a challenge to start a new game, while the third lets you view any challenges from other players looking to start a game. You can accept these to get playing.

Any games displaying a padlock icon are private challenges only available to specific opponents.

If you don't see any open challenges in the list, it is not because people aren't playing, but because new challenges get snapped up very quickly after they are created. Your best bet is to create some new challenges of your own – they will soon be accepted. You can play as many games at a time as you like.



MP new challenge.

To create a new challenge, go to the My Challenges tab and click the "New Challenge" button and you'll see a list of available scenarios. Select the one you wish to play, or click the "Create Skirmish" button to set up a computer generated scenario, then select your side.

Once you have an opponent, the game moves to "My Games". If it is your turn you'll be able to select the game and press Play. If not, you'll have to wait for your opponent to take their turn. When your opponent has moved you'll be notified by e-mail. It is very important that you enter your real e-mail address when registering or you will not see the e-mail alerts when it is your turn.

24. HINTS AND TIPS

24.9.1. GENERALS

Try to keep your units within command range of a general in line of command. If they are out of command range they will be less manoeuvrable.

Generals give the unit they are with a big boost in close combat, but they cannot issue orders while they are in close combat, so the units of their command will be deemed out of command range until the close combat ends, unless they are within range of another general in line of command.

Also, generals in close combat risk being killed or incapacitated, which can have a disastrous effect on the morale of nearby units.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Multiplayer **Hints and Tips** Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**

Moving a general to an unsteady unit will increase the chance of the unit rallying. Moving him to a routing unit will increase their chance of rallying, but is risky as he cannot leave again until the unit stops routing, and he will go off the map with them if they don't rally.

24.9.2. COHESION

The key to defeating the enemy is to make his units drop Cohesion (Morale) until they break and run. This is much more important than inflicting casualties, as units will often break long before they have suffered heavy casualties, and when they do so, nearby enemy units may also suffer cohesion loss even though they might be at full strength.

Disrupted or Fragmented troops fight less well. Fragmented troops are likely to rout if anything else goes wrong, or if they are charged. Fragmented troops cannot charge and cannot move far. If they attempt a Fall Back action when the enemy is in charge reach, they will probably break. However, if you can keep the enemy occupied with other units they may get a chance to rally.

When a unit routs, its opponents may pursue. You cannot issue orders to routing troops until they rally, nor pursuers until they stop pursuing. Troops that pursue off the visible map may return later. Routers won't.

24.9.3. SHOOTING

Although an enemy unit can be worn down eventually by casualties, reducing their cohesion is the real object of shooting.

The more shooting damage a unit suffers in a turn, the more likely it is to lose cohesion. It therefore pays to concentrate your fire as much as possible on individual enemy units.

Troops shoot better at short range, with full arc of fire and when stationary. They shoot less effectively if they move or turn. If you are not advancing, try to anticipate enemy movements and have your troops in position before the enemy is in range. Artillery cannot shoot at all if they move or turn.

Ammunition is limited – shooting becomes much less effective when ammunition is low. It may therefore be better for a unit to hold its fire if the target is at long range or out of full arc, or if you cannot shoot at the target with more than one unit.

24.9.4. CLOSE COMBAT

For close combat Points of Advantage are the key to victory. (See the Close Combat section above). Try to ensure that your units have the best possible matchups, and try to avoid charging frontally against enemy who will have the advantage in close combat.

In the wrong situation, a powerful unit can lose to a much weaker one. Along with the optimal use of firepower, advantageous matchups are key to victory.

Some units have capabilities which give them an advantage in the initial impact against some troops. Some of these require the unit to be stationary – i.e. not charging. For the others, it does not matter whether the unit is charging or receiving the charge as the unit receiving the charge is assumed to counter-charge a short distance if that fits the situation.

A unit that is in melee against more than one enemy unit fights less effectively against each of them. Ganging up multiple units in close combat against an enemy unit therefore increases the chance of defeating it.

Once in close combat, units continue to fight each turn until one side routs or breaks off. Higher quality troops fight better and are more resilient. When a unit routs, its opponents may pursue. You cannot issue orders to routing troops until they rally, nor pursuers until they stop pursuing. Troops that pursue off the visible map may return later. Routers won't.

24.9.5. FLANK OR REAR ATTACKS

Flank or rear attacks can be very dangerous. For devastating effect, the enemy unit first needs to be engaged in close combat by another unit.

Try to avoid leaving your units vulnerable to flank charges. Try to set up flank charges against enemy units.

Remember that for a charge to qualify as a flank charge, the charger must start its **whole** move behind the flank of the target unit.

If in doubt, remember that the charge tooltip will say whether a charge will count as a flank charge or not, and whether it will have full effect or not. **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save **Hints and Tips** Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

24.9.6. TERRAIN

Some terrain disorders troops, especially mounted troops and heavy foot. The worse the disorder, the more the fighting ability of the unit is affected. Troops charging enemy who are in disordering terrain are disordered as if they were in the terrain themselves. However, troops in open terrain that are attacked by troops in disordering terrain are not disordered by the terrain.

Troops in close combat have an advantage if on higher ground than the enemy - the advantage is much greater if the slope is steep (height differential 100 or more).

Troops in cover take reduced shooting damage, especially when stationary. Foot can hide in buildings, woods and some other terrain. They can only be seen by nearby enemy or if they shoot. Before some battles begin you may be able to redeploy your troops. Position troops to make good use of terrain.

Troops behind obstacles or fortifications gain various advantages against attacking enemy. They lose these if they themselves charge. Troops behind obstacles (other than fortifications) lose any cover provided by the obstacle if they move or turn.

24.9.7. KNOWING YOUR TROOP TYPES

Heavy Foot are more resilient than Medium Foot/Warriors, but worse affected by terrain.

Foot shock troops (Impact Foot, Offensive Spearmen and Pikemen), will follow up pushed back enemy foot if they win a round of combat decisively. They will only do so if they originally initiated close combat – they won't follow up if they were originally charged.

Follow ups may lead to a unit getting into a position where it can be flank charged by another enemy unit. Judgement is therefore required in deciding whether to charge or whether to wait for the enemy to attack. You can set up situations where the enemy pushes forward into a position where they can be flanked – if your unit fighting them frontally lasts long enough! This is how the Roman legions defeated the Macedonian pike phalanx at Cynoscephalae in 197 BC.

Light Foot, Bowmen and Mob are vulnerable to mounted troops in the open. Try to keep them in terrain or behind obstacles when cavalry are about. Heavy
Foot, Medium Foot and Warriors are all capable of repelling mounted charges in open terrain when they are steady, but will be at risk if disrupted.

Light Foot can't charge most non-light troops in open terrain.

Light troops (Light Foot and Light Horse) and non-lancer Cavalry/Camelry can evade enemy charges, but may get caught, especially if the chargers start their whole move close to them. Troops that evade off the battlefield may return later.

25. MAKING A MAP IN THE MAP EDITOR

A map in *Field of Glory II* is built up from a grid of tiles, with 3D objects placed on them. As well as the visual look, the tiles determine the passability and cover values of each square, although certain objects can override these values.

The default size for a map is 32x32 tiles. If you wish to change the size or proportions of the map, click the button at the bottom left of the sidebar.

This opens up the map resize dialogue. You can either create a new map of the required dimensions, or resize the current map. Resizing the current map can cause issues if care isn't taken to avoid lopping off key features or



Map Editor.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save **Hints and Tips** Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

leaving placed units stranded off map. If just the size of an existing map is changed, the playable area will shrink or expand from tile 0,0. If this isn't what is desired, the x and y offset values can be used to shift the point at which the new sized playable area is applied.

25.1. TILES

Once the size is correct, the basic terrain can be laid out with tiles. To work with terrain tiles, press the top left button on the sidebar.

The tiles are grouped into palettes of terrain types. Selecting a palette name from the second window down in the sidebar displays all the terrain tiles in that palette in the larger window below. Mousing over the tiles within this window displays a tooltip of the tile's terrain type. Clicking on a tile within the large palette window selects it and allows you to place the tile onto the map with a click of the mouse (or hold the mouse button down to paint large swathes). Tiles can be rotated in 90 degree increments using the R key, although some have their rotation automatically randomised. While over the map, the tooltip displays the existing tile's terrain type, rather than the type of the tile you are painting with.

The most commonly used base tiles use textures that are much larger than a single tile, and these textures feather into each other where they adjoin. This allows much more natural-looking terrain maps to be produced.

The palettes available in the window are limited to those matched with the terrain style specified when the map was created. However, an "Advanced Mode" can be turned on with the button underneath the tile window, which allows access to all terrain tile types at once.

There are two kinds of tiles, base and overlay.

Base tiles are used to block out the functional landscape and set terrain types - open ground, forest, marsh, water etc.

The tiles from an overlay palette sit on a layer over the top of normal tiles. An alpha channel on the overlay tiles allows parts of the tile beneath to be seen. Some overlay tiles are completely transparent but alter the terrain-type of the tile without altering its appearance (e.g. Enclosure, Deep Stream, Medium Stream, Dead Ground).

These two layers of tiles can be edited independently of one another. Selecting an overlay tile from the palette window and clicking on an already laid down overlay tile will replace it without changing the tile underneath, while an underlying base tile can be changed without affecting the overlay above it. Pressing the "Delete" key while working with terrain tiles will remove any overlay tile underneath the mouse pointer, but will not remove base tiles – these can be removed by painting over them with another base tile.

Some overlays (e.g. roads and tracks) can be layered over other overlays (e.g. streams).

Certain overlay tiles change the terrain type of a tile they are placed over. Roads, paths and tracks can be laid out across multiple tiles and overwrite their terrain types.

25.1.1. AUTO-EDGING

Auto-Edging can be toggled on and off using the button underneath the tile window.

When a base tile is placed while Auto-Edging is on, the computer will automatically assign edge overlays to blend the terrain to the default terrain. Water placed on the map will automatically form streams, lakes or rivers, while roads will join together without time consuming selection of bends and straights.

This generally saves a great deal of time, but in some cases a map designer may wish for more control. Turning "Auto Edging" off using the button below the "Advanced Mode" button will disable this feature, and allow individual selection of overlay tiles. This is very useful when joining different types of roads together or when sorting out the propensity of the editor to create "mini-roundabouts" whenever roads make tight turns.

See also "Edging and Style" below.

25.2. HILLS

The game supports multiple hill levels. Holding the CTRL key allows the player to change the height of tiles on the map. Left click raises a tile in set increments, right click lowers. Complex hill geometry can prove very tricky for the game's LOS rules to interpret, especially narrow ridges.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

The autoedging places open terrain slopes round all hills. Difficult slopes can be added using the difficult slope overlay tiles.

25.3. WATER

In autoedging is turned on, painting water tiles from the base set will produce streams if the water is a single square wide, lake/sea/large river shores if the water is more than a single square wide. Large areas of water at the edge of the map will need edging tiles to be removed or added manually to make the water go right to the map edge.

To turn a stream into a river, river overlay tiles need to be added. To make a stream large (rough going) or deep (difficult going) apply the appropriate overlay tile.

25.4. OBJECTS

Objects are accessed via the central button in the top row of the sidebar. Objects are grouped together in palettes in much the same way as the tiles. As with the Tiles, the terrain type selected in the map creation screen determines the object set available, unless "Advanced Mode" is active, in which case all object sets can be used.

To place an object, select a name from the list in the larger window. The object is then attached to the cursor and can be placed as seen on the map with a left mouse click. Objects can be rotated in 90 degree increments using the "R" key. They can also be freely rotated using the "Page Up" and "Page Down" keys. Objects can be scaled up and down using the "Home" and "End" keys. Holding SHIFT while scaling or rotating allows for finer control. Pressing "Delete" will remove any object currently under the cursor.

Certain objects, such as buildings and fortifications, change the terrain type of a tile they are placed over as well as blocking the LOS. Bridges create a passable tile beneath them over water. These objects' placement is often constrained to within a tile's boundary, to prevent the placed object falling between two tiles and creating visually misleading terrain. If two objects on the same tile have different terrain effects, whichever was placed last will take precedence.

Trees are a special case. The terrain tile "Woods" specifies that the tile provides cover for infantry units. However, it is the objects placed on it that cause the tile to block LOS.

Some objects have restrictions on where they can be placed on the tile. Certain objects, such as Irrigation Ditch objects, can only be placed on tile edges. These will provide defensible obstacles as detailed in the Terrain section above.

25.5. UNITS

Once the map has taken shape, it can be populated with units.

To work with Units, click the right hand side button on the top level of the sidebar. Repeated clicks toggle between placing units for Side 0 and Side 1. The list can be refined by clicking on the filters in the small window above the main unit list. Mousing over a unit type will show a tooltip giving details of the unit.

Once a unit type has been selected from the list, move over the map and click the left mouse button to place the unit on a tile. Press "R" while holding the mouse cursor over an already placed unit will rotate it in 45 degree increments.

To delete a unit, hold down the "Delete" key and click on the unit.

You should only put one unit on a tile. (The editor will let you load one unit on top of another if you click the right mouse button, but this game does not support stacked units).

Care must also be taken in where units are placed. There are no limitations to where a unit can be deployed, so to avoid problems once the scenario is being played we must, for example, guard against units in lakes or outside the battlefield.

25.5.1. FIXED/UNFIXED UNITS

When a unit is placed in the map editor, it displays a label "Fixed" above it. This denotes that in a scenario the player will not have to purchase that unit and it will always be present in the scenario. Pressing the "F" key with the cursor over a unit turns off the fixed label and means that the unit will have to be purchased using the points allocated in the scenario.

25.5.2. Alternate Unit Textures

The map editor allows units to have a variety of different textures.

The "Unit Textures" button will pop up a list of textures available for the currently selected unit type. Selecting a different texture will convert all units of that type on that side to the new texture.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

The alternate textures are kept in subfolders in Data/Battle/UnitTextures (either in the main installation or under the specific campaign). The name of the subfolder determines the name that will appear in the text box. The textures must be named the same as the original texture.

If you make use of the default SCENARIOTEMPLATE.BSF script – see below all units will automatically be reskinned to make use of all available texture variants, unless the ReSkinArmy() calls on (approximately) lines 126 and 127 are commented out by placing // in front of them. Half of the available textures are automatically assigned to side0 and the rest to side1. Thus, even if there are identical units on both sides, they will use different textures, and thus be easily recognisable. This is probably preferable to assigning textures in the editor, because it allows multiple different textures for the same unit type to be used on the same side, which the editor does not. However, to allow scenario designers to override this behaviour, it is not default behaviour for scenarios without scenario scripts.

Modders can find out which texture names apply to which unit by looking in the Squads.csv file in the AssetFilename column. However, altering the Squads file will not alter the file-reference in the associated model, so the editor will still show the alternative textures as per the unaltered filename.

25.6. COPY & PASTE

Copying and pasting of Tiles, Objects, and/or Units works using the standard Ctrl-C and Ctrl-V keyboard shortcuts. The Copy/Paste window will be displayed while pasting or when Shift-Ctrl-C is pressed (note this opens the window and enters tile selection mode but does not copy). This window allows selection of which types of data to paste. The most recently copied data can also be exported to a file for later use, the clipboard is cleared whenever a scenario is loaded. To select a region for copying, press Y and then define the region by clicking on opposite corners (press Y again to cancel).

25.7. EDGING AND STYLE

This section allows high level control of the auto-edging functionality in the editor.

"Edge All" will attempt to edge all terrain tiles, overwriting any hand placed edging that the player has implemented.

"Align all roads" will attempt to join all roadways together.

"Clear all ground edging" removes all generated and hand placed edging of ground terrain.

"Clear all water edging" removes all generated and hand placed edging of water tiles.

"Convert Style" allows the designer to change the visual look of a map but keep its layout if more than one texture set is available. This only works if the two texture and tile sets have the same components. Note that objects will not be changed.

25.8. CONDITIONS

Weather and Time of Day are currently purely aesthetic.

25.9. REINFORCEMENTS MODE

This section allows a designer to bring on reinforcements for either side during a scenario. While in reinforcement mode, click on any units on the map to add them to the current reinforcement group (there are up to 8 reinforcement groups per side). Each group can be assigned a turn to arrive on.

Note that reinforcement groups are **not** the same as AI teams. They need to be specified while in reinforcements mode.

If you wish to display a message to the deploying side when the reinforcements arrive, type it under Message. Message text will be stored in the TEXT9.TXT file in your campaign. If you wish the camera to pan to show the units to the player, set Move Camera: to Yes

The units will appear where they were placed, so some discretion should be exercised to avoid complaints of teleportation.

Advanced users may wish to customize their own scenario scripts (see the Scenario Script section below). Once units have been added to the map and assigned to reinforcement groups, clicking Export to File in the Reinforcements Editor window writes a script fragment with the unit types and locations. The units should be removed from the map once the fragment has been integrated into the main scenario script.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles – **Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**



25.10. DEPLOYMENT MODE

Clicking on this button cycles through the three options for deployment in the scenario

- No deploy all units start where they are placed
- Partial deploy one side deploys while the other is fixed
- All deploy both sides can deploy

The default behaviour is that units can deploy into any tile they can see into. To use the standard deployment rules as outlined in the main Deployment section above, you need to include

```
if (GetTurn() == -1)
{
SetUniversalVar("StandardDeployment", 1);
SetStandardDeploymentBounds();
```

```
}
```

in the StartTurn(side) function of your scenario script.

25.11. CUSTOM AI DIALOGUE AND TEAMS

This controls the division of the armies into teams (commands), and non-scripted AI behaviour.

First the armies should be divided in teams (commands). These are important for both sides, because they will determine which units move together when group movement orders are issued.

The "AI Team" button cycles through the 8 possible teams that the AI force can be split into. Select a team number, then click on any units on the map to assign them to that team.

Player side teams are assigned in the same way, but with the CTRL button held down.

"Aggression" controls the currently selected team's responses to the player. Each behaviour has its own value

- 2 Move at speed of slowest unit in team.
- 4 Ignore all enemy unless they are close. Don't move (except to turn to face) even if they are.
- 8 Ignore all enemy unless they are close. Engage them as per other orders if they are.
- 16 Seek and Destroy.
- **32** Use threat map to choose route avoiding danger from enemy troops.
- 64 Stay put in current tile.
- **128** Non-light troops ignore enemy light troops unless they are very close.
- **256** Ignore enemy foot troops unless very close.
- **512** Ignore enemy mounted troops unless very close.
- **1024** Light troops bug out. (This isn't much use if applied in the Editor, but it can be used in scripted AI in the scenario script).
- 2048 Ignore enemy artillery.

These behaviours can be combined by adding them together. For example, a team can seek and destroy enemy non-light foot only by combining seek and destroy (16), ignore enemy light troops (128) and ignore enemy mounted (512). The resulting Aggression code would be 656. Holding shift advances the values by 10 each click.

These "Aggression" values can also be used to control AI behaviour in scripts using the available script functions.

There is no need to set "Aggression" values for player teams.

"AI target point" allocates a destination to the AI team. Clicking the AI point button cycles through the twenty four available points. Once the correct number is displayed, click the "Place AI point" button, then click on the map to place the marker.

25.12. PLUGIN TOOLS

This button accesses the additional tools that have been coded to help scenario design. There are currently three.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

- 111

25.12.1. RANDOM ENEMY

This controls how many points each of the 8 AI teams will be given to purchase unfixed units. **It should only be used in SP scenarios.**

25.12.2. RANDOM MAP

This section creates a random map using the present map's dimensions.

The random map generator creates battlefield terrain tailored to the regions covered by the game.

Click "build map" to generate the map. Each click will build a different map.

25.12.3. VICTORY POINTS

Warning: The use of objective points is anachronistic in the FOG2 era. We do not recommend it. However, the engine supports it, so we have left the option available for user scenario designers if they want to experiment with it.

This section covers the placement and allocation of victory points, and also the conditions required for victory.

Clicking on the left hand button of a VP cycles through its four possible states – Off, Neutral, belonging to side 0, belonging to side 1. Clicking on the right hand side, then clicking on the map allows the placement of VP.

Clicking the side 0 and/or side 1 boxes allows the designer to set victory conditions. Left clicking the "Capture" and "Defend" boxes raises the count, right clicking decreases.

Left clicking increases the turn limit, right clicking decreases it. Clicking the small box next to the turn limit sets the victory conditions to be "whoever has the most VPs at the end of the game".

The bottom section allows the designer to select which AI teams will attempt to capture any VP flags held by the player. **We cannot guarantee that this will work correctly with FOG2.**

25.13. SCENARIO DESCRIPTION

In the editor, click the Scenario Description Exporter button to open the tool.

It allows you to create and save the 5 strings that are associated with each scenario: Name and Description (for scenario selection screen), Title, Subtitle, and Briefing (for battle screen). Once you have done this, the strings will automatically be displayed for your scenario. Note that some of the generated strings have different naming conventions from the ones in the vanilla campaign text files, but the scripts recognise either version, and will use whichever version exists.

The strings are saved to text9.txt in /Documents/My Games/FieldofGlory2/Campaigns/*MyCampaignName* for SP scenarios or

/Documents/My Games/FieldofGlory2/Multiplayer/*MyCampaignName* for MP scenarios.

It is safe to manually edit the strings in Text9.txt after they have been exported, it is only rewritten when explicitly exporting from this window.

25.14. TEXT MARKERS

Text markers can be created and placed on the map. The top window shows a list of markers currently specified. New markers can be created by clicking "New Marker" while existing ones can be removed by clicking "delete marker".

The window below these buttons shows pre-set options for the text markers. If another option is required, the designer can click "Clear String" and type their message into the box. The tag displays the identity tag of the text line – this will be generated automatically for any custom text lines created. Both the font and the text colour can be customised.

Once the Text marker has been created, it can be placed on the map by clicking "Place Marker" then clicking on the map. This will clip to the centre of the tile, although holding Shift down will allow for finer placement.

Use the ID shown in the text marker list to turn the visibility of text markers off and on from script using SetVisibilityTextMarker.

Strings created in the text marker edit window are stored in the TEXT9.TXT file in your campaign.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

25.15. GENERALS

Generals can be added to your scenarios as follows:

You can add a new general name to the list of custom general names by typing the name into the edit box and clicking on "Add New General Name". The name will then be added to the list of names in the lower list box. When you save the scenario, any new general names you have added will automatically be added to the text9.txt file in your campaign's main directory in

Documents/My Games/FieldofGlory2/CAMPAIGNS or Documents/My Games/FieldofGlory2/MULTIPLAYER

(If you make a typo, you cannot edit the name in the Editor, but you can simply edit the line in your text9.txt file after saving the scenario – they are in the form 'IDS_CUSTOMGENERALNAME_*n*, "*GeneralName*",' If you want, you can delete the whole of the offending line. This will not cause any side effects unless you have used that name in another scenario in the campaign. You should not renumber any lines).

To add a general to the scenario, you need to assign him to a unit on the map. First highlight his name in the names list, then set his type (Sub-General, Commander-in-Chief or Ally-General) and quality (Troop Commander – command range 4, Field Commander – command range 8, or Great Commander – command range 12).

Then, with the editor in unit placement mode, place the general's unit or click on a unit that is already on the map. Then click on "Place General". His name, characteristics and map location will appear in the list box at the top of the Generals window. You can check he is with the right unit by mousing over the unit on the map.

If you decide to move him to a different unit, you must first remove him from the generals list by highlighting him in the top list box and then clicking on "Delete General". You then need to assign him to another unit following the procedure above.

You also need to assign the units that will be under his command in the scenario. You do this using the custom AI data dialog to assign the units to a team. (You need to hold down the CTRL key when doing this for Side0 units). The general will be in command of all units in the same team as his unit. (Note that even if you use a scenario script that includes code that reassigns

114 —

team allocations – such as the AI_Masterplan() function – the original team allocations will be retained for command control purposes.)

When you save the scenario, any generals you have added will be automatically saved with the other scenario data.

25.16. CUSTOM UNIT NAMES

Custom unit names can be added to your scenario as follows:

You can add a new custom unit name to the list of custom unit names by typing the name into the edit box and clicking on "Add New Unit Name". The name will then be added to the list of names in the lower list box. When you save the scenario, any new custom unit names you have added will automatically be added to the text9.txt file in your campaign's main directory in

Documents/My Games/FieldofGlory2/CAMPAIGNS or Documents/My Games/FieldofGlory2/MULTIPLAYER

(If you make a typo, you cannot edit the name in the Editor, but you can simply edit the line in your text9.txt file after saving the scenario – they are in the form 'IDS_CUSTOMUNITNAME_n, "UnitName", 'If you want, you can delete the whole of the offending line. This will not cause any side effects unless the name is in use in any of the scenarios in the campaign. You should not renumber any lines).

To add a custom unit name to a unit, you need to assign it to a unit on the map. First highlight the name in the names list, then, **with the editor in unit placement mode**, place the unit you want to give a custom name to, or click on a unit that is already on the map. Then click on "Assign Name". The custom unit name, default unit name and map location will appear in the list box at the top of the Custom Named Units window. You can check you have assigned the name to the right unit by mousing over the unit on the map.

You can assign the same custom unit name to multiple units if you wish.

If you decide to remove the custom unit name from a unit, you do this by highlighting the unit in the top list box and then clicking on "Remove Custom Name".

When you save the scenario, any custom unit names you have added will be automatically saved with the other scenario data. **Historical Overview** Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle Design Notes**

25.17. SIDE0/SIDE1

Side 0 is the player's side, Side 1 the AI or opponent's side. Left and right clicks cycle up and down through a list of available side identities.

25.18. POINT ALLOCATION

Underneath the tile/unit list window are the displays for the points available for each side. If a side has no points allocated, it will be unable to buy any nonfixed units. If there are no non-fixed units on the map, the points allocated are redundant.

The Side1 points are only used in MP scenarios. In SP scenarios, unless the Random Enemy plugin is used, the AI side will get **all** fixed and unfixed units.

These points values are over-ridden if the scenario script contains a FORCE_ POINTS_CALLBACK(side, points) function.

25.19. SCENARIO SCRIPT

It isn't absolutely necessary to have a Scenario Script for scenarios created in the Editor to function. However, a Scenario Script is recommended because it will allow:

- AI more complex than what can be set in the Editor.
- Bespoke victory conditions without a script the game will use the default victory conditions with no adjustment for MP imbalance.
- Different points availability for different difficulty levels otherwise the difficulty levels will all be the same.
- Scripted reinforcements the Editor can generate a script fragment to do this.
- Any other scripted behaviour

Examples of how to do the first three of these are in ScenarioTemplate.BSF in the main directory.

You can clone this file as the starting point for your own scenario script – copy it into the same directory as the scenario .BAM file created by the editor, and rename it with the same name as the scenario – *SCENARIONAME*.BSF. If you

use the cloned file unchanged, your scenario will work correctly, but you can add any additional script features that you want.

Note that if you are designing a straightforward encounter scenario, with side0 on the left of the map and side 1 on the right, you can use the AI_Masterplan() function to automate the AI. This is in SCENARIOTEMPLATE.BSF but is currently commented out.

26. MODDING

Field of Glory II offers very many modding opportunities. You can create new scenarios, alter unit tables, modify the campaign structure, and adjust the game rules and user interface.

For help modding and creating scenario scripts see the modding section of the ARCHON wike at http://archonwiki.slitherine.com/index.php/Modding

Also please visit the *Field of Glory II* modding forum at http://www.slitherine. com/forum/

27. TECHNICAL SUPPORT AND GAME FORUM

The main menu has a button with a link to the game forum where there is a technical support sub-section. You can go there to post your question or problem. Please remember to tell us as much information about your problem as possible and include your machine's specs and operating system.

28. USEFUL HOT KEYS

- 1 Toggle LOF display.
- 2 Toggle LOS display.
- 3 Toggle command range display.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**

A – scroll map to the left.

C – toggles combat log.

CTRL and left click on unit - detailed information on the unit.

CTRL when moused over target – showed detailed tooltips.

B – next unshot unit.

D – scroll map to the right.

E – rotate map to the left.

ESC – opens load, save, settings and exit options.

F – zoom out on map.

F1 – list of hot keys.

F2 – Takes a screenshot and dumps it to Documents\My Games\FIELDOFGLORY2\SCREENS.

J – moves and hides the mini map.

K – toggles casualty screen

L – toggles unit list. (In the main menu, L loads the last saved game).

M – toggles the overhead map view.

N – next unit.

Q – rotate map to the right.

R – zoom in on map.

S – scroll map down.

SPACE – deselect unit. Also closes non-critical popup windows.

TAB – next unmoved unit.

W – scroll map up.

You can reallocate the keys used for the main keyboard controls in the Settings menu.

29. APPENDICES

29.1. REPRESENTATIONAL SCALES

The representational scale in *Field of Glory II* is flexible, to allow very large battles to be represented without unmanageable numbers of units on the battlefield.

However, when no numerical adjustment is in use, one infantry or cavalry model on the battlefield represents 60 men, in 4 ranks, so a cohort-sized unit of 8 models in two ranks represents 480 men in 8 ranks.

When other representational scales are in use, all numbers of men and casualties are scaled accordingly.

Battlefield ground scales are based on maximum effective massed-firing bow ranges when the standard representational scale is used. Thus 4 squares represent approximately 240 paces, and each man in a close order formation occupies a frontage of approximately one pace.

TROOP TYPE	DESCRIPTION
Heavy Foot	Foot troops who fight in close formation such as Greek hoplites, Macedonian pikemen, Roman legions and most Gallic or German warbands.
Medium Foot	Foot troops who fight in close formation, but are more lightly equipped, such as Hellenistic thureophoroi or Roman auxilia palatina. They are still capable of fighting in the main battle line, but are not as resilient as heavy foot. However, their lighter equipment means that they are less affected by terrain.
Warriors	Tribal warbands fighting in a less dense formation, such as Ancient Britons, Dacians and some Gauls.
Bowmen	Massed bowmen. These are very vulnerable to a mounted charge if caught in open ground.
Light Foot	Foot troops who fight in a dispersed formation with missile weapons. They are best at harassing enemy from a distance, evading if charged, and operating in difficult terrain.
Mob	Untrained rabble, usually of low morale, fighting as a disorganised mass. They may be equipped with only peasant weapons or may have been hastily equipped with proper weaponry but not trained to use it effectively.
Light Horse	Lightly equipped horsemen specialising in skirmishing, usually with missile weapons.
Cavalry	Most other non-light mounted troops fall into this category.

29.2. TROOP TYPES

Introduction
Historical Overview
Factions
Playing the Game
Custom Battles
Enic Battles -
Historical Scenarios
Multi-Battle Campaigns
Battle
Generals
Deployment
Battlefield Orders
Shooting
Close Combat
Cohesion (Morale)
Unit State – Banners
Terrain
Other Causes of Disorder
Victory Conditions
Battle Reports
Load / Save
Settings
Multiplayer
Hints and Tips
Making a Map in
the Map Editor
Modding
Technical Support and Game Forum
Useful Hot keys
Appendices
Example Battle
Tactics
Design Notes
Credits

Cataphracts	Fully armoured lancers on armoured horses. Their heavy equipment means that they are not as mobile or manoeuvrable as other cavalry.					
Elephants	War elephants, whose strength is breaking into solid lines of enemy troops or frightening enemy horses.					
Camelry	Camel-mounted cavalry. Like elephants, camels frighten horses.					
Heavy Chariots	Heavy shock chariots usually with more than two crew and/or horses.					
Light Chariots	Lighter skirmishing chariots, which can nevertheless deliver an effective charge against a weakened or outflanked foe.					
Scythed Chariots	Conceived as a terror-weapon, scythed chariots were intended to charge into the enemy line to cause panic. They were effective on a small number of historical occasions, but more often than not ineffective, sometimes causing more trouble to their own side than to the enemy.					
Light Artillery	Light bolt-shooters. These have some mobility on the battlefield.					
Heavy Artillery	Heavy stone-throwers. These have little mobility once set up on the battlefield.					
Baggage	The baggage train of the army. Its function is to require protection.					

29.3. COMBAT CAPABILITIES

The combat system is function based. The mere possession of a weapon is not sufficient to qualify for a combat capability. For example, many missile-armed troops were equipped with a cheap side-arm but were not well-practised in its use and so do not have swordsmen capability. Similarly, some cavalry primarily operating as horse archers also carried lances, but are not given lancers capability because their primary tactic was horse archery rather than a fierce charge with the lance.

Allocation of capabilities inevitably has a subjective element.

Capabilities are situational and may not result in points of advantage in every combat.

Units may have men with different capabilities – if so this is expressed as a percentage value. E.g. Rhoxolani cavalry who have Light Spear (100%), Swordsmen (100%) and 50% Bow capability.

Canability	Phase	Description			
Row	Chooting	Charialist fact howman or horse archers			
BOM	Shooting	specialist foot bowmen or horse archers.			
Javelins	Shooting	Light foot or light horse with javelins.			
Sling	Shooting	Light foot with sling.			
Heavy Artillery	Shooting	Heavy stone-throwing engines.			
Light Artillery	Shooting	Light bolt-shooting engines.			
Impact Foot	Impact	Foot relying on a volley of heavy throwing weapons or a fierce charge to disrupt the enemy at impact. e.g. Roman legions, Gallic warbands.			
Light Spear	Impact	Foot or mounted battle troops armed with light spear, whether thrust or thrown. e.g. Poeni or Italian foot, Roman auxilia.			
Darts	Impact	Troops equipped with throwing darts, to be used in conjunction with light spear to help repel enemy charges. e.g. Late Roman legions and auxilia.			
Pike	Impact, Melee	Foot fighting in deep formations with long two-handed pikes. e.g. Macedonian pikemen.			
Offensive Spearmen	Impact, Melee	Foot fighting in formation with thrusting spear, and as willing to attack as defend. e.g. Greek hoplites.			
Defensive Spearmen	Impact, Melee	Foot fight in formation with thrusting spear, but with a more defensive tactical role. e.g. Sassanid levy spearmen.			
Swordsmen	Melee	Foot using swords as their primary weapon. e.g. Roman legions, Gallic warbands. Mounted troops equipped with swords, maces or horseman's axes and ready and willing to fight hand to hand. e.g. most ancient cavalry.			
Heavy Weapon	Impact, Melee	Troops armed with heavy cutting weapons such as rhomphaia/ falx. e.g. Thracian foot.			
Lancers	Impact	Mounted troops specialising in charging with lance. e.g. Macedonian xystophoroi or Parthian cataphracts.			

29.4. GLOSSARY

29.4.1. LIGHT TROOPS

These include light foot and light horse. Light chariots are not classified as light troops.

29.4.2. BATTLE TROOPS

All troops that do not count as light troops.

Historical Overview Playing the Game **Quick Battles** Epic Battles -Multi-Battle **Battlefield Orders** Other Causes of Battle Reports the Map Editor Technical Support Useful Hot keys Appendices **Example Battle**

29.4.3. SHOCK TROOPS

These include:

- Impact Foot.
- Offensive Spearmen.
- Pikemen more than 3 models deep.
- Lancers (except light horse).
- Heavy Chariots.
- Scythed Chariots.

30. EXAMPLE BATTLE – AFTER ACTION REPORT

By Jayson Ng

The Roman Republic and the Kingdom of Macedonia fought a series of battles from 214 to 148 BC. The Macedonian Wars were sparked by Macedonia's ambitions to dominate the Greek peninsula, which led to a plea from independent Greek states for Roman intervention. Rome was victorious and this eventually resulted in Macedonia's annexation and Roman hegemony over the Greek states.



Selecting armies and battlefield.

The following AAR is based on a typical battle between Rome and Macedonia during this period. We will take the side of the Romans while the Macedonians are controlled by the AI.

Before anything else, we have set Combat Reports to 'Detailed'. This is highly recommended to beginners in order to understand the several factors (POA) that affect combat resolution.

0		1. 1. 1. 1. 1.	BETA -	BI	TA	-		۲
			SETT	INGS			N	
BETA BETA	DEFECTIV NOLE LITTON MORE GAN SHED SOUND CELCT NOUND CELCT NUMBER SHADOWE	LET AND RIGHT GAME 25 CAME 25	IV V VI ATE FET ONLY TO INF TO INF PESALCO PREALCO		FULLSCREEN SIMPLE ON ON ON	WENCOWED DETAILED OFF INFLE DEPARTO OFF OFF OFF ANTEALIASING REP ENDINGS CAME RESOLUTION	ECREDY MORT. TOUETS COMMATION DESCENSION COMMATION THE ON ACCOMPANY AND	BETA BETA
			Act	EPT				

Deciding settings for the battle.

We start out with building our army. The game automatically selects for us some mandatory units and leaves the remaining points for us to purchase other units as we wish; but within the bounds of historical orders of battle.



Choosing our forces.



For this battle, we select an additional War Elephant, Armoured Cavalry (Equites), and some Veteran Hastati/Principes. We maxed out the allocation for Hastati/Principes, Triarii, Spanish Scutarii, Itialian Foot, and Velites.

We are at a numerical disadvantage. We only have 7,900 men while the Macedonians have 10,500. We assign all infantry and the lone elephant unit to the Commander in Chief, Sennius Lucilianus. We deploy the infantry in chequerboard fashion, as they would historically, behind some hills at the centre of the battlefield. Sennius personally takes command of a veteran heavy infantry unit which will further bolster its combat performance (additional POA for unit with attached general).

Veranius Celatus, a sub general, commands the two units of equites. Instead of placing cavalry on each flank as per tradition, we placed all the cavalry on the left flank. A single cavalry unit per flank is not enough to counter the Macedonian cavalry forces present on either side, so concentrating the equites on one side would be more effective at the expense of leaving the infantry exposed.

As with the Battle of Pydna (168 BC), the main battle plan of the Romans is to lure the Macedonian phalanxes into rough ground - causing disorder and exploit flanking opportunities with more manoeuvrable Roman units. Though in game terms rough ground also disorders the Roman heavy infantry, this does not affect them as badly as it does the Macedonian phalanx. So care must be taken on where they fight depending on who they fight against.



The battlefield.

A large river runs along the right side of the battlefield with only two crossings -- one near the Roman deployment area and another near the Macedonian lines. The exploitation of the terrain features will prove crucial to the success of the Romans in the coming battle.

The battle opens with Veranius crossing the river with the intention of distracting the superior Macedonian cavalry. Engaging them may be suicide but it secures the Roman battle line from threat of a flank attack from the right.



Our cavalry advances.

Using a group move, we move the main body of the Roman army atop the hills, taking care not to go into the range of the Macedonian heavy ballista.



Our army takes position.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle Design Notes**

Group move is a useful feature to speed up turn resolution during the early part of the battle.

We send the velites forward to harass and taunt the Macedonians. This worked and the Macedonian main line immediately started moving towards our position during their turn. Watching the thousands of men in tight formation holding 18-foot pikes (sarissa) move closer is a sight to behold and there was concern whether we will prevail against these legendary units that Alexander the Great employed in his conquest of the Hellenistic World.

There was doubt whether the choice of letting the enemy climb up the hill into rough terrain (disorder effect) is better than fighting on the slopes (higher ground POA). Will there be any flanking opportunities that we can exploit? Will Veranius's ruse be enough to secure the right flank? Though our Spanish Scutarii on the left are formidable warriors and are protected from a cavalry charge due to rough ground, can they withstand the harassment from the enemy light cavalry?

As our battered velites arrive from the front, all we know is that major fighting is about to begin. We let them pass the main line and recover in the rear using the pass though move. Some velites fought on -- at the rear of the enemy lines. The good news is that the enemy battle line is now discontinuous due the efforts of the skirmishers.

Macedonian thureophoroi and mercenary war bands attack our war elephants which I think was a brave move. But it all makes sense. The elephants, though



The forces close.





good at impact on relatively lightly equipped troops, do not actually do well in subsequent melee rounds against these units.



Our elephants attacked.

Veranius's ruse seems to be working. Hesiodos, the cavalry general on the Macedonian left flank, guarded the other river crossing and waited for Veranius to arrive. But we cunningly sent Veranius back to the other side of the river to attack the now-exposed left flank and rear of the Macedonian infantry line.

The two Macedonian thureophoroi units on the right are in a precarious position. As one unit gets peppered with javelins from velites in the front and

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle** Design Notes



Our cavalry is poised.

rear, the other unit stands no chance against the Roman heavy foot charging down the hill. Roman tactics provide an impact POA as they first shower the enemy with javelins (pila) before conducting a fierce charge with their swords and large shields.



Melee: pila vs. pike.

Our veteran heavy infantry engage a Macedonian phalanx that has managed to climb up the hill. Though we are confident about the impact results, we take note of the potential difficulties the Romans will face in the subsequent close combat. So we must set up a flanking opportunity soon.





A unit exerts a zone of control on the three tiles in front of it. Units that enter these tiles must stop. Now that the phalanx is engaged in close combat, it does not exert a zone of control anymore. Because of this, we are able to position an Italian medium foot unit beside the phalanx for a potential flank attack.



Getting ready to attack the flank.

The Roman C-in-C, Sennius, attacks the warband that is fighting the elephants with his personal troops. The two Macedonian thureophoroi units on the right were routed and the Italian foot performs a flank attack on the engaged phalanx -- causing disruption. A subsequent charge by veteran triarii causes the phalanx to fragment.

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle**



Attacking the enemy flank gets results.



The phalanx crumbles!

Sennius defeats the warband and moves on to attack the thureophoroi. At the same time, a phalanx attacks and breaks the elephant unit. Panicking elephants causes a cohesion check on adjacent units leading to some disruption among our troops.

The previously flanked phalanx on the right breaks as the other Macedonian phalanx units, including the Royal Guards (superior phalanx with silver shields led by Macedonian C-in-C Arkadios), engage the Roman heavy infantry in the centre. On the left, Macedonian cavalry led by Hermokrates bravely attacks the Roman infantry on rough ground.



The Macedonians desperately attack.

The Macedonian Royal Guards relentlessly push back the battered Roman units. Fortunately for the Romans, Arkadios was killed in the chaos. Yet the loss of their commander-in-chief seems to have no effect on the morale of the Royal Guards. This action left several phalanx units isolated and prone to flank attacks.



Gaps in the enemy line appear.

Sennius defeats the thureophoroi and attacks a phalanx from the flank -- causing disruption. As per previous engagements, we then send triarii to attack the phalanx, which causes it to fragment. Veranius, on the other hand, engages enemy units in the rear areas while there is still no sign of Hesiodos's cavalry.

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Example Battle Design Notes**



Our forces exploit the enemy gaps.

On the left, Macedonian cavalry attacks a unit of Italian foot from behind and causes it to break. Elsewhere, the two beleaguered phalanx units are routed.



The phalanxes break.

Sennius went on a flank charge against Hermokrates. At the centre, it took several turns for us to completely surround the Royal Guards on the hill. On the right, we left some Roman troops unengaged so that they can face Hesiodos when he finally arrives.

Taking out Hermokrates and the Royal Guards is not an easy task. But Hesiodos's arrival is too late to change the course of the battle.





Hermokrates and his cavalry valiantly fought to the last man. While the Royal Guards broke their formation after suffering horrible losses.



The enemy cavalry arrives too late.

This is a glorious victory for the Romans. In the end, the Romans lost 1,200 (15%) men while the Macedonians lost 5,600 (53%). Rout percentage was relatively close during the course of the battle. Things might have gone the other way if the Macedonian phalanx units had managed to keep their lines intact; and if Hesiodos had been able to engage the Romans with his cavalry.

Historical Overview Playing the Game **Quick Battles** Epic Battles -**Historical Scenarios** Multi-Battle **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle**



Isolated, the Royal Guards finally break.



The cost of victory.

31. TACTICS

31.1. TACTICAL ADVICE FOR BEGINNERS

The most important lesson that a beginner has to learn is that he should have a plan. Almost any plan is better than no plan at all. A good plan, however, is the first step to victory. It should take into account the layout of the battlefield, the relative strengths and weaknesses of the opposing forces and the enemy's likely actions. If you misjudge, you will find it difficult to change your plan or redeploy, so best get it right first time if possible.

Ask yourself how your army differs from that of the enemy. Who has the best close combat infantry? If it's you, plan your attack around them, but if it's the enemy, you will need to avoid or delay contact with them. Who has the best rough/difficult terrain infantry? If you do, you can use terrain to secure your flanks and create outflanking opportunities. However if it's the enemy, you should plan to avoid such terrain. Who has the best cavalry? If you do, you may be able to carry out sweeping manoeuvres on his flanks but if he does, or if his army greatly outnumbers yours, you will need to avoid being outflanked yourself.

Does the enemy have any troops that are certain to give you problems? Can you use terrain to hamper them or reduce their impact? Have you enough skirmishers to damage their cohesion before contact?

Does the enemy have elephants? Can you disrupt them or put them to flight with shooting before they contact?

It isn't always necessary to attack immediately, but if you adopt a defensive position, don't rely on your opponent attacking where you want him to. Few opponents will co-operate by making a suicidal attack on an impregnable position. If you adopt a rigid defence, a clever opponent will concentrate his main attack on your weakest point while demonstrating against the rest of your battle line to keep it occupied. He may concentrate shooting on part of your line until



Elephants disrupted by concentrated javelin fire.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle** Tactics **Design Notes**



Italians in a strong defensive position.

its cohesion fragments before charging your demoralised troops. A defensive stance followed by a pre-planned counter-attack can be more effective.

It is often effective to attack on one wing while skirmishing or defending on the other. Obviously the attacking wing should contain heavy troops and the refused wing should contain troops capable of skirmishing or be in a secure defensive position. If your refused wing looks as if it is in danger, do not be tempted to siphon off troops from your attacking wing to bolster it. All this is likely to do is ensure that your main attack peters out.

You should try to keep your plan and your deployment as simple as possible, with most of your troops deployed in battle lines under the control of your commanders. This will prevent the majority of your troops from being overlapped or attacked in flank. You should avoid leaving gaps in your line, unless you have supporting units to protect the flanks of your front line units.

If you plan a wide, on-map, outflanking move, this should be led by a commander. Or you might try an off-map flank march, as these can be very effective. The danger is that it may arrive too late or never at all.

Ambushes can also be effective by concealing your intentions from the enemy, but do not be tempted to ambush in every piece of terrain just because you can. Such stratagems should be part of your overall plan. Infantry can ambush in woods and built up areas, and any troops can ambush out of sight behind high ground, trees, or built up areas. Troops held back behind the front line can act as reserves to plug a hole or exploit an opportunity. The Byzantines reckoned to have 2/3 of their troops in the front line and 1/3 in a second line. A central reserve of good quality mobile troops can be used to achieve a crucial advantage at the point of decision if employed in the right place at the right time.

An army with a second line as reserves will obviously occupy less frontage than an army deployed in less depth, creating a risk that you might be outflanked. However, terrain can be used secure flanks, and failing this your flank reserves should be suitably positioned to counter any enemy outflanking manoeuvre. This flexibility and ability to deal with all eventualities can be contrasted with the rigidity of the army deployed on too wide a front, which has no counter to an enemy breakthrough and will find it difficult to compensate for any deficiencies in its original plan.

One possible exception to the above general rule might be armies largely consisting of horse archers, who cannot expect to win a frontal contest and must therefore attempt to outflank the enemy on one or both flanks. They may still benefit from keeping a strong reserve, and even if this leaves gaps in their line, the enemy will find it difficult to exploit this without breaking up their own formation, which in turn may present opportunities for the horse archers to concentrate their shooting or to attack flanks.

If you have the advantage in light horse and light foot, a good tactic is to rush forward with these on one or both flanks, defeat the opposing skirmishers, then concentrate shooting to erode the cohesion of the heavier troops on the enemy wings. The skirmishers can fall back slowly in front of the enemy, evading if charged. Remember, however, that light foot are vulnerable to mounted troops in the open and may not be able to evade far enough to get away. They may be better able to delay the enemy if deployed in ambush in terrain ready to spring out at the appropriate moment.

Flank attacks, especially by non-skirmishers, can be overwhelming, so you must avoid enemy getting behind the flanks of your units. Conversely, if you can manage to outflank the enemy the battle should be all but won – but remember that the enemy must also be engaged frontally for flank attacks to be deadly.

A commander fighting with a unit will greatly improve the odds in close combat, but there is a risk of losing the commander. On balance, the benefit

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle** Tactics **Design Notes**



This flank is doomed.

usually outweighs the risk if the combat is otherwise at least equal, or if the result of the combat is critical. However, once committed, the commander cannot be used to control or rally other units until the close combat is over.

31.2. VEGETIUS

The Roman writer Publius Flavius Vegetius Renatus wrote his *Epitoma rei militaris* in the late 4th century AD. Medieval translations of this work were carried and used as handbooks by Medieval and Renaissance soldiers. Its precepts are still very useful to Ancient and Medieval wargamers.

Here are some excerpts from Lieutenant John Clarke's translation, published in 1767.

31.2.1. CHOICE OF THE FIELD OF BATTLE

Good generals are acutely aware that victory depends much on the nature of the field of battle. When you intend therefore to engage, endeavour to draw the chief advantage from your situation. The highest ground is reckoned the best. Weapons thrown from a height strike with greater force; and the party above their antagonists can repulse and bear them down with greater impetuosity, while they who struggle with the ascent have both the ground and the enemy to contend with. There is, however, this difference with regard to place: if you depend on your foot against the enemy's horse, you must choose a rough, unequal and
mountainous situation. But if, on the contrary, you expect your cavalry to act with advantage against the enemy's infantry, your ground must indeed be higher, but plain and open, without any obstructions of woods or morasses.

31.2.2. VARIOUS FORMATIONS FOR BATTLE

An army may be drawn up for a general engagement in seven different formations. The first formation is an oblong square of a large front, of common use both in ancient and modern times, although not thought the best by various judges of the service, because an even and level plain of an extent sufficient to contain its front cannot always be found, and if there should be any irregularity or hollow in the line, it is often pierced in that part. Besides, an enemy superior in number may surround either your right or left wing, the consequence of which will be dangerous, unless you have a reserve ready to advance and sustain his attack. A general should make use of this disposition only when his forces are better and more numerous than the enemy's, it being thereby in his power to attack both the flanks and surround them on every side.

The second and best disposition is the oblique. For although your army consists of few troops, yet good and advantageously posted, it will greatly contribute to your obtaining the victory, notwithstanding the numbers and bravery of the enemy. It is as follows: as the armies are marching up to the attack, your left wing must be kept back at such a distance from the enemy's right as to be out of reach of their darts and arrows. Your right wing must advance obliquely upon the enemy's left, and begin the engagement. And you must endeavour with your best cavalry and infantry to surround the wing with which you are engaged, make it give way and fall upon the enemy in the rear. If they once give ground and the attack is properly seconded, you will undoubtedly gain the victory, while your left wing, which continued at a distance, will remain untouched. An army drawn up in this manner bears some resemblance to the letter A or a mason's level. If the enemy should be beforehand with you in this evolution, recourse must be had to the supernumerary horse and foot posted as a reserve in the rear. They must be ordered to support your left wing. This will enable you to make a vigorous resistance against the artifice of the enemy.

The third formation is like the second, but not so good, as it obliges you to begin the attack with your left wing on the enemy's right. The efforts of soldiers on the left are weak and imperfect from their exposed and defective **Historical Overview** Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys **Example Battle** Tactics **Design Notes**

situation in the line. I will explain this formation more clearly. Although your left wing should be much better than your right, yet it must be reinforced with some of the best horse and foot and ordered to commence the action with the enemy's right in order to disorder and surround it as expeditiously as possible. And the other part of your army, composed of the worst troops, should remain at such a distance from the enemy's left as not to be annoyed by their darts or in danger of being attacked sword in hand. In this oblique formation care must be taken to prevent the line being penetrated by the wedges of the enemy, and it is to be employed only when the enemy's right wing is weak and your greatest strength is on your left.

The fourth formation is this: as your army is marching to the attack in order of battle and you come within four or five hundred paces of the enemy, both your wings must be ordered unexpectedly to quicken their pace and advance with celerity upon them. When they find themselves attacked on both wings at the same time, the sudden surprise may so disconcert them as to give you an easy victory. But although this method, if your troops are very resolute and expert, may ruin the enemy at once, yet it is hazardous. The general who attempts it is obliged to abandon and expose his centre and to divide his army into three parts. If the enemy are not routed at the first charge, they have a fair opportunity of attacking the wings which are separated from each other and the centre which is destitute of assistance.

The fifth formation resembles the fourth but with this addition: the light infantry and the archers are formed before the centre to cover it from the attempts of the enemy. With this precaution the general may safely follow the above mentioned method and attack the enemy's left wing with his right, and their right with his left. If he puts them to flight, he gains an immediate victory, and if he fails of success his centre is in no danger, being protected by the light infantry and archers.

The sixth formation is very good and almost like the second. It is used when the general cannot depend either on the number or courage of his troops. If made with judgment, notwithstanding his inferiority, he has often a good chance for victory. As your line approaches the enemy, advance your right wing against their left and begin the attack with your best cavalry and infantry. At the same time keep the rest of the army at a great distance from the enemy's right, extended in a direct line like a javelin. Thus if you can surround their left and attack it in flank and rear, you must inevitably defeat them. It is impossible for the enemy to draw off reinforcements from their right or from their centre to sustain their left in this emergency, since the remaining part of your army is extended and at a great distance from them in the form of the letter L. It is a formation often used in an action on a march.

The seventh formation owes its advantages to the nature of the ground and will enable you to oppose an enemy with an army inferior both in numbers and goodness, provided one of your flanks can be covered either with an eminence, the sea, a river, a lake, a city, a morass or broken ground inaccessible to the enemy. The rest of the army must be formed, as usual, in a straight line and the unsecured flank must be protected by your light troops and all your cavalry. Sufficiently defended on one side by the nature of the ground and on the other by a double support of cavalry, you may then safely venture on action.

One excellent and general rule must be observed. If you intend to engage with your right wing only, it must be composed of your best troops. And the same method must be taken with respect to the left. Or if you intend to penetrate the enemy's line, the wedges which you form for that purpose before your centre, must consist of the best disciplined soldiers. Victory in general is gained by a small number of men. Therefore the wisdom of a general appears in nothing more than in such choice of disposition of his men as is most consonant with reason and service.

31.2.3. RESERVES

The method of having bodies of reserves in rear of the army, composed of choice infantry and cavalry, commanded by the supernumerary lieutenant generals, counts and tribunes, is very judicious and of great consequence towards the gaining of a battle. Some should be posted in rear of the wings and some near the centre, to be ready to fly immediately to the assistance of any part of the line which is hard pressed, to prevent its being pierced, to supply the vacancies made therein during the action and thereby to keep up the courage of their fellow soldiers and check the impetuosity of the enemy. This was an invention of the Lacedaemonians, in which they were imitated by the Carthaginians. The Romans have since observed it, and indeed no better disposition can be found.

The line is solely designed to repulse, or if possible, break the enemy. If it is necessary to form the wedge or the pincers, it must be done by the **Historical Overview** Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle** Tactics **Design Notes**

supernumerary troops stationed in the rear for that purpose. If the saw is to be formed, it must also be done from the reserves, for if once you begin to draw off men from the line you throw all into confusion. If any flying platoon of the enemy should fall upon your wing or any other part of your army, and you have no supernumerary troops to oppose it or if you [try] to detach either horse or foot from your line for that service, then by endeavouring to protect one part, you will expose the other to greater danger. In armies not very numerous, it is much better to contract the front, and to have strong reserves. In short, you must have a reserve of good and well-armed infantry near the centre to form the wedge and thereby pierce the enemy's line; and also bodies of cavalry armed with lances and cuirasses, with light infantry, near the wings, to surround the flanks of the enemy.

31.2.4. GENERAL MAXIMS

It is the nature of war that what is beneficial to you is detrimental to the enemy and what is of service to him always hurts you. It is therefore a maxim never to do, or to omit doing, anything as a consequence of his actions, but to consult invariably your own interest only. And you depart from this interest whenever you imitate such measures as he pursues for his benefit. For the same reason it would be wrong for him to follow such steps as you take for your advantage.

It is better to have several bodies of reserves than to extend your front too much.

A general is not easily overcome who can form a true judgment of his own and the enemy's forces.

Valour is superior to numbers.

The nature of the ground is often of more consequence than courage.

He who rashly pursues a flying enemy with troops in disorder, seems inclined to resign that victory which he had before obtained.

A general whose troops are superior both in number and bravery should engage in the oblong square, which is the first formation.

He who judges himself inferior should advance his right wing obliquely against the enemy's left. This is the second formation.

If your left wing is strongest, you must attack the enemy's right according to the third formation.

The general who can depend on the discipline of his men should begin the engagement by attacking both the enemy's wings at once, the fourth formation.

He whose light infantry is good should cover his centre by forming them in its front and charge both the enemy's wings at once. This is the fifth formation.

He who cannot depend either on the number or courage of his troops, if obliged to engage, should begin the action with his right and endeavor to break the enemy's left, the rest of his army remaining formed in a line perpendicular to the front and extended to the rear like a javelin. This is the sixth formation.

If your forces are few and weak in comparison to the enemy, you must make use of the seventh formation and cover one of your flanks either with an eminence, a city, the sea, a river or some protection of that kind.

A general who trusts to his cavalry should choose the proper ground for them and employ them principally in the action.

He who depends on his infantry should choose a situation most proper for them and make most use of their service.

[Where possible] dispositions for action must be carefully concealed from the enemy, lest they should counteract them and defeat your plans by proper expedients.

32. DESIGN NOTES

32.1. MAIN DIFFERENCES FROM FOG1

Field of Glory II is a complete reboot of the franchise, based on the original tabletop *Field of Glory* rules as a starting point, rather than on *Field of Glory I*. There are therefore many differences from FOG1 – which we hope are all improvements.

The game has vastly improved graphics. All of the terrain and unit models are true 3D. They are all fully animated – firing bows, throwing javelins, charging with lance, meleeing with sword or spear and so forth. Arrows and javelins fly. Men fall mortally wounded to the ground and die. The battlefield is littered with their corpses. Rear ranks shuffle up to **Historical Overview** Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum Useful Hot keys Appendices **Example Battle** Tactics **Design Notes**

replace the lost men. Formations become disordered, and men turn to face their opponents when a unit is fighting in multiple directions. Pikes visibly form square. Each unit type has up to 4 variants within the unit, but also has multiple variant texture sheets, allowing the units of each side to be easily distinguished even in civil war battles.

- The game has vastly improved AI, drawing on the experience of developing the (generally praised) AI for Pike and Shot and Sengoku Jidai. There are six levels of difficulty, allowing all players from novices to experts to enjoy challenging games against the AI.
- In addition to the expected historical scenarios and skirmish mode, the game has a brand new campaign system that concentrates on battles, but allows real strategic decisions without time spent moving armies around a strategic map. The player's core troops continue from one battle to the next, gaining experience and elan from each victory. There is a sandbox campaign that allows the player to lead any nation (and their historical allies) against any other nation (and their allies) – giving many thousands of permutations. There are also four campaigns allowing the player to follow the careers of some of the most famous historical leaders of the era: Pyrrhos of Epeiros, Hannibal, Mithridates of Pontus and Julius Caesar.
- The game allows custom battles (skirmishes) ranging in size from 600 to 2000 points. (The points system is almost identical to that in FOG1).
- The army list system has been greatly streamlined. Force selection is quick and easy, and takes place on the actual battlefield, making the preselection of "DAG" armies unnecessary. The initial release comes with more than 75 army lists, covering 48 nations and factions from Britain and Spain to India between 280 and 25 BC.
- Terrain maps for non-preset scenarios are freshly generated using a sophisticated random map generator – not picked from a library of preset maps. Every map is therefore unique. The map generator can generate realistic maps for all the usual territory types – including agricultural, wooded, hilly, mountains, steppes and desert in Mediterranean, North European, Middle Eastern and Tropical regions.
- The battle is fought on a square grid rather than a hexagonal grid. This allows realistic looking battle lines, and 8 directions of movement

instead of 6. The computer takes care of the issue of diagonal moves being further than orthogonal ones.

- Generals are implemented in a way closer to the tabletop game. Each general is assigned to a "command" containing specific units. (Although the composition of non-allied commands can be modified at deployment time). Generals can move from unit to unit in their command during the game. They affect the manoeuvring of their units as well as giving morale and combat bonuses when in combat, and encouraging unsteady troops to rally.
- Group moves allow whole commands to be moved with one order in the early stages of the battle. The units taking part in a group move all move simultaneously rather than one at a time.
- The Undo command allows a complete single unit or group move to be taken back if it did not end in close combat or reveal fresh enemy.
- Mounted troops pursue broken enemy as before. Infantry pursuits, however, which were rather over-represented in the tabletop game and FOG1, have been toned down significantly. Only warbands and raw troops will pursue broken enemy foot. However, pikes, offensive spearmen and impact foot will push back and follow up enemy foot who lose against them significantly in a round of close combat. This is more predictable than pursuit, and will only occur if the victors were on the offensive (originally initiated the combat). It allows the game to represent historical occurrences such as Macedonian pikes following up into disordering terrain, or into positions where they could be flanked by the Roman second line.
- Anarchy charges (which players either loved or hated) no longer occur in FOG2. This was a hard decision to make as they were certainly realistic in some circumstances. However, taking in account feedback on the previous games, we felt that many players would not enjoy the loss of control that anarchy charges represent, and that they should therefore be removed to improve playability.
- Unlike FOG1, FOG2 does not attempt to replicated the tabletop game's dice, but uses mathematical algorithms that avoid some of the extreme against-the-odds combat results that could occur in FOG1.

Historical Overview Playing the Game **Ouick Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**



- Armour advantage is reduced in importance, so that standard common ancient troop types, such as "Protected" hoplites, are no longer ineffective, and it is no longer a "no-brainer" to pick the most heavily armoured troops available. The reduction in the effect of armour advantage necessitated some changes to the POAs of Roman legionaries and Macedonian-style pikemen, whose interaction in FOG1 pretty much depended on the Romans having armour advantage.
- The effect of gently sloping hills is toned down.
- The Skilled Swordsmen capability, that made Romans go through warbands like a knife through butter, has been removed. The effect of better training is already taken into account in unit quality.
- Medium Foot have been divided into Bowmen and Medium Foot the latter representing close combat types such as thureophoroi, Thracians and Spanish scutarii. These are no longer as vulnerable to mounted troops in the open, allowing them to take their historical place in the battle line. This also makes medium foot armies viable.
- All unit types now have an effective role. There are no really weak army types.
- Multiplayer uses the same PBEM system as FOG1. However, in addition, FOG2 will implement Slitherine's automated tournament system.
- FOG2 is implemented using Slitherine's own mod-friendly ARCHON engine.

32.2. AI

The AI for FOG2 has been developed by building on the knowledge gained from developing the generally praised AI for Pike and Shot and Sengoku Jidai.

32.2.1. AI DEVELOPMENT PHILOSOPHY

From a development point of view, we believe that the AI is the most important part of a wargame, and development of the AI needs to start at the very beginning of the game development process. It also needs, where possible, to work off the actual combat mechanisms rather than using approximate pre-calculated estimates. This greatly improves the quality of its decisions.

Most importantly, the AI needs to be designed by someone who is a skilled wargamer themselves. It is hard enough to make the AI follow an effective plan even if you know what an effective plan is. If the writer of the AI is hazy about this, there is little chance that the AI will play very well.

We also don't believe that easier difficulty levels should be achieved by nobbling the AI, nor harder ones by giving the AI unfair advantages in the combat or morale mechanisms. Our AI behaves the same at all difficulty levels, and both sides play to exactly the same rules at all difficulty levels without any hidden bonuses and random number tweaks to help the AI.

Instead we achieve the different difficulty levels by adjusting the balance of the opposing forces – few if any historical battles were fought between exactly equal strength armies.

With six difficulty levels, we are confident that the AI in FOG2 will give players of all abilities an enjoyable challenge.

32.2.2. DEPLOYMENT

For non-preset scenarios, it is important that the AI can deploy its army in a sensible formation, taking account of the prevailing terrain.



Roman and Carthaginian deployments.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of Battle Reports Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**

Generally speaking most ancient armies would deploy with an infantry centre in one or more lines. (Usually three for Romans, usually only one for Hellenistic armies). They would then have cavalry on both wings and perhaps in reserve, plus light troops both in the centre and on the wings.

Except for cavalry armies, the "autodeploy" routine therefore starts with the infantry centre, in one or more solid or chequerboard lines. If the army has a mixture of heavy and medium foot, it will deploy the heavy foot where the terrain is most open, and the medium foot where it is most uneven. This takes into account not just the deployment line but also the map in front of where the line will advance.

If it is possible to rest one flank of the infantry on a river or a coastline, it will do so.

Cavalry are then assigned to each wing depending on the amount of adverse terrain on each wing. More cavalry will be deployed on an open wing than on one with lots of rough or difficult terrain or a river. Some cavalry may be assigned to a reserve behind the infantry.

Light troops are then assigned in a similar way to the cavalry, but more light foot will be deployed on the wing with more terrain, and more light horse on the more open wing.

For cavalry armies, the cavalry are divided into centre and two wings, and the usually weak infantry deployed at the back in reserve.

32.2.3. HIGH LEVEL AI

This level of AI governs the actions of the main divisions of the army – the centre, the wings, the reserve, and the various groups of light troops. For preset scenarios it is usually scripted specifically to fit the scenario, but for custom and campaign battles a generic but highly-detailed AI script is used to make a sensible initial plan and then react appropriately to subsequent enemy actions.

This "AI_Masterplan" script refreshes its plans every turn. It takes into account not only the initial divisions into which the enemy army is divided, but any changes to those divisions. Thus if most of the enemy left wing cavalry rides across to reinforce its right wing, the AI will reassign those units to the enemy right wing before making its plans for the turn.

The first decision the AI makes is whether to advance from the outset. A primarily infantry army will not do so, for example, if its infantry are outmatched, taking into account any high ground the enemy army may occupy.

148 —

If the infantry are not advancing, the cavalry wings will also usually hang back, so that they cannot be defeated piecemeal by the enemy before the infantry engage. Even if the infantry are advancing, the cavalry will not forge ahead unless they outmatch the enemy cavalry on that wing and are not facing enemy non-light infantry.

Likewise the light troops will not advance too far ahead, unless they overmatch their counterparts on the enemy side.

32.2.4. LOW LEVEL AI

This is what governs the behaviour of the troops once they approach the enemy. Numerous things are taken into account. For example:

- AI units will pick a primary target for the turn from among the enemy units, taking into account proximity, relative combat and shooting power, and all other tactical factors. If their route to that unit is blocked, they will pick a different target.
- Heavy troops will try to avoid terrain that would disorder them.
- Units won't advance into situations where they could be charged in flank or rear. (Although non-lights will ignore lights for this purpose.) If they can't avoid being flanked they will form square if pikes, otherwise will turn to leave their flank threatened by the least dangerous enemy unit.
- Units will actively seek out enemy flanks to attack.
- Units will usually avoid charging enemy who overmatch them in close combat. Such calculations are made using the actual combat resolution mechanisms, taking into account the actual situation (terrain etc.) in which the units will fight.
- Light troops and non-lancer cavalry will evade charges by troops that outmatch them in close combat, unless the enemy is so close that they are likely to be caught and charged in the rear.
- Units with longer range shooting will stop outside the range of enemy shooters.
- Light troops that are close to breaking will retreat out of range of the enemy.

Historical Overview Playing the Game **Ouick Battles Custom Battles** Epic Battles -**Historical Scenarios** Multi-Battle Campaigns **Battlefield Orders** Other Causes of **Battle Reports** Load / Save Making a Map in the Map Editor Modding **Technical Support** and Game Forum **Useful Hot keys Example Battle Design Notes**

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