IL-2 Sturmovik
Readme file (English)
Version 1.2

Warning

This version (**1.2**) is **not compatible** with the previous version (**1.1**) of the game when playing online.
Both the server and client must have appropriate versions of the game (**1.2**) in order to connect.
You may experience mistakes in reproduction of tracks recorded in version 1.1, training and intro files. However the version 1.1 tracks are meant to be compatible with the current build of the game.

Notes on the Upgrade Installation

The **1.2** upgrade may only be installed over Il-2 version **1.1** (or **1.1a**).

======= Version 1.2 Changes =======

1. Aircraft Updates

1. New flyable: Messerschmitt Bf-109 E-7/Z German fighter.
2. New flyable: Yakovlev Yak-9 Soviet fighter.
3. New flyable: Yakovlev Yak-9D Soviet fighter.
4. New flyable: Junkers Ju-87 B-2 German attack plane.

2. 3rd Party Add-On Credits

Junkers Ju-87 B-2

3D Model: Jury Shubin.
Skin: Jury Shubin.
Cockpit: Jan Niukkanen, Roman "Mad Dragon" Deniskin.

3. Notes on the New Yakovlev Fighters

The Yakovlev Yak-9, succeeded the Yak-1 and Yak-7, was the most produced type of the VVS front-line fighters. New M-105PF engine allowed it to reach maximal speed of 520 km/h at sea level, and 599 km/h at 4.3 km.
Yak-9D was a long-range version of the Yak-9 fighter, with fuel reserve increased up to 880 litres. The maximal speed at sea level was 535 km/h, with 591 km/h at 3.65km.

4. Notes on the Messerschmitt Bf-109 E-7/Z Fighter

The Bf-109 E-7/Z was a version with the DB 601N engine equipped with a high-altitude nitrous oxide injection

system (GM-1). The system was prohibited to use under 6500 meters because of imminent damage to the engine, but in case of emergency it could provide extra 80 km/h of speed for a short period of time above 5.0 km.

In this version (**1.2**) the *GM-1 boost system* is activated when you engage WEP mode on the engine (*W* key by default). Avoid engaging the system on altitudes below 6500 m.

5. Notes on the Junkers Ju-87 B-2 Dive Bomber

The aircraft is equipped with a dive autopilot to assist a pilot in dive attacks.

The autopilot control is linked to the *'Airbrake'* control key – You'll have to assign a key for it in the *'Controls'* menu. Once engaged, the autopilot puts the aircraft into the diving configuration – as the dive brakes are extended, it trims the plane nose-heavy; plus, the diving sirens are switched on automatically. Once You have released Your bomb load (or when You get below a certain altitude, around 550 meters), the autopilot renders the aircraft tail-heavy to assist recovering from the dive.

Retracting the dive brakes (hit the *'Airbrake'* key again) disengages the autopilot, and switches off the sirens. The rear gunner is equipped with a magazine-fed machine gun, with provision for 1050 rounds in 75-round drums (Junkers manufacture data). Currently, You may see four drums in the locks to the left of the machine gun. These will disappear, simulating reloading the gun, as you deplete your last four drums of ammunition, giving you visual clue you have less than 300 rounds left.

6. Recommendations

1. For those who experience difficulties controlling aircraft with the default joystick profile (axis sensitivity curves in the *Input* menu), we provide sensitivity curves that we found more suitable for most of the modern input devices.

To set up the curves, go to the *Input* menu under the *Hardware Setup* in the *Main Menu*, and adjust the values according the following chart:

Pitch:
      0 5 10 17 25 33 43 54 71 100
Roll:
      0 3   7 15 25 35 50 66 84 100
Yaw:
      0 8 19 29 39 51 62 75 86 100

7. Changes and Additions

1. The FW-109 A-4 altitude indicator now has the coarse dial operating properly.
2. Corrected speeds for the Yak-1, 1941 model. The corrected maximal speeds now are: 472 km/h at sea-level, and 569 km/h at 4.86 km.
3. As computer disk system may cause lags when repeatedly taking screenshots, in order to improve stability of the on-line gaming, the ability to take screenshots was limited to one per 10 seconds when playing on-line.

Unfortunately, we were unable to implement more additions or modifications since the team is busy with the *Forgotten Battles* upgrade, and most of the major modifications are scheduled to the *Forgotten Battles* project.

======= Version 1.1 Changes =======

1. Aircraft Updates

1. New flyable: Messerschmitt Bf-109 E-4 German fighter.
2. New flyable: Messerschmitt Bf-109 E-4/B German fighter.
3. New flyable: Messerschmitt Bf-109 E-7/B German fighter.
4. New flyable: Messerschmitt Bf-109 F-4 German fighter.
5. New flyable: Focke-Wulf FW 190 A-5 German fighter.
6. New flyable: Focke-Wulf FW-190 A-8 German fighter.
7. New flyable: Berezniak-Isaev BI-1 Soviet rocket fighter (third-party development, including a third party developed short campaign mode for this aircraft).
8. New flyable: Polikarpov I-16 type 18 Soviet fighter (third-party development).
9. New flyable: Polikarpov I-16 type 24 Soviet fighter (third-party development).
10. New flyable: Mikoyan-Gurevich MiG-3 (UB MG variant) Soviet fighter.
11. New flyable: Mikoyan-Gurevich MiG-3 (ShVAK cannon variant) Soviet fighter.
12. New flyable: Mikoyan-Gurevich MiG-3 AM-38 Soviet fighter.
13. New flyable: Yakovlev Yak-1 Soviet fighter.
14. New flyable: P.Z.L. P.11c Polish fighter (third-party development).

2. Bug Fixes

1. The "Recon" target is processed correctly in co-operative games.
2. Fixed an issue with certain multiplayer host functions reverting to default whenever a new player joins.
3. Fixed an Il-2 rear gunner bug in COOP mode.
4. Fixed an issue with bailing out in COOP mode.
5. Fixed periodical damage on airfield when player restarts (Dogfight mode).
6. Fixed bug with View Career Statistics, which caused the Aircraft Lost count to be increased by 1.
7. Corrected position of engine sound for P-39 (it is now behind the pilot).
8. Removed freezes in on-line games when a player takes off to re-fly a previously flown plane.
9. You will now hear bullet hit when taking hits in an on-line game.
10. When spawning in the air when on-line, the aircraft engine is started automatically.
11. You will now hear rear gunner firing when playing on-line.
12. When playing a dogfight game, the rear gunners will run out of ammo simultaneously on all front-ends.
13. Fixed bug with trains and car columns not being destroying correctly when playing a cooperative mission.
14. The situation with destroyed buildings, bridges, and other constructions is now synchronized when playing an on-line game, even in dogfight mode.
15. When a bridge is bombed, the objects traveling over it are now correctly destroyed, synchronizing their status and giving proper score points when playing cooperative games.
16. Aircraft gunners will no longer shoot when the plane is damaged beyond critical limit or when the crew is trying to bail out.
17. The autopilot will no longer dump bombs infinitely on landing when 'unlimited ammo' difficulty flag is set.
18. Bombs will no longer detonate if the player's aircraft crashes with 'invulnerability' on.
19. Autopilot can now take controls of a badly trimmed plane, by means of resetting the trims.
20. LaGG-3 IT internal cockpit model now matches the external model.
21. Added armor plate for the P-39 Q series externals.
22. Corrected rates of fire for MK 108 and MK 103 guns.
23. Corrected 37mm guns load for Il-2 /3M.
24. Bf-109's nose MK 108 cannon now has 65 rounds, and underwing MK 108s now have 35 rounds each.
25. Control surfaces will no longer get stuck when the aircraft speed drops enabling them to be deflected farther.
26. Wheel brakes won't screech when the gear wheels are shot off.
27. Pilots running into parked planes won't cause them to explode.
28. Dead AI crewmen will no longer move their heads to track their targets.
29. You no longer need to swing the throttle back and forth to get the correct throttle setting when a mission begins or restarts.
30. Fixed visual bug with drop tanks while playing online.

31. Corrected the bug of *il2setup* program with settings of playback channels.
32. Solved the problem with some force-feedback joysticks not producing centering force.
33. Fixed stutter issue when playing mission files with large amount of ground activity.
34. Fixed the issue with custom skins appearing incorrectly when playing dogfight missions.
35. Corrected mistakes in aircraft machine guns ROFs.

3. Changes and Additions

1. Made starting the engine in the air more difficult. The engine may fail to start or even break if it's been overcooled.
2. Added "speedbar" server console command (see section **9**).
3. Added a notification messages for pilot kills in online games.
4. Implemented a game events log file (see section **10**).
5. Addressed climb and speed data for Il-2s and LaGGs. Fine-tuned maximal speeds at all altitudes for all planes.
6. Corrected engine power for MiG-3ud.
7. Corrected ground physics. Now even PZL P.11c will be able to turn easily on the ground.
8. Implemented a more realistic flaps deployment behavior.
9. Control surfaces now retain authority in both directions when using trim.
10. Made keyboard trim input less sensitive.
11. Reworked flight models.
12. Added a Full Mission Builder feature restricting available planes in dogfight games (see section **11**).
13. Reworked the on-line kill messaging system (see section **12**).
14. Added an integrated FPS meter (see section **13**).
15. Added a server console command to define plane icons visibility and other options (see section **14**).
16. Added server-defined timeout limits and player auto-kicking (see section **15**).
17. Implemented ability to play B/W tracks between campaign missions (see section **16**).
18. The server may now issue ToD console command to manipulate the time of day (see section **17**).
19. A new 'Toggle Icon Types' control command can be used to cycle through icon options to simplify or remove them. It can be found in the Misc. section of the Controls screen.
20. In the joystick input profile, the sensitivity coefficients now scale the input to the appropriate percentage rather than the maximal value.
21. AI aircraft will dump their bomb load passively on landing.
22. Reworked padlock target selection and cycling procedures.
23. Increased the padlock maximal distances to 5 km for aerial targets, and 7 km for the ground ones.
24. The padlock now activates only if the target is truly visible.
25. The padlock triangle marker is now drawn even when the icons are off. It is possible to switch the marker off by using the difficulty settings. If you wish to switch off this triangle marker while in fully realistic mode, utilize the setting toggle located in the Misc. section under 'Toggle Icon Types'.
26. In addition to the clouds, the padlock now is now obscured by the cockpit frame as well as the aircraft wings and landscape elevations.
27. Converted ShVAK APT bullets to APIT.
28. Added APIT type bullets into UB-series machineguns loadouts.
29. Added APIT type bullets into .50 cal Browning machineguns.
30. Converted VYa AP shells to API.
31. Implemented wing guns non-synchronization and nose cannons barrel vibration.
32. Raised the contrails altitude to 7000 m.
33. Increased airfield visibility distance to 16 km.
34. Included a number of pre-defined Polish squadrons to use with the P.11.
35. Included new switch of difficulty settings "No Map Icons"
36. Included new feature to assign MGs and Cannons to one button (in Controls menu)
37. Removed 'Disable hardware voice manager' from il2setup due to the new optimization module.
38. You now may use native characters in saved filenames.
39. Implemented support for the latest version of the UBI Game Service.
40. Modified aircraft AI-controlled turret installation aiming routines to be less accurate.
41. Modified FW 190 A-4 and FW 190 A-5 to comply with new weapon sets.
42. Included 27 new weapon loadouts for FW 190 A-4 and FW 190 A-5.

4. 3rd Party Add-On Credits

Special Thanks

The team wishes to express our thanks to *Chris Hinch*, *Ian Brodie*, and all other *New Zealand Fighter Pilots Museum* (http://www.nzfpm.co.nz) personnel who helped in the development of the flyable *I-16*.

Polikarpov I-16 Tip 18

3D Model: Vladimir Titov , Roman "Mad Dragon" Deniskin.
Skin: Vladimir Titov, Roman "Mad Dragon" Deniskin.
Cockpit: Ilya "Luthier" Shevchenko, Vladimir Kuznetsov.

Polikarpov I-16 Tip 24

3D Model: Vladimir Titov.
Skin: Vladimir Titov, Roman "Mad Dragon" Deniskin.
Cockpit: Ilya "Luthier" Shevchenko, Vladimir Kuznetsov.

Berezniak-Isaev BI-1

3D Model: Ilya "Luthier" Shevchenko.
Skin: Ilya Shevchenko, Meesha Starchenko.
Cockpit: Ilya Shevchenko, Vladimir Kuznetsov.

BI-1 Campaign: Ilya "Luthier" Shevchenko.

Notice from author: "The campaign is dedicated to Grigory Bakhchivanji who died while testing the BI-1. Unfortunately, in real life, the aircraft did not get an opportunity to see combat, but not because the plane was not battle worthy. Simply the circumstances did not turn out in its favor.

The campaign is an attempt to give players a glimpse into a dangerous life of a test pilot, as well as an educated guess on what the BI-1's combat service might have been like. The prototype test missions are based on real missions flown by Bakhchivanji; the combat trial missions are also based on real missions, from actual combat reports - it's just that BI-1 did not actually participate in actual combat.

I believe flying a good sim is sometimes better than reading a good history book. Designing this campaign helped me understand more about BI-1's capabilities, and hopefully you too will learn something new when you fly this wonderful little rocket."

P.Z.L. P.11c

Model: David Zurawski.

Skin and textures: David Zurawski, Dan Waldrep.
Cockpit: David Zurawski.

5. New Aircraft Weapon Sets

FW 190 A-4/U1 (2xMG 151/20)
Fighter-bomber with an ETC 501 ventral bomb rack. Barrel armament reduced to a pair of MG 151/20 20mm cannons.

FW 190 A-4/U1 (2xMG 151/20 + 1xSC 250)
/U1 modification with a SC 250 bomb attached to the ventral bomb rack.

FW 190 A-4/U1 (2xMG 151/20 + 1xAB 250)
/U1 modification with an AB 250 dispersion container under the belly.

FW 190 A-4/U3 (1xSC 250)
Jabo version with an ETC 501 bomb rack. Outer wing cannons removed to preserve weight. Later on named FW 190 F-1.
One SC 250 bomb attached to the ventral bomb rack.

FW 190 A-4/U3 (1xAB 250)
/U3 jabo version. One AB 250 munition dispenser attached to the ventral bomb rack.

FW 190 A-4/U3 (1xSC 500)
/U3 jabo version. One SC 500 bomb attached to the ventral bomb rack.

FW 190 A-4/U3 (1xAB 500)
/U3 jabo version. One AB 500 dispersion container on the ventral bomb rack.

FW 190 A-4/U3 (1xType D Droptank)
/U3 jabo version with a 300 litre droptank under the belly.

FW 190 A-4/U8 (2xType D Droptank)
A so-called "jabo-rei" version, modifications include an ETC 501 ventral bomb rack plus two 300 litre droptanks on the Junkers underwing racks, with the barrel armament reduced to a pair of MG 151/20 20mm cannons. Two oval cuts in the flaps to allow extension when the droptanks are attached.

FW 190 A-4/U8 (1xSC 250 + 2xDroptank)
/U8 jabo-rei version with a SC 250 bomb attached under the belly.

FW 190 A-4/U8 (1xSC 500 + 2xDroptank)
/U8 jabo-rei version with a SC 500 bomb attached.

FW 190 A-5/U2 (2xType D Droptank)
Night long-range fighter-bomber, with attached ventral bomb rack and two 300 litre droptanks under wings.

FW 190 A-5/U2 (1xSC 250 + 2xDroptank)
/U2 modification with a SC 250 bomb on the ventral bomb rack.

FW 190 A-5/U3 (MG/FF Removed)
Jabo version with an ETC 501 ventral bomb rack. Outer wing MG/FF cannons removed to save weight. Modification included underwing ETC 50 bomb racks.

FW 190 A-5/U3 (1xSC 250)
/U3 version with a SC 250 bomb on the ventral bomb rack.

FW 190 A-5/U3 (1xAB 250)

/U3 version with an AB 250 container on the ventral bomb rack.

FW 190 A-5/U3 (1xSC 500)
/U3 version with a SC 500 bomb on the ventral bomb rack.

FW 190 A-5/U3 (1xAB 500)
/U3 version with an AB 500 dispersion container under the belly.

FW 190 A-5/U3 (1xSC 250 + 4xSC 50)
/U3 version with a SC 250 bomb under the belly and four SC 50 bombs on the underwing racks.

FW 190 A-5/U3 (1xAB 250 + 4xSC 50)
/U3 version with an AB 250 munition dispenser under the belly and four SC 50 bombs under the wings.

FW 190 A-5/U8 (2xMG 151/20 + 2xDroptank)
Long range fighter-bomber, with two 300 litre underwing droptanks, and a ventral rack for bomb load. Barrel armament reduced to two MG 151/20 cannons.

FW 190 A-5/U8 (1xSC 500 + 2xDroptank)
/U8 version with a SC 500 bomb under the belly.

FW 190 A-5/U8 (1xAB 500 + 2xDroptank)
/U8 version with an AB 500 container attached.

FW 190 A-5/U17 (1xSC 500 + 4xSC 50)
Jabo version, including a SC 500 bomb under the belly and four SC 50 bombs on the underwing ETC 50 racks. MG/FF cannons removed to save weight.

FW 190 A-5/R1 (1xType D Droptank)
ETC 501 ventral bomb rack attached, with a 300 litre droptank on it.

FW 190 A-5/R1 (1xSC 500)
ETC 501 ventral bomb rack attached, with a SC 500 bomb.

FW 190 A-5/R1 (1xAB 500)
ETC 501 ventral bomb rack attached, with an AB 500 munition dispenser.

FW 190 A-5/R6 (2xWfr.Gr. 21)
Modification includes two underwing Wfr.Gr. 21 210mm-caliber air-to-air rocket launchers.

6. Notes on the Munition Dispensers

There are two new submunition dispensers at your disposal – AB 250 containing 108 SD 2 "Butterfly" bomblets, and AB 500 with 74 SD 4HL anti-personnel bombs. When using these, "Bomb Delay" in the arming screen sets the time between the container release and explosion. For safety reasons the time cannot be less than 3 seconds.

7. Notes on Flying the I-16

The **I-16** fighter differs in handling from the more modern aircraft found in the sim.
First, it has no engine starter, so the engine can only be started on the airfield (with the help of the ground crew). Do not switch off the engine in flight or when making temporary stops.
Secondly, you can only operate the landing gear manually as it is not equipped with hydraulic or pneumatic system. To operate the gear, you need to assign two buttons in the Controls menu, *Lower Gear Manually* and *Rise Gear Manually*. To raise the gear, press the *Rise Gear Manually* button repeatedly until the red lamps on

the dashboard go off. To lower the gear, keep pressing your *Lower Gear Manually* button until the green lamps come on.

I-16 is not equipped with trim controls of any kind. Control surfaces are calibrated for a hands-off flight at cruise power setting at 1,000 meters and 300 km/h. At other speeds and altitudes you may need to apply constant pressure on the controls to maintain level flight.

I-16, as most other fighter-bombers, is not equipped with a bombsight and therefore is incapable of high-altitude level bombing. However, fighter-bombers will drop bombs in a level flight. If you set a *GrAttack* waypoint at 3,000 meters for a bomb-equipped *I-16*, *Bf. 109E* or most other *Jabos*, that's the altitude from which the bombs will be dropped - and their chance of hitting anything will be very small. When creating missions for fighter-bombers with bombs, make sure that their *GrAttack* waypoint is at altitudes no higher than 500 meters.

8. Notes on the new MiG-3 Fighters

There were 315 UBS-armed MiG-3s, and 52 MiGs with dual ShVAK cannons produced.
The MiG-3 version with the AM-38 engine is a field modification based on the two prototypes evaluated in mid-1941. Due to the increased power and lower critical height of the new engine this version shows better performance at altitudes up to 4.0 km (with speed of 547 km/h at sea-level, and 592 km/h at 3.4 km).

9. Notes on the "speedbar" Command

The server hosting an on-line game now has an ability to disable using the so-called *speed bar* feature – the digital information display located in the lower left corner of the screen. The command syntax is:
speedbar [SHOW\HIDE]

If you want players connected to your server not to use these digital instruments, issue *speedbar HIDE*.
You can type in *speedbar SHOW* to restore back the default settings and allow players to use the *speed bar*.

10. Notes on the Event Logging

Any user participating in an online co-operative game, or playing in single-player mode, may now enable logging of events into a text file. To do so, add a *eventlog* key under the *[game]* section in the *conf.ini* file.

E.g.:
[game]
eventlog=coop.lst

In this case, all major activity will be logged into *'coop.lst'* file, and may be reviewed later (i.e. with help of the *Notepad*).

In addition to this, when playing a co-operative mission, the current status of every player in the game is automatically logged into this file at the end of the mission (with score, kills, and dead/alive state), including players that left before the mission ended.
The AI units names are their 'mission' names and basically intended for log-parsing software.
The number in brackets after an aircraft name (i.e. *r01011(0)*) represents an individual crew member of the given aircraft (with 0 being the pilot, 1 - co-pilot or rear gunner, and so on).

11. New 'Home Base' Features in the Full Mission Builder

The *Home Base* object has a new *Aircraft* tab in its properties. You may need to resize the Object window to see it in it's entirety.

The aircraft listed in the *Available* pane will be available on that *Home Base* when on-line. You may add the planes to the *Available* list or remove them into *In Reserve* individually, or by category, such as *Country of Origin*, *Year of Service*, or *Aircraft Type*. Note that you can only operate on currently flyable aircraft.
By default, or when running a mission with *Home Bases* of a previous version, all flyable aircraft are *Available*.

12. On-Line Stat Messages

The server hosting an on-line game may set the 'level of detail' of the server auto-generated stat messages.
The level is set in the *conf.ini* file in the Il-2 folder, in section *[chat]*, in the *autoLogDetail* key.
Ex.:
[chat]
autoLogDetail = 3

You can set the key to the following options:
0 - disables all stat messages.
1 - only player-vs-player kill messages are displayed.
2 - displays player-vs-player, and AI-vs-player kill messages.
3 - a lot of chit-chatting.

13. Integrated FPS Meter

The feature is activated and deactivated via a console command. To bring up the command console, press the "~" key to bring up the chat window, then the ">" key to enter the console mode.
The command syntax is:
fps [START|STOP] [SHOW|HIDE] [LOG <sec>]

START or *STOP* keys are used to make the meter begin working or to stop. Upon stopping, it prints the FPS statistics accumulated to the moment.
SHOW or *HIDE* indicate whether to show the FPS stats in the upper part of the game screen.
LOG sets the interval (in seconds) the FPS stat would be printed into console at. LOG 0 disables printing.
E.g.:
To start accumulating stats silently, use *fps START HIDE LOG 0*. You now may use *fps STOP* to view your average FPS.

14. Icons in On-Line Games

The server hosting an on-line game now has an ability to set distances at which the plane icons will be visible. The command syntax is:
mp_dotrange [FRIENDLY|FOE] [DEFAULT] [COLOR <km>] [DOT <km>] [RANGE <km>] [TYPE <km>] [ID <km>] [NAME <km>]

FRIENDLY of *FOE* keywords define as to what party the following parameters apply – the aircraft of the viewer's army, or the aircraft of the hostile armies.
The following keys define the distance the appropriate icon effect is enabled at:
COLOR - the distance the icon takes the color of the inbound plane's army at. Icons farther than that are drawn in grey.
DOT – how far the 'dot' plane marker is visible.
RANGE – how far to draw the distance numbers in the icon.
TYPE – how far the airplane model or model family is visible.
ID – how far the tactical number is visible.
NAME – how far the aircraft's pilot name is visible (if it is driven by a human pilot).
mp_dotrange DEFAULT restores the Il-2 pre-defined icon set-up.

mp_dotrange run without parameters prints the current icon set-up ranges (may be issued both on client and server sides).

15. Timeout Limits and Auto-Kicking

There is a new *[MaxLag]* section in the conf.ini file.
Ex.:
[MaxLag]
farMaxLagTime = 10.0
nearMaxLagTime = 2.0
cheaterWarningDelay = 5.0
cheaterWarningNum = -1

farMaxLagTime - defines the maximum delay (in seconds) between packets received from a given client. A delay greater than this is considered a 'warp'.
nearMaxLagTime - defines the maximum allowed lag time for an aircraft in an endangered position, or when it is considered being jeopardizing a hostile aircraft. Giving lower values is meant to address 'warp-on-purpose' issue.
cheaterWarningDelay - defines the delay the system will take no actions after it finds a player behavior out of bounds. Used to avoid issuing multiple warnings on one glitch.
cheaterWarningNum - defines the number of warnings issued before kicking the player. The value of -1 disables auto-kicking.

16. B/W Intermission Tracks

To make a pre-recorded track file play as B/W movie between missions in a given campaign, insert a link to it, preceded with a '*' symbol, into the [list] section of the 'campaign.ini' found in the given campaign folder.
Ex.:
[list]
* Intros/Intro.trk
recon20.mis
* Intros/EndIL2.trk
recon21.mis
* Intros/End109.trk
recon22.mis

17. On-Line Time of Day commands

Online host can change the time of day in the mission at any time while it is running.
The command must be run from the command console. To bring up the command console, press the "~" key to bring up the chat window, then the ">" key to enter the console mode.
The syntax of the ToD command is as follows:
tod [hour.minute]
The hours should be used in the military format, i.e. 17 hours for 5 pm, 23 hours for 11 pm, etc
For example, to set time of day to 6:30 am, run the following command:
tod 06.30
To set time of day to 10:15 pm, run:
tod 22.15

18.Some Smart Features

Online Score

In addition to the "**>user**" command you may press the "**Online Rating**" button ("**S**" by default) to view scores during a multiplayer session.

Game Subtitles

If you'd like to eliminate subtitles appearing on screen for pilots' voices:
1. Using the Windows notepad, open the **conf.ini** file.
2. Find the string **[game]** in the conf.ini file.
3. Find the NoSubTitles line and change the "0" to "1"

NoSubTitles=1   (No subtitles for pilots' voices)
Note the letter cases. In the original release the line read NoSubtitles (lower case "t") which was incorrect.