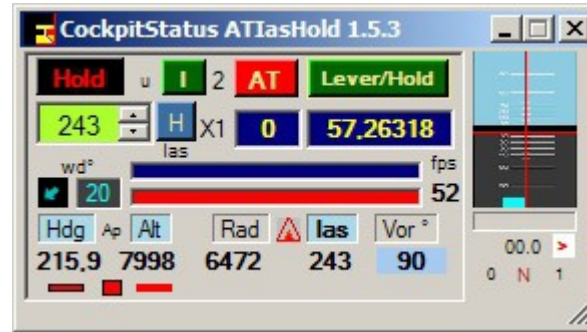


ATlasHold 1.7.0 2021

Introduction

You never get Lost



AtlasHold is creating in automatic a:

- Waypoint for any Rwy, real or virtual. At 20 nm in front of the Rwy at 180 °. You can Fly to the Wpt and approach the Rwy.
- A Virtual Runway at any World position Lat/Lon. Just click on the [V] button. Fly and return. A classic example is the "V" on the Sea.

The name of this application comes from the original idea of creating an "IAS HOLD" feature for any Airplane.

- This system is not using any V/S or invisible flaps.
- You can use it with any Airplane. NO NEED of a Autopilot.
- The ATlasHold is only based on Engine Pressure.
- A unique feature.

All other functions were added later.

- ATlasHold is working with FSX, MSFS and X-Plane using FSUIPC, FSUIPC7, XPUIPC.

ATlasHold is in use since 2011. Updated in 2021.

Credits to:

- Pete Dowson the author of the MakeRunways utility and FSUIPC / FSUIPC7.
- Paul Henty (Author of the FSUipcClient.dll)
- Ed Williams and his Aviation [Page](https://edwilliams.org/avform147.htm): <https://edwilliams.org/avform147.htm>

ATlasHold 1.7.0 2021

Install ATlasHold

With one click create a Virtual Runway on Air, Ground, Carrier and return to.

- Create a NEW FOLDER (example: 'ATlasHld')
- Unzip the [ATlasHld.zip](#) into the new Folder
- ➔ Create a Desktop Connection x (ATlasHld.exe).
- VIDEO + PROGRAM COLOR APPEARANCE

You should *USE THE WINDOWS CLASSIC* Desktop appearance for Windows 7.

Open the Program with 'Administrator privilege'.

Open AtlasHold when your Airplane is sitting on a Runway or on the Air !

Pay attention to the Toolotips + [H]elp. Mouse Hover over all Labels + Fields.

Pls. Note that the text of larger messages can be enlarged. Ctrl + Mouse-Wheel.

NOTE:

When you open the program you have to choose the Joystick File suitable for the simulator in use.

Included are 2 files. (Saitek PRO) For FSX (MSFS 2020) + X-Plane.

You need to adjust the data for your joystick and Simulator in use.

Or, create a new file with the name you need. (depending on the Simulator)

Remember and consider: MSFS is setting some Joystick values on different buttons. (Saitek Yoke Pro)

READ THE NEXT PAGE “First thing to do”.

AtlasHold – 1.7.0 2021

First thing to do 1/4

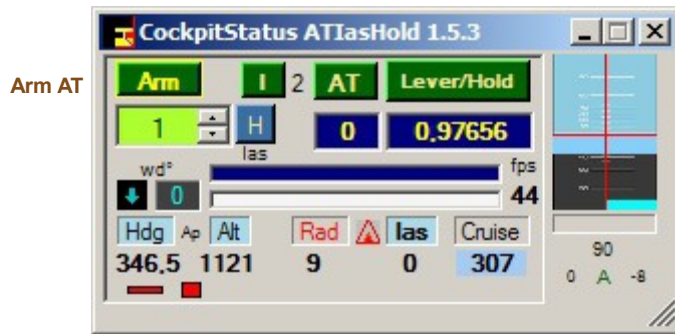
When you open ATlasHld the first time the request for registering is appearing.
The FSUIPC LOG-File Folder Path must be registered and saved.

Example:
"C:\Program Files (x86)\Microsoft Games\Microsoft Flight Simulator X\Modules\FSUIPC4.log"
"C:\FSUIPC7\FSUIPC7.log"

The File flppath.txt is created. (1 textline)
flppath.txt File - no empty line in between - observe the quotation marks

If this file should be corrupted delete this file and Re-Start the program.

 Opens the Flight Panel



The ATlasHold Lever PRESSURE is always working with:
FSX, X-Plane + MSFS

Help Notice

The help is very extensive and not everything is updated from 2011 to today.
Follow the Tooltips that are 98% up to date.
Mouse Hover over each Label, Fields + Buttons.

The Icao Airport Selection Filter

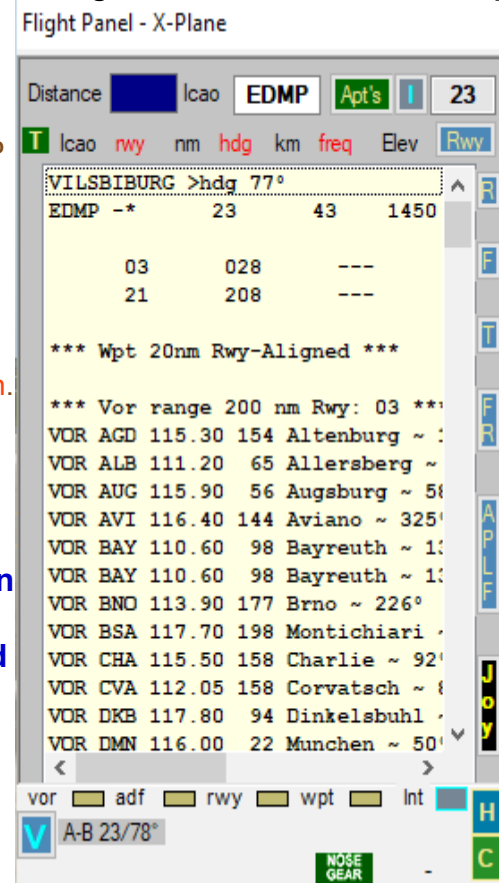
The '*' is indicating ILS

Dist nm Icao Distance from Aircraft Position
 [] [] Apt's within range 50 nm Default
 [100] [] Apt's in Range of 100 nm
 [] [KJFK] Only KJFK is shown/selected
 [100] [KJFK] Apt's in a range of 100nm from KJFK.

Recognize FSX, MSFS, X-Plane, Prepar3D (Simconnect)

Sel. Distance

Stay on (T)op



Distance, Icao, Airports,
(!)Intersections,
Distance to dest. Rwy
[Rwy] Approach Radar

2 Radar – L/R click

Flight Plans

TCAS FSX, MSFS

Frequencies +
PMDG 777, NGX

AP
Light
Fuel

Joystick

Edit Joystick

Help + H- Interface.

Connect to:
"Flightaware"
"SkyVector"
World Apt's + Charts

VOR + ADF selection.

Excluded with
this update.

Use the Flight Plan
or the big Radar
[Apt's] Listing and
change Fly-To.

Fly to Buttons
Virtual Runway

AtlasHold – 1.7.0 2021

First thing to do 2/4

Using different Flight Simulators

Microsoft Flight Simulator FSX

AtlasHold is using the FSX environment as Default.

- FSUIPC
- Microsoft.FlightSimulator.SimConnect.dll (FSX)
- FSUIPCClient.dll

X-Plane

If you are using X-Plane download and install the XPUIPC interface.

In the ini-file write **your** IP Address (Server Address)

- [XPUIPC SETTINGS]
- Tune value = 00
- Server Address = 192.168.1.64

The AP and Elevator Trim value (important for a Landing approach) is not evidenced with any Airplane (Trim Field) with AtlasHold but X-Plane is setting the Saitek Pro Joystick for this use in automatic. (other Joysticks ?)

Example: the Citation CJ4 v 1.07 – AtlasHold is reading the TrimValue on the Runway TakeOff Display. (XPUIPC)

The X-Plane AP + Elevator Trim is very smooth.

Microsoft Flight Simulator MSFS 2020

AtlasHold is running with MSFS using the FSUIPC7 program/interface by Pete + John Dowson.
Just install the FSUIPC7.

There are some "logical" Autopilot coding differences which FSX + X-Plane do not have.

- The AP-TRIM + Elevator TRIM is only working with the AP in OFF position. This is a problem during a Landing Approach.
- The AP-ALT does not accept repeated ALT settings without 1. setting ALT to OFF + 2. to ON. This is resolved with AtlasHold. (the MSFS V/S would not engage without coding correction)

The Big Radar Selection [**V/S Dist**] and [**V/S Rwy**] has been adapted in order to overcome this inconvenient. (**check the AP + ALT**)
(The idea is to avoid known Rwy approach obstacles) Adjust your Apl asset, flaps + speed.

[V/S Rwy] set the VSApproachElevationPlus value to "0".

This is increasing the descending speed VS + Adjusting the Glide-Slope.

VSApproachElevationPlus > Select 0 feet x MSFS.

V/S Rwy 100 ▾

Select: 0 ...500 Step 50 feet

ATlasHold – 1.7.0 2021

First thing to do 3/4

Unzip the included programs related to ATlasHold.

The programs are here:

Your programs Folder...\Subfolder

...\AddAirports “AddAirport.zip”

...\FullSize (is installed - no Unzip)
FullSize is also listing all actually open programs.

...\MouseClicks “MouseClicks.rar”

...\RwyLength “RwyLength.rar”

- 1) UNZIP only into the same Folder.
- 2) Program *.exe file: Make a direct connection to your Desktop.

AtlasHold – 1.7.0 2021

First thing to do 4/4

You are the Pilot. Do not forget.

Use the Flight Plan or the big Radar [Apt's] (L)isting and change Fly-To.

A simple Flight Plan could be:

>>> Flight Plan (2)

The Glide Path Slope ENTRY-ALT is very important.

Consider the Flight Plan Test Example on page: Flight Plan (3 + 4)

Since the virtual wpt is located at 20 nm from the Rwy a 20nm-Entry-ALT does not guarantee an ideal Glide Slope Descend start if you approach the Wpt with a wrong angle.

You avoid this by selecting a lower Approach Glide Path Entry ALT.

The best way is to use a Vor, Adf or intersection behind the virtual Wpt.

The less the ALT closer to the Rwy the descending begins.

Crossing the virtual Wpt at 20nm Rwy distance aligned with the Rwy

The Airplane ALT should be at the same ALT as the [GB Alt] you select. (or different)

Flying at LOWI Rwy 26 is a classic example that requires the Pilot to think twice before choosing standard altitudes. A Flight Plan From LOWG to LOWI via RTT is included.

Remember the correct use of the Glide Slope Descentometer.
Never react fast during a final approach.
Wait and see. The Airplane is not a Ferrari.

The new Flight Panel.

Flight Panel - FSX

Distance Icao EDDB

| T | Icao | rwy | nm | hdg | km | freq | Elev | Rwy |
|---|------------|-----|-----|-----------|--------|------|------|-----|
| | SCHONEFELD | | | >hdg 345° | | | | |
| | EDDB | ** | 332 | | 615 | | 157 | |
| | | 07L | 066 | | 110.70 | | | 52 |
| | | 25R | 246 | | 109.90 | | | 52 |

< >

vor adf rwy wpt Int

A-B 332/345°

NOSE GEAR

Connect to a real Airport Information Center.
L-Click > connect to "flightaware" world apt information
R-Click > connect to "SkyVector.com". World Apt's + Charts.

AtlasHold – 1.7.0 2021

The Flight Panel [APLF] View

Remember:
The Distance Field is
used x different
settings.

Flight Panel - MSFS

Distance Icao **LJMB** Apt's 32

T Icao rwy nm hdg km freq Elev **Rwy**

Master Av Batt Spoiler

Brakes Pause V/S

AP FD Hdg Alt

Nav Apr IAS Nav/Gps

Lights

Naviga Panel Beacon

Recog Wing Strobes

Land Taxi Water Rudder ?

Cabin Logo

Gallon **FUEL** Gall/Lbs/Kg 50%

cty 2160 1075 1085

aircraft

Fly to Buttons (V)irtual Runway Flaps extension

vor adf rwy wpt Int **H**

V A-B 30/159°

C

NOSE GEAR

The VOR, ADF + Int(Intersctions) are only used by the Flight Plan system.
You use the Wpt (never get lost) + Rwy selections.
Rwy is leading you to the Rwy-Course.
A Rwy-Approach must be selected with the Radar [V/S rwy]



ATlasHold – 1.7.0 2021

Using the Approach System

The AT-las-Hold Feature is not using any Autopilot just the engine pressure for stabilizing the speed.

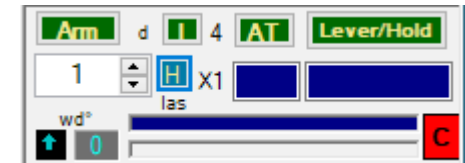
- Your aircraft must have a Autopilot with Hold(ALT) and Heading Gauge (Hdg).
- The FSX aircraft.cfg file must include the following AP parameter section:

```
[ autopilot ]
autopilot_available=1
flight_director_available=1
```

- You can use the Default Cessna 172 autopilot – in Panel.cfg file add:
//On Top under [Window Titles] write

Window??= AP

```
[Window??] //in place of ?? use your own Window sequential Nr.
Background color=2.2.2
size_mm=156,48
window_size_ratio=1.000
position=8
visible=0
ident=RADIO_STACK_PANEL
zorder=3
gauge00=Bendix_King_Radio!Bendix-King Radio AP, 0,0,156,48
```



Free the Ailerons when approaching + using the automatic Approach-System!

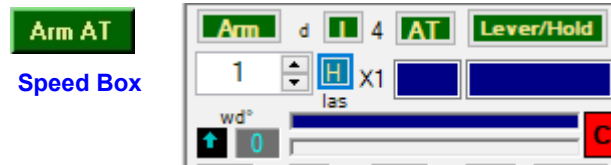
If your Autopilot is locking the Ailerons just open + re-close the [ALT] Button! Same procedure with Heading!
This is not depending on ATlasHold!

- Using ATlasHold with Add-On airplanes
 - Some add-ons are using a own AP-System. In that case you must verify if ATlasHold can open the AP-Functions via Joystick or the CheckBox-Panel [APLF] + or you should use the Cockpit-AP-Switches first.
 - ATlasHold has been tested with all major Add-on airplanes without problems.
 - Example: Stratocruiser B377 = OK, Dash8 Q400 from Majestic can use all CockpitStatus AP-Commands.
 - Example: For the CS B-52 do not forget to set the FD (flight Director) + the Mode Selector to “Tacan”.

ATlasHold 1.7.0 2021

AT-las-Hold System

The ATlasHold System.
A unique Feature x
any Airplane.



Increasing speed to a disproportionate speed such as from 100 to 300. In this case it takes time to reach 300. Fly at 290, 300 or 310 and then engage the AT [Arm].

las-Hold is only based on a few known Aircraft-data details. This is important to know in order to use it properly. las-Hold is using only the engine-pressure and does not know anything about your aircraft and engine type. Do not confuse the AT-Control with a N1-Control!

- The [I] Button. You Fix the Hold-Speed equal to the actual Speed or manually enter the speed.
- The [Lever/Hold] Button can interrupt/disengage the AT and, when closed again, engage the AT at the Actual Speed.
- You can select or type any speed manually using the speed box.

• **When airborne and at cruise Altitude:**

- Click on [Arm]. (Button change color) – Disengage/Close AT-las, toggle this Button.

Move Back your Throttle Lever to the Default “Null” Position.

Engage/Click the [AT] Button.

The AT-las Hold procedure is starting.

- **MSFS Simulator:** No Engine Pressure ? Click on the A,N,I button (Adf, Vor, IIs) below the PFD Instrument.
- If you change Altitude the speed will change accordingly as it is with any other Hold-Speed System.
- On Ground AT-lasHold is disengaged.
- The [Lever/Hold] **Button can be used in any moment, with or without AT engaged.** “Lever/Hold” is holding the actual engine-pressure in place of the Throttle-Lever.
- [Lever/Hold] can be engaged on Ground.
- For a real 100% pressure use the Cockpit Throttle or the FSX “F4” key as a Joystick does not keep 100% pressure normally.
- The [las] Bar is indicating the selected speed in relation to your aircraft-cruise-speed.
- The Bar below is indicating your actual speed + engine pressure. Background colors, yellow + white.
- The [Speed Box Field] is changing color to green when you reach the desired speed. (-/+ 1 Knot)
- **You must keep your hand OFF the throttle lever in order to see speed + pressure correctly.**



ATlasHold 1.7.0 2021

Wind Drift Correction

Fuel

When there are winds blowing to the right or left of the plane, the heading must be offset into the wind in order for the plane to still fly in the same direction.

Click on this Button 

(Button Color is red when engaged)

stay on course

On Ground the Wind Drift is closing.

Use the small arrows up/down

Wind Drift correction from -20° upto 20° - from left to 0 from 0 to 20° right correction.

When opening or closing, the Wind Drift Value is always 0 (default).

For a initial Drift Value use the general Wind Drift Correction rule with ATlasHold:

Wind speed Knots: $15 \div 5 = 3$ (if to left use -3 – to right use 3)

Wind speed Knots: $43 \div 5 = 8$ (could be between 8 and 10)

Use this feature mainly for a Runway Approach starting at a reasonable distance.

The Wind Drift Value and direction is visible on all Radar.

You center the Rwy !

Open the [APLF] Panel. **Fuel**



Click on [Fuel] Re-Fuel 50 % of Total Cpty.
Click on [Gallon/Lbs] change measure.
Input 60 into the Distance Field. Fuel 60%.

FSX

If your aircraft does not use the Fuel-Dump you can change the Aircraft.cfg file.

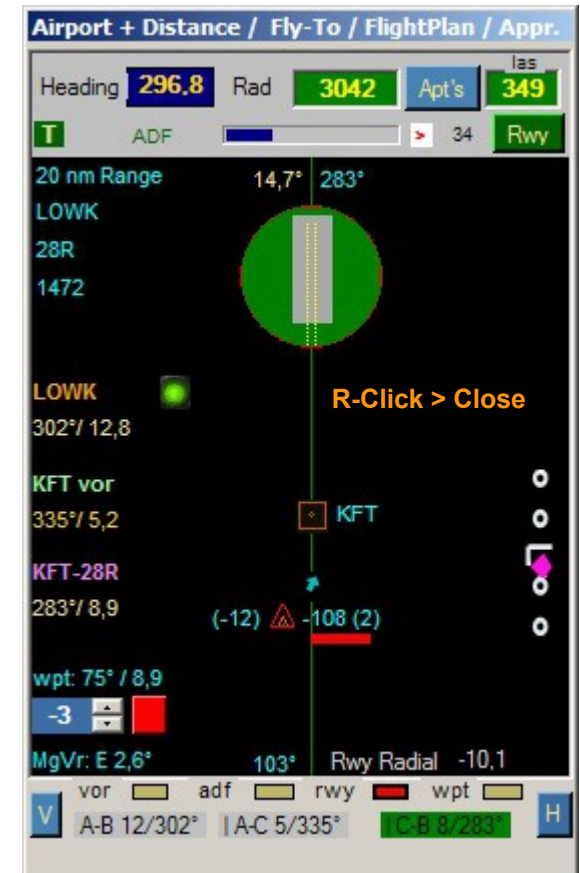
Under the [fuel] section add:
`fuel_dump_rate = 0.00685`

(the % of max Qty dump x sec)

Initial / actual fly to and distance
Runway approach

- to LOWK fly 302° / 12,8 nm dist.
- to VOR fly 335° / 5,2 nm dist.
- to RWY fly 283° / 8,9 nm dist.
- to Virtual wpt fly 75° / 8,9 nm dist.
- Rwy deviation -12°
- Approach ALT -108 feet = too high
- Glide Slope Diamond "Apl too high".
High = too Low. Low = too high.

 The Airplane Rad-AGL





Flight Simulator / ATlasHold with your Joystick

Airplane must be on Ground !

- Open the Joystick connection View. Click on [Joy]
- Select the FSX.ini or X-Plane.ini file. You can create a new “ini” File with different names.
- Move the Mouse-Pointer on a Number Field (not the description field] and select.
- At the first message answer NO
- Select a Joystick button. The Value is visible. Click on the number Field selected and register the Value.
- Multiple Joystick commands:
Release ALL buttons TOGETHER
Number of buttons is indicated
The command value is visible
Click on the number Field selected and register the value

The SHIFT Button Value

The shift button is important and the value is 1.
Shift + button-value 64 = 65

Remember and consider: MSFS is setting some Joystick values on different buttons.
Saitek Yoke Pro

Error control

Any Data exchange is evidenced with the actual value and new value. Confirm or Not.
If a command value is already existing a message is advising you.

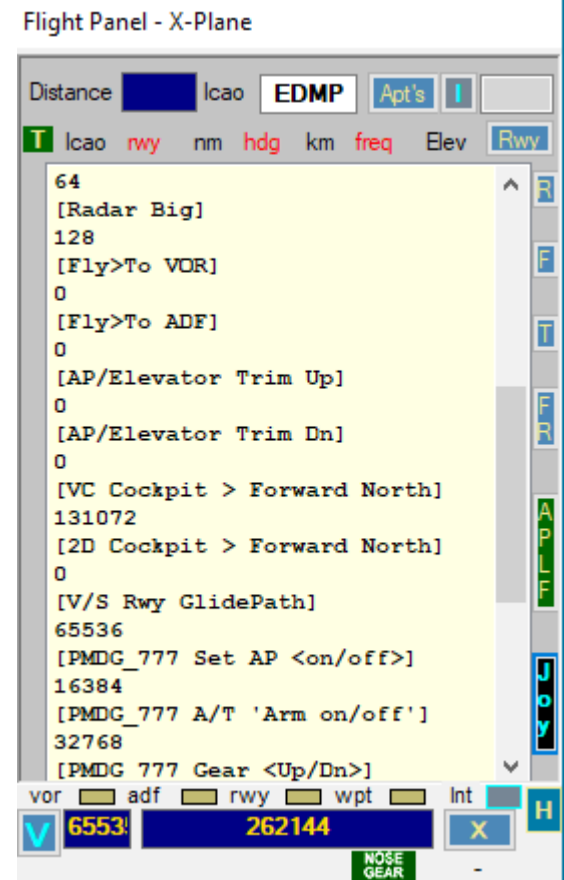
NOTE:

When you open the program you have to choose the Joystick File suitable for the simulator in use.

Included are 2 files. (Saitek PRO) For FSX (MSFS 2020) + X-Plane.

You need to adjust the data for your joystick.

Or, create a new file with the name you need.

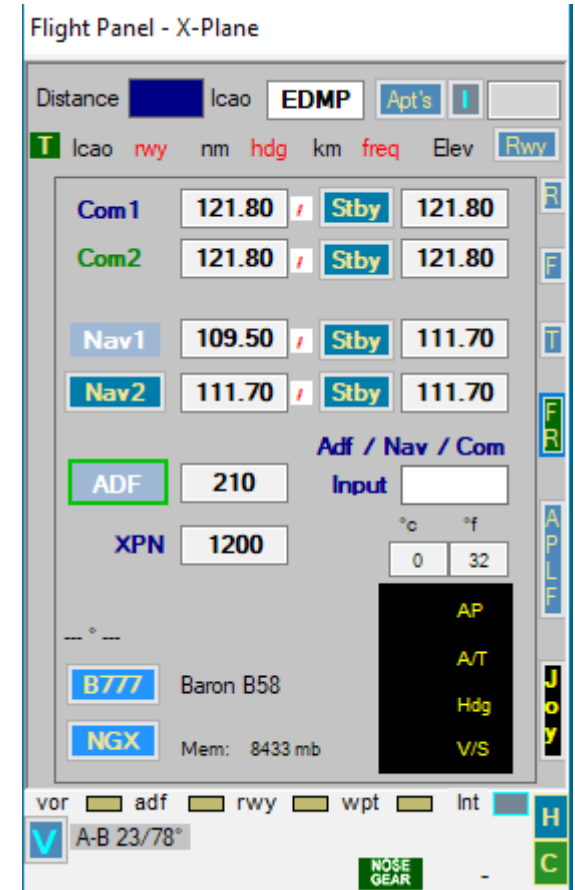




ATlasHold 1.7.0 2021

The Frequency Input View [FR]

- Button: Nav1 standby / Nav2 / Nav2 standby
- Button: ADF
- Click on the small red on white '//' Label, exchange frequencies.
- When you click any of the frequency buttons, that frequency will replace the NAV1 or ADF Frequency.
- The Frequency Input Field (only numbers allowed but not the leading '1')
 - Example: Freq 110.90 - Input [1090]
 - Example: Freq 115.00 - Input [1500]
 - Example: Freq 117.25 - Input [1725]
 - Example: Freq 108.00 - Input [0800]
 - Example: Freq 109.25 - Input [0925]
- Adf Example: Adf-Freq 290 - Input [290] Adf-Freq 1350 - Input [1350]
- When you press any of the Frequency Buttons, that frequency will change to the Frequency INPUT VALUE.
- If the Input-Field is EMPTY and you press any of the NAV-Frequency buttons then this frequency will replace the NAV1 Frequency.
This is meaning that you could prepare several frequencies for later use with NAV1.
- COM1 + COM2 Freq Input same as Nav-Freq.
Freq into 'Stby' then you should use the 'exchange' switches.
- Make short clicks on the Freq-Button!
- **Selecting Frequencies with the Flight Panel**
 - Rwy-ILS Freq. are copied directly into NAV1
 - Vor Freq are copied directly into NAV2
 - Adf Freq are copied directly into ADF1



ATlasHold is never using Frequencies for any automatic approach or else.

Selecting a IIS Freq you see the IIS Deviation on the Radar and HSI just for your reference.

Selecting a Wpt with a Freq that Freq is copied into the Cockpit-Instrument.

You can approach in automatic any Wpt: Rwy, Wpt, Vor, Adf without Frequency. This is meaning that you could overwrite any Freq that is saved when you select a Wpt.

The whole system is only working with real world Coordinates + Mathe-Formulas by 'Ed Williams'.

ATlasHold 1.7.0 2021 – Flight Plan 1/4

Flight Plan x X-Plane

Departure Rwy **Select** H

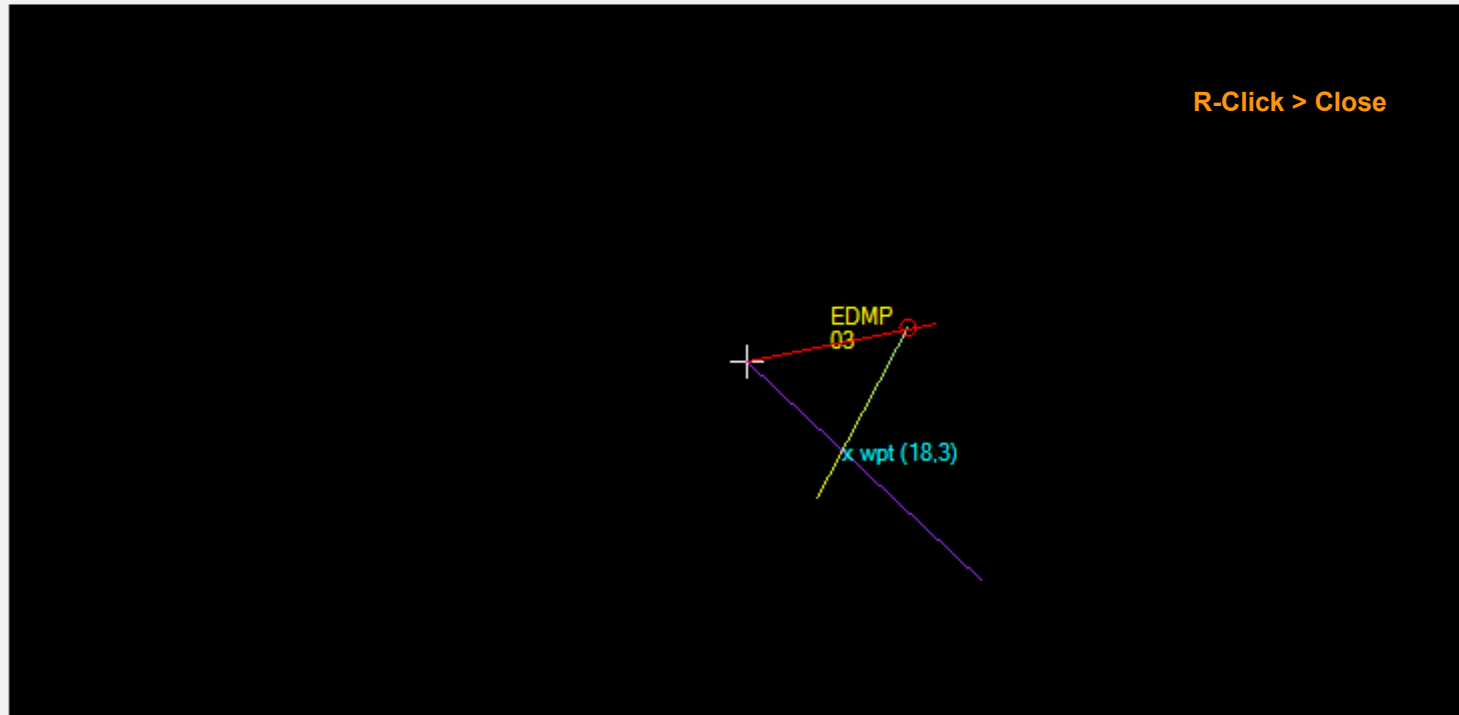
Destination VOR ADF Intersection via Apt Virtual Wpt Exit

Runway S S S S Rwy Approach X

| | | | | | |
|------|----------------------|------|-----------|-------------|---|
| 00CA | GOLDSTONE_GTS | 3038 | 35.350525 | -116.888367 | ▲ |
| 00M | THIGPEN FIELD | 351 | 31.953700 | -89.234500 | |
| 00R | LIVINGSTON MUNICIPAL | 151 | 30.685900 | -95.017900 | |
| 00V | MEADOW LAKE | 6874 | 38.945400 | -104.569500 | |
| 00WI | NORTHERN_LITE | 860 | 44.304283 | -89.050111 | |
| 00XA | WISKEY_RANCH | 271 | 30.224039 | -96.014153 | |
| 01G | PERRY WARSAW | 1557 | 42.741800 | -78.049500 | |
| 01ID | LAVA_HOT_SPRINGS | 5268 | 42.608250 | -112.032461 | ▼ |

An extensive and complicated flightplan is never the right choice.
 In reality creating a simple Flp it is not always possible due to the huge air traffic.
 Tons of Fuel could be saved.

flp Range nm Zoom up dn Load Flp Save Flp



Read the ToolTips.

Place your Aircraft on a Runway start. Departure Airport.

When selecting an Airport and a Runway Destination this data is copied into the Flight Plan only if there is no Flight Plan selected / loaded.

In this way a Flight Plan is initiated.

The next page ends the Flight Plan with 2 Waypoints:
 [virtual Wpt] at 20 nm in front of the runway
 [Rwy approach]

This is a simple Flight Plan.

When you select a Runway ATlashold knows where the Departure Airport is and asks for confirmation for the Apt + runway.

The Flight Plan Name is created in automatic when you save the FLP.

The graphic display

- The Red Line is the actual Heading
- The purple Line is always pointing to the virtual waypoint at 20 nm in front of the Rwy. Here: x wpt, distance 18.3 nm.

Using the virtual Runway and the virtual Waypoint you NEVER GET LOST !

Flight Plan x FSX

Departure Rwy **Select** **H**

Destination Virtual Wpt

Runway Rwy Approach

| | | | | |
|------|----------------------|------|-----------|-------------|
| 00CA | GOLDSTONE_GTS | 3038 | 35.350525 | -116.888367 |
| 00M | THIGPEN_FIELD | 351 | 31.953700 | -89.234500 |
| 00R | LIVINGSTON_MUNICIPAL | 151 | 30.685900 | -95.017900 |
| 00V | MEADOW_LAKE | 6874 | 38.945400 | -104.569500 |
| 00WI | NORTHERN_LITE | 860 | 44.304283 | -89.050111 |
| 00XA | WISKEY_RANCH | 271 | 30.224039 | -96.014153 |
| 01G | PERRY_WARSAW | 1557 | 42.741800 | -78.049500 |
| 01ID | LAVA_HOT_SPRINGS | 5268 | 42.608250 | -112.032461 |

wpt
rwy

flp Range nm Zoom

Read the ToolTips.

The last Wpt is the [Rwy] Approach.

The [Rwy] approach is only leading you to the Runway but this is NOT the V/S Rwy approach that is approaching the runway following the GLIDE SLOPE descent procedure.

The [V/S Rwy] approach is selectable from both Radar.

Selecting Landing is your Pilot choice.

Missing Waypoints can be added. Just use the DataFiles and add or change data. Observe the precise COLUMN and LINE-Position.

For Airports use the AddAirports program.

Don't select any Flight Plan.

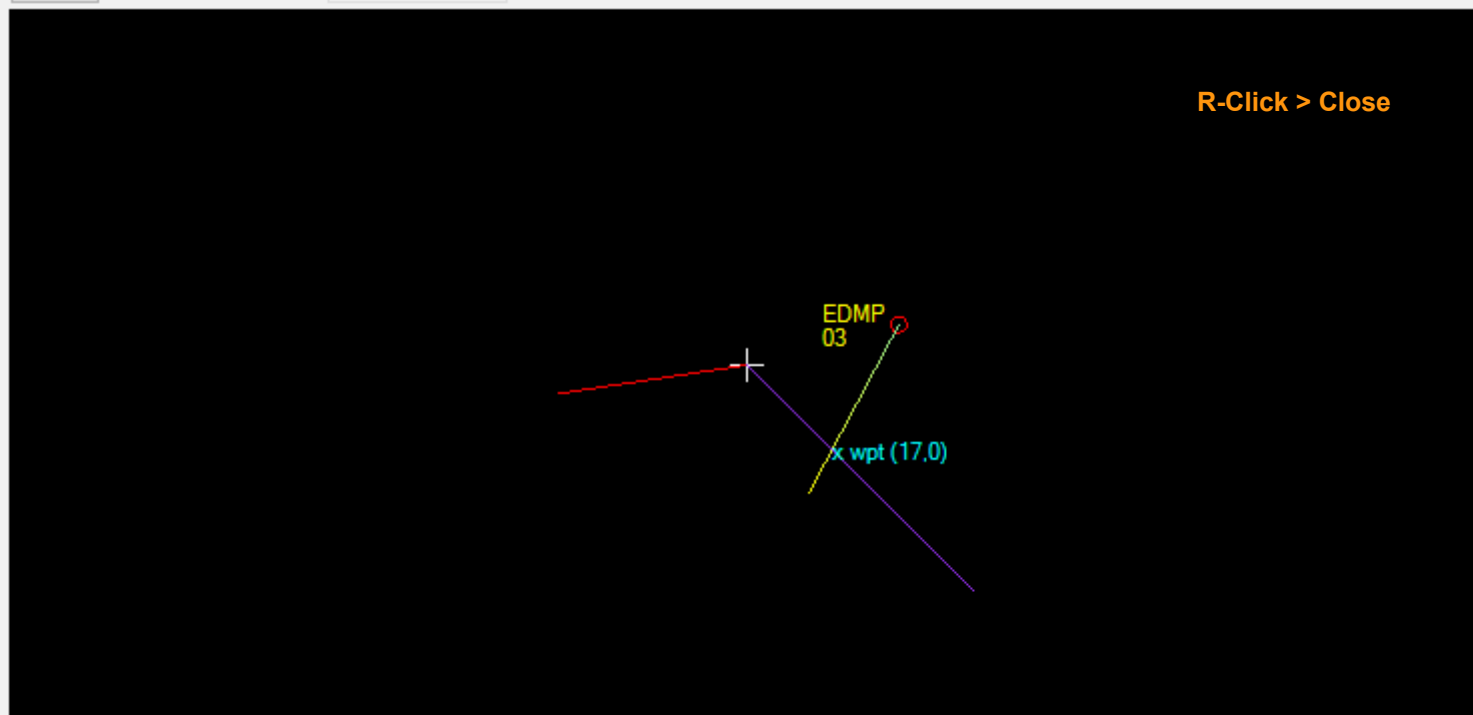
Place your Aircraft on Rwy 26L EDDM. Flight Plan View: select Apt EDMP Click on Rwy 03 and follow the messages. Now your FlightPlan is copied into the Flight Plan View.

Now select [x] Virtual Wpt and [x] Rwy. Set the V/S distance to 4000 feet in [Flight Panel] > distance Field Take Off. (Gear, Flaps) then engage the [V/S Dist] Engage/Start the Flight Plan. [flp]

(or just use the Fly_to Buttons: [wpt] then [rwy])

- When the Glide Slope (Diamond) is centered engage [V/S Rwy]. **DON'T miss that moment.**

You do not have to Save this Flp.



AtlasHold 1.7.0 2021 – Flight Plan 3/4

Flight Plan x X-Plane

Departure Rwy 1.619 nm

Destination **VOR** **ADF** **Intersection** **via Apt** Virtual Wpt

Runway S S S S Rwy Approach

| | | | | |
|------|----------------------|------|-----------|-------------|
| 00CA | GOLDSTONE_GTS | 3038 | 35.350525 | -116.888367 |
| 00M | THIGPEN_FIELD | 351 | 31.953700 | -89.234500 |
| 00R | LIVINGSTON_MUNICIPAL | 151 | 30.685900 | -95.017900 |
| 00V | MEADOW_LAKE | 6874 | 38.945400 | -104.569500 |
| 00WI | NORTHERN_LITE | 860 | 44.304283 | -89.050111 |
| 00XA | WISKEY_RANCH | 271 | 30.224039 | -96.014153 |
| 01G | PERRY_WARSAW | 1557 | 42.741800 | -78.049500 |
| 01ID | LAVA_HOT_SPRINGS | 5268 | 42.608250 | -112.032461 |

int XANUT 47.116269 15.911881
 apt LHSY SZOMBATHELY 732 47.282500 16.626389
 int SOPRO 47.587778 16.802500
 wpt
 rwy

**Crossing the Wpt the Glide Path Slope is activating the Descentometer.
 Consider it only if you are on the right Rwy-Course.**

Read the ToolTips.

This is only a Wpt-Test Flight.

For using a Search List first click on the specific Label. VOR, ADF

The Runway Length for both, departure and arrival, is used for the Runway Take Off and Landing Panel.

[Load Flp]
 6 Test Flight Plans are included.

If you want create a new Flight with the Flight Panel you must first deselect the active Flight Plan.

This is done using the Button [X].

• If by chance a wpt is not performed stop the [flp], mouse-click the next wpt and reopen the Flight Plan [flp].

• Remember the correct use of the Glide Slope Descentometer. Never react fast during a final approach.

Wait and see.
 The Airplane is not a Ferrari,

Range nm Zoom

AtlasHold 1.7.0 2021 Flight Plan 4/4

Runway Approach - Alignment- Intersections

- You should select a Wpt that is aligned with the destination Rwy with a maximum of 15° Runway-Deviation. Intersection, VOR, ADF..... The Wpt selected should be some nm before the virtual Wpt or in any case 20 nm before the Rwy-Start. Select your **Cruise** Altitude. Flight Panel > [Distance] and start the Descentometer Radar > [V/S Dist.]
- Before Approaching the Rwy Alignment wpt select the requested Glide-Path Altitude. Radar > [GP Alt] x 10nm or 20nm Rwy distance. Select Radar > [V/S dist.]. Consider the time you need x descending / ascending. The Blue circle Rage is set to the Distance you need. You can select any different, LOWER Altitude (manual input in the Distance Field). The Glide-Path descending would start nearer to the Rwy.

Flight Plan x FSX *Any Waypoint position you select is shown on the graphic display. You can delete it.*

Departure: EDDM Rwy: 26L 2.155 nm

Destination: EDDS

Runway: 25

Select: VOR, ADF, **Intersection**, via Apt

Virtual Wpt: Rwy Approach:

| | | | | |
|--------------|-----------|---------------------|------------------|-----------------|
| MA045 | 40 | 273 | 48.398847 | 10.814025 |
| MA046 | 45 | 270 | 48.367183 | 10.673578 |
| MA047 | 39 | 284 | 48.525233 | 10.853381 |
| MAGAT | 12 | 267 | 48.341522 | 11.496439 |
| MALAB | 79 | 290 | 48.826320 | 9.951784 |
| MAMOR | 36 | 25 | 48.885834 | 12.222222 |
| MANAL | 27 | Non un numero reale | 47.899353 | 11.800000 |
| MATIG | 72 | 101 | 48.058592 | 13.541495 |

There is a difference between the 2 Intersection selections.

The Flight Plan Intersection (observe the Heading that could be useful)

- Search by Name – Input a Name - Example “Abruk” or “Abr”
- Search by Distance. Input a Distance (80) from you actual Airplane position. MALAB is at 79 nm far from EDDM Rwy 26L. Heading 290°. But there is no Rwy deviation.

The Flight Panel Intersection [I] selection (maximum Rwy deviation = 15°)

- Search by Name
- Search by Distance. Input 30 into the Distance Field. The Result is quite different.
- You select MALAB that is aligned (0° deviation) and behind the virtual Wpt (20nm) at 29nm. The selected MALAB Intersection Name is copied into the Flight Plan Intersection Field for your Flight Plan use. Here, each distance is relative to the Rwy!

Flight Panel - FSX

Distance: 30 Icao: EDDS Apt's: I 105

| T | Icao | rwy | nm | hdg | km | freq | Elev | Rwy |
|----|------|-------|----|-----|------------|------|------|-----|
| 0 | ~ | 32DME | 4 | | >48,710964 | | | |
| 0 | ~ | CD25 | 10 | | >48,738333 | | | |
| 0 | ~ | DS030 | 4 | | >48,711289 | | | |
| 0 | ~ | DS031 | 6 | | >48,722136 | | | |
| 0 | ~ | DS032 | 10 | | >48,741570 | | | |
| 0 | ~ | DS035 | 12 | | >48,748028 | | | |
| 0 | ~ | DS036 | 4 | | >48,711914 | | | |
| 0 | ~ | DS512 | 13 | | >48,751720 | | | |
| 0 | ~ | DS513 | 17 | | >48,769749 | | | |
| 0 | ~ | DS514 | 21 | | >48,787679 | | | |
| 0 | ~ | DS515 | 27 | | >48,814408 | | | |
| 0 | ~ | DS625 | 8 | | >48,728472 | | | |
| 0 | ~ | FI25 | 4 | | >48,711028 | | | |
| 0 | ~ | MALAB | 29 | | >48,826320 | | | |
| 0 | ~ | UNSER | 9 | | >48,733800 | | | |
| 10 | ~ | DS518 | 21 | | >48,844459 | | | |
| 10 | ~ | DS535 | 27 | | >48,893750 | | | |
| 11 | ~ | DS524 | 21 | | >48,723492 | | | |
| 11 | ~ | ELMID | 18 | | >48,833064 | | | |
| 11 | ~ | RO61 | 11 | | >48,780006 | | | |
| 12 | ~ | DS519 | 17 | | >48,826492 | | | |

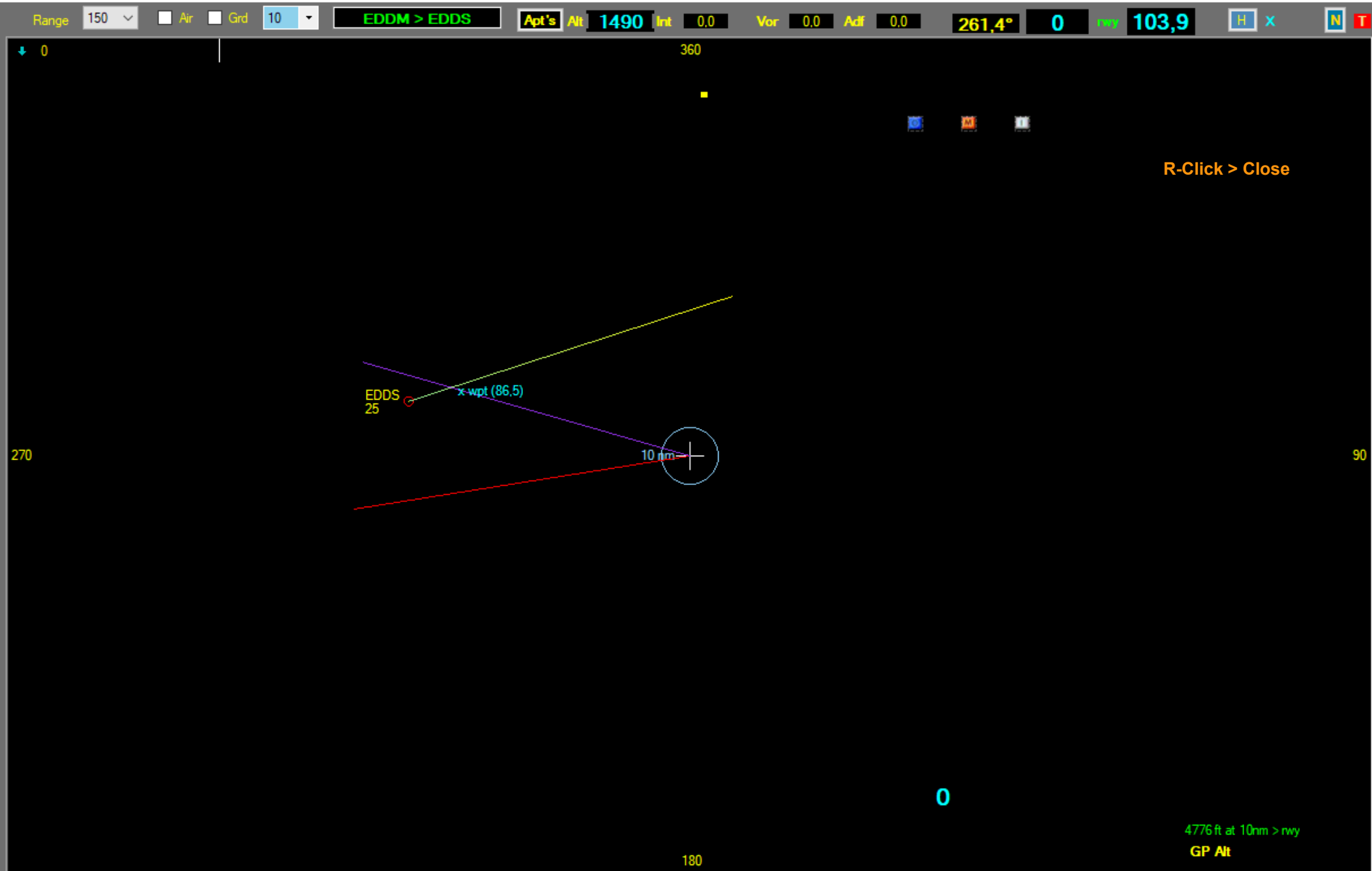
vor adf rwy wpt Int H

A-B 103/281° NOSE GEAR - C

Flying at LOWI Rwy 26 is a classic example that requires the Pilot to think twice before choosing standard altitudes. A Flight Plan From LOWG to LOWI via RTT is included.

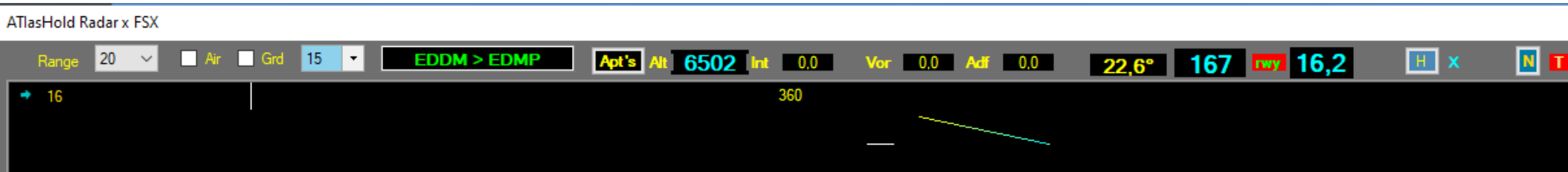
ATlasHold 1.7.0 2021 – Big Radar - 1/3

ATlasHold Radar x FSX



ATlasHold 1.7.0 2021 – Big Radar - 2/3

Read the ToolTips



- **Range:** is selected in automatic based on the Dist To Destination (1 to 3000 nm). Can be selected only when the [Apt's] Listing is selected.

- [] **Air** + [] **Grd:** in use with FSX. Air + Ground traffic.

- **The Blue Circle Range:** [V/S Dist] Descentometer is calculating in automatic the Range (nm) based on a smooth ascending. You can select a shorter Distance but be careful. If you exaggerate the ascending is changing into a Negative descending. During flight, on cruise, you can select the Range and using it as a visual distance reference.



- [**Apt's**] : Airports and distance are visible within the selected [**Range**]. On the right side a [**L**] Label is opening. The L-Label is opening the Airport List including all Airports within the **Range** selected. Selecting 1 Item the ICAO is copied into the Flight Panel Icao Field for direct access.

- **Int, Vor, Adf:** When selected, flying to, the distance is indicated. Also visible on the TakeOff + Landing Panel.

- **Rwy:** During a Runway Approach this Label is evidenced with a Red Background color. Indicating the distance in nm to the Rwy.

- [**H**] : A extended Help

- [**N**] : Map oriented or North oriented.

- [**T**] : Stay on Top. With the red color stay on top = Off.

- **Below the Range-Label:** > 16 is indicating the Wind-Direction and Value.

- **Below the 360 ° Label:** any course and Runway Center deviation is indicated with a Yellow or Red Color Strip. The width is the deviation value.

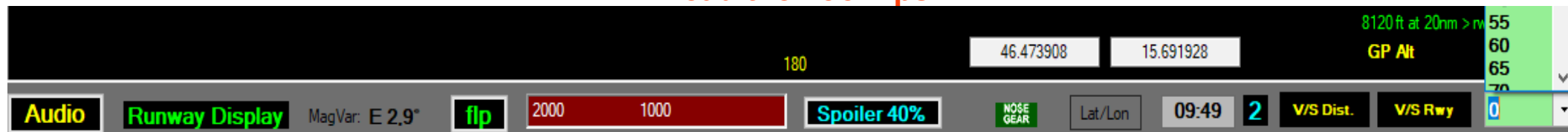
- **Right Side of the 360°** you see the Glide Path Slope that is opening at a 20 nm distance from the Runway. It is important to read the Glide Slope correctly. Here the indication is “too Low” = go Up. But when we approach a Rwy you can't get Up while the Airplane is moving forward. [**V/S Rwy**] You should wait until the ALT is moving the Glide Slope (Diamond) to the Center. Only in a dangerous situation you must correct the ALT.

While otherwise the Glide Slope goes down we have to follow the indication and go down because we are too high. It is never wrong to keep a slightly higher ALT. Adjust using the V/S Trim as explained on page 3/3.

On page 3/3 there is a separate Rwy Approach description.

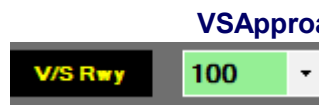
ATlasHold 1.7.0 2021 – Big Radar - 3/3

Read the ToolTips



- **Audio:** Select / Adjust the Audio. Useful for older Systems.
- **Runway Display:** Open/close the Runway *TakeOff / Landing View* or use the ShortCut. Read the specific following page.
- **[flip]:** This button is activating the Flight Plan. It changes color and signals when a Flight Plan is active.
- **[2000 1000]:** Open / Mark the RAD distance only when the ground is less than 2000 feet below. Similar to the Aircraft RAD alarm at 1000 ft. It is gradual. Ground Proximity Warning System is active.
- **Nose Gear:** Visible with the Gear extended.
- **[Lat / Lon] Button:** Indicates the latitude and longitude of the precise position in which the airplane is located. The program ADDAirports is using it. 46,473908 – 15,691928 It is very important to verify any World location like Airports, Runways ecc... ATlasHold is only using real world Mathe formulas.
- **[3]:** (0..5 nm) Default is 2 nm. At Any Waypoint, Vor, Adf, Int, Rwy, Apt ecc... The automatic fly ends 2 nm before with a acoustic signal. The type of aircraft and the speed must be taken into consideration for a reasonable choice. With 200/240 Knots 1 nm before is OK. As the plane proceeds the Turn begins. For example, if a Adf is close to the Mountain and the next Wpt is on the left, perhaps we will choose the distance of 5nm. Example: ADF " RTT " before the Rwy Alignment to LOWI. Depending from which direction you approach.
- **[V/S Dist.]:** Activate the Descentometer. First we have to indicate the height in the "**Distance**" field in the **Flight Panel**. (distance Field)
Before you engage the [V/S Dist] make sure the Airplane Asset is stable. Release the Yoke.
(This is a most common Pilot Error) Make sure the Autopilot + ALT is ON.
- **[GP Alt]:** It is used to determine the precise ALT for a Runway Approach which is used for a gradual descent. (the green value)
L-Click is returning the ALT for a Rwy approach starting at 10 nm. **R-Click** is returning the ALT for a approach starting at 20 nm distance.
The result in ALT is copied directly into the "**Distance**" field of the **Flight Panel**. (or input a different ALT value)
- **[V/S Rwy]:** Enters the gradual descent along the Glide Slope line. Start only with the Glide Slope (Diamond) centered. A pilot error or oversight is reported if the difference is more than 200 feet. The Pilot is responsible for maintaining the required asset such as Speed, Gear, Flaps and Trim.
With the **right asset** as per instructions the plane lands without problem and without any X / Y Axis intervention.
- **[0]:** (changed for use with MSFS) Default Feet value = 0 feet. This choice determines an approach with a different V/S value.
There is still a problem with MSFS that is not reading the Trim commands with the AP activated.

Start with the VSApproachElevationPlus value "0".
Depending on Aircraft and Simulator.
Increasing the descending speed VS is adjusting the Glide-Slope if necessary.



VSApproachElevationPlus > Select 0 feet, the Default.

Select: 0 ...100 feet pmin Step 5 feet - Increase descending V/S if necessary or use the Trim.



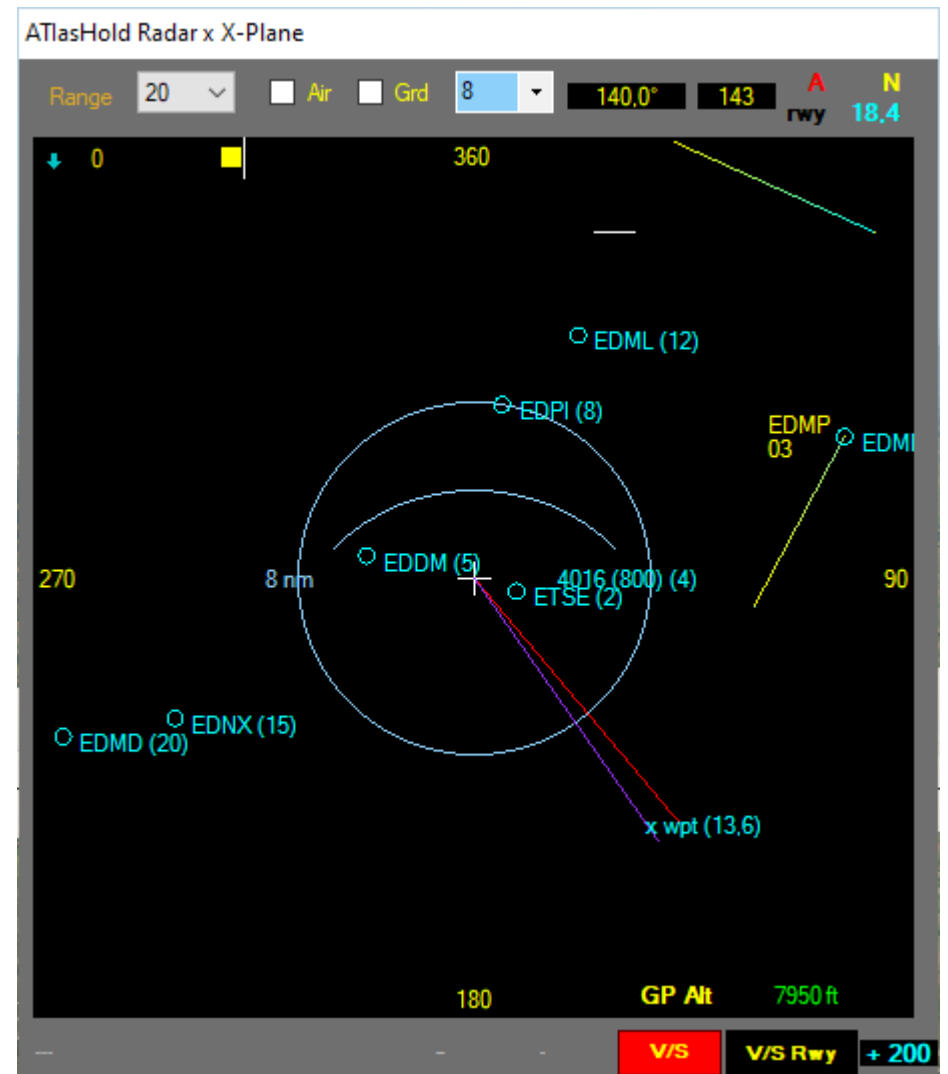
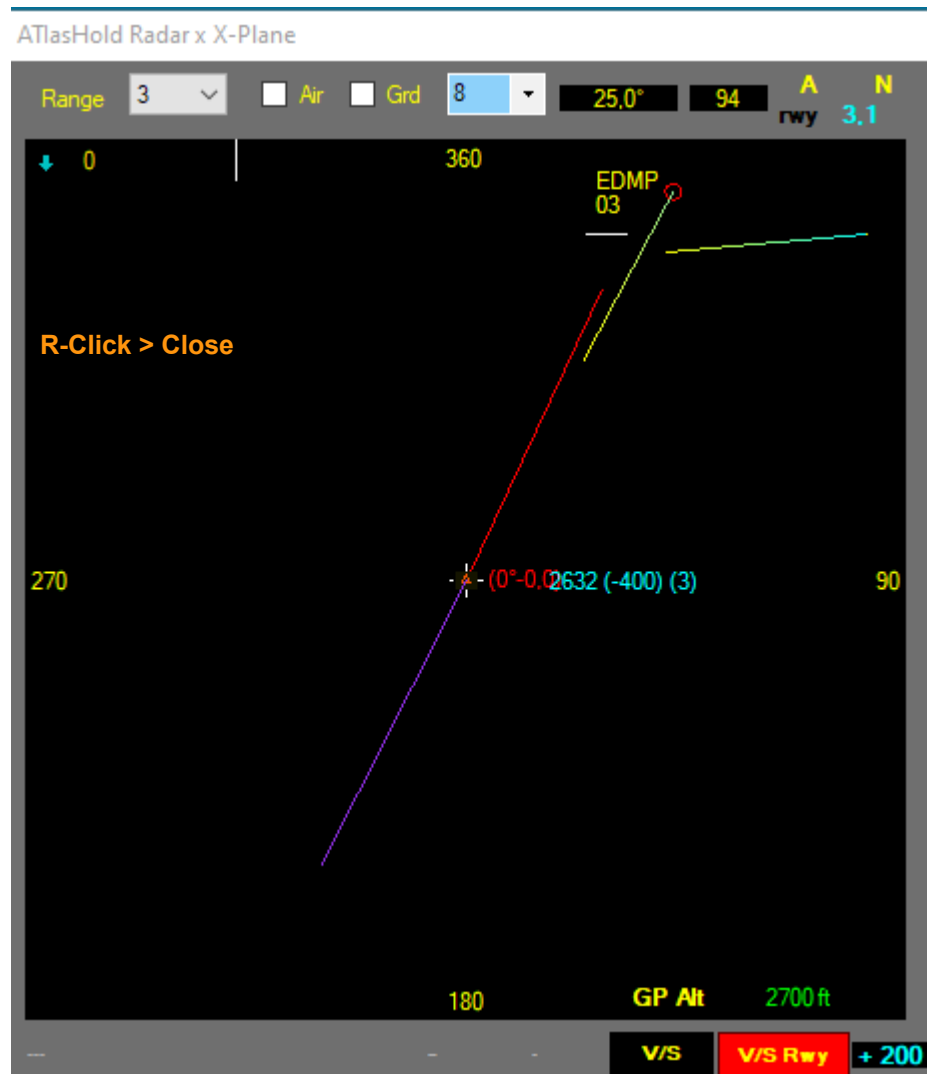
ATlasHold 1.7.0 2021

Read the ToolTips

Small Radar

[V/S Rwy] is selected.
Map is North oriented.
Glide Slope is requesting to decrease ALT.

[A] is opening the Airports View. Distance as per Range setting.
[V/S] is active.
Within the Blue circle the “half circle” is indicating the descentometer progress.





ATlasHold 1.7.0 2021

Runway Take Off + Landing View

Open using the **ShortCut** or Click on the dedicated Button on the Big Radar.

The Runway View is very useful during night. You see where you are on the Runway and where you fly.

On the Air important Flight data is displayed.

After Take Off select the destination Runway ID. On Rwy touch down the Rwy graphic is opening.

TakeOff and Landing Rwy-Display x FSX



- Departure Rwy name
- Departure Rwy Length in ft
- Destination Rwy name
- Destination Rwy Length in ft
- Runway graphic with Aircraft position. On Rwy + Rwy touch down. Total length / Length left.
On the Air the actual Waypoint (Vor, Adf, Inters., Apt, Wpt ecc..) Distance is visible in place of the Rwy-graphic.
- [K] open the Runway View ShortCut selection
- Aircraft speed in Knots
- Actual aircraft heading
- Actual ALT
- DIRECT Distance to Destination Runway
- Engine Pressure (all engines)
- Rwy approach Glide Slope + Diamond position U/D
- Flaps position
- Ground Proximity Warning System. Active from 2000 ft AGL.

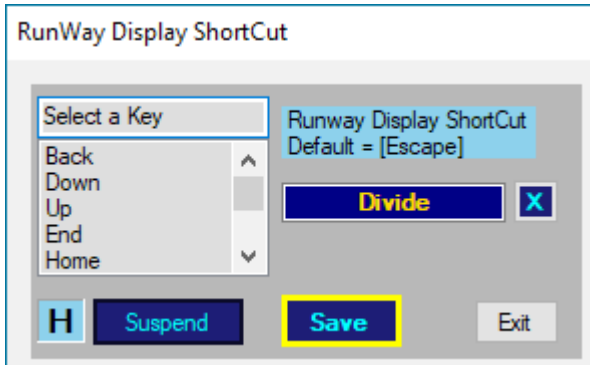
Open the Runway View ShortCut Selection.
Click on the small Button [K].

FSX – Trim Value is evidenced + Joystick OK.

X-Plane – Trim Value is not visible BUT the Joystick Button Trim up/dn is working.
Some Apl like the Citation CJ4 v 1,07 is returning the Trim Value.

MSFS – Trim Value only visible / setting with the Autopilot OFF. (is a MSFS Bug)
With [V/S Rwy] activated adjust the Apl Asset using speed + Flaps correctly.

Nota: The Trim value is visible on the small ATlasHold Main View.
R-Click on the [ET / AT] Button. Now the Trim Mouse-Wheel is active. FSX only.





ATlasHold 1.7.0 2021

The Virtual ATlasHold Waypoint You never get Lost

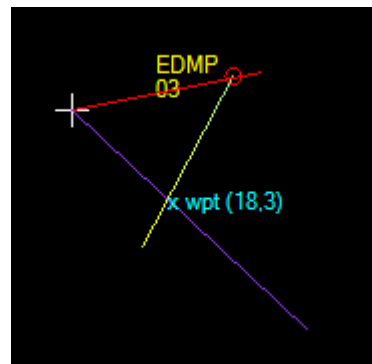
For any real Rwy, or Virtual, you select a virtual WayPoint is created at a distance of 20 nm in front of the Rwy you can fly to in automatic.

Distance in nm is indicated.

For any approach you can fly to this wpt in automatic; then turn to the Rwy.

Now decide for the final approach.

The correct wpt enter-angle should be max. 45 °.





ATlasHold 1.7.0 2021

The Virtual ATlasHold Runway

You never get Lost

With one click create a Virtual Runway on Air, Ground, Carrier and return to

Create a Virtual Runway on the Fly just with 1 Click. **V-Button**

You create a virtual Rwy exactly on the coordinates where the Airplane is.

For example on the Sea. Fly and return exactly to this virtual runway.

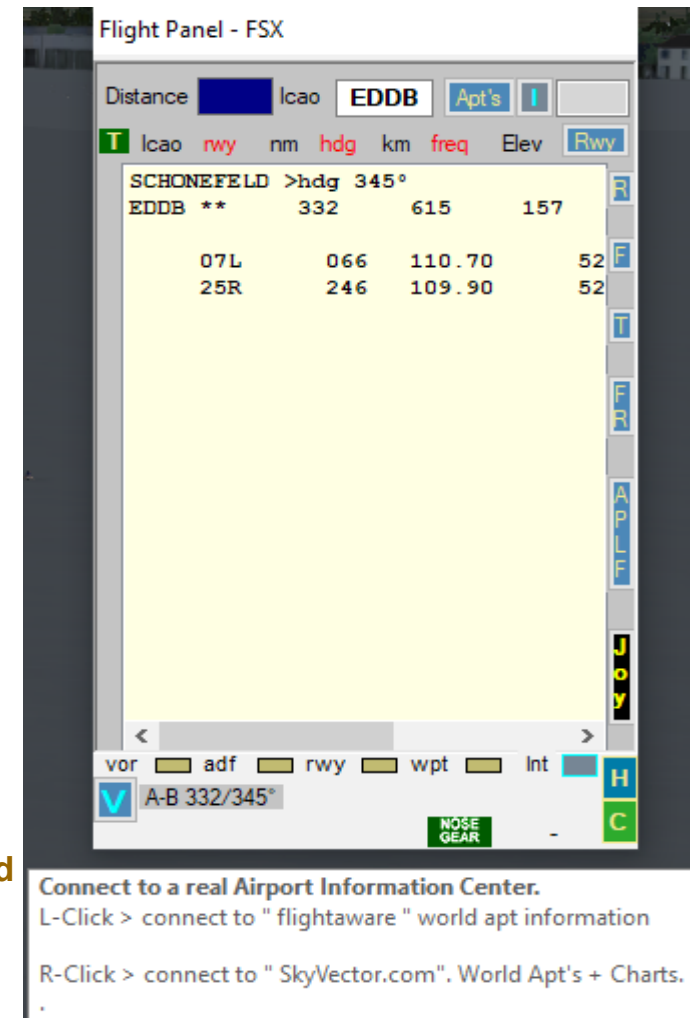
All functions are considering this Rwy like a real Rwy.

Fly to the virtual Waypoint at 20 nm and approach the Rwy.

The Rwy Elevation is exactly the difference between your actual ALT and AGL to the Ground.

Remember the correct use of the Glide Slope Descentomer.

1. The Glide Slope is opening at 20 nm Apt distance from the Airplane.
2. If the aircraft does not follow the route runway the distance could be much less.
3. Consider the Glide Slope only if and when you take the runway course and the actual ALT is moving the "Diamond" into the center.
4. Simply approach the rwy at a reasonable distance or via the virtual WPT.





ATlasHold 1.7.0 2021

Fly to Selection

A Flight Plan selection is using the Waypoints in automatic.

Without Flight Plan:

- Flying to the virtual Wpt is requesting the [**rwly**] selection after arrival at the Wpt and/or at a reasonable distance to the Rwy.

The virtual Waypoint is always a precise heading reference.

- The [**V/S Rwy**] Glide-Path Approach should be selected after the Rwy-selection. Adjust ALT before and start the procedure with the Glide Slope (Diamond) centered.

NOTA:

The Flight Plan is leading the Apl into the Runway-Path [**rwly**] BUT this is not like selecting the [**V/S Rwy**] automatic Landing Glide Slope descending.

Selecting Landing is your Pilot choice and duty.

The VOR, ADF + Int(Intersections) are only used by the Flight Plan system.

Fly without any Wpt selection (Free Flight).
The Virtual Wpt is then your main heading orientation.
For landing just use the Glide Slope indication, Radar or the small Approach Radar on the Flight Panel [**Rwy**].

Fly to >

Flight Panel - FSX

Distance Icao Apt's

| T | Icao | rwly | nm | hdg | km | freq | Elev | Rwy |
|---|------------|------|--------|-----|-----|------|------|-----|
| | SCHONEFELD | >hdg | 345° | | | | | |
| | EDDB | ** | 332 | 615 | 157 | | | |
| | 07L | 066 | 110.70 | 52 | | | | |
| | 25R | 246 | 109.90 | 52 | | | | |

vor adf rwly wpt Int H

A-B 332/345°

NOSE GEAR - C

Connect to a real Airport Information Center.
L-Click > connect to "flightaware" world apt information
R-Click > connect to "SkyVector.com". World Apt's + Charts.



ATlasHold 1.7.0 2021

Data Files

In your Program Folder

- **Adf.txt**
- **Vor.txt**
- **Apts.txt** (use the AddAirports program)
- **Intfix.txt** (Intersections)
- **Aptsradar.txt**
- **Rwylength.txt** (calculation is made with the RwyLength program for new runways or changes)

Should you add or change data you must observe the precise COLUMN and Space order.



CockpitStatus Approach System

Arm I 4 AT Lever/Hold

112 -2 83,49609

wd* 0 25 fps

Hdg Alt Rad ▲ las Cruise

112,7 1636 1068 112 180

90
0 A 0

Approach System / Airport Dist / FlightPlan

Heading 112,7 Rad 1068 Apt's 112 las

T ADF 90 Rwy

10 nm Range 0,3° 113° ■ ■ UP

LOWW Align to Runway

11

600

LOWW
113°/3,2

TUN vor (0) ▲ 84 + (0) ○

TUN-11
114°/24,8 ○

wpt: 292° / 12,9 ○

MgVr: E 3,1° 293° Rwy Radial 0°

■ TUN (Out of Range)



ATlasHold 1.7.0 2021

ADD Airports/change Data

Included with ATlasHold

Add Airports (© Raimund Forstmeier) x86

FS Version: FSX Icao: **13054** Icao list: 00CA, 00M, 00R, 00V

Buttons: Exit Edit, Rwy Up, Rwy Dn, Create New 'apts' File (Sorted)

Left Panel: Hdg: 346, ALT: 1120, AGL: 1112, LAT: 46.978391, LON: 15.443115

Help

| Airport Editor-List | | Course | Freq | Elev (ft) |
|---------------------|---------------|--------|------|-----------|
| Icao | Airport / Rwy | | | |
| LOWG | GRAZ | | | 46. |
| | 17C | 167 | --- | 47. |

Buttons: Load Apt's, 13054

Airport List: 09R, 27, 27L, 27R, LOWG ????, 17C, 35C, LOWI INNSB, 08

| Icao | Airport Name | Elevation | Latitude (6 dec) | Longitude (6 dec) |
|------|--------------|-----------|------------------|-------------------|
| LOWG | GRAZ | 1120 | 46.993056 | 15.439167 |

Apt's deleted: LOWG GRAZ

Rwy Data: Rwy - ID: 35C, Course: 347, Frequency: 110.90

Rwy Data: Latitude (6 dec): 46.978128, Longitude (6 dec): 15.443187

Buttons: Delete Rwy, Clear Editor, Copy to Editor, Add/Save Apt to Airport List

Test Distance: (1) [1] (2) [2] (3) [3]

Dest Icao: EDDB, 332 nm, 614 km

Buttons: Help, Distance, nm, km

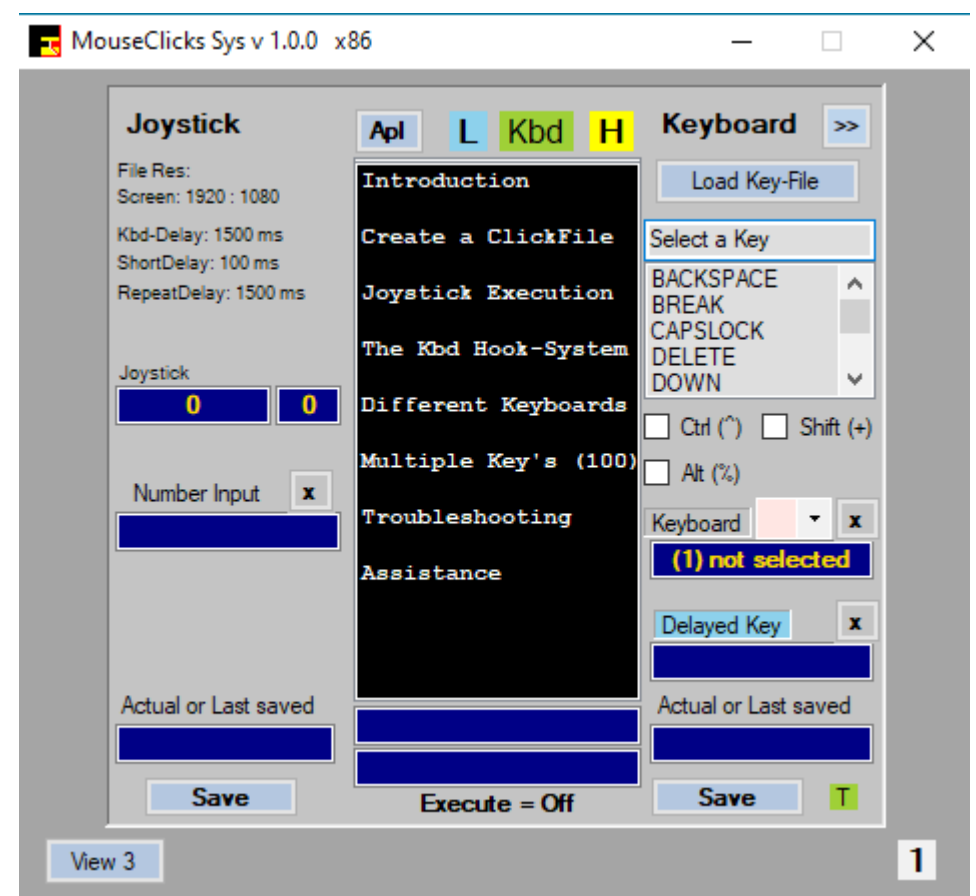
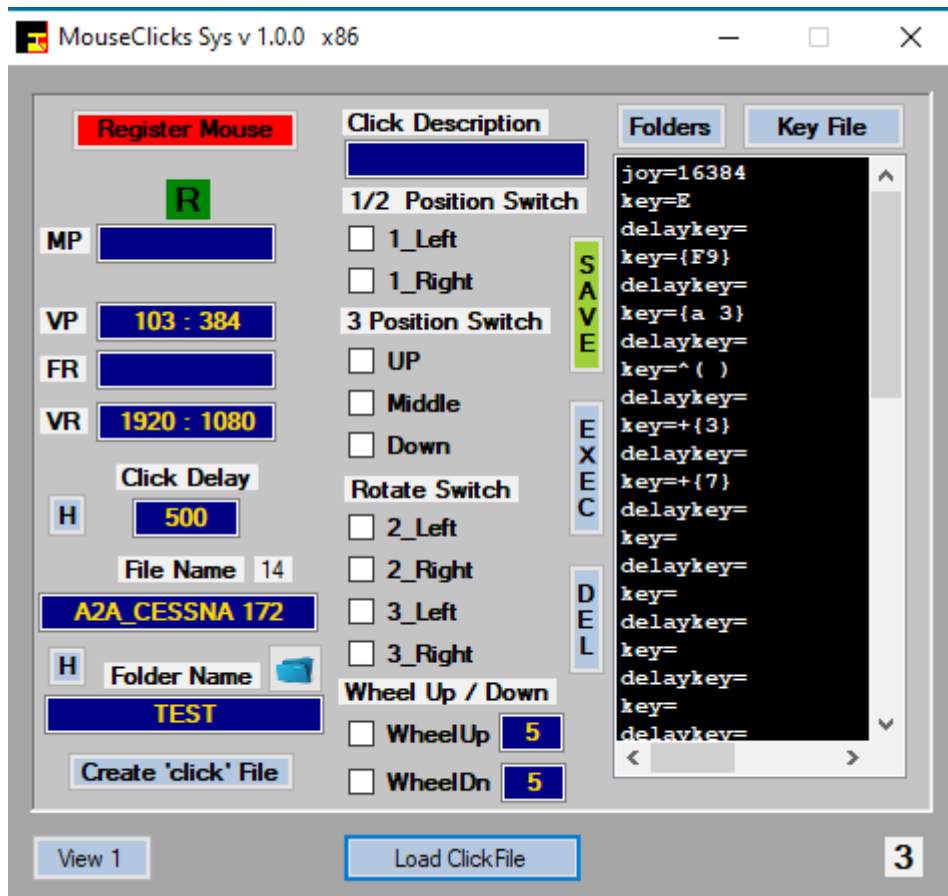


AtlasHold 1.7.0 2021

MouseClicks

Included with AtlasHold

MouseClicks performs the movements of a human. example: Start the engines.

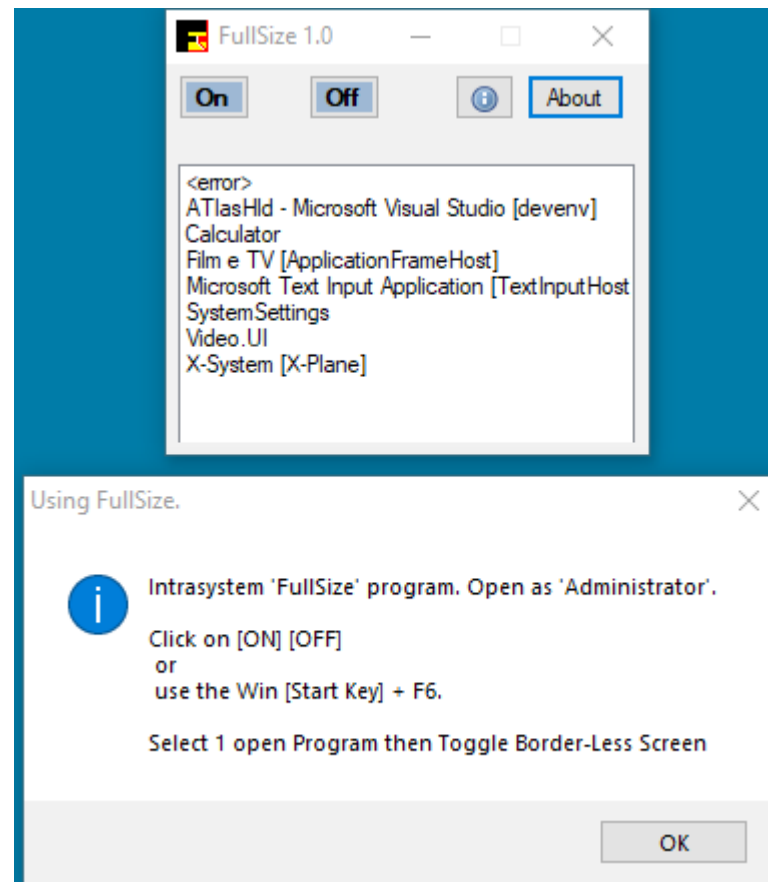




ATlasHold 1.7.0 2021

Full Video Size

Included with ATlasHold





ATlasHold 1.7.0 2021 1/2

Runway Length

Included with ATlasHold

Extract ICAO, Nation, Town, Apt-Name, Rwy-ID, Rwy-Length from MakeRunways

Start

C:\Users\Forstmeier\Documents\Visual Studio 2010\Projects\Rw

Airports

24530

Search

EDDM

EDDM GERMANY MUNICH MUNICH

Charts

Help

| Rwy | feet | meter | nm |
|-------------|----------------|-------------------|-------------------|
| EDNX | Germany | Oberschleissheim | Oberschleissheim |
| 8 | 2644 | 805,891 | 0,435 |
| 26 | 2644 | 805,891 | 0,435 |
| EDMO | Germany | Oberpfaffenhofen | Oberpfaffenhofen |
| 4 | 7490 | 2282,952 | 1,233 |
| 22 | 7490 | 2282,952 | 1,233 |
| EDML | Germany | Landshut | Landshut |
| 7 | 2946 | 897,941 | 0,485 |
| 25 | 2946 | 897,941 | 0,485 |
| ETSE | Germany | Erding | Erding AB |
| 8 | 8259 | 2517,343 | 1,359 |
| 26 | 8259 | 2517,343 | 1,359 |
| ETSF | Germany | Furstenfeldbruck | Furstenfeldbruck |
| 9 | 8975 | 2735,580 | 1,477 |
| 27 | 8975 | 2735,580 | 1,477 |
| EDMD | Germany | Dachau-Grobenried | Dachau-Grobenried |
| 10 | 2047 | 623,926 | 0,337 |
| 28 | 2047 | 623,926 | 0,337 |
| EDDM | Germany | Munich | Munich |
| 8R | 13097 | 3991,966 | 2,155 |
| 26L | 13097 | 3991,966 | 2,155 |
| 8L | 13097 | 3991,966 | 2,155 |
| 26R | 13097 | 3991,966 | 2,155 |
| EDNK | Germany | Kirchdorf-Inn | Kirchdorf-Inn |
| 4 | 2195 | 669,036 | 0,361 |
| 22 | 2195 | 669,036 | 0,361 |
| | | iburo | Vilsbiburo |

L-Click > connect to "flightaware" world apt information
R-Click > connect to "SkyVector.com". World Apt's + Charts.



ATlasHold 1.7.0 2021 2/2

Runway Length

Included with ATlasHold

Extract ICAO, Nation, Town, Apt-Name, Rwy-ID, Rwy-Length from MakeRunways

Start Editor on/off

C:\Users\Forstmeier\Documents\Visual Studio 2010\Projects\Rw

Airports
24530

Search
KJFK S

KJFK UNITED STATES NEW YORK KENNEDY INTL

Charts
Charts and Airport Data

Help 54845 54853 T

Runway Length Editor Help

Clear Input Fields ADD New Apt

| Rwy | feet | meter | nm |
|------|---------------|----------|--------------|
| KJFK | United States | New York | Kennedy Intl |
| 13R | 14564 | 4439,107 | 2,397 |
| 31L | 14564 | 4439,107 | 2,397 |
| 4L | 11353 | 3460,394 | 1,868 |
| 22R | 11353 | 3460,394 | 1,868 |
| 13L | 9992 | 3045,562 | 1,644 |
| 31R | 9992 | 3045,562 | 1,644 |
| 4R | 8401 | 2560,625 | 1,383 |

Up Dn

ICAO Country Name City Name
KJFK United States New York

C Apt Name Kennedy Intl

Rwy ID Length in FEET
22L 8401 C

SAVE