

Jane's Combat Simulations
WWII FIGHTERS

MISSION BUILDER TUTORIAL
By LockNLoad

The following is basically an elaboration of the *WWII Fighters Play Guide* with further explanation in most areas. The original documentation is in normal black type. **The authors comments are in red.**

This tutorial is designed to teach the simmer how to create missions in the Mission Builder of Jane's *WWII Fighters*. Several words of caution. The Mission Builder in *WWII Fighters* has some quirks and is unstable in certain instances, which will be pointed out during this discussion. It is highly recommended that the user **SAVE** often. The Trigger command in Mission Builder will cause changes in the mission which will not be known until the mission is flown. Those instabilities will be pointed out and it is suggested that the mission builder use a Windows word processor, wordpad, or notepad to create or modify the trigger commands.

One final note before beginning. If you are working with both the Mission Builder and a wordprocessor, remember to reload (close the previous version and open it again) in the wordprocessor after you have saved it in the Mission Builder. If you do not do this, you will be changing the "old" version and the changes you made in the Mission Builder will not be reflected in the version in the wordprocessor. A good habit to get into is to **close** the file in the wordprocessor after saving each time you have made a change thus forcing you to reopen the file.

The Mission Builder screen is five basic sections. Across the top are drop down menus. Below the drop down menus is a large terrain map of the Ardennes. The upper right of the screen is an overview map with several buttons underneath. Below that is the Mission Data booklet (*notepad*) which contains additional menus.

The drop down menus across the top are:

File	Create a new mission, save or load a mission.
Create	Add the friendly and enemy military units you'll fight with or against.
Object	Duplicate flight formations and delete or add planes to flight formations.
View	Show or hide the positions of units and waypoints, view you mission briefing.
World	Set the time of day and weather conditions in which the mission occurs.
Trigger	Create a triggered event. CAUTION! - see below.
Exit	Exit to previous screen or Windows.

Each of the menu items above are explained in detail below.

The Overview Map allows you to choose which portion of the battle area you wish to customize or examine in the Mission Builder map. To view different areas of the main map, click anywhere on the Overview Map with your mouse or use the direction buttons below.

SPECIAL NOTE: the *notepad* referenced below refers to the Mission Data booklet at the lower right of the screen in Mission Builder and not a word processor or wordpad in Windows.

FILE *(Drop down menu)*

New Mission	Clears the screen and prepares for a new mission.
Load Mission	Opens a drop down menu of existing missions from which to select.
Save Mission	Saves your mission.

It is suggested, while the mission is under construction, you name it something like 1new.mis the first time and each time a change is made, save again as 1Anew.mis or 1Bnew.mis or 1Cnew.mis, etc. In other words, create a sequence you can follow and keep the older versions until you know the newest mission works. It is highly recommended that each change, no matter how small, be saved and tested each time. This way you can easily find the problem if it crashes. Also, if you name the mission starting with 1 or A, it will be near the top of the mission list when reloading.

CREATE *(Drop down menu)*

To create units:

1. Choose the type of unit you want to create from the CREATE menu.
2. Left-click on the map to place that unit.

Different units have different creation options as described below.

Note: Right-click and drag to move the unit on the map.

FLIGHT *(Flyout for choices)*

Here you choose the planes that will be in the mission. You can add more planes to the flight.
See Object.

A notepad appears in the lower right corner of the screen when you place a flight on the map. Here you customize the flight by clicking on the right column.

Squad	Choose a squadron for the flight. <i>(Drop down menu)</i> Each aircraft in a Squad is assigned a tab which contains the following:
Pilot	Human or AI <i>(Drop down menu)</i>
Rating	ACE, Veteran, Experienced or Rookie <i>(Drop down menu)</i> It is suggested that once you have chosen the Rating of a pilot, that you click on Pilot above, then click on the Rating again to see if it has remained as you set it. The game has a tendency to change this designation if you do anything else. You can also change the designation in a wordprocessor.
Internal Fuel	Full, 3/4, 1/2 or 1/4 <i>(Drop down menu)</i>
Loadout	Clean, Fuel, HVAR, Fuel-HVAR, 500lb., 500lb-HVAR <i>(Drop down menu)</i>
Flight	Choose a callsign for this group of aircraft. <i>(Drop down menu)</i>
Nationality	Choose the flight's nationality. <i>(Drop down menu)</i>
Aircraft	Change the type of aircraft. <i>(Drop down menu)</i>
Altitude	Adjust the flight's initial altitude. <i>(Drop down menu)</i>
Speed	Adjust the flight's initial speed. <i>(Drop down menu)</i>
Heading	Displays the direction in which the flight is headed.

Meter X	Adjust the location of the flight's placement (east - west). The number is in meters from the lower left corner of the map (0,0).
Meter Y	Adjust the location of the flight's placement (north - south). The number is in meters from the lower left corner of the map (0,0).
Wayset	Assigns an existing set of waypoints for flights to follow.

The Altitude and Speed should match the first waypoint if you are starting in the air. As an example, if you set your plane at 5,000 feet at a speed of 220 mph and the first waypoint is 10,000 feet at 250 mph, the plane will start to climb immediately. If you start on the ground, the plane will fly to a predetermined point (set by the game) and then begin to react to the first waypoint. This assumes you are assigning the plane to a Wayset.

Note: the **Heading** will change when a Wayset is assigned.

Meter X and Meter Y are little used in mission building. It is easier to drag to position.

DIVISION (Flyout for choices)

Place either Allied or Axis divisions on the map. In the *notepad*, choose from the divisions actually involved in the historical fighting. In *WWII Fighters*, a division is a large formation of vehicles, weaponry, and troops. By placing a division you get around having to place individual tanks, artillery, etc. on the map.

In the *notepad* that appears in the lower right corner of the screen you can customize aspects of the division and its behavior.

Division	Choose from the divisions actually involved in the historical conflict. (<i>Drop down menu</i>)
Nationality	Choose the nationality of the division. (<i>Drop down menu</i>)
Meter X	Adjust the location of the division's placement (east-west). The number is in meters from the lower left corner of the map (0,0).
Meter Y	Adjust the location of the division's placement (north-south). The number is in meters from the lower left corner of the map (0,0).
Stance	Command the division to ADVANCE or HOLD position. (<i>Drop down menu</i>)
Health	Determine the initial fighting strength of the division. (<i>Drop down menu</i>)
Heading	Decide the initial direction in which the unit is facing. (<i>Drop down menu</i>)

The items listed below can be placed using these commands or in Dynamic Mission Editor. If the user uses the method below, it is easier to place the units if the map is magnified to a great degree by using the plus (+) key above the *notepad*. You can magnify to the maximum and then see very clearly where the items are placed in relation to each other. Experiment with this to see how it looks from the air. You can rearrange them again later if you don't like their location from the air.

ARMOR

Place individual Allied or Axis tanks and armored vehicles on the map. (*Flyout for choices*)

ARTILLERY

Place individual artillery guns on the map. (*Flyout for choices*)

FLAK

Place individual flak guns on the map. (*Flyout for choices*)

OTHER VEHICLES

Place individual transports, small vehicles, or troops on the map. (*Flyout for choices*)

A special note with regard to troops. If troops are placed on the map at any point, it is highly recommended that the mission creator save and **before flying**, go to the code in a wordprocessor and change the speed of the troops to 0. They are automatically set at 6. If you **do not do this**, the troops will run off before your plane gets to their location.

STRUCTURES

There are several types of structures available for placement on the map, either Allied or Axis. See TagIdentifier information under Triggers. Sketches of the buildings by **Swiper** are available on Mods Disc 3 under Missions Building Reference or from the website. These drawings are a great help.

Military	Place individual military structures on the map to customize the countryside beneath your flight. Use them for mission goals or to configure triggers to make the mission random and more interesting to replay.
Industrial	Place individual industrial structures on the map to customize the countryside beneath your flight. Use them for mission goals or to configure triggers to make the mission random and more interesting to replay.
Rail	Place individual railway structures on the map to customize the countryside beneath your flight. Use them for mission goals or to configure triggers to make the mission random and more interesting to replay.
Urban	Place individual buildings on the map to customize the countryside beneath your flight. Use them for mission goals or to configure triggers to make the mission random and more interesting to replay.
Rural	Place individual rural structures on the map to customize the countryside beneath your flight. Use them for mission goals or to configure triggers to make the mission random and more interesting to replay.

WAYSET

Create a set of waypoints for a flight. The set initially contains only one waypoint. To add waypoints to the set, see Object menu's Add feature, below.

Target Tab	Determine what the waypoint is concerned with at this waypoint: another flight, a friendly or enemy division, a runway, or an object.
Type	(<i>Drop down menu</i>) This choice lets you choose from the following: Location A location on the map. Flight A friendly or enemy flight. Division A friendly or enemy division. Runway A friendly or enemy runway selected from the map.

Vehicle An individual vehicle.

Structure A building or structure.

These choices let you choose the target at or near that particular waypoint. As you can see, it can be a flight or a division or a runway, etc, and can be chosen from the map or assigned in a word processor by TagIdnumber.

Speed (Drop down menu) This choice lets you choose the speed the aircraft will use on the way to this waypoint.

Altitude (Drop down menu) This choice lets you choose the altitude of this waypoint.

Action Tab Provide an action for your flight on the way to this waypoint. (Drop down menu which depends upon Target Type) This tab will vary depending on the choice made in the “**Type**” tab.

Note on waypoints: the action (speed and altitude) will begin on the way to the next waypoint. See Lesson 18 of Mission Building 101. If you set waypoints too close together at different altitudes, remember that the aircraft must climb or descend in a short distance. Waypoints are important, so give some thought as to why the waypoint is where you placed it and what is supposed to do. Is there a valid reason why it is where you placed it?

Each Wayset will be numbered, starting with 1, then Wayset 2, then Wayset 3, etc.. You can build as many Waysets as you like and they will be numbered in sequence. Each waypoint will then be assigned a letter designation in Mission Builder such as 1A, 1B, 1C which are all part of Wayset 1. **Special Note:** When you look at the Wayset in a wordprocessor, the numbering will be Wayset 1, waypoint 1, 2, 3, etc. They do not show up in the code as 1A, 1B, etc. This is a quirk of the game. You can assign more than one flight to a Wayset. If you have bombers on a bombing run and a flight to protect the bombers, you should create two Waysets because they have two different functions.

Vehicle waypoints are only created in the Dynamic Mission Editor and are not dealt with in this document.

OBJECT

Use this menu to modify the units you created.

Delete Delete the selected unit.

Duplicate Create a clone of the selected unit at the same location.

Add For flights, add up to three more planes to the flight. For Waysets, create additional waypoints.

Hidden Select an individual flight, division, individual armor, artillery, flak, other vehicle or waypoint (left click), then choose HIDDEN. When the mission you have created is loaded in the Single Mission screen, that item is hidden on the mission map.

VIEW

This feature filters the objects you see on the mission map. Use this menu to show / hide the

units you created while you edit the mission. **This command refers to the entire flight, division etc.. If you desire to just hide one item, use the **Object Hidden** command above.**

FLIGHTS	Show / hide all flights on the map.
DIVISIONS	Show / hide all divisions on the map.
WAYPOINTS	Show / hide all waypoints on the map.
AIR BASES	Show / hide all air bases on the map.
BRIDGES	Show / hide all bridges on the map.
BRIEFING	View and edit the mission briefing. It is recommended to do this in a word processor or notepad.

WORLD

WEATHER Choose the visibility in the mission. *(Drop down menu)*
The choices of weather are Clear, Good, Hazy, Poor and Blind. The mission builder should experiment with these to see which fits the actual mission they are building. One caution, the Blind choice makes it very difficult to fly and realistically, few planes would have flown in these conditions.

TIME OF DAY Set the time of day in which the mission begins. *(Drop down menu)*
The time of day will determine where the sun is located or not located if it is a night mission. This must be experimented by the mission builder, since a very dark night might make it impossible to find the target. Trial and error is the key here.

TRIGGER

A trigger is a device used to create gameplay elements at very specific times. When designing a mission, you can use triggers to enhance the unpredictability of the game, and create memorable and replayable missions.

Note: For a complete description of the various triggers available, please view the ReadMe file installed in your *WWII Fighters* directory. **Not all triggers are included here. It is suggested that the mission builder look at existing missions for ideas.**

It is the opinion of this author that the Trigger feature in Mission Builder is too unstable to use reliably. It is recommended that mission builders look at triggers in other existing missions and copy them or create their own in a wordprocessor and **NOT** in Mission Builder.

Each item in the game will have a TagIdentifier number which is unique and can be used in Triggers. Note that the TagIdentifier number may change when the game is saved. If the TagIdentifier numbers are changed automatically, the game will change all or correct all throughout the code. Mission creators need to check the numbering each time the mission is reopened in a wordprocessor to see if they have changed. Use a form such as "Mission Entities" like the one attached at the end of this document or create your own.

Some Triggers can be created with the **Random** feature, which means they will operation sometimes and not others. This adds some variability to the mission so that it is not the same each time it is flown. The higher the Random number the more likely the trigger will activate. A good balance is 50, which is about mid way and will cause the trigger to activate about half the time.

It is highly recommended that you find a mission you like, fly it several times, then read the code in a wordprocessor to see how the triggers work. Be aware that some missions have very few triggers. The missions, Anybody's Guess or TigerHunt have lots of triggers.

EXIT

Previous Screen	Takes you back to the museum
To Windows	Exits to Windows

One last note: if a change is made in the Mission Builder, that change will not be reflected in a wordprocessor if the mission is not **RELOADED** after the change in Mission Builder. A good way to prevent this from happening is when changes are made in a wordprocessor, close the mission file. Then if you make changes in the Mission Builder, it will force you to **RELOAD** the file in the wordprocessor.

Mission Name:_____

(for printing - set margins to .25 Left and Right and .75 Top and Bottom)

NOTE - TAG ID# MAY CHANGE WHEN MISSION MODIFIED IN MISSION BUILDER - RECHECK OFTEN!

FLIGHTS:_____	TagID#		TagID#		TagID#
(Name)		(Name)		(Name)	
Squad:_____		Squad:_____		Squad:_____	
Flight:_____		Flight:_____		Flight:_____	
Plane: _____		Plane: _____		Plane: _____	
(Name, if any)		(Name, if any)		(Name, if any)	
Leader:_____		Leader:_____		Leader:_____	
Wing1: _____		Wing1: _____		Wing1: _____	
Wing2: _____		Wing2: _____		Wing2: _____	
Wing3: _____		Wing3: _____		Wing3: _____	
WaySet#:_____	#WayPts:_____	WaySet#:_____	#WayPts:_____	WaySet#:_____	#WayPts:_____
Objective: _____	TagID# _____	Vehicles: _____	WaySet#:_____		
(use below for miscellaneous items)					
TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____
TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____
Notes:_____					

FLIGHTS:_____	TagID#		TagID#		TagID#
(Name)		(Name)		(Name)	
Squad:_____		Squad:_____		Squad:_____	
Flight:_____		Flight:_____		Flight:_____	
Plane: _____		Plane: _____		Plane: _____	
(Name, if any)		(Name, if any)		(Name, if any)	
Leader:_____		Leader:_____		Leader:_____	
Wing1: _____		Wing1: _____		Wing1: _____	
Wing2: _____		Wing2: _____		Wing2: _____	
Wing3: _____		Wing3: _____		Wing3: _____	
WaySet#:_____	#WayPts:_____	WaySet#:_____	#WayPts:_____	WaySet#:_____	#WayPts:_____
Objective: _____	TagID# _____	Vehicles: _____	WaySet#:_____		
(use below for miscellaneous items)					
TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____
TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____	TagID# _____
Notes:_____					