



Game Manual



CONTENTS

| INTRODUCTION | | |
|--------------|---|------------|
| Dieci | LAIMER | |
| | RVIEW | |
| | DUCTION TO THE EASTERN FRONT BY GEORGE NIPE | |
| | DDUCTION TO RED ORCHESTRA: OSTFRONT 41-45 | |
| 111111 | 25 COLON TO RES ONCILESTA A COST NOTE IS TO COMMISSION OF THE PROPERTY OF THE | |
| MEN | IU SYSTEM | <i>'</i> |
| Marra | TIPLAYER | , |
| | S | |
| | 7 | |
| _ | PRITES | |
| | NII D | |
| | DIES | |
| | RNET. | |
| | TICE | |
| | ст Мар. | |
| | E RULES | |
| _ | FIGURATION | |
| | E | |
| | AY | |
| | 0 | |
| | ROLS | |
| | [| |
| | | |
| | AND GAME MANAGEMENT | |
| | OTS | |
| _ | UAL | |
| | O MANAGEMENT | |
| | Website | |
| | GAME | |
| | CT MAP. | |
| | E RULES | |
| | ER RULES | |
| | | |
| | | |
| JOIN | ING A GAME | <u>1</u> 2 |
| LINUE | SELECTION | 1 |
| | SELECTION | |
| | VTRY ROLES | |
| | virt Rolesze/Strelok [Стрелок] | |
| | ze mit MK/Strelok avto [Стрелок авто] | |
| | ruppe/Avtomatchik [Автоматчик] | |
| | ruppe/Avtomatcnik [Автоматчик] | |
| | schutze/Pulemetcnik [Пулеметчик]fschütze/Sniper [Снайпер] | |
| Course | rscnutze/Sniper [Снаинер] penführer/Komandir otdeleniya [Командир отделения] | 1; 17 |
| | | |
| | npioniere/Saper [Сапер]Soldat/PT-Soldat [ПТ-Солдат] | |
| | oldavP1-Soldat [111-Coлдaт] | |
| V I DIL | A45 INVIDO | |



| 3.2.2.1 3.2.2.2 | Panzerbesatzung/Ekipazh tanka [Экипаж танка] | |
|--------------------|--|-----|
| <u>4</u> | GAMEPLAY | 14 |
| 4.4 | 0 | 4.4 |
| 4.1 4.2 | OBJECTIVES INFANTRY PLAYER BASICS | |
| | POSTURE | |
| 4.2.1 4.2.2 | Speed | |
| 4.2.2 | Wounds | |
| 4.2.3 | SUPPRESSION AND "BLUR" | |
| 4.2.4 | FRIENDLY FIRE | |
| 4.2.5 | COMMUNICATIONS | |
| 4.2.0 4.3 | INFANTRY WEAPON TYPES | |
| 4.3 .1 | PISTOLS | |
| 4.3.2 | RIFLES | |
| 4.3.3 | MP/SMG | |
| 4.3.4 | AUTOMATIC AND ASSAULT RIFLES | |
| 4.3.5 | LIGHT MACHINE GUNS | |
| 4.3.5.1 | Tracer Rounds | |
| 4.3.6 | ANTI-TANK WEAPONS | |
| 4.3.7 | GRENADES | |
| 4.3.8 | SATCHEL CHARGES | |
| 4.4 | HOW TO USE INFANTRY WEAPONS. | |
| 4.4.1 | BOLTING AND RELOADING | |
| 4.4.2 | FIRING YOUR WEAPON | |
| 4.4.2.1 | Aimed or un-aimed | |
| 4.4.2.2 | Basic Ballistics. | |
| 4.4.2.3 | Bullet "spread" | |
| 4.4.2.4 | Recoil | |
| 4.4.2.5 | Damage | |
| 4.4.2.6 | Deploying and Resting weapons | |
| 4.4.3 | HAND-TO-HAND COMBAT | |
| 4.4.4 | Grenades | |
| 4.4.5 | SATCHEL CHARGES | |
| 4.4.6 | PICKING UP WEAPONRY | |
| 4.4.7 | AMMO RESUPPLY | 18 |
| 4.5 | ARTILLERY USAGE | |
| 4.6 | COMMUNICATIONS | 19 |
| 4.6.1 | COMMUNICATING WITH OTHER PLAYERS | |
| 4.6.1.1 | Chat | 19 |
| 4.6.1.2 | Voice Commands | 19 |
| 4.6.1.3 | Voice over IP | 19 |
| 4.6.2 | COMMANDING AI PLAYERS | 19 |
| 4.7 | SITUATIONAL AWARENESS MAP | 20 |
| 4.8 | BASIC VEHICLE OPERATIONS | 21 |
| 4.8.1 | VEHICLE TYPES | 21 |
| 4.8.1.1 | Transport Vehicles | 21 |
| 4.8.1.2 | Armoured Fighting Vehicles | 21 |
| 4.8.2 | ENTERING AND EXITING VEHICLES | 21 |
| 4.8.3 | CREW POSITIONS AND VIEWS | |
| 4.8.3.1 | Driver (Key 1) | 21 |
| 4.8.3.2 | Commander/Gunner (Key 2) | |
| 4.8.3.3 | Hull Gunner (Key 3) | |
| 4.8.3.4 | Passenger (Key 3-8) | |
| 4.8.4 | VEHICLE COMMUNICATIONS | 23 |
| 4.8.4.1 | "Vehicle Say" Chat | |
| 4.8.4.2 | Vehicle Voice Commands | 23 |



| HUD DETAILS | | 24 | |
|-------------|---|----|--|
| FOR ALL E | ROLES | 24 | |
| | (CEE) | | |
| | ESSAGES | | |
| | ENT ICON | | |
| | | | |
| | NING | | |
| | E STATUS | | |
| | L HUD. | | |
| | Message | | |
| | | | |
| | | | |
| | STAMINA | | |
| | HUD | | |
| | UD | | |
| | 00 | | |
| | ier | | |
| | ter | | |
| 1 | atus | | |
| | IUD | | |
| | MG Ammo | | |
| | Des | | |
| | g ammo and reload | | |
| | | | |
| | atus | | |
| | INER HUD | | |
| | naining | | |
| | atus | | |
| | ROLES | | |
| | VOICE COMMANDS | | |
| IMPORTAN | T UPDATES | 28 | |
| SCOREB! | OARD | 29 | |
| SPECTAT | FOR MODES | 30 | |
| T. G | | 20 | |
| VIEW SEL | | 30 | |
| | YERS | | |
| | YTS | | |
| KOAMING | | 30 | |
| CREDITS | S | 31 | |
| Eon E | Lucia Indiana a company I I C | 24 | |
| | WIRE INTERACTIVE LLC | | |
| | /E | | |
| , | , NVIDIA, ATARI AND THE SPONSORS OF THE MSU | | |
| | INEER | | |
| AND FINAL | LLY | 38 | |



1 INTRODUCTION

1.1 Disclaimer

Red Orchestra: Ostfront 41-45 is produced by Tripwire Interactive LLC to be a realistic representation of the infantry and armoured combat taking place on the Eastern Front during WWII. Therefore, period uniforms, equipment and insignia will be included in the game. This does not reflect any political views of the team in any shape or form, nor does it indicate any belief on our part in any of the causes they fought for, except for that of the freedom of the individual to live and die as they choose. The game has nothing to do with the extremist politics of the followers of Hitler – nor those of Stalin.

1.2 Overview

1.2.1 Introduction to the Eastern Front by George Nipe

George M Nipe is the author of "Decision in the Ukraine, Summer 1943" and "Last Victory in Russia: The SS-Panzerkorps and Manstein's Kharkov Counteroffensive - February-March 1943".

On June 22, 1941 Germany invaded the Soviet Union, after months of assembling its forces on the eastern border of Poland. The Red Army was a colossus in terms of men and machines but once actually in combat with the Germans, it did not initially perform well. Although the Soviet possessed more than 20,000 tanks to the Germans 3,500, many of the Russian tanks were outdated or obsolete. Thousands were not even in running condition and the clumsy structure of Russian tank divisions proved a handicap in battles against the swift Panzer divisions, commanded by proven German combat leaders who more often than not were at the head of their division.

The German divisions, which had been blooded in two years of successful combat, overran the Soviet front line positions in days and pushed deep into the heart of Russia by the end of the summer. Led by Panzer divisions, the German armies made amazing progress at every point, despite desperate resistance by the Russians and hundreds of thousands of casualties. By early fall, Heeresgruppe Nord arrived at Leningrad, Heeresgruppe Mitte was approaching Moscow and Heeresgruppe Süd was driving into the heart of the Ukraine.

However, the German spearheads outran their lines of supply and the Panzers were forced to halt their drive east. When the supply situation allowed the offensive to roll forward once again the Germans advanced to the suburbs of Moscow before the debilitated Panzer and infantry divisions encountered fresh armies brought up from the interior of the Soviet Union. Operation Barbarossa ground to a halt at the gates of Moscow and Leningrad during the Wehrmacht's first winter on the Eastern Front.

What followed for the next four years was a war like no other in history. The scale of combat in the East, the decisive front of World War II, dwarfed all the other theaters of war. The Soviet Union suffered the loss of 20-25 million war dead, including both civilian and military casualties. For much of the war in Russia, the German Army lost, on average, 500,000 killed, wounded or missing per every six month period. An incredible 80% of all German casualties during World War II were lost on the Eastern Front. Material losses were equally serious because Germany's industrial base could not manufacture tanks, guns and planes as fast as they were destroyed.



1.2.2 Introduction to Red Orchestra: Ostfront 41-45

The game represents infantry combat of the 1940s on the Eastern Front, between the forces of the Axis and the Soviets. At this release, the Axis forces are represented by the German *Heer* (the standard army troops of the *Wehrmacht*) and the *Waffen-SS*. The Soviets are represented by the infantry of the *RKKA* (the "Peasants and Workers Red Army") the rifle formations of the *RKKF* (the Navy) and the *NKVD*.

This part of WWII – known as "The Great Patriotic War" to the Soviets – was fought with unparalleled brutality and with massive casualties on both sides. The combat losses to the Soviets estimated as 11,000,000 dead and missing and another 18,000,000 wounded; for the Germans 5,000,000 and 6,000,000. At the Axis "high-water" mark, the Germans controlled an area of some 3.3 million square kilometres of the USSR. Together with the original German Reich of 1941, this equates to over half the landmass of the continental USA.

Contrary to popular belief, this was not solely a war of tank vs. tank, of "Blitzkrieg" and of "human wave" assaults. The infantry made up over 70% of both armies. While combined-arms operations can encircle enemy forces, it needs infantry to destroy them – or to prevent that destruction and to hold ground. This is why *Ostfront* reflects that core infantry and armoured combat – infantry/armoured platoons facing off against each other in cities, towns, villages and trenches; in all weather; in the day or the night.



2 MENU SYSTEM

From the Main Menu the following options are available:

2.1 Multiplayer

This option takes you to the Multiplayer (online) sub-menus. Note that to set up a server of your own, you need to click on "Host Game" first. Under multiplayer are the following options:

2.1.1 News

This page links (live) to the core *Ostfront* news channel, operated by Tripwire Interactive. Any news and messages from the developer will appear here.

2.1.2 Chat

This gives you access to IRC chat through the game. It is not used to provide communications while you are actively playing, but allows you to chat with other *Ostfront* gamers worldwide.

2.1.3 Favorites

If you have marked any servers as your Favorites, they will appear here, so that you do not have to hunt them down through the hundreds of *Ostfront* servers in the main "Internet" list below. To add a Favorite, either right-click on the favorites screen and add the details manually, or highlight the server you want to add in the main Internet list, right-click and "Add as Favorite".

2.1.4 LAN

This gives you a list of all available Local Area Network (LAN) servers.

2.1.5 Buddies

All those players you have marked as "buddies" will appear in this list, along with which server they are currently playing on, if they are engaged in a game.

2.1.6 Internet

This screen provides the main list of servers available worldwide for playing *Ostfront* online. It tells you details such as how many people are currently playing on the server, which map, what the ping is (the lower the ping, the better the response time from your computer) as well as a list of the people currently playing on the highlighted server. Highlight a server and click on "Join" to join the game on that server.

There are various icons that may appear on the left side of the screen:

- "Ear": indicates a "listen" server; these run on a player's own PC rather than a separate server, giving that player a zero ping, as well as being limited to 16 players. As a result they are less popular
- The "RO" symbol indicates a server with no mutators active a "standard" server
- A "green dot" shows that the server is updated to the latest version of the game
- A "key" indicates a server requiring a password for entry.



2.2 Practice

This takes you to the Practice (offline single-player) sub-menus. From here, you can set up a game to play on your own computer against purely AI opposition, with your side fleshed out with AI. The "Select Map" tab allows you to simply pick a map and play; the "Game Rules" tab enables you to adjust some basic parameters.

2.2.1 Select Map

- Red Orchestra Maps
 - Click on a map name to see preview details
- Options
 - o Choose a skill level for the Bot AI to play at
 - o Click on "Maplist Configuration" if you wish to set up a sequence of maps to play
- Preview
 - The Preview pane will show pictures of the map highlighted, plus background information telling you about the map
- Click "Start Practice Mode" to enter the selected map
 - NOTE: If the map takes a very long time to load, or the game visuals "stutter", you most probably have the Display options set too high for your computer. See the *Display* section under Configuration, below.

2.2.2 Game Rules

- Bots (AI soldiers)
 - Adjust skill check this box if you want the Bot AI to start to adjust their skill level to yours
 - Bot mode specify how the number of Bots is determined
 - Min players if you set Bot mode to "Specify Number", you can set the total number of Bots that will play the map with you, counting both sides
 - Bots skill as in the "Options" on the "Select Map" screen.
- Game
 - Check "Use Map Rotation" if you want to want to specify the sequence of maps to play (see "Maplist Configuration" above)
 - Set the "Pre-Start Duration" if you want there to be a brief pause before the action starts
 - If you check "View Advanced Options" at the bottom of the screen, you will be able to set the "Game Speed" slower or faster
- Rules
 - Set the "Round Limit" to the number of times you want to play the selected map(s)
 - Set the "Time Limit" to how long, in minutes, you want each Round to last; note that setting this to zero will use the map default
 - Set the "Win Limit" to the number of times one team has to win a map before over-riding the Round Limit



2.3 Configuration

Like everything else, RO comes with a default configuration. Once you're used to the basics, you may want to explore the configuration options and control key settings to suit yourself and your computer set-up. From the main menu, click on "Configuration" and work through the following tabs, ideally BEFORE leap into a game – key elements are highlighted in **RED**:

2.3.1 Game

- Gameplay
 - Select a Name that will be displayed for you in-game; we strongly recommend that you chose something unique so that other players can identify you in game and communicate effectively!
 - Select a suitable Gore level
- Network
 - Select the most appropriate **Connection speed** for your internet connection
 - Unless you have problems, ensure that the Dynamic Netspeed is checked
- Simulation realism
 - Checking the two throttle boxes gives you "incremental throttle" on tanks and wheeled vehicles; this means you don't have to hold the throttle open manually

2.3.2 Display

- Resolution
 - Set these options as high as you can without performance degrading on your computer; check the "Advanced Options" box to gain access to the individual "Options" in the right-hand box
 - o Ideally, select a preset option from the "Game details" dropdown box
- Options
 - There will be a separate guide on all the Options in the future, if you prefer to set these manually.

2.3.3 Audio

- Sound System
 - o Set the 3 volume levels to suit your taste
 - o Audio Mode: Set this to "3D Audio" if you have a sound card that supports this
 - o Reverse Stereo: Set this to your desired configuration for your speaker system
 - Play Voice Messages: You may also choose to filter some of the voice messages that occur in game
- Voice chat
 - Voice chat allows players to communicate during the game using a microphone.
 There are 3 channels available to players:
 - Public: all players on the server will hear your messages
 - Local: Only players within a certain distance will hear your messages
 - Team: Only players on your team will hear your message
 - Once you have joined a channel, you may send a message by pressing the "Activate Microphone" key. Your message will be sent to your currently selected channel
 - Enable Voice Chat: Check this box to hear voice messages in game
 - Dampen Game Volume When Using VOIP: Check this to reduce the volume of the game when any player speaks using voice over IP
 - Autojoin Local Channel: Check this to automatically join the local channel when you join a game
 - Autojoin Team Channel: Check this to automatically join your team channel when you join a game



- Auto Select Active Channel: Check this to automatically select an active channel when you join a game. This channel is normally set by the server but you can set your own preference in the Default Channel Name field
- Default Channel Name: Enter the name of the default channel you would like to use when you join a game
- Chat Password: Assign a password to your channel
- Internet Quality: Set the balance between sound quality and performance for voice chat when playing in an Internet game
- LAN Quality: Set the balance between sound quality and performance for voice chat when playing in an LAN game

2.3.4 Controls

- All of the Controls can be set to a choice of two Keys
- No Key can be bound to more than one Control
- Game, Movement and Weapons
 - o These sections list all the main controls that will be used the most
 - Important controls should be bound to keys that you find comfortable such as binding "Iron Sights" to the Right Mouse Button to ensure it is easy to use
- Looking
 - These controls are only included now for those who are used to them from other games simply using the mouse to look around is the norm in *Ostfront*
- Communication
 - These controls are important if you intend to communicate with other players ingame
 - The "Say" controls enable you to type messages to everyone, to just your team and to just the crew of your vehicle, respectively
 - The Voice Command control brings up the in-game Voice Commands
 - o The Microphone and Channel commands enable you to use Voice over IP, if you have suitable speakers and microphone attached to your computer
- Interface
 - The Interface controls show the Situational Awareness (Objective) Map and the Scoreboard, as well as allowing you to change the HUD size dynamically in-game
- Miscellaneous
- Voice Commands
 - Most of these are not set to any specific keys
 - As you get used to the game, you may well want to bind keys to specific Voice
 Commands such as "Stop" and "Move Back" in the Vehicle Commands section

2.3.5 Input

- Options
 - These are primarily mouse and joystick options
- Fine Tuning
 - o If you wish the game to use different mouse parameters to the way you normally use the mouse on your computer, you can fine-tune them here

2.3.6 HUD

- Style
 - o If you wish to turn the HUD off completely, check the "Hide HUD" box
 - The Opacity and Scaling options change the general appearance of the HUD
- Options
 - o The Hint Level can be adjusted or reset
 - o Choose whether or not you wish to see Weapon and Personal info
 - o You can adjust the way chat messages from other players are shown
 - o The Compass can be turned off or on
 - o The "Map Updated" indicates changes made on the Situational Awareness map



2.4 Help and Game Management

2.4.1 Credits

Lists the full credits for Red Orchestra: Ostfront 41-45. Hit "Escape" to exit the Credits.

2.4.2 **Manual**

Links you to the various manuals, such as this one.

2.4.3 Demo Management

The Demo Management screen allows you to view any game recordings you may have created during play.

Demo recordings are started using the "Start Demo Recording" key and ended using the "Stop Demo Recording" key.

2.4.4 Visit Website

Links you out to the game website on the Internet at www.redorchestragame.com.

2.5 Host Game

2.5.1 Select Map

As for "Practice Mode" above, without the ability to set Bot skill levels.

2.5.2 Game Rules

As for "Practice Mode" above.

2.5.3 Server Rules

This will be handled in the separate "Server Setup Guide".

2.6 Exit

Click on the "Exit" button to leave Ostfront.



3 JOINING A GAME

3.1 Unit Selection

When the map loads, you will be presented with the Unit Selection screen. This provides you with details of the actual combat unit for each side. It will also show how many people (or Bots) are playing on each side under the "Join" buttons. "Auto-select" will put you on the side that has the fewest players. "Spectate" will allow you to join the game just as a spectator. Chose an option to move on to selecting your Role.

3.2 Role Selection

This screen will list the Roles that are available for each side on the map chosen. Remember that not every Role will be available on every map. It also shows how many players are already in a Role and it will be greyed out if there are no slots left. If bots are in use, the roles that they use will be noted (by a small "has bots" label). Human players will displace bots from a role if there are not enough slots available.

When you click on a Role, the description will be displayed, along with a player model, and the available weapons. Click on individual weapons for more information on the weapons and, if there is a choice, highlight the weapon you want. Finally, click on "Continue" to enter the game.

3.2.1 Infantry Roles

3.2.1.1 Schütze/Strelok [Стрелок]

The basic role for all armies of the period was the rifleman. It was so core to the infantry that the term (Schütze or Strelok) was also used simply to refer to a soldier. All soldiers in the infantry would start as a rifleman after completing basic training. The basic rifle platoon for each side consisted of 3 or 4 squads of 8-10 riflemen.

3.2.1.2 Schütze mit MK/Strelok avto [Стрелок авто]

The Soviets introduced one of the first semi-automatic rifles into a modern army with the SVT40, to improve the firepower of the infantry squad. The Germans followed suit in 1941 with the overly complex G41, replaced by the G43. However, these weapons were complex to produce and were never issued in large numbers. Those soldiers who were lucky enough to be issued such weapons are represented in this Role in *Ostfront*.

3.2.1.3 Stoßtruppe/Avtomatchik [Автоматчик]

The Germans had realized the benefit of equipping some soldiers as assault troops (Stoßtruppen) before the end of World War One. This had given rise to the term "Stormtrooper". These troops were equipped early on with sub-machine guns, to give them as much firepower as possible when closing with the enemy. The Soviets had taken up this theme in the late 1930s, equipping their Avtomatchiki with their own sub-machine guns. Whereas the Germans initially tended to issue SMGs to small-unit leaders, the Soviets equipped whole platoons (and later battalions) with them. Their intention was to equip these troops for the final assault on the enemy.

3.2.1.4 MG-Schütze/Pulemetchik [Пулеметчик]

The Germans had also realized the benefit of equipping every single squad with a light machinegun in order to provide a solid base of fire at the same time as they had "invented" assault troops. By the start of World War Two, they had the single best LMG of any army in the MG34. The Soviets had followed a similar route with their DP28. However, the Soviets found that they needed to add extra LMGs to the infantry platoon in order to compete with the firepower of the German MG34 (and the later MG42).



3.2.1.5 Scharfschütze/Sniper [Снайпер]

Different armies took very different views on the use of snipers. The German view was that snipers were a very separate specialization from the core infantry. Snipers were not included in the organization of an infantry platoon until late in the war. The Soviets took a very different view: to them, snipers were an integral part of all infantry units. They were included in the platoon organization from early on. While they did also operate completely independently, this was usually when positions were static and the snipers could be detached from their units. The rest of the time, Soviet snipers were expected to provide very direct support to their platoon.

3.2.1.6 Gruppenführer/Komandir otdeleniya [Командир отделения]

In both armies, the squad leader was an NCO. Platoon leaders were either senior NCOs or junior officers. They were obviously trained to lead and drive their men along. They were also trained to plan attack and defense strategies, in the placement of key weapons such as the squad LMGs and in directing snipers. They were also given at least some training in directing artillery fire, although this was usually kept fairly simple for such junior leaders. However, basic placement of artillery missions and the relevant communications procedures were well within their capabilities!

3.2.1.7 Sturmpioniere/Saper [Сапер]

Both armies had long recognized the need for including specialist combat engineers in their organizations. They were usually found attached at battalion level or higher in a division. After completing basic infantry training, they were sent on to specialist training in construction – and demolition. Some were also trained to support the infantry directly in the assault. In this role, they would carry demolition equipment to help them destroy objectives and clear routes through obstacles.

3.2.1.8 Pak-Soldat/PT-Soldat [ПТ-Солдат]

While the Germans never officially trained soldiers for taking on tanks, the Soviets had large numbers of anti-tank rifles and soldiers trained specifically in their use. Their German counterparts had to learn by bitter experience. They were all basic infantry, who had acquired a specialist skill – and the nerve to carry out the task.

3.2.2 Vehicle Roles

3.2.2.1 Panzerbesatzung/Ekipazh tanka [Экипаж танка]

The Tank Crew Role represents all those trained to operate the various positions within an armoured fighting vehicle of the period - gunner, hull gunner/radio operator and the driver. Each is a specialized role, requiring specialized training. Each has a specific view sector out of the tank and is responsible for keeping watch in that direction, as well as performing their primary function.

3.2.2.2 Panzerführer/Komandir tanka [Командир танка]

The Tank Commander, either an NCO or officer, had additional responsibilities. His primary task was to spot targets for the gunner, as well as to direct the rest of the tank crew. He was usually the only crew member with any form of all-round view. He might, as a platoon commander, be required to lead a complete platoon of tanks, as well as direct his own. It was a complex job, made more complex in some tanks with the requirement for the commander to also man the main gun.



4 GAMEPLAY

4.1 Objectives

Ultimately, every map in *Ostfront* is based around taking or defending Objectives. An Objective can either be a significant piece of terrain to be captured or something to be destroyed (usually with explosives). To capture an Objective, a team needs to have enough people on that Objective for a period of time. Destroyable Objectives simply need to be blown up. Players score 10 points on the Scoreboard for assisting capture an Objective.

4.2 Infantry player basics

As with most first-person based games, you can use the movement keys to move Forward, Backwards or Sideways. *Ostfront* also provides for properly animated movement on the diagonal as well. You can jump – but not repeatedly. When moving fast or jumping, you will steadily tire. This is indicated on the HUD, as well as the fact that you will be able to hear yourself breathing harder. *See the section on the HUD for details of all the icons.*

4.2.1 Posture

Players can adopt one of 3 postures – Upright, Crouched or Prone. While it is easier and quicker to move while fully Upright, obviously you can also easily be seen – and it makes shooting less accurate. You move slower when Crouched, but can shoot more accurately. When Prone you can only crawl, but you present a small target and can stabilise your weapon very easily for shooting.

When Crouched you should note that you will actually present the smallest target when stationary. If you move, you will rise up slightly. You will also rise when you aim your weapon (Iron Sights) allowing you to shoot over cover.

Additionally, you can Lean left or right around obstacles, allowing you to expose the minimum amount of your body. You can shoot while Leaning.

4.2.2 Speed

As a default, you will move at a steady jogging pace around the battlefield. If you wish to move quicker, you can Sprint, but only until you become out of breath. At this point you will be forced to slow down again. When out of breath, your shooting will be less accurate. Also, if you wish to creep around more silently, you can Walk – slower, but with very little noise.

If you are Sprinting, you can also Dive for cover simply by hitting the Prone key while you are still Sprinting. This is the fastest way to get yourself Prone, but will take a moment to recover from.

4.2.3 Wounds

When a player is hit by bullets or shrapnel, he will either be hurt or killed outright. There are no "health packs" in *Ostfront*. Once wounded, you stay wounded. The HUD will indicate the location of your wounds and your overall status. It is also possible that you will be slowed up momentarily when wounded. This effect will pass, but it is best to get to cover! Another possible effect is for your weapon to get hit instead of you and you will drop the weapon. You have the choice of stopping to pick it up, or continuing without it! The damage done to you by a projectile depends on where it hits you, how big it is and how fast it is travelling, amongst other factors.



4.2.4 Suppression and "Blur"

Whenever a round passes close enough by you, the screen will "blur" slightly for a moment (unless you have "motion blur" turned off in the configuration, in which case the screen will black out for a second). This is very useful when you are firing at an enemy, especially when you are using an LMG. Even if you do not hit him, you will be making it harder for him to aim, both at you and your friends. This is referred to as "suppressive fire". One of the key jobs for a machine-gunner is to lay down suppressive fire, so his comrades can get close to the enemy, with less chance of being hit themselves.

Blur will also kick in if there is an explosion close to you – from a grenade, satchel charge or artillery. The heavier the explosion, the longer the blur will last. Again, this means that grenades can be used to suppress the enemy before trying to take a position – but remember that the effect only lasts a couple of seconds!

4.2.5 Friendly Fire

As a default, Friendly Fire is "On". This means that you can hurt members of your own team, as well as be hurt by them. Be careful.

4.2.6 Communications

Apart from the free-format chat and VOIP, you have a set of in-built Voice commands in the game. These are designed to make it very easy to communicate key messages with very few key presses. During a game, bring up the Voice menu and select the message you want.

4.3 Infantry Weapon types

4.3.1 Pistols

These are basic single-handed weapons usually carried as a back-up weapon. They are very simple to use – point, shoot, reload as needed.

4.3.2 Rifles

The bolt-action rifle is the single most common weapon you will find. You are required to work the bolt in order to chamber the next round ready for firing and they are reloaded from magazines and stripper-clips or by manual insertion. In the hands of a trained infantryman they are very accurate. Some rifles are equipped with telescopic sights for sniping.

4.3.3 MP/SMG

Known variously as "machine pistols" or "sub-machine guns", these are relatively light fully automatic weapons, with a high rate of fire from various forms of magazine. They are designed for relatively close combat as most of them lack accuracy and fire a lighter round than rifles.

4.3.4 Automatic and Assault Rifles

The automatic, or "self-loading", rifles act like ordinary rifles, but automatically chamber the next round, with no requirement for working a bolt. This makes them simpler to use and provide greater firepower. Some have a selective-fire capability, allowing them to fire in full automatic mode or single-shot; use the "Switch Fire Mode" key to change.



4.3.5 Light Machine Guns

The light machine gun (LMG) is the main squad support weapon. They need to be deployed to fire properly, although some can be used in "assault fire" mode in an emergency. They all have a bipod attached specifically for this purpose. Because of the very high rate of fire on some, there is the capability to change the barrel on them, so they do not wear out or burst. They use either drum or belt feed.

4.3.5.1 Tracer Rounds

All LMGs (and the MGs in tanks) are preloaded with some tracer rounds. Tracer rounds are used to help the gunner spot where his fire is going, as well as to show friendlies where not to run. The Germans used a phosphorus-based tracer, burning a yellowish-amber colour, while the Soviets used a barium chloride-based round, burning green.

4.3.6 Anti-Tank Weapons

The Soviets have the PTRD anti-tank rifle, while the Germans have the Panzerfaust. The PTRD is a single-shot 14.5mm heavy rifle. It is so heavy it has to be deployed to fire. It is really only effective against light armour, so be careful where you aim. The German Panzerfaust is a simple self-launched anti-tank grenade. It has a range of up to 80 metres with a rather simplistic aiming mechanism. Use the "Switch Fire Mode" key to switch the aiming between 30, 60 and 80 metres.

4.3.7 Grenades

Grenades are simply hand-thrown explosive devices. They come in two basic forms – "blast" (also know as "concussion") and "fragmentation". Fragmentation grenades can cause significant casualties, as they throw shrapnel out as they detonate. This makes them very destructive but potentially very dangerous to the thrower as well as the enemy. Blast grenades are far less lethal, but much safer for the thrower, as they rely solely on the explosive impact of a few ounces of TNT.

4.3.8 Satchel Charges

Engineers are often equipped with satchel charges – a simple 3Kg explosive charge. This has a fuse of around 10 seconds and can either be thrown or placed. It can be used just as a very large grenade, or as a demolition charge. It is also very effective against tanks, if you can sneak close enough to place it under or on one!

4.4 How to use infantry weapons

4.4.1 Bolting and Reloading

All weapons need to be reloaded ("Reload" key) when they are out of ammunition. Some can only be reloaded when the current magazine is empty, others can be changed when one is partused. The anti-tank rifle and all LMGs have to be deployed to reload. Any part-used magazines will be put in your pocket (watch out for reloading with a part-empty magazine later though); empty magazines will simply be discarded.

Bolt-action rifles need to have the bolt worked. Simply press "Fire" a second time to work the bolt and chamber the next round for firing.



4.4.2 Firing your weapon

4.4.2.1 Aimed or un-aimed

All weapons can be aimed – use the "Iron Sights" key to aim. Most can be fired, unaimed, from the hip, but with greatly reduced accuracy. To fire an LMG from the hip, the user must be "braced" (use the "Iron Sights" key). Note that the MG42, with its belt feed, is considered too cumbersome to fire from the hip.

There are a number of factors affecting shooting accuracy. This includes your posture (more stable when prone), how breathless you are and the recoil of the gun dragging it off-target.

4.4.2.2 Basic Ballistics

Ostfront uses real-world ballistic calculations. Simply put, the rounds fired will drop as they travel. The amount they drop depends on the gun firing and the distance. For instance, the K98 drops far less than the MP40. An MP40's bullet will drop a theoretical 4 inches [10 cm] at a range of 50 yards/metres and more than a foot [30 cm] at 100 yards/metres. In contrast, the K98 will only drop 3 inches [7 cm] at 100 yards/metres and 8 inches [20 cm] at 150 yards/metres.

4.4.2.3 Bullet "spread"

Another topic to understand in shooting is that some weapons, especially SMGs, are inherently less accurate, having a shorter barrel – as well as the relative instability of the lighter weight rounds used. This leads to some weapons "spreading" their fire more than others – notably the SMGs. Thus, the shorter-barrelled weapons – the pistols and SMGs will spread their bullets far more than rifles and high quality semi-automatic weapons.

4.4.2.4 Recoil

All of the weapons have some amount of recoil that will kick in as you fire. For single-shot weapons, such as rifles, this is less of an issue – the gun will kick off target as you fire and you simply adjust your aim back again before firing the next round. It is far more of an issue with weapons firing rapidly – rapid fire from a semi-automatic rifle or full automatic fire. The natural tendency is for the gun to creep right and climb as you fire. The amount of recoil varies depending on the length of the burst you are firing and the gun itself. The worst offenders are those with high rates of fire, such as the Soviet PPSh and the German MG42. It is easy to forget just how many rounds are being fired – the PPSh will loose off 30 rounds in a 2-second burst and the MG42 40 rounds. The recoil generated by that many rounds will be significant and it is important when firing these weapons in aimed mode to just tap the trigger and fire off very short bursts.

4.4.2.5 Damage

A final point to consider is the relative damage done by the various rounds in use. This is, very simplistically, related to the speed of the round and its mass. In general, rifle rounds will cause the most damage, followed by the slower/lighter SMG and pistol rounds. Obviously, the rate of fire of the SMGs is intended to compensate for this, by putting more than one round into the target!



4.4.2.6 Deploying and Resting weapons

Ostfront allows the player to Deploy LMGs and the Soviet anti-tank rifle on any suitably flat surface, including the ground. Simply look for the "Deployment Icon" on the HUD and press the "Iron Sights" key to deploy your weapon.

Ostfront also allows the player to rest other weapons, such as rifles and sub-machine guns, to steady their aim. Again, look for the "Deployment Icon" on the HUD. You can rest your weapon on any flat surface, or brace it against vertical surface. When the "Deployment Icon" shows grey on the HUD, stay still for a couple of seconds and it will turn white, indicating the weapon is now rested. Your aim will now be appreciably steadier.

4.4.3 Hand-to-hand combat

In *Ostfront* you can engage in hand-to-hand combat with your rifle butt, pistol or bayonet. If your weapon takes a bayonet, it is usually worth fixing it ("Attach Bayonet" key) although it has a small impact on your shooting accuracy.

To bash or stab an opponent, simply press and release the "Alt Fire" button. The longer you hold the button down, the more powerful your blow will be. When stabbing with a bayonet, charging at the enemy will also add extra power to the blow.

4.4.4 Grenades

These are very simple weapons. Pull the pin or chord, pull back your arm and throw at your target. To increase the distance thrown, pull back a bit longer, and/or aim higher. It is also worth noting that the F1 can be "cooked" – running off some of the fuse while still in your hand – in order to reduce the time the enemy has to react to it, or to achieve an air-burst. To do this, press and hold the Fire button and, while you are holding it, press Alt Fire. You'll hear a 'click' that warns you the fuse is burning: now you have *about* 4-5 seconds before the grenade explodes. Obviously, be careful of dropped grenades – if one of your comrades is shot while holding a primed grenade, it will be likely to detonate at your feet! Another point of note is that grenades can be unreliable – a small percentage will not explode.

4.4.5 Satchel Charges

Satchel charges are larger (3 Kg) explosives primarily intended for the demolition of obstacles, though they also make effective anti-tank weapons. They are identical to grenades in use: pull the chord and throw the charge at the target. It should be noted, however, that a satchel charge contains considerably more explosives than a grenade. You should make an effort to clear the area once you've deployed a charge.

4.4.6 Picking up weaponry

To pick up weapons on the battlefield, simply crouch down by them and press the "Use" key. Remember that you can only carry one Primary and one Secondary weapon, so you may have to discard one first ("Throw Weapon" key). This will only get you the weapon, so remember to gather up any spare ammunition for it, too.

4.4.7 Ammo Resupply

There will be ammo resupply points on some maps, which will be marked on the Situational Awareness map. If you find yourself short on ammunition, you can fall back to such a point and restock your ammunition, before returning to the fight. You can do the same in vehicles – but it takes longer!



4.5 Artillery Usage

In order to bring in artillery fire, you will first need to spawn as a leader – Gruppenführer or Komandir otdeleniya or the equivalent tank command Roles. Calling in artillery is simple. First use your binoculars to look at the point where you want the artillery strike and click "Fire" to mark the point on the Situational map. Check the map to see where the artillery strike is plotted and where the nearest radio is. The strike can be re-plotted until you actually call it in. When you have the right location, get to the nearest radio and press "Use" to call the artillery strike. Actually, once the leader has plotted the artillery strike, any other player can call it in from a radio.

4.6 Communications

Communications between members of the same team can make a huge difference to who wins and who loses. *Ostfront* provides three mechanisms for doing this: the "Say/Team Say" chat channels, the pre-programmed Voice commands and Voice over IP.

4.6.1 Communicating with other Players

4.6.1.1 Chat

To type free-format text to other players on the server, simply press the "Say" key and type the desired text. When you press "Enter" only the other members of your crew will see the text. To type tactical messages to other members of your team; press the "Team Say" key instead.

4.6.1.2 Voice Commands

The advantage with the voice commands is that they can be set up on a single key-press in your Configuration. There are a number of different pre-set lists of voice commands: press the "Voice Command Menu" button to bring up the Voice Commands and you will see the various sets of commands listed. You can either scroll through the list, or simply press the number key corresponding to the command you want.

4.6.1.3 Voice over IP

Voice over IP (VOIP) gives players the ability to communicate directly by voice using headset and microphone. There are 3 separate channels available – the "Public" channel to be heard by everyone, the "Team" channel just to be heard by your own team and the "Local" channel just to be heard by other players who are close to your location on the map. Simply press the relevant channel key to activate the right channel, then press and hold the "Activate Microphone" key to talk.

See the Configuration Section [Audio | Voice Chat] for details on how to set up VOIP.

4.6.2 Commanding AI players

The AI Players ("Bots") on your side will respond to many of the Voice Commands in the game, in particular those directing them to attack or defend specific locations and the rest of the direct Commands. They can be directed in small groups – "squads" – to perform certain actions. For instance, you can have one squad defend the Objective just taken, send another squad to start the attack on the next Objective – and have the rest follow you.



4.7 Situational Awareness Map

Once into a game, it is vital to check on your side's Objectives. Use the "Show Situation Map" key to bring up the Situational Awareness Map:



The main area on the left shows the overhead map for the scenario. The map is always set with North to the top. On the right there is a countdown clock, showing the time remaining (minutes and seconds) in the current scenario, with the current Objectives for your team listed below.

There are a number of items that can be marked on the main map:

- Objectives Axis black cross if Axis-controlled, Allied red star if Allied-controlled and a
 white circle if no one has yet taken possession of it. If the symbol for an Objective is
 "faded", this means that it cannot be taken/lost at this time.
- Artillery radios are marked for your team. This is where you will call artillery in from, once a target has been marked.
- Artillery targets are marked as columns of smoke.
- Resupply areas are shown for your side for Infantry and Vehicles.

A Leader can mark a Rally Point, by pointing and clicking at the desired spot on the Overhead map. If a Leader marks a Rally Point, that is also shown on the overhead map of all other players on the side.



4.8 Basic Vehicle Operations

4.8.1 Vehicle Types

4.8.1.1 Transport Vehicles

In *Ostfront*, there are two transport vehicles that can be used regardless of the Role you have selected. These are the German SdKfz 251 half-track and the Soviet BA-64 Armoured Car. The BA-64 is fast and armed with an LMG in a small turret, but can only carry two people. The SdKfz 251 is slower and armed with a semi-fixed LMG, but can carry up to 6 passengers as well as the driver and gunner.

4.8.1.2 Armoured Fighting Vehicles

All the remaining vehicles are specialist AFVs and can only be used if you have selected one of the two Vehicle Roles (Tank Crew or Tank Commander). Also remember that you cannot use vehicles belonging to the other side. These vehicles are either Tanks with the main armament in a fully rotating turret or Assault Guns with the main armament restricted to a limited traverse – the German StuG III and the Soviet SU-76.

4.8.2 Entering and Exiting Vehicles

To enter, simply approach the vehicle and press "Use". If there are available positions in the vehicle you will occupy one of them. To exit simply press "Use" again.

4.8.3 Crew Positions and views

To switch between the crew positions use the number keys indicated below. In each position use the "Next Weapon" and "Previous Weapon" keys to switch between the various views listed, such as looking out of hatches.

4.8.3.1 Driver (Key 1)

The driver has the controls for the Throttle ("Forward" and "Backward" keys), turning the vehicle left and right ("Left" and "Right" keys) and for the Brakes ("Jump" key). With the Incremental Throttle enabled, the driver does not have to hold the "Forward" key all the time, as the throttle will stay at the level set until the driver reduces throttle with the "Backward" key or hits the Brakes, when the Throttle is automatically set to zero and the tank gears dropped into neutral.

The driver can open his hatch for a better all-round view, but is vulnerable to fire with the hatch open. In some vehicles the driver can place his head against the vision block for a slightly better view, without the risk.



4.8.3.2 Commander/Gunner (Key 2)

The commander can use a variety of view positions, ranging from the view through the main gun-sight, to putting his upper body right out of the hatch to use his binoculars to look around. This is a good tactic when you are sure there are no enemy infantry close by. The commander's view moves with the Mouse, independently of the turret position. In the German half-track, this position mans the MG34 LMG mounted above the driver.

To move the turret/main gun aim, use the "Left" and "Right" keys to rotate and the "Forward" and "Backward" keys to elevate or depress the gun. Holding a key down will accelerate the movement to its maximum speed, while simply tapping it will allow for fine adjustment of the aim. Be careful with this, as tank turrets are very heavy – it takes a moment or two to accelerate them to their full rotational speed and it also takes a moment to stop them again. This means that it is easy to spin past the target. Practice with turret controls!

To fire the main gun, press "Fire" and to fire the co-axial LMG press "Alt Fire". Both weapons are automatically reloaded; however please note that reloading will be paused if there is no one occupying the commander's position in the tank.

The commander can select the type of ammo to load for the main gun by pressing the "Switch Fire Mode" key. The available ammo types will be shown on the HUD. The range can also be set on the gun sight for AP rounds using the "Lean Left" and "Lean Right" keys. On the older-style gun sights (T-60, T-34 76 and KV-1s) the aim will then have to be re-adjusted. On all other gun sights, the main gun is automatically adjusted and re-aiming is not needed.

If the player manning this position is also a Tank Commander, he can mark artillery strikes from the turret with his binoculars, but must still get back to a stationary radio to call in the strike.

4.8.3.3 Hull Gunner (Key 3)

The Hull Gunner operates the hull-mounted LMG found on most tanks. In German tanks, there are basic optics for the gunner, while the Soviets fired over open sights. The only view for the Hull Gunner is over the machine-gun sights.

Note: the Soviet T-60 does not have a hull MG, as it is too small. The IS-2 had an MG mounted – but no-one to man it directly. It was actually fired by the main gun loader, who had to drop down into the hull to do so. It also meant that he could not load the main gun. As a result, we have *not* modelled the IS-2's hull MG in game.

4.8.3.4 Passenger (Key 3-8)

Passengers in the half-track cannot fire from the half-track – it is too cramped. You can exit the vehicle while it is moving, but be careful!



4.8.4 Vehicle Communications

Communications between the members of a crew is essential to operating a vehicle well. Ostfront provides two mechanisms for doing this: the "Vehicle Say" chat channel and the preprogrammed Vehicle voice commands. Obviously, you can also use the "Team" or "Local" VOIP channels as well.

4.8.4.1 "Vehicle Say" Chat

To type free-format text to other members of the crew, simply press the "**Vehicle Say**" key and type the desired text. When you press "Enter" only the other members of your crew will see the text.

4.8.4.2 Vehicle Voice Commands

The advantage with the voice commands is that they can be set up on a single key-press in your Configuration. There are two pre-set lists for vehicles: press the "Voice Command Menu" button to bring up the Voice Commands and the vehicle lists are numbers 5 and 6. These are well-worth noting, as you can warn other crew members of danger very quickly. The two lists are:

5. Vehicle Commands

- Go to...
- Move Forward
- Stop
- Move back
- Go left
- Go right
- Forward 5 meters
- Back 5 meters
- Turn left a little
- Turn right a little

6. Vehicle Alerts

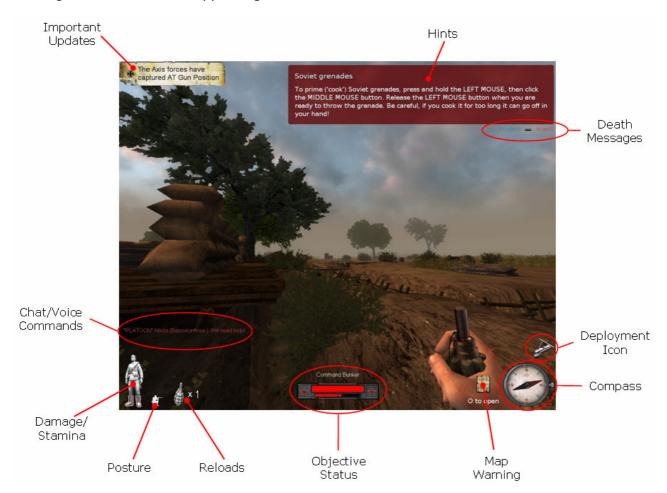
- Enemy in front
- Enemy left flank
- Enemy right flank
- Enemy behind us
- Enemy infantry close
- Acknowledge
- Negative
- We're burning
- Get out
- Loaded

As you can see, with the keys pre-set in your Configuration, it is only two key-presses to get the message "Enemy left flank" – "Move back" to your driver.



5 HUD DETAILS

The RO HUD ("Heads Up Display") contains basic key information, reflecting those things that a soldier would naturally know or be able to check quickly. Additionally, you will find key messages and information appearing on the HUD.



Starting in the top right corner and proceeding clockwise, you have the following:

5.1 For all roles

5.1.1 Hints

The hint box will appear in the top right corner, giving context-sensitive help. To turn the Hints off (or back on), go to Configuration | HUD | Options.

5.1.2 Death Messages

When allowed on the server, messages will be displayed to tell the players who has killed who in game.

5.1.3 Deployment Icon

The Deployment Icon will be visible whenever you are holding a weapon that can be Deployed/Rested and there is something in range to rest it on. The Icon will start out grey, indicating that you are in a position to Deploy/Rest your weapon. If you Deploy an LMG or pause long enough to Rest a rifle/SMG, then the Icon will turn white as the weapon Deploys/is Rested for more accurate firing.



5.1.4 Compass

The Compass is a simple directional indicator. However, if a Leader marks Rally Points, or Objectives are under attack, they will be marked on the Compass for you.

5.1.5 Map Warning

The Map Warning icon will blink if there is something happening on the Situational Awareness Map that you should see, such as Objectives being captured or lost.

5.1.6 Objective Status

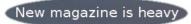
Whenever you are on an Objective location, the name and status of that Objective will appear on-screen. It will either be a blank bar and remain that way if it has already been captured, or will start blank and fill up with the colour for one side or the other as that side takes control. The top half of the bar shows which team owns/is capturing the Objective, while the bottom half shows the balance of players currently on that Objective location.

5.2 Personal HUD

The next few elements of the HUD are different depending on whether you are inside a vehicle (see "Vehicle HUD" below) or outside a vehicle. When you are outside the vehicle, you see the personal HUD – elements purely related to yourself.

5.2.1 Reload Message

When you go to reload your weapon, you will find a little prompt appearing briefly on screen, informing you that the magazine you are just about to use is "heavy", "medium" or "light". This represents the feeling of the magazine in-hand and is a reminder that you may be about to put a half-full magazine in your weapon. Only completely empty magazines are actually discarded – all partially used magazines are put back in the relevant ammo pouch.



New magazine is light

5.2.2 Reloads

The second icon visible at the bottom left of the HUD shows the number of "reloads" available for the weapon currently in hand. Each weapon shows an appropriate icon:



From left to right again – 9 rifle clips, 4 PPSh magazines, 5 Stg44 magazines, 4 Stielhandgranate and lastly 3 F-1 grenades.

5.2.3 Posture

As a reminder, there is a small posture icon, showing your current posture – Standing, Crouched or Prone.









5.2.4 Damage/Stamina

The Damage/Stamina Icon can be seen in the bottom left of the screen and is used to convey any damage that you have taken; normally you would be able to "feel" damage – but obviously not in a computer game – hence the presence of the icon. When it is completely white, you are in good health. If you are wounded, the area hit will be coloured red.

If you are sprinting, or otherwise using up Stamina, this will be indicated on the Icon as it is slowly surrounded by red. Once the Icon is completely surrounded by red, you can no longer sprint and will be out of breath.

5.3 Vehicle HUD

The vehicle HUD elements depend on the position you are sitting in. Each position will see different elements, as follows:

5.3.1 Driver HUD



5.3.1.1 Throttle

The throttle shows 0-100% throttle upwards in 25% increments for forward movement, and 0-100% downwards for reverse. The incremental throttle control (see Configuration | Game | Simulation Realism above) ensures that the throttle will stay at the level you put it at, without the need to hold any keys depressed.

5.3.1.2 Rev Counter

The rev counter shows the current engine revolutions. It will also effectively show you when the tank is changing gear.



5.3.1.3 Speedometer

The speedometer registers the current speed in kilometres per hour.

5.3.1.4 Vehicle Status

The vehicle status display shows an overhead view of the vehicle. It will show where the turret/main gun is pointing on a clock scale, as well as which position in the tank you are occupying, as well as the other occupied positions.

The colour of the vehicle will change if significant damage has been taken from white, through amber to red. If a specific area has been damaged, such as the engine or tracks, they will be highlighted in red.

5.3.2 Gunner HUD



5.3.2.1 Co-axial MG Ammo

The remaining ammo will be shown as drums for the Soviet DT or as belts for the German MG34. If the vehicle has no co-axial MG, this will not be shown.

5.3.2.2 Ammo types

Where a vehicle has multiple ammo types, these will be listed. The highlighted type is the one loaded or being reloaded. Current types are AP (standard Armor Piercing), APCR (Armor Piercing Composite Rigid) and HE (High Explosive). See the Vehicle Manual for full details on usage of different ammo types.

5.3.2.3 Remaining ammo and reload

The number of rounds of the currently selected ammo type remaining in the vehicle will be shown. The icon of the round itself will be white if ready to fire and will be red during reloading.



5.3.2.4 Vehicle Status

As for the Driver view.

5.3.3 Hull Gunner HUD

5.3.3.1 Ammo remaining

The remaining ammo will be shown as drums for the Soviet DT or as belts for the German MG34.

5.3.3.2 Vehicle Status

As for the Driver view.

5.4 For all roles

5.4.1 Chat and Voice Commands

Messages from other players are shown on the left-hand side. They are colour-coded (Blue for Axis or Red for Allied) to show which side the player sending the message is on. Messages from within your own vehicle are shown in Green.

Voice Commands are spoken in game and are repeated (in your local language) in the message area.

5.4.2 Important Updates

Key messages will appear in the top left of the HUD, such as warnings that an Objective has been taken or lost.



6 SCOREBOARD



The scoreboard lists the following for each team, from left to right:

Team heading line:

Unit name
Remaining reinforcements, expressed as a percentage of the starting amount
Number of rounds won
Average ping

Individual player line:

Name
Current role in game
Current score
Current ping

Additionally, the Scoreboard shows those players that have joined a server but are not yet on a team as "Unassigned".



7 SPECTATOR MODES

If you enter a game in Spectator mode, or Spectate during a game, a number of Spectator Modes are available to you. Press the Alt-Fire key to switch between the various modes listed below.

7.1 View Self

As a default, you will start from a position of viewing yourself. Chose one of the other options to look around the battlefield.

7.2 View Players

This allows you to spectate from the point of view of another player. You will follow them around as they move and see what they see. Pressing the "Iron Sights" key swaps you between first person view (seeing exactly what they see) and third person (seeing from behind the player, so you can see exactly what they are doing, too. Press "Fire" to jump to the next player.

Following an experienced player in this way will give you good tips on playing the game and each map!

7.3 Viewpoints

Each map has various static camera positions set up in important or interesting locations by the Level Designers. Press "Fire" to jump between locations.

7.4 Roaming

This is the most versatile version of Spectating. You have complete freedom of movement around the map to follow the action, using the movement keys as normal.



8 CREDITS

8.1 For Tripwire Interactive LLC

Tripwire Interactive

President
John Gibson
Vice President
Alan Wilson

Game Design

Ingmar Spit – Lead Designer & Lead Level Designer John Gibson – Lead Programmer & Producer Alan Wilson – Historian, Lead Researcher & PR William T Munk II – Art Director & Lead Animator David Hensley – Senior Artist

Programming

John Gibson Mathieu Mallet Justin Harvey

Level Design

Ingmar Spit
Bruce Rennie
Cass Cousins
Colin Murphy
Jim Mcleish
Kenneth Reising
Rich Black
Robert Chudalla

Art

William T Munk II David Hensley

Graphic Design

Christopher Choi

Interface Design

Christopher Choi William T Munk II



3D Artists

William T Munk II

David Hensley

Ben Knapp – Lead Environmental Artist

Wayne Williams

Nikolas Sumnall

Rob Dion

Elie Hang

Martin Behrend

Anthony Barreras

Matt Coutras

Roy Thompson

Ingmar Spit

with

Jonathan Shaw

Dave Bryce

Serguei Kalentchouk

Eitan Kadouri

Jason Lavoie

Noah Calab

Max Bagdasarov

Joe LaCroix

Dean Barrowcliff

Joel Heethaar

Texture Artists

George Baker – Character Artist

Martin Behrend - Vehicle Artist

Ben Knapp

Elie Hang

Leland Scali

Rob Dion

David Hensley

Ingmar Spit

with

Noah Calab

Anthony Barreras

Zach Shertz

Animation

William T Munk II

Nikolas Sumnall

Justin Knapich

Andy Hood

FX Artists

David Hensley Martin Behrend



Sound Design

Andreas Almström – Lead Sound Artist Jens Nilsson

Music

Matthew Burns

Voice Acting

Michael Kammerhofer Alexander Mugrauer Dimitri Kondelchuk Evgeny Novikov Micha Safonov Evgenij Safonov

Legal

Tom Buscaglia - "The Game Attorney"

Historian and PR

Alan Wilson

PR Assistance

Martin Brindley, MCC International Jared Creasy Gemma Rees, MCC International

Research Materials and Sources

Alexei Michailovich Vassilevsky - Russian State Library and Archives David Michael Honner – "Guns vs Armor" Mike Kendall – "AFV Interiors" magazine

The Archive and Reference Library at the Tank Museum, Bovington: David Fletcher
Janice Tait

The Tank Museum, Bovington

Föreningen P5 ["The P5 Association" of Sweden]

Research

Alan Wilson Ingmar Spit

IT Director

Christian Schneider

Lead Tester

Jay Mattingly



Testers

Angus Meudell Anthony Easton

Anthony Wysoskey

Archie Young

Ben Hewitt

Bill Evans

Björn Svedberg

Chris Hill

Chris van Raadshooven

Daniel Levin

Eric Chambers

Gregory Ecker

Jeremy Walker

Julien Maurel

Justin Coquillon

Kenny A.J Campbell

Larry Shaw

Luke Coco

Mark Jansen

Mark Rossmore

Matt Henry

Michael Levin

Mikkel Sigismund

Paul Styrczula

Randy Buccafusca

Scott Campbell

Steven Weller

Todd Fuchs

Trevor Moore

Wyatt Moadus

With

Chris Moore

Chris Murray

Daniel Moadus

Megan Bacchus

Paul Jolley

Peter Paul Nijenhuis

Ryan Plas

Tiana Bragg



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Paulette Munsell
Jim Munsell
Jessica Gibson
Astrid Spit-Steur
Moira Wilson
Tom O'Kelly
Nick Sales
Evyn Shuley

Evyn Shuley

Jared Creasy Jay Mattingly

Justin Coquillon

Tobbe Åhlen

Julie Miller

Christopher Phillips

Juliegh DeCarlo

Mayang's Free Textures

Detonation Films

Col David M Glantz

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James Fitzpatrick

Ryan Johnquest

And a special thanks also goes to all the family and friends who have helped us out. Without their support, encouragement and understanding either Red Orchestra would never have been built, or there would be a few of us divorced!



8.2 For Valve

And a huge thanks to everyone at Valve who helped us. There are more individuals at Valve who worked on the Steam integration and the PR than even we know, so we won't list them all. Without Valve's vision in setting up Steam – and signing Red Orchestra – this game might well be a very different proposition.

Our heartfelt thanks from all at Tripwire Interactive.

8.3 For Epic, Nvidia, Atari and the sponsors of the MSU

Just as with Valve, we can't pass by without thanking all those who made the MSU contest a possibility. This includes Nvidia, as the "named" sponsor, plus all those who supported the contest. Of course, Epic deserve thanks both as sponsors and for their assistance following on from the contest – as well as for producing the Unreal Engine that has made all this possible. We also owe Nvidia a debt of gratitude for their assistance at GDC and E3 during 2005. Once again – thanks from all at Tripwire Interactive.



8.4 For Destineer

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Erick "AlphaBetasRocks!" Frich

Dwight "AlphaBetas.com" Ludvigson

Mike "YellowLesPaul" Torok

Bill "Ghost" Holmberg

Mitchell "Knuckles" Holmberg

Nick "Rowan" Holmberg

Joseph "Fish" Lang

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Will "Will42" Smallwood

Alfredo "Guacachile" Narvaez

Joseph "Rickster" Johnson

Michael "Beechnut" Russell

Joe "Raiste" Stevens



8.5 And finally...

There is one other group of people that deserve recognition for all this. That is the large group of people who contributed to the creation of the original Red Orchestra mod. Many of those have gone on to their own jobs in the games industry or are still involved in leading positions in the modding scene. Others have simply dropped out of the whole scene. While we may have lost track of some over the last couple of years, to borrow a famous phrase from Russian: "noone is forgotten; nothing is forgotten". Here we'll list all those not mentioned elsewhere, as our way of wishing everyone the very best of luck – and the hope that you'll go on using those skills!

Albert van Rennes Ankalar **Bobby Stein** Chad Barnsdale Dan Grafstrom Dana Rink Dicer Erik Christensen Howard Cheuna Jason Mohr Jay Nakai Jeremy Blum Justin Lee LimiT Matt Hallock Matthew Stock **Phobos** Richard Jessup Ripa Ronald Chow Steven The-Jackal Tim Crowlev **Tntsnipe** TommyD Zach Shertz

Adam Hatch

