

X-Wing Mission Designer's Guide

Version 2.1
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Introduction

This manual is a guide to designing and building custom missions for X-Wing, the space flight simulation from LucasArts. It combines in one place information on using several mission editing utilities and provides practical suggestions for creating and testing compelling custom missions.

How This Manual Is Organized

The X-Wing Mission Designer's Guide is divided into the following chapters and appendices:

Chapter 1	Mission Planning and Design
Chapter 2	Mission Creation using XMB
Chapter 3	Using Custom Ship Designs
Chapter 4	Playing Custom Missions
Chapter 5	Other Customization Possibilities
Appendix A	Standard Ship Specifications
Appendix B	Standard X-Wing Mission Files
Appendix C	Other Sources of Information

Conventions

Certain typographical conventions have been used throughout this document.

Bold face is used for menus, command names, and options.

Italics are used for the names of publications and for emphasis.

`Monospace` is used for text that you should type exactly as shown.

Your Comments Are Welcome

As a reader and user of the information in this manual your comments, insights and suggestions for improvements are welcome. If you have suggestions, clarifications, corrections or comments to provide, please send them to the author one of the addresses below.

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Version 2.0

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Chapter 1: Mission Planning and Design

This chapter discusses considerations related to planning a custom mission.

A Mission Design Philosophy

It is possible to just fire up a mission editor and start placing ship groups. You will get custom missions this way. But, it isn't likely you'll get interesting, fun to play missions. Why is that? A mission is just that, a mission. It must have a justification and a set of clearly understood objectives that mesh with the justification.

This doesn't mean you have to write a novel about each mission before you build it. But you should know a little about all of the following:

1. Why is the mission being flown?
2. Who are the combatants?
3. Where is the mission being flown?
4. What will happen if the mission fails?
5. What will happen if the mission succeeds?
6. Who does the person flying the mission identify with in the mission?
7. What are some different possible mission outcomes?

If you have this information in mind before you start to build a mission you will be able to think out mission flow, motivations of the various parties in the mission, invent interesting plot twists based on what might happen in the mission and so on. All of these will make a richer tapestry upon which to draw and will lead to more compelling mission designs that are fun to play, and replay.

Considering Play Balance

Missions that are too easy lack challenge and replay value. Missions that are too hard will frustrate and annoy the player (there are exceptions to this of course). I have found that a good compromise is to create missions that will require 2 to 5 attempts to complete for the average pilot as the best compromise. Some missions should be harder if you are constructing a tour of duty.

The best mission parameters for standalone missions are quite different than for those that are part of a series of missions comprising a tour of duty. You do not want any mission in a tour of duty to be so hard that a competent pilot cannot reasonably expect to complete it in at most 20 attempts. Otherwise, you will create a "block point" in the tour that will turn off players. However, in single missions you can make harder goals, even nearly impossible ones, since the outcome of that mission does not affect later missions in any way.

Mission Realism

The Alliance is a military force. As such, its missions will be planned in a military way. This means that in most cases you will fly missions that have been planned effectively and have some reasonable chance of succeeding. You should strive not to construct unlikely scenarios, such as player takes on the Imperial fleet single handedly and wins.

While it is harder to construct realistic missions given the Artificial Intelligence of the computer flown ships, it is possible to do so. The best missions should not have overwhelming force on either side, but rather a realistic balance of forces. As a general rule, Imperial forces will have numerical superiority to make up for the qualitative superiority of individual Alliance starfighters.

One note regarding capital ships. They are modeled in almost laughably bad ways in most missions. No reasonable commander of a capital ship will simply sit and allow a lone starfighter to destroy his ship. Any mission with capital ships should have mechanisms in place where it is quite likely the capital ships will in fact escape to hyperspace. This can be done by having the ship leave when a particular ship arrives (or returns) or

by programming waypoints that would only allow an exceptional pilot to have enough time to destroy the Capital ship while still competing mission goals.

X-Wing Limitations

The following are known limitations of the X-Wing engine.

1. There can only be 16 ship groups per mission.
2. There can only be 16 object groups per mission.
3. There is a limit of 12 ships per group.
4. There can be no more than 29 active ships in a mission. Ships in excess will either not arrive or unpredictable results will occur.
5. There must be a ship designated as the player's or you will hang the game.
6. Keep in mind that the more ships there are the faster the machine needed to run the mission at an acceptable frame rate. This last limitation is especially fierce when you have capital ships in the mission. They take a lot of processing to animate and they fire a lot of weapons, all of which slows down the mission.
7. There seems to be a limit to the number of ships that can be firing at once. This limit is three AI batteries for each side in the conflict. This means if the Imperials are firing on the player with three gun turrets on a Star Destroyer they can't be firing at anyone else! Also, no more than two missiles will ever be fired at the player at one time.

Chapter 2: Mission Creation Using XMB

This chapter discusses the mechanics of creating and modifying missions using XMB Version 3.02, a shareware X-Wing Mission Builder created by Neal Westfall. This document describes only the registered version of XMB.

What is XMB?

XMB, an acronym for X-Wing Mission Builder, is a DOS utility which enables you to create X-Wing mission and briefing files. It can be used to either modify the distributed X-Wing missions or to create completely new missions. XMB operates by manipulating the files stored in the \MISSION subdirectory of the original X-Wing game.

XMB Menu Reference

This section describes each menu command and the actions it performs.

The System Menu

The system menu is located under the small character (\equiv) at the far left of the menu bar.

About

The **About** menu choice displays the About dialog box, which shows the program version number, information on how to contact the author, and some other interesting facts.

Calculator

The **Calculator** menu choice displays a calculator dialog box which has many basic math functions. I suspect that this is used to do calculations for distances covered by a ship group. Unfortunately, the dialog is modal, so if you don't remember the coordinates you have to cancel the calculation to go look them up. Windows users will be happier with the calculator accessory for the same purpose, as it can be used in a separate window.

Program Docs

The **Program Docs** menu choice displays a window which contain the XMB.DOC file, the supplied documentation for XMB. This window can be kept open during your XMB editing session and displayed as needed using the commands on the Window menu.

If you use Microsoft Windows, you can use the Notepad Accessory to display XMB.DOC in a separate window. Many users may find this more convenient for editing a mission and viewing the documentation simultaneously. Better yet, use Windows Write to display this guide instead!

Mission List

The **Mission List** menu choice displays a window which contains the MISSIONS.TXT file. This file contains a list of all X-Wing missions along with their file names, titles, and the craft flown in each mission. This window can be kept open during your XMB editing session and displayed as needed using the commands on the Window menu.

If you use Microsoft Windows, you can use the Notepad Accessory to display MISSIONS.TXT in a separate window. Many users may find this more convenient for editing a mission and viewing the mission list simultaneously.

File Menu

The **File** menu contains choices that allow you to open, close and save mission and briefing files.

New

The **New** menu choice displays the **File Type to Create** dialog. This dialog allows the user to specify whether to create a mission file (*.XWI) or briefing file (*.BRF). To create a mission file, simply press Enter when the dialog is displayed. To create a briefing file press the up or down arrow or click on the briefing file choice and then press Enter. A new window will be displayed containing the file type you specified and will be called UNTITLED.

Open

The **Open** menu choice displays the **File Type to Open** dialog. This dialog allows the user to specify whether to open a mission file (*.XWI) or briefing file (*.BRF). To open a mission file, simply press Enter when the dialog is displayed. To open a briefing file press the up or down arrow or click on the briefing file choice and then press Enter.

In either case, the **Open X-Wing File** dialog will be displayed which allows you to select the file you wish to open. Only files of the selected type are displayed in the list box along with directory names. To navigate to a directory other than the one XMB is installed in, simply select the directory name and then select the Open button. If you have a mouse driver installed, double clicking on a name or directory will open that name or directory.

Note: If you attempt to open a file in a directory other than the default directory that has the same name as a file in the default directory XMB will open the file in the default directory instead. I believe this to be a bug.

Save

The **Save** menu choice saves the currently displayed mission or briefing file. If the mission or briefing file is untitled this menu choice is the same as selecting the **File/Save As** menu choice.

Save As

The **Save As** menu choice allows you to save the currently displayed mission or briefing file under a different name than it already has. The **Save X-Wing File** dialog will be displayed to allow you to choose a file name.

Note: XMB has a bug that does not allow you to save a file with a new name under a different directory than the current default directory. Even if you navigate to a different directory, the file will be placed in the current directory (normally the directory XMB is installed in).

Save All

The **Save All** menu choice saves each open mission or briefing file.

Note: if any of the open files do not have names, you will be prompted to name them in the order they were created. This can be confusing if you have multiple new files open. I recommend only creating one new mission or briefing file between each Save All to avoid this problem.

Convert

The **Convert** menu choice allows you to convert from .XWI to .BRF file format, or vice versa. You will be prompted to choose the conversion you wish to perform and then to choose the file that you wish to convert. Typically this is used to create a default briefing file from a mission file.

DOS

The **DOS** menu choice temporarily exits XMB and returns the user to the DOS prompt. This is actually a DOS shell. XMB is still active, no work has been lost. The user may enter DOS commands as needed. To return to XMB, type the command `EXIT` at the DOS prompt.

Exit

The **Exit** menu choice exits XMB. If any mission or briefing files are open you are prompted to save them even if they have not been edited since last saved. If you choose to save the open files when prompted by the dialog box the equivalent of the **File/Save All** menu choice is executed and then XMB exits and returns you to the DOS prompt.

Options Menu

The **Options** menu contains only a single menu choice.

Toggle Numbers on Icons

The **Toggle Numbers on Icons** menu choice displays the ship group identification number on objects in the mission map. If the numbers are already shown, this menu choice turns them off. This is useful for keeping track of which units are which when you have multiple ship groups of the same type. Note that objects and ships can have the same numbers, but no two objects can have the same number nor can any two ships have the same number. The number displayed corresponds to the number associated with the ship or object in the **Ship List** or **Object List** dialog boxes.

Window Menu

The **Window** menu contains options for switching between different open mission and briefing files.

Size/Move

The **Size/Move** menu choice allows you to use the cursor keys to move or resize the currently active window. This choice is essentially useless, as mission windows cannot be resized and it is unlikely that you will wish to move the window such that part of it cannot be seen.

Next

The **Next** menu choice displays the next file open in XMB. You can tell which file is currently active by looking at the title bar at the top of the window.

Previous

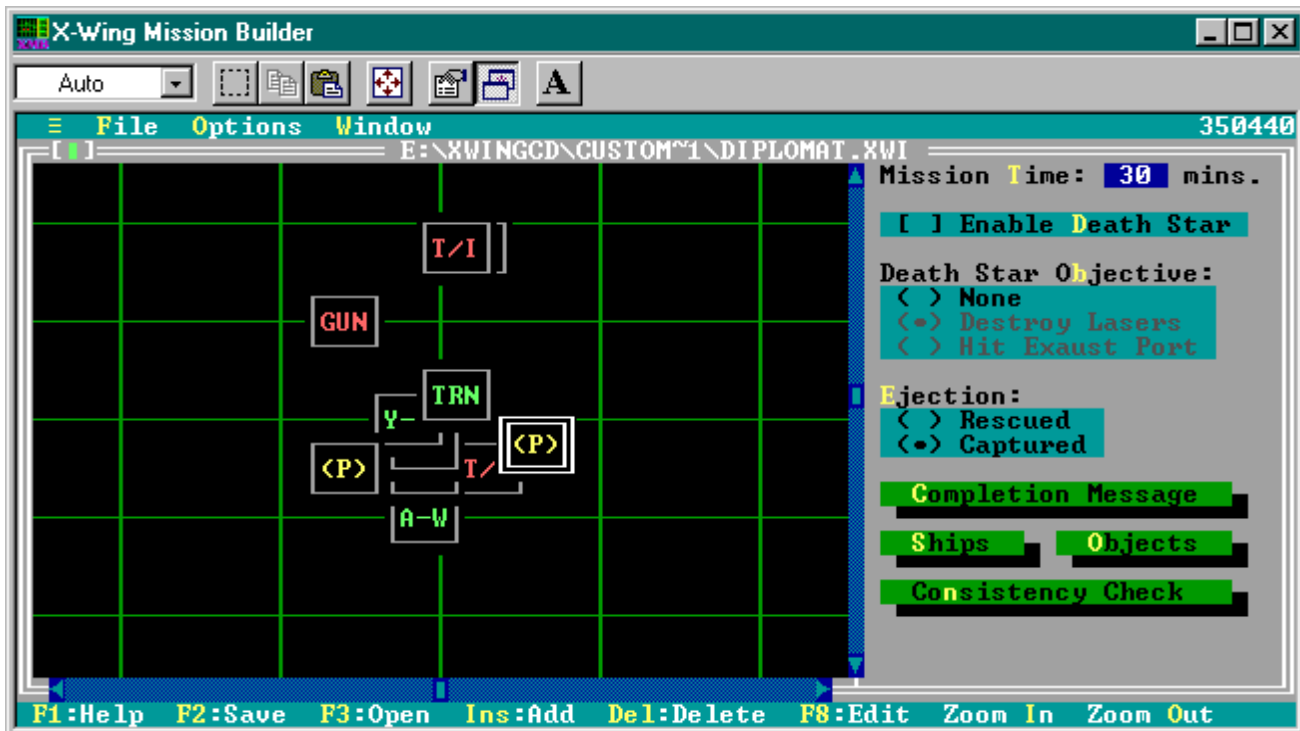
The **Previous** menu choice displays the previous file open in XMB. You can tell which file is currently active by looking at the title bar at the top of the window.

Close

The **Close** menu choice closes the active window. You will be prompted to save the file even if changes have not been made since the last time you saved the file. This menu choice is the equivalent of clicking the close box on the upper left corner of the window.

The Mission Editor Window

The mission editor window is the main location where you create or edit mission definition files. It can be identified by the gray colored border around the window and the file name showing the extension .XWI at the top. The mission editor window is divided into two pieces, the Map Display and the Mission Panel.



The Map Display

The map display, on the left side of the window, contains iconic representations of the ship and object groups that appear in the mission. Each group is shown in the position it will be in when it first arrives during the mission. Note: but see alternate initial start positions below.

Ship and object groups are color coded on the map display as follows:

Color	Interpretation
Red	Imperial
Green	Alliance
Blue	Neutral
Yellow	Default Object

Each object icon also contains a name that helps you to identify the object. This name is the abbreviated group type. Abbreviations used are:

Code	Ship Type
A-W	A-Wing Starfighter
B-W	B-Wing Starfighter
X-W	X-Wing Starfighter
Y-W	Y-Wing Starfighter
T/A	TIE Advanced
T/B	TIE Bomber
T/F	TIE Fighter
T/I	TIE Interceptor
GUN	Assault Gunboat
TRN	Transport
SHU	Shuttle
CRV	Corellian Corvette
FRG	Nebulon B Frigate
STD	Star Destroyer
FRT	Freighter

TUG	Tug
CON	Container
CRS	Calamari Cruiser
(P)	Planet
nav	Navigation Buoy
min	Mines
sat	Satellite
pro	Probe
ast	Asteroid
(D)	Death Star
?o?	Object, type not yet specified
???	Ship, type not yet specified

The map display shows a grid 200 by 200 kilometers in size. The Z axis of unit placement cannot be displayed. It can be scrolled to display any part of this area. In addition, the map can be zoomed in or out (using the \uparrow and \downarrow keys) to show smaller map grid or larger map grid resolution. Each map grid is 10 by 10 kilometers. Fully zoomed out, the display will show about a 10 grids on a side. Fully zoomed in, it will display only about one grid square.

Moving a Group

To position a unit on the map grid, you can use the mouse. Click the top border of the unit and drag it to the desired location on the grid.

Deleting a Group

You may delete units by selecting them on the map and pressing the `Del` key.

Editing Group Properties

To examine all of the details about a group, double-click its icon with the mouse or select the group and press `F8`. This will display the **Ship Group Information** or **Object Record** dialog box depending on the group selected. For information on these dialog boxes, see below.

Adding a Group

To add a new group press the `Ins` key. This will display the Add Group dialog box so you can choose to add either a Ship or Object group. Choose the type of group and press `Enter` or click the OK button. You will be asked to confirm your choice and an unnamed object or ship group will be placed at coordinates 0,0,0.

The Mission Panel

The mission panel serves as a launch point for displaying other dialog boxes used to add and edit units as well as to set certain mission parameters.

Mission Time

The mission time field allows you to set the time showing on the mission clock when the mission starts. While this is not really used in X-Wing except for informational purposes in anything but a historical mission, it can be a valuable player aid. Any value from 0 to 99 minutes is allowed. Note that in historical missions the mission ends when the clock goes to zero. You should be sure that the mission clock displays enough time at mission start to complete the mission if it will ever be used as a historical mission.

Enable Death Star

This check box allows you to specify whether or not the mission will be near the Death Star. Each mission can either be in Deep Space or very near the surface of the Death Star. The default is deep space, which is the likely choice for nearly all missions. If your mission is an attack on or near the surface of the Death Star, check this box.

Death Star Objective

If you have selected Enable Death Star, you must specify what type of Death Star mission this will be. You can either attack the Death Star surface (which means to complete the mission you must destroy laser towers on the surface) or reenact the Death Star Trench run from the movie. Select the choice that applies.

Ejection

This control allows you to determine which is more likely to occur when an Alliance pilot ejects after his spacecraft is destroyed. You may choose to have the pilot captured or rescued. Note that regardless of what you pick there is some chance of either the opposite happening or of the pilot being killed. This choice merely determines the most likely occurrence.

Completion Message

This button displays the Completion Message dialog box that allows you to enter up to three lines of text that will be displayed if the mission is successfully completed. Type the text into the fields of the dialog box. This step is optional. If you do not enter any text the message 'Mission complete' will be displayed.

Ships

Displays the Ship Groups dialog box. This dialog is a list of all defined ship groups. It shows the group number (also displayed on the group icon if you select this option from the menu), group designation (name), the number of ships within the group, and the ship type. You may insert, delete or edit ship groups from within the Ship Groups dialog in a similar manner as from the Mission Map.

To insert a new group, press `Ins`. You will be prompted to confirm the action. To confirm, press `Y`. To abort the operation press `N`. The group will be added to the end of the list of groups and will have a blank designation, a single ship in the group and will have an unassigned type.

To delete a group, select it and press `Del`. You will be prompted to confirm the action. To confirm, press `Y`. To abort the operation press `N`.

To edit group properties, select the group and press `F8` or double click on the group in the list.

You may also copy entire ship group definitions by selecting the ship group and pressing `Alt-C`. This adds the group to the clipboard. If you wish to use that ship group definition again, select the group you wish to have the definition apply to and press `Alt-P`. Then choose the group definition from the clipboard dialog. This will overwrite the selected group with the attributes of the pasted group.

Note: whichever group is selected in the **Ship Groups** dialog when it is closed will be the selected group in the Map Window.

Objects

Displays the **Object Groups** dialog box. This dialog is a list of all defined ship groups. It shows the group number (also displayed on the group icon if you select this option from the menu), group designation (name), the number of objects within the group, and the object type. You may insert, delete or edit object groups from within the Object Groups dialog in a similar manner as from the Mission Map.

To insert a new group, press `Ins`. You will be prompted to confirm the action. To confirm, press `Y`. To abort the operation press `N`. The group will be added to the end of the list of groups and will have a blank designation, a single object in the group and will have an unknown type.

To delete a group, select it and press `Del`. You will be prompted to confirm the action. To confirm, press `Y`. To abort the operation press `N`.

To edit group properties, select the group and press `F8` or double click on the group in the list.

You may also copy entire object group definitions by selecting the ship group and pressing `Alt-C`. This adds the group to the clipboard. If you wish to use that ship group definition again, select the group you wish to have the

definition apply to and press **Alt-P**. Then choose the group definition from the clipboard dialog. This will overwrite the selected group with the attributes of the pasted group.

Note: whichever group is selected in the Object Groups dialog when it is closed will be the selected group in the Map Window.

Consistency Check

This button displays a resizable dialog box with useful mission debugging information. The information displayed includes:

- Mission file name and directory location
- Mission length
- Mission type
- Number of ship groups
- Number of object groups
- Whether or not a personal vessel was located
- Information on each ship group

To close the dialog, press **ESC** or click the close box in the upper left corner of the dialog. Note that while this dialog looks like a window, it is modal (i.e. you cannot do anything else until you close the dialog).

The Ship Group Information Dialog

This dialog is the heart of mission creation. It contains all of the information pertaining to the behavior and look of the ship group during the mission. This section describes each element of this dialog and its purpose.



Designation

This field is used to specify the name of the ship group. It can be any text string up to 14 characters in length.

Cargo

This field contains the type of cargo on board the ship. Cargo descriptions can be up to 14 characters. Typically if the ship does not carry cargo, this item should be left blank. Normally starfighters do not carry cargo.

Alt Cargo

This field contains the type of cargo carried aboard a single special ship within the group. The alternate cargo description can be up to 14 characters. Only available on one ship. Leave blank if no ship in the group should carry an alternative cargo.

Spec. Ship

This field contains the number of the ship within the group which carries the alternative cargo specified in the Alt Cargo field. This field should be left blank if no ship will carry alternative cargo.

Ship Type

This field contains the type of ship that will be in the group. Press F8 or double-click in the field for a list of available ship types. Use the arrow keys to select ship type and press Enter or double-click the desired ship type with your mouse.

IFF

The IFF (Identify Friend or Foe) field determines which side of the conflict the group will fight on. The possible choices and the interpretation of each are:

<u>Value</u>	<u>Meaning</u>
Default	The group will fight on a default side based on ship type. Default is the equivalent of Alliance for the A-Wing, B-Wing, Y-Wing, X-Wing, container, Freighter, Calamari Cruiser, and Corellian Corvette. Default is the equivalent of Imperial for the TIE Fighter, TIE Bomber, TIE Interceptor, TIE Advanced, Transport, Shuttle, Tug, Nebulon B Frigate, and Star Destroyer.
Alliance	Forces unit to fight for the Alliance, regardless of type.
Imperial	Forces unit to fight for the Empire regardless of type.
Neutral	Forces unit to fight for nonaligned forces regardless of type.

Cripple

This control allows you to specify if the group has any restrictions placed upon it at mission start. The possible choices and the interpretation of each are:

<u>Value</u>	<u>Meaning</u>
None	No restrictions are placed on the group.
No Missiles	If the ship type normally carries missiles, it will not have any when it arrives.
Half Missiles	If the ship type normally carries missiles, it will have only half the normal compliment when it arrives.
Shields Down	If the ship normally has shields they will not be operational when the ship arrives.

Number of Vessels

This field contains the number of ships within the group. You can enter any number between 1 and 12. Each wave of ships in the group will contain the number of ships entered here. Default value is 1.

Number of Waves

This field contains the number of times this group will reappear after the departure or destruction of previous waves of the group. The default is zero. You may enter any value from zero to 10. Each wave will have all of the characteristics of the initial group, including speed, number of ships, arrival location, objective, etc.

Personal Vessel

This field contains the number of the ship within the group that the player will pilot. Default is zero. You should only specify a value other than zero in this field for a single group for each mission. If you have not specified a non-zero value for some group, X-Wing will abort. Finally, it is best not to assign the player to non-Alliance/non-starfighter groups. Odd behavior can result during mission execution if you try this.

Speed/Docking Time

This field specifies how fast the group is flying as a percentage of maximum speed when it arrives. You may enter any value from zero to nine (0=100 percent, 1=10 percent and 9=90 percent).

Formation

This field allows you to specify the formation of the ships within the group. Formations regulate the distance and placement of individual ships in relation to one another if the group has more than one ship in it. Available formations are: Vic, Finger Four, Line Astern, Line Abreast, Echelon Right, Echelon Left, Double Astern, Diamond, Stack, Spread, Hi-Low, and Spiral. The default is Vic.

Pilot Skill

This field controls the combat skill level of the pilot in the group. The higher the rank, the more effective the unit is in combat. Pilot rankings from worst to best are: Rookie, Officer, Veteran, Ace, Top Ace. Default is Rookie. Note that for Alliance starfighter groups pilots can be assigned at mission start which have higher combat effectiveness than that shown here. However, the value you set here is the *minimum* effectiveness of the pilot.

Markings

This field allows you to specify the coloring of the markings on the ship. This is most visible on Alliance starfighters and certain ships such as shuttles and corvettes. The possible values are: Red, Gold, and Blue. The default is Red.

Arrival Params

This button displays the **Arrival** dialog box. Within this dialog you can specify how and when the group arrives during the mission. The fields are explained below.

Arrival Time: This field specifies how long after the arrival conditions are met that the group arrives. This can range from immediately (the default: 00:00) to 100 minutes later.

Mothership: This field specifies the group number of the ship that launches the group, if any. The default is zero, or no group is the mothership for the group. If a group has a mothership specified it will not arrive unless that ship is currently present. If it has yet to arrive, has departed, or has been destroyed the unit will not arrive.

Arrive via Hyperspace: If this item is checked the group will arrive by hyperspace. If not checked, the unit will simply "appear", either from a mothership, will be there at mission start, or will just miraculously start to exist.

Depart via Hyperspace: If this item is checked the group will depart from the mission via hyperspace. Only groups that have orders that require them to depart will actually do so. If not checked the unit will depart by returning to its mothership if any.

After Ship Group: This field allows you to specify how a group arrives relative to an event that effects another ship group in the mission when combined with the Condition field. Enter the number of the ship group that the arrival of the group should be dependent on.

Condition: This field allows you to specify the condition that must be met by the group specified in the After Ship Group field in order for the group to arrive. The possible values and their meanings are explained below:

<u>Value</u>	<u>Meaning</u>
None	The group is not dependent at all on the After Ship Group unit. This is the default value.
Arrives	The group arrives in the amount of time specified in the Arrival Time field after the group specified in the After Ship Group field arrives in the mission.
Destroyed	The group arrives in the amount of time specified in the Arrival Time field after the group specified in the After Ship Group field is destroyed during the mission. If the group is not destroyed this group will never arrive.
Engaged	The group arrives in the amount of time specified in the Arrival Time field

	after the group specified in the After Ship Group field is first hit by hostile fire during the mission.
Boarded	The group arrives in the amount of time specified in the Arrival Time field after the group specified in the After Ship Group field is boarded by another group.
Identified	The group arrives in the amount of time specified in the Arrival Time field after the group specified in the After Ship Group field is identified by the player.
Disabled	The group arrives in the amount of time specified in the Arrival Time field after the group specified in the After Ship Group field is disabled during the mission.

Example: Suppose that the arrival dialog has been filled out as follows:

Arrival Time:	1:00
Mothership:	3
After Ship Group:	3
Condition:	Engaged by Enemy
Arrive via Hyperspace:	No
Depart via Hyperspace:	No

This is interpreted as follows: the group will be launched from ship group three one minute after ship group three has been hit by hostile fire.

Waypoints

This button displays the Waypoints dialog. In this dialog you specify at what location the group arrives in the mission, and the points it will travel to during the mission. This is used primarily for non-starfighters with "travel" type assignments.

Enable: Activates the waypoint. The Initial waypoint should be specified for each group (this is the location the group arrives in the mission at). For any group that will leave a mission, the Jump Point should also be activated.

Initial: This is the groups starting location when it enters the mission. It should always be set for all groups. It is set automatically when a group is placed on the map grid.

1st: The first coordinate the group will travel to once it has entered the mission. If blank, the group will proceed to the 2nd waypoint.

2nd: The second coordinate the group will travel to once it has entered the mission. If blank, the group will proceed to the 3rd waypoint.

3rd: The third coordinate the group will travel to once it has entered the mission. If blank, the group will proceed to the Jump Point.

Alt Initial: You can specify to alternative starting points for the group. This allows missions to be less repeatable if used liberally, as ship groups will not always arrive in a completely predictable location.

Jump Point: The location that when reached the ship will exit the mission. If the group has been set to leave via Hyperspace it will leave in that manner. If it has been set not to leave via hyperspace, it will either just keep flying in the same direction or circle around that point aimlessly.

Objective

This button displays the **Mission Objective** dialog box. In this dialog you can specify what the group must accomplish in order for the mission to be completed by the player. The possible values are:

<u>Value</u>	<u>Meaning</u>
None	The group has no impact on mission completion.
Destroyed	Every ship in the group must be destroyed for the mission to be completed.
Survive	Every ship in the group must survive for the mission to be completed.
Captured	Every ship in the group must be captured for the mission to be completed.
Boarded	Every ship in the group must be boarded for the mission to be completed.
Special Destroyed	The ship specified in the Spec. Ship field on the Ship Group Information dialog must be destroyed for the mission to be completed.
Special Survive	The ship specified in the Spec. Ship field on the Ship Group Information dialog must survive for the mission to be completed.
Special Captured	The ship specified in the Spec. Ship field on the Ship Group Information dialog must be captured for the mission to be completed.
Special Boarded	The ship identified in the Spec. Ship field on the Ship Group Information dialog must be boarded for the mission to be completed.
50% Destroyed	At least 50% of the ships in the group must be destroyed for the mission to be completed.
50% Survive	At least 50% of the ships in the group must survive for the mission to be completed.
50% Captured	At least 50% of the ships in the group must be captured for the mission to be completed.
50% Boarded	At least 50% of the ships in the group must be boarded for the mission to be completed.
All Identified	Every ship in the group must be identified by the player for the mission to be completed.
Special Identified	The ship specified in the Spec. Ship field on the Ship Group Information dialog must be identified by the player for the mission to be completed.
50% Identified	At least 50% of the ships in the group must be identified by the player for the mission to be completed.
Arrive	The group must arrive for the mission to be completed.

Note that objectives for each group are added together to get the final requirements for successful completion. It is possible to define mission objectives for different ship groups such that it is impossible to complete a mission. For example, suppose Ship Group A must survive for the mission to be completed and Ship Group B must arrive. Further suppose Ship Group B does not arrive unless Ship Group A is destroyed. Both conditions can never occur in the same mission, so the mission cannot be completed successfully.

Assignment

This button displays the **Assigned Command** dialog box. This dialog is used to determine the offensive or defensive behavior of the group during the mission. Each group is assigned a command, and optionally a primary and secondary target. Commands that have a check mark next to them in the Assigned Command list must have a primary and secondary target to be effective. The Target 1 and Target 2 fields allow you to specify the ship group number that is the primary and secondary target respectively. You can press F8 or double-click in either field to get a list of available ship groups.

To assign a command, highlight that command in the list. The highlighted command will be shown in green. The possible commands you can assign to a group are listed in the following table:

<u>Command</u>	<u>Meaning</u>
----------------	----------------

Stationary	The group will sit in space doing nothing
Go Home	The group will fly to its mothership or hyperspace jump point and leave the mission.
Circle & Ignore	The group will circle between its waypoints and ignore all attackers.
Fly once & Ignore	The group will fly from its starting point through all waypoints to its jump point and then leave while ignoring all attackers.
Circle & Evade	The group will circle between its waypoints and attempt to evade all attackers.
Fly once & Evade	The group will fly from its starting point through all waypoints to its jump point and then leave while attempting to evade all attackers.
Close Escort	The group will attack any enemy ships that fly within about 1.5 kilometers of the ship groups specified in the Target 1 and Target 2 fields.
Loose Escort	The group will attack any enemy ships that fly within about four kilometers of the ship groups specified in the Target 1 and Target 2 fields.
Attack Escorts	The group will attack any ships that have Close Escort or Loose Escort as their commands. (See below)
Attack Pri & Sec	The group will attack the ship groups specified in the Target 1 and Target 2 fields.
Attack all Enemies	The group will attack all enemy groups.
Rendezvous	The group will wait for another group to board it and then execute the Go Home command.
Disabled	The group is disabled and will not move.
Board & Deliver	The group will board and transfer its cargo to the ship groups specified in the Target 1 and Target 2 fields.
Board & Take	The group will board and take cargo from the ship groups specified in the Target 1 and Target 2 fields.
Board & Capture	The group will board and capture the ship groups specified in the Target 1 and Target 2 fields.
Board & Destroy	The group will board and destroy the ship groups specified in the Target 1 and Target 2 fields.
Disable Pri & Sec	The group will attempt to disable the ship groups specified in the Target 1 and Target 2 fields.
Disable All	The group will attempt to disable all enemy groups.
Attack Transports	The group will attack all enemy ships of type transport. (See below)
Attack Freighters	The group will attack all enemy groups of freighters and corvettes. (See below)
Attack Starships	The group will attack all enemy frigates, star destroyers and cruisers. (See below)
Attack Sat & Mines	The group will attack all enemy satellites and mines. (See below)
Disable Freighters	The group will attempt to disable all enemy freighters and corvettes. (See below)
Disable Starships	The group will attempt to disable all enemy frigates, star destroyers, and cruisers. (See below)
Cap: Sit & Fire	The group will sit motionless and fire at all enemies within range.
Cap: Fly Once	The group will fly from its initial point through all waypoints to its jump point and then depart the mission while firing at all enemies within range.
Cap: Circle	The group will fly in a circle through its waypoints while firing at all enemies within range.

Cap: Wait Return	The group will sit motionless and wait for the ships specified in the Target 1 and Target 2 fields to return to it or be destroyed while firing at all enemies within range.
Cap: Wait Arrival	The group will sit motionless wait for the arrival of the ships specified in the Target 1 and Target 2 fields to arrive while firing at all enemies within range.
Cap: Wait Board	The group will sit motionless and wait to be boarded by the ships specified in the Target 1 and Target 2 fields to board it while firing at all enemies within range.

Only ships of type Corvette, Frigate, Star Destroyer or Cruiser should be assigned orders beginning with Cap:. These ships must be assigned commands in this group or they will not properly carry out their orders.

Note: the commands followed by (See below) above are not specific to a ship group. Ships assigned these tasks will attempt to carry them out on all appropriate enemy ship groups. If you wish to restrict the ship groups to one or two, use the Target 1 and Target 2 fields.

X-Reference

This button displays the **Dependencies** dialog box. This dialog displays a listing of all of the items in the mission which depend on the group, or that the group depends on. It is a useful debugging aide. The screen dialog displays the following information:

1. Group number, designation, number of ships and ship type of the current group
2. Group number, designation, number of ships and ship type for all groups whose arrival is dependent on the current ship group
3. Group number, designation, number of ships and ship type for all groups whose mothership is the current ship group
4. Group number, designation, number of ships and ship type whose primary target is the current ship group
5. Group number, designation, number of ships and ship type whose secondary target is the current ship group

To close the dialog and return to the Ship Group Information dialog press ESC or click on the close box at the top left of the dialog.

The Object Record Dialog

This dialog box allows you to specify the characteristics of space objects in the mission. This section describes each element of this dialog and its purpose.

Designation

This field contains the name of the object. It can be any value up to 38 characters in length. Objects do not require names. Default is blank.

Object Type

This field allows you to select the type of object that will make up the group. There are 31 choices. Most objects cannot be attacked, they appear as background only during the mission. However, mines, com sats, nav buoys, and probes may be destroyed. There is no functional difference between mine types in a mission.

IFF

This field specifies the ownership of the object. By default, all objects are neutral (and show up in yellow on the Map Grid and in white on scanners during a mission). You can specify ownership of an object to be Alliance, Imperial, Default, or Neutral. If Neutral is selected, the item will appear in blue rather than yellow/white.

Layout

This field specifies how the objects in the group are arranged relative to each other. There are four choices:

Flat	Objects are arranged flat in the x-y plane
On Edge	?
Broadside	?
Scattered	Objects are placed at random around the central point

Must be Destroyed

If this field is checked the object must be destroyed for the mission to be successfully completed.

Quantity

This field contains the number of objects in the group except for mines. For mines the number is squared to yield the number of mines in the group. Number of objects in unit. If object is a mine, number is squared for total # of mines in unit. Regardless of the number entered, only one planet will be placed per group.

X Loc

This field contains the X location of the object on the map grid. Any value from -99.99 to 99.00 may be entered. 0.00 is the default.

Y Loc

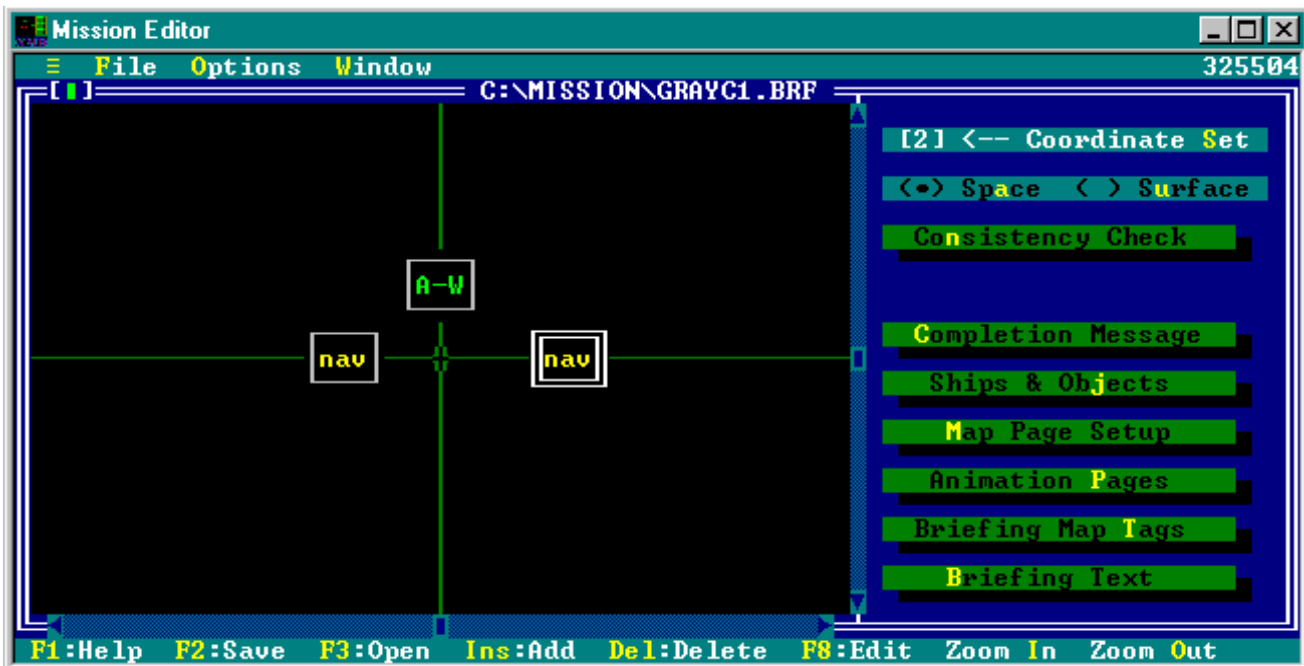
This field contains the Y location of the object on the map grid. Any value from -99.99 to 99.00 may be entered. 0.00 is the default.

Z Loc

This field contains the Z location of the object on the map grid. The Z axis is the "height" of the object relative to the X-Y plane represented in the map grid. Any value from -99.99 to 99.00 may be entered. 0.00 is the default.

The Briefing Editor Window

The Briefing Editor Window enables you to create the graphical briefings presented prior to each mission. It is quite useful for creating professional looking custom missions, but it is somewhat difficult to use in some areas due to the complexity of the briefings themselves. This section discusses the Briefing Editor window and how to use it. The Briefing Editor Window is divided into two sections, the Map Display and the Briefing Panel. It can be identified by the blue colored border around the window and the file name showing the extension .BRF at the top.



The Map Display

The map display, on the left side of the window, contains iconic representations of the ship and object groups that appear in the briefing.

Ship and object groups are color coded and identified on the map display in the same way as in the mission editor. See the Map Display under the Mission Editor Window above. They are also created and placed using the same basic procedures as in the Mission Editor.

The Briefing Panel

The mission editor window is the main location where you create or edit mission definition files. It can be identified by the gray colored border around the window and the file name showing the extension .XWI at the top. The mission editor window is divided into two pieces, the Map Display and the Mission Panel. This section describes the elements in the Briefing Panel.

Coordinate Set

Each briefing file can contain more than one coordinate set. In practice you only actually need to use one of them for your briefings. XMB will automatically remove any coordinate sets in excess of two and add one if there is only a single coordinate set in the file (this is only relevant if you edit a LucasArts supplied mission as a starting point). All new briefings created by XMB will contain two coordinate sets.

Normally one coordinate set contains the same locations as the mission file. The second has the briefing file locations. You may want these to be different for a number of reasons: spacing on the briefings will tend to be smaller to show many ships on the briefing map at once, you may want to move things around for a nice presentation on the briefing map, etc.

This field allows you to specify which coordinate set to display in the Map Display. Click on the coordinate set number or type S to toggle between coordinate set 1 and 2.

Briefing Type

This unlabeled selection allows you to determine whether the briefing should be against a space background or the deathstar background. In practice this should be set to the identical setting as the Enable Death Star choice in the Mission Editor. If the Death Star is enabled, the briefing should be set to Surface. If not, it should be set to Space. To select the briefing type, click your choice or type A for Space or type U for Surface.

Consistency Check

Displays a modal text window with information on the briefing useful for finding errors or omission in the briefing that could cause problems when the mission is played. The information contained in the consistency check includes:

- Number of Coordinate Sets
- Type of Mission
- Number of lines reserved for the Map Page text
- Number of object groups
- Number of tag strings
- Number of text strings
- Number of briefing pages
- Personal vessel

For each briefing page a listing of all actions to take and at what time plus any errors in the specification of these map pages.

This check is useful to see all of your map page programming in one place. The dialogs used to enter the information are somewhat small. To close the consistency check, click on the close box at the upper left or press ESC.

Completion Message

This button displays the **Completion Message** dialog box that allows you to enter up to three lines of text that will be displayed if the mission is successfully completed. Type the text into the fields of the dialog box. This step is optional. If you do not enter any text the message 'Mission complete' will be displayed. The text in this dialog is identical to that entered in the **Completion Message** dialog box in the Mission Panel if you have converted the .XWI file to the .BRF format.

Ships & Objects

Unlike in the Mission Editor, all groups, both ships and objects, are displayed in a single list for briefings. This button displays the **Ships & Objects** dialog which lists all groups in the briefing. Note that you can add groups that do not appear in the mission or remove groups you do not wish to be in the briefing. This is useful if you want to "surprise" a player with things not included in the briefing or to remove the clutter of multiple ship or object groups of the same type on the briefing map.

The listing shows the group number (also displayed on the group icon if you select this option from the menu), group designation (name), the number of ships/objects within the group, and the ship/object type. You may insert, delete or edit groups from within the dialog in a similar manner as from the Mission Map.

To insert a new group, press `Ins`. You will be prompted to confirm the action. To confirm, press `Y`. To abort the operation press `N`. The group will be added to the end of the list of groups and will have a blank designation, zero objects in the group and will have an unassigned type.

To delete a group, select it and press `Del`. You will be prompted to confirm the action. To confirm, press `Y`. To abort the operation press `N`.

To edit group properties, select the group and press `F8` or double click on the group in the list. This will display the **Briefing Object/Icon** dialog. See below.

Note: whichever group is selected in the dialog when it is closed will be the selected group in the Map Window.

Map Page Setup

This button displays the **Map Page Setup** dialog. You can use this to determine how many text lines will appear at the bottom of the briefing map during the briefing. You may choose any value from one to five, two is the default. To select a value, click on the number you wish to select or type the number. Press `Enter` to accept your changes, or `ESC` to cancel.

Animation Pages

This button displays the **Edit Animation Pages** dialog box where you can create and change the animations in the briefing. See below.

Briefing Map Tags

This button displays the **Edit Briefing Map Tags** dialog where you can create and change the text that identifies objects on the briefing map. See below.

Briefing Text

This button displays the **Edit Briefing Text** dialog where you can create the text that appears as titles, descriptions, and prompts in the briefing pages. See below.

The Briefing Object/Icon Dialog

The **Briefing Object/Icon** dialog contains a subset of the information contained in the **Ship Record** and **Object Record** dialogs in the Mission Editor. Each element of the dialog and its purpose are described below.

Object Type

This is the type of object that will appear on the briefing map. It will be shown on the briefing display with an iconic representation of the object or ship. To select an object type, press **F8** or double click on the field to display the list of possible values.

Quantity

This is not used for the briefing. For all practical purposes the briefing system does not care how many items are in a group, all groups are displayed as a single icon regardless of the quantity in a group.

Waves

This is not used for the briefing.

IFF

The IFF (Identify Friend or Foe) field determines which side of the conflict the group will fight on and the color or the object on the briefing map. The possible choices and the interpretation of each are:

<u>Value</u>	<u>Meaning</u>
Default	The group will fight on a default side based on ship type. Default is the equivalent of Alliance for the A-Wing, B-Wing, Y-Wing, X-Wing, container, Freighter, Calamari Cruiser, and Corellian Corvette. Default is the equivalent of Imperial for the TIE Fighter, TIE Bomber, TIE Interceptor, TIE Advanced, Transport, Shuttle, Tug, Nebulon B Frigate, and Star Destroyer.
Alliance	Forces unit to fight for the Alliance, regardless of type.
Imperial	Forces unit to fight for the Empire regardless of type.
Neutral	Forces unit to fight for nonaligned forces regardless of type.

Imperial groups appear in red, Alliance groups appear in green, Neutral ships appear in Blue and Neutral Objects appear in Yellow on the briefing map.

Designation

The name of the group. This is not really used as anything but an identifier. By default it will be the same as the designation of the ship/object group from the mission file if you converted the .XWI file to a .BRF file.

Cargo

This is not used for the briefing. It may be useful as a reminder when determining other briefing information (such as map tags or text) however.

Alt Cargo

This item is not used for the briefing. It may be useful as a reminder when determining other briefing information (such as map tags or text) however.

Alt Vessel

This is not used for the briefing. It may be useful as a reminder when determining other briefing information (such as map tags or text) however.

Location X

This field contains the X location of the object on the map grid during the briefing. Any value from -99.99 to 99.00 may be entered. 0.00 is the default.

Location Y

This field contains the X location of the object on the map grid during the briefing. Any value from -99.99 to 99.00 may be entered. 0.00 is the default.

Location Z

This field contains the X location of the object on the map grid during the briefing. Any value from -99.99 to 99.00 may be entered. 0.00 is the default.

Personal

This button displays the **Personal Vessel** dialog box. This dialog allows you to specify which ship in the group is piloted by the player. The animation cuts scenes of the ship taking off and landing during the mission are determined by the type of vessel that is marked as the personal vessel of the player in the briefing file.

The Edit Animation Pages Dialog

The Edit Animation Pages dialog allows you to create the animation sequences and text page mission descriptions displayed prior to the start of each mission. This is the core of the briefing editor, and it is also the most complicated aspect of using XMB.

An animation page may be of two types, a Map Page or a Full Text Page. Each page is listed in the dialog.

Creating an Animation Page

To create an animation page, select an existing page and click Insert (or type I) to create a page prior to the one you selected or click Append (or type A) to add a page to the end of the list. This will create a new default page and display the **Animation Page** dialog. See Editing an Animation Page below for details.

Deleting an Animation Page

To delete an animation page, select it and click Delete (or type D). You will be prompted to confirm your action.

Editing an Animation Page

To edit an animation page, select it and click Edit (or type E) or simply double click on the page you wish to edit. This will display the **Animation Page** dialog. This dialog is where you tell X-Wing what should happen on the page.

Clock Period The number of program ticks that will be spent on this page per cycle of animation commands. This is not the same as seconds. The list of animation commands will start each number of clock ticks specified by this value.

Coordinate Set The map grid coordinate set to be used. This need not be set for Full Text pages, but is important for Map Pages. If you have altered the map grid for use in the briefing, be sure to set the coordinate set to be the one you want to use. Click on the coordinate set or type the number of the coordinate set.

Page Type This can either be full text (the text pages with a blue background) or Map Grid, the animated briefings.

Animation Commands This is a list of all of the commands for this page. You can insert, delete and modify them just as you did entire pages using the buttons on the right side of the dialog. Each page will run the commands listed in order at the times shown. The list shows the command number, the clock tie it will execute, and the command itself. By editing a command you will display the **Animation Command** dialog. It allows you to specify the arguments to the command as well as the command type. This dialog is context sensitive, in that it changes based on the type of command you select. The following table has a list of all commands you can specify and the arguments they take.

<u>Command Name</u>	<u>Arguments</u>	<u>Purpose</u>
Wait for Click	None	Creates a pause in the animation.
Clear Text	None	Erases all titles and main text on the screen.
Show Title Text	Text Entry	Displays a text entry in the top line of the map screen.
Show Main Text	Text Entry	Displays either a text entry at the bottom of the screen as a prompt for the animation on Map Grid pages, or a full page of text on Full Text pages.
Center Map	X, Y	Moves the center of the viewing area over the specified X,Y coordinates of the map grid.
Zoom Map	X, Y	Zooms the map grid to the specified factor. Zoom factors of 16 and 32 seem to work best. 16 for a wide angle view and 32 for a focused view with nice sized object icons.
Clear Boxes	None	Erase all boxes around objects. You cannot "reuse" boxes once used in a page unless you clear boxes first. So, if you have boxed four groups and would like to box a fifth, you must use this command to remove all boxes and then box the fifth group.
Box 1	Group	Create a box around the specified group.
Box 2	Group	Create a box around the specified group.
Box 3	Group	Create a box around the specified group.
Box 4	Group	Create a box around the specified group.
Clear Tags	None	Erase all map tags from the display. You cannot "reuse" tags once used in a page unless you clear tags first. So, if you have shown four tags and would like to show a fifth, you must use this command to remove all tags before you can show another.
Tag 1	Map Tag, X, Y	Display the map tag at the specified X, Y location.
Tag 2	Map Tag, X, Y	Display the map tag at the specified X, Y location.
Tag 3	Map Tag, X, Y	Display the map tag at the specified X, Y location.
Tag 4	Map Tag, X, Y	Display the map tag at the specified X, Y location.

The **Animation Command** dialog is context sensitive as mentioned above. Generally, it always shows the following information:

<u>Element</u>	<u>Description</u>
Clock Ticks	The time at which the command should take place.
Cmd	The command to execute. Double click or press F8 to get a list of commands.
Parameters	Either a pure numeric entry (to specify map tag numbers, text entry

numbers, and group numbers) or an X, Y location (for centering, zoom factors, and tag locations) or both. Any numeric entry parameter has a list of values. Press F8 or double click the value to see it.

The dialog also displays a locate button for any command that has an X, Y parameter. This button displays a dialog that allows you to choose a map object and specify an offset from that object. This is extremely useful when you want to place a map tag next to an icon.

A Text Page Template

I have found the following settings to be ideal for a Text Page.

Clock Period:	1		
Coordinate Set:	2		
Page Type:	Full Text		
Animation Commands:	1	0000	Show Title Text
	2	0000	Show Main Text

The argument for the first animation command should be the text entry that contains the mission title. The argument for the second animation command should be the text entry that is the full text for the page.

Map Page Hints

I have found the following general rules to be useful for creating good map pages.

1. Never add commands with timings such that they are out of order in the list. The briefing will not work properly (it will skip commands that are out of order, or worse). Thus, the following should be avoided:

1	0000	Show Title Text
2	0010	Box 1
3	0000	Show Main Text

2. The number of clock ticks should be 40-60 times the number of text entries you will use at the bottom of the page. 40 makes for very quick briefings, 50 seems about right, and 60 is often a bit slow.

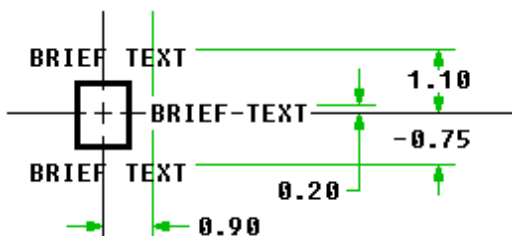
3. When boxing and tagging items, box them 2-4 ticks before you tag them. When boxing multiple items in the same text entry sequence, box them 6 ticks apart. This gives a nice effect on the briefing map.

4. Always Clear Text as the first command on a Map Page. That way you are sure everything is good when the animation cycles through from the end.

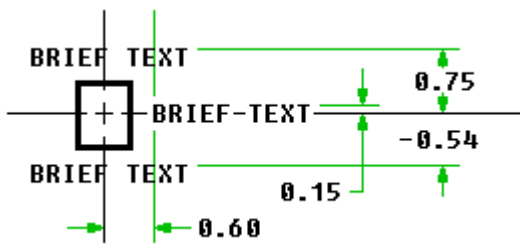
5. Always Clear Boxes and Clear Tags as the last things you do on a Map Page. That way you are sure everything is reset for the start of the animation as it cycles to the start again.

6. Be consistent on Zooming factors and where you center things.

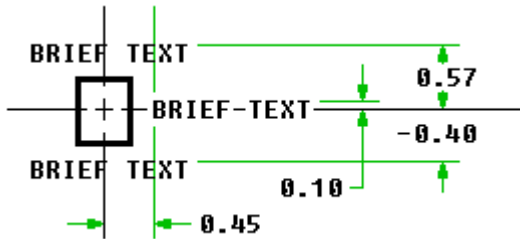
7. When placing tags, consult the following set of diagrams developed by Robert Delinsky (Sparks, Blue 15), to place your tags next to boxes.



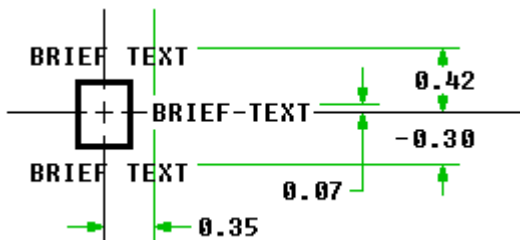
Zoom factor 32/32. Viewport displays approx. 17 x 8 km.



Zoom factor 48/48. Viewport displays approx. 10 x 5 km.



Zoom factor 64/64. Viewport displays approx. 8 x 4 km.



Zoom factor 80/80. Viewport displays approx. 6 x 3 km.

The Edit Briefing Map Tags Dialog

Briefing map tags are short descriptions of ships, objects, or other items that appear during the animation sequences on the map itself. This dialog box allows you to create, modify and delete briefing map tags.

Creating a Map Tag

To create a map tag, select an existing tag from the list and then click Insert (or type I) to create a tag just before that one or click Append (or type A) to create a tag at the end of the list. In either case the **Briefing Map Tag** dialog is displayed which contains a text field where you can enter the text to be used as the tag. This text is displayed (possibly truncated) in the list of tags. Generally you should keep map tags short, otherwise they will be difficult to display on the briefing map.

Deleting a Map Tag

To delete a map tag, select it in the list and click the Delete button (or type D).

Note: deleting map tags has some side effects you may wish to avoid. During the animation definitions, map tags are referred to by number. Deleting a map tag will have the effect of making any reference to the tag in the animation now refer to the next tag in the list (or to no tag if you deleted the last tag). Be careful when deleting tags to make sure that any references to the tag are updated as well.

Modifying a Map Tag

To edit the text of a tag, select the tag from the list and click edit (or type E) or simply double click the tag. This will display the **Briefing Map Tag** dialog which contains a text field where you can modify the tag text.

Returning to the Briefing Panel

To close the dialog and save all of your changes (you cannot cancel them) you can click Done or the close box or type ESC or o.

The Edit Briefing Text Dialog

Briefing text entries text elements used in the briefing other than map tags. Briefing text is used as the title above the map display, map display subtitles during the animation, and the text mission description pages. This dialog box allows you to create, modify and delete briefing text entries.

Creating a Briefing Text Entry

To create a briefing text entry, select an existing entry from the list and then click Insert (or type **I**) to create an entry just before that one or click Append (or type **A**) to create an entry at the end of the list. In either case the Briefing Text dialog is displayed which contains a text editor where you can enter the text to be used. This text is displayed (possibly truncated) in the list of entries.

Generally you should keep animation page titles and subtitles short, around 20 characters per line of text. Text page entries can be longer, up to about one and a half lines in the text editor.

Full page entries should have each paragraph preceded by two blank spaces. Titles should be preceded by the character **>**. This tells X-Wing to center the text of the title.

Deleting Briefing Text

To delete a text entry, select it in the list and click the Delete button (or type **D**).

Note: deleting text entries has some side effects you may wish to avoid. During the animation definitions, text entries are referred to by number. Deleting one will have the effect of making any reference to the text in the animation now refer to the next text in the list (or to no text if you deleted the last text entry). Be careful to make sure that any references to the text are updated as well.

Modifying Briefing Text

To edit the text, select the text from the list and click edit (or type **E**) or simply double click the text. This will display the **Briefing Text** dialog which contains a text field where you can modify the text.

Returning to the Briefing Panel

To close the dialog and save all of your changes (you cannot cancel them) you can click Done or the close box or type **ESC** or **O**.

XMB Function Key Reference

This section describes function keys used in XMB.

Del	Deletes the selected ship group or object.
Tab	Moves the cursor to the next control in a dialog box or to the next unit on the mission map.
Shift-Tab	Moves the cursor to the previous control in a dialog box or to the previous unit on the mission map.
Ins	Creates a new ship group or object.
ESC	Closes the currently open dialog box.
F1	Invokes context sensitive online help system.
F2	Saves the currently active mission or briefing file.
F3	Opens a briefing or mission file.
Ctrl-F5	Resizes the active window.
F6	Displays the next open mission or briefing file.
Shift-F6	Displays the previous open mission or briefing file.
F8	Edits the selected ship group.
Alt-F3	Closes the currently displayed mission or briefing file after prompting to save it.
Alt-C	Copies the selected ship or object group to the paste list.
Alt-F	Activates the File Menu.
Alt-O	Activates the Options Menu.
Alt-P	Displays the paste list and allows the user to select a ship or object group to replace the currently selected one.
Alt-S	Displays the Ship Groups dialog box.

Alt-W Activates the Window Menu.
Alt-X Exits XMB after prompting to save any open mission and briefing files.
Shift-O Displays the list of object groups.

How Do You Get XMB?

XMB is a shareware program created by Neal Westfall available from a number of online sources including CompuServe, America Online, and the worldwide web. The unregistered version is fully functional but lacks important features used to confirm the correctness of a mission definition and briefing file. At last check, registration of XMB cost \$15.00 (US) but I was unable to contact Mr. Westfall to determine if he was still fulfilling registrations. To attempt to register a copy of XMB or to get more information from the author, contact Neal Westfall at:

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3061 Oregon Street
Rialto, CA 92376

CompuServe: 70222,1164
Internet: nwestfal@silicon.csci.csusb.edu
AOL: XMBOwner

Chapter 3: Using Custom Ship Designs

This chapter discusses the issues related to using ships other than those in the original X-Wing game and also the use of modified ships. It describes two utilities that are available to edit ships definitions and the considerations of custom ship designs on mission playability.

Why Use Custom Ships?

Custom ships can add variety to your missions. You can either create super invincible ships, or small, lightly armed craft and see what happens. I have found the latter makes for some interesting game play and the possibility of more "realistic" mission outcomes (i.e. the player cannot kill every ship and ten capital ships in a lone starfighter.) You may also wish to reproduce ships in the game or another game, such as TIE Fighter, and see how this impacts missions. For example, upgrading the T/A to the TIE Fighter game specs makes it a much more worthy opponent.

Limitations on Using Custom Ships

There are a few limitations on using custom ships you should be aware of. First, you can only replace an existing ship in the game, not add a completely new one. That means that if you want to use all of the existing ships and a new one, you are out of luck. Also, the ship will appear like the one it is replacing. So, if you are adding a new capital ship, you'd best not replace the Tug! You can mix and match cockpit graphics, but you cannot add new graphics, so make sure any ship you create uses a weapons load-out identical to either the X-Wing, A-Wing, B-Wing or Y-Wing for maximum playability. Finally, you cannot fly anything but one of the four Alliance ships (or modified versions of them). While it sort of works to fly other craft, it is unreliable at best and should be avoided.

How to Create a Custom Ship

To create a custom ship you must edit the FLIGHT.OVL (for X-Wing) or BFLIGHT.OVL file (for B-Wing). There are at least three utilities available that you can use to edit the BFLIGHT.OVL file. These are listed here and described in some detail below.

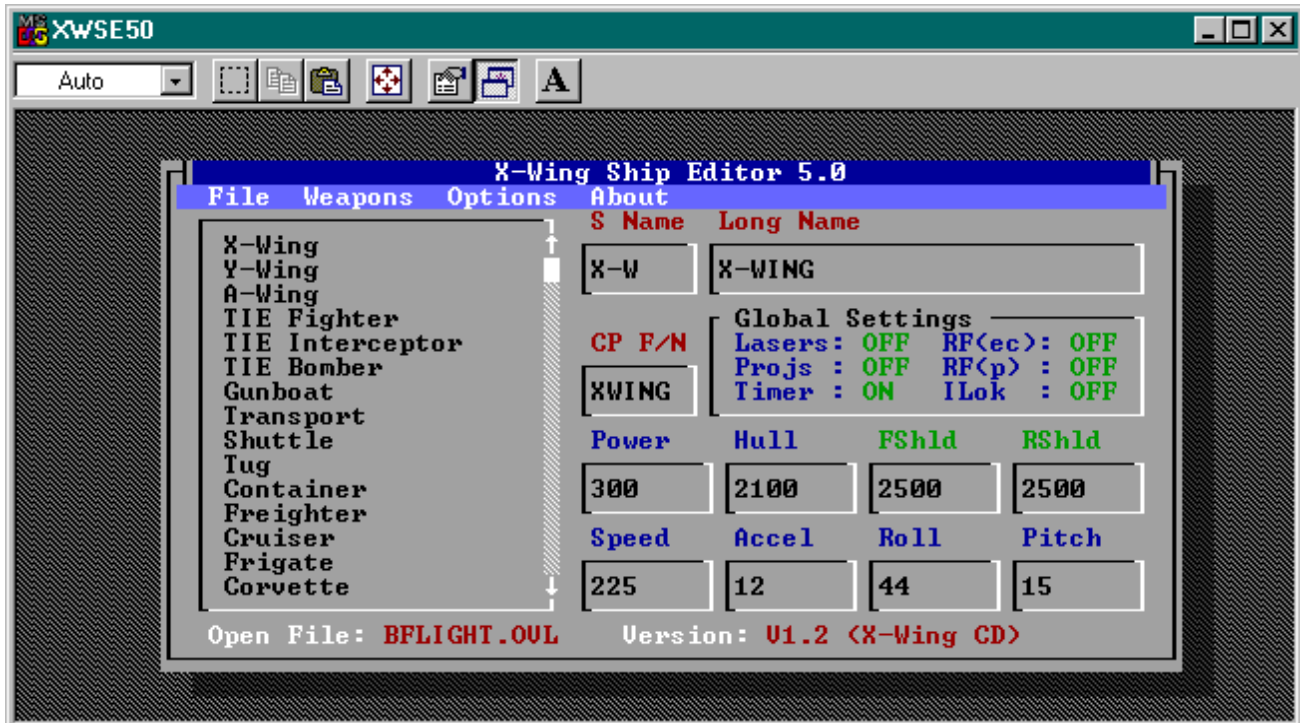
- X-Wing Ship Editor 5.0 for DOS
- X-Manager for Windows 5.1

X-Wing Ship Editor 5.0

The X-Wing Ship Editor (XWSE) is a freeware editor for the BFLIGHT.OVL file. It is a DOS program that allows you to edit many aspects of ships. I found it to be flexible and relatively easy to use. You must own the B-Wing Tour of Duty or X-Wing CD to use XWSE 5.0.

Using XWSE

XWSE consists of a single window with a menu bar. Each area of the screen, dialog box and menu choice is described below. To jump to a specific topic area, click on the screen image below.



The File Menu

The file menu allows to open, save and import ship data files.

Open... Selecting the Open... menu choice will display the **Open File...** dialog box. This dialog allows you to choose the file you wish to edit. While files may be named anything, the file must be a true BFLIGHT.OVL file. XWSE checks the file size and format when opening it to make sure it is an editable file.

Save... Selecting the Save... menu choice will prompt you to confirm whether or not you wish to write out any changes you have made to the file you are editing.

Save As... Selecting the Save As... menu choice will display the **Save As...** dialog box which allows you to select a file name and location to save the edited BFLIGHT.OVL file to.

Transfer Ship Data... Selecting the Transfer Ship Data... menu choice displays a submenu which allows you to choose whether you wish to transfer data from a standard ship to a User Defined ship or vice versa. Choosing either one will prompt you to select which ship to transfer all data from and the ship that should be so modified. This is an easy way to copy one ship onto another in the same file.

Import Ship Data... Selecting the Import Ship Data... menu choice displays the **Import Ship Data** dialog box. This allows you to select a .OVL file to completely overwrite another. This is really the equivalent of copying the file in DOS as far as I can tell, so I am not sure what real utility this provides.

Print Selecting the Print menu choice will prompt you to choose a detailed or summary printout. Either one prints the ship data out on a printer or to a text file. This is extremely useful when you want to see all the attributes of many ships at once.

Print Setup Selecting the Print Setup menu choice displays a submenu which allows you to specify where your print jobs will be spooled to. *Be sure that you pick a valid choice before printing, or XWSE may crash and you will lose any edits you have made.*

Edit Pilot File... XWSE comes with a simple .PLT file editor. Selecting the Edit Pilot File... menu choice displays a list of .PLT files in the current default directory and allows you to specify the Tour of Duty score, Pilot Rank, Pilot Rating (Ace, etc.), whether or not the pilot is dead or is captured. The only real reason to use this would be to "revive" a dead pilot. Other pilot editors I have seen are much easier to use and more complete in what they can edit.

Exit Selecting the Exit menu choice exits XWSE and returns you to the DS prompt. You are prompted to confirm your action.

The Weapons Menu

The weapons menu contains choices for modifying the standard weapons load and configuration for the currently selected ship.

Choose Weapons to Install... Selecting the Choose Weapons to Install... menu choice displays the **Weapons to Install** dialog box. This dialog allows you to choose the types of energy weapons and projectile weapons loaded on the ship. You can add up to 12 weapons on each ship, up to four different types of energy weapons and two types of projectiles weapons. You can also choose the Laser Link Mode. Your choices in each area are:

Energy Weapons

Rebel (Red) Lasers	Standard lasers, red colored when fired
Imperial (Green) Lasers	Standard lasers, green color when fired
Ion Cannons	Allows ship to disable other ships

Projectile Weapons

Concussion Missiles	Fast missiles meant for use on starfighters
Torpedoes	Slow missiles meant for use on capital ships
Rebel Tracers	?
Imperial Tracers	?
Ion Tracers	?

Laser Link Mode

Single Fire Only	Only one energy weapon of the active type fires at once
Single/Linked	One or all of the active weapon type fires at once
Single/Dual/Linked	One, two, or all weapons of the type fire at once

Each weapon must be placed in a "rack". Racks are the locations on the ship that carry the ordinance. Each weapon type may be placed in a range of racks. The first rack is number 0, the last 11. You should generally you racks in sequence without skipping any. You must also make sure you position the racks on the ship using the **Configure Weapons Racks...** menu choice.

Configure Weapons Racks... Selecting the Configure Weapons Racks... menu choice displays the **Weapon Rack Coordinates** dialog box. This shows the X, Y, and Z coordinates of the location on the ship in three dimensional space that holds the weapon. This determines the aiming points of the weapons, and can have a serious impact on how easy the ship is to fight in close to any enemy. For example, the B-Wing has three very widely spaced lasers. This means hitting small targets up close with all three at once is hard. If they were all at the origin point, just aim and shoot at any range.

The P choice for each rack show how many projectiles are loaded on that rack if it is a missile rack. If you want to see what the spacing looks like, use the Display button to view the rack locations head on and from the top. This is very useful if you get easily confused by three dimensional coordinates.

While you may simply ignore this dialog, it is very important when modeling real space frames. Small, compact fighters will have weapons close together. This can be useful for one on one dogfighting in close. Other, larger craft may have more widely spaced weapons that are better at long range and against larger opponents.

The Options Menu

The options menus allows you to set the global game behavior parameters displayed on the main screen.

Unlimited Laser Power Selecting this menu choice displays a submenu where you can turn Unlimited Laser Power on or off. If you turn it on your lasers will not discharge as you fire (though they may drain charge based on other actions you take, such transferring power to the shields). The default is Off. You can see this global setting on the main window in the Lasers field.

Unlimited Projectiles Selecting this menu choice displays a submenu where you can turn Unlimited Projectiles on or off. If you turn this on you will be able to fire as many projectiles as you want without ever running out. The default is Off. You can see this global setting on the main window in the Projs field.

Mission Timer Selecting this menu choice displays a submenu where you can turn the mission timer on or off. This is useful only in historical missions which you run out of time on and are forced to hyperspace home. Other missions have no real time limit. The default is On. You can see this global setting on the main window in the Timer field.

Rapid Fire Selecting this choice displays a submenu that allows you to choose to have either Rapid Fire on or off for energy weapons or projectiles. Turning on rapid fire reduces the amount of time between firing of missiles of energy weapons. You can see these global settings on the main window in the RF(ec) and RF(p) fields.

Instalock Selecting this menu choice displays a submenu where you can turn Instalock on or off. If you turn this setting on, you will acquire missile locks immediately at any range. The default is off. You can see this global setting on the main window in the ILok field.

The About Menu

The About menu choice displays an information dialog showing version number, copyright information and how to contact the author.

The Main Window

The main menu is where you edit most ship performance parameters and where global parameters edited elsewhere are displayed for ease of reference. Each section of the screen is described here.

Ship Listing The ship listing area is a list box at the left of the window. It is unlabeled. It shows the names of each ship in the BFLIGHT.OVL file. You cannot change these names here. Selecting one of the ships in the list displays its data in the other fields on this screen so that its attributes may be edited.

S Name This is the short name for the ship that will be shown on the command display, map, etc. It can be no more than 3 characters, and should be in all capitals.

Long Name This is the name for the craft that will be used when you see messages during flight. It should generally be entered in all capitals.

CP F/N This field defines which cockpit visual will be displayed when the player pilots the ship. Generally this is only really applicable to ships that the player could normally fly or variants of them. The possible valid values are AWING, BWING, XWING, and YWING.

Lasers This field displays the current value of the Unlimited Energy Weapons global setting. It is not editable here.

Projs This field displays the current value of the Unlimited Projectiles global setting. It is not editable here.

Timer This field displays the current value of the Mission Timer global setting. It is not editable here.

RF(ec) This field displays the current value of the Rapid Fire Energy Weapons global setting. It is not editable here.

RF(p) This field displays the current value of the Rapid Fire Projectiles global setting. It is not editable here.

ILok This field displays the current value of the Instalock global setting. It is not editable here.

Power This field allows you to set the engine output of the ship. This affects how much energy is available to recharge shields and lasers. The exact correlation of Power to recharge rate is unknown.

Hull This field allows you to set the hull strength of the ship.

FSHld This field allows you to set the shield rating of the craft towards the front. Typically it should be identical to the value for the rear shields.

RSHld This field allows you to set the shield factor of the craft towards the rear. Typically it should be identical to the value for the front shields.

Speed This field allows you to change the maximum speed at which the craft can travel when shields and lasers are at normal recharge.

Accel This field allows you to change the acceleration rate of the ship (change in velocity per second).

Roll This field allows you to change the rate at which the ship rolls around its axis in degrees per second.

Pitch This field allows you to change the rate at which the ship can change its angle of attack in degrees per second.

Open File This field displays the name of the file you are currently editing. It is display only and cannot be edited.

Version This field displays the version number of the BFLIGHT.OVL file you are editing. It is display only and cannot be edited.

How Do I Get XWSE?

XWSE is a freeware program created by Mark Schlageter and is available for download from CompuServe and from the CRS *Liberty* Web site. For more information or to send comments to the author, contact:

Mark Schlageter
3061 Oregon Street
Rialto, CA 92376

CompuServe: 71054,1250
Internet: schlag@world.std.com

XMW 5.1 for Windows

X-Manager is a Microsoft Windows shareware editor for the BFLIGHT.OVL file. Included in the package is a pilot file editor as well. X-Manager is not nearly as flexible as XWSE, but some users may like the simple Windows interface. You must own the B-Wing Tour of Duty to use XMW. *XMW does not support X-Wing CD* due to differences in the BFLIGHT.OVL file format.

Using XMW

XMW does not allow you to edit all ships or ship characteristics as does XSWE. It can edit values for existing starfighters. The starfighters that you can modify are the X-Wing, Y-Wing, A-Wing, B-Wing, TIE Fighter, TIE Interceptor, TIE Bomber, TIE Advanced, and Assault Gunboat.

XMW approaches the editing task by allowing you to edit ship characteristics in game term units (MGLT for speed, RU for hull strength, etc.) You cannot specify arbitrary values, there are lists of possible values that represent examples from the actual game. The attributes that you can set for each supported starfighter and possible values you can use are:

Weapons

Loaded Missiles	From zero to 9 per launcher
Missile Type	Select Proton Torpedoes or Concussion Missiles
Laser Color	Select Orange (Alliance) or Green (Imperial)

Defense Systems

Front Shield Strength	Select from 0, 50, 75, 100, 150 or 200 SBD
Rear Shield Strength	Select from 0, 50, 75, 100, 150 or 200 SBD
Hull Strength	Select from 0,15,20, 40, 50, 75, 100 RU

Performance Characteristics

Acceleration Rate	Select any value from 1-25
Roll Rate	Select any value from 1-6
Pitch Rate	Select any value from 1-7
Engine Output	Select any value from 100-500 KTU in increments of 50 KTU
Top Speed	Select from 70, 80, 90,100, 110, 120, 144, 244, 1000, or 9000 MGLT

How Do I Get XMW?

XMW is a shareware program created by Glenn Price and Greg Smith and is available on CompuServe. The unregistered version is fully functional. At last check, registration of XMW cost \$5.00 (US). To register a copy of XMW or to get more information from the author, contact Glenn Price at:

Glenn Price
860 29th Place Apt #D
San Pedro, CA 90731

Chapter 4: Playing Custom Missions

This chapter describes how to play custom missions using X-Wing, both for the original disk based version of X-Wing and the X-Wing Collector's Edition CD.

Playing Missions with the Original X-Wing

Playing a custom mission with the original X-Wing package is a relatively simple procedure. Basically the custom mission takes the place of an original mission. This requires that the custom mission be named exactly the same as an original mission and then copied over that mission in the \MISSION subdirectory of the XWING directory. This applies both to mission and briefing files.

To fly the mission, enter X-Wing and choose to fly the mission you replaced. Typically this will be mission 1 of the first Tour of Duty.

Note: It is a good idea to back up your original mission files before using a custom mission to avoid potential loss of the original mission.

Playing Missions with X-Wing CD

To play a custom mission (or indeed to use any custom files) in X-Wing CD you must use a shareware utility: XCDR. The unregistered version allows you to put all custom files in a predefined directory. The registered version allows you to put these files in any directory you specify. This utility essentially monitors all file open requests in DOS, and substitutes the custom file for the file requested by the program. You could use this in playing custom missions in the original X-Wing too, if you like.

How Do I Get XCDR?

XCDR is a shareware program created by Matt Hart and is available on CompuServe and on the CRS *Liberty* web site. At last check, registration of XCDR cost \$10.00 (US). To register a copy of XCDR or to get more information from the author, contact Matt Hart at:

Matt E. Hart
2516 W. Kingsport
Broken Arrow, OK 74011

CompuServe : 75450,3705
Internet: 75450.3705@compuserve.com

Chapter 5: Other Customization Possibilities

This chapter discusses a few other possible customizations you can make to X-Wing to enhance your missions. Generally these are much harder to do and require a Hex Editor and more care than those discussed elsewhere in this guide. While I have managed to edit the appropriate files with a hex editor to accomplish everything described in this chapter, it is very easy to make a mistake severe enough that you will corrupt your resource file in such a way that X-Wing cannot function. *You should be very careful to make backups of all files before editing them and to make small incremental changes where possible and test, so that you can go back to a previous working point if a corruption occurs.*

Adding Highlighting to Briefing Text

You may wish to highlight words or phrases in the mission briefing text for a mission. It is possible to do this with some care. When you create the briefing text you need to leave a spot before and after the text to be highlighted. Put some unique character, such as %, in that location in XMB. When you have completed the briefing and are sure that it won't change from that point on, use a Hex Editor to edit those bytes from their current hex value to 02 prior to the highlighted text and 01 after the highlighted text.

Changing Spoken Briefings in X-Wing CD

Each mission's spoken briefings have the same file name as the mission and each sound clip is in a separate file with a numeric extension. So, for example, for TOD 1 Mission 1, whose file name is DEFECT, the sound clips are stored in DEFECT.P02, DEFECT.P03, DEFECT.P04, etc. Sound clips are not ordered by their extension numbers. The extension is based on the briefing file text number. So, if the briefing text is in position 3 in the briefing file, your voice file should be named mission.P03.

The files are stored in 8-bit PCM mono .VOC format sampled at 11025 samples/second. However, X-Wing CD is rather picky about the file header area of the .VOC file. While my utilities in Windows and DOS could record and play back many different .VOC files, X-Wing requires the header be in a certain format. The first 16 bytes of the files must be structured as follows:

```
437265617469766520566f6963652046      Creative Voice F
696c651a1a000a0128110102c200a500      ile-----
```

And the final byte of the file must be a null (hex 00). The bold bytes are the length of the sample plus 2 (for the null at the end of this "line" and the end of the file. I am not an expert in .VOC file formats, but this is mostly standard stuff. If X-Wing CD won't play your file (but it does open it) you may have to hack the sound file as I did to *exactly* match the above except for the length bytes.

Modifying the Missions, Descriptions, and Intro Text for a Tour of Duty

If you want to convert existing tours of duty into new custom tours, by replacing missions with your own you can use some freeware utilities to do this. These utilities do not let you create brand new tours of duty, they only edit existing tours.

- Editing Tour Intro Text
- Modifying Tour Contents

Adding a Tour of Duty to the Game

Although I have yet to be able to correctly add a complete tour, I have been able to make the X-Wing engine think it has another Tour of Duty by adding a new file to the XWING directory. The file must be called tour6.xid and should contain only the values: 746f7572360d0a1a.

I believe that by adding new resource entries into the BMISSION.LFD and BTITLE.LFD file for the tour description and intro text it should be possible to add a complete tour of duty since there is a place holder for tours 6 and seven in the BMISSION.LFD tours resource. See below for detailed technical information on how to edit these files using a hex editor.

The .LFD File Format

All X-Wing resource files are structured in a similar way. The first part of the file is a table of contents to the resource file which contains 16 bytes of information on each resource and a header describing how many resources there are. The first 16 bytes of each resource is virtually identical and contains information on how many resources are stored in the file. It has the format:

```
524d41507265736f75726365b00000      RMAPresource----
```

The byte that is in bold is the number of resources (in hexadecimal notation) stored in the file. Immediately following this line is 16 bytes per resource in the format:

```
54455854746f64747833008e010000      TEXTtodtxt3-----
```

The first four bytes are a keyword identifying the type of resource: TEXT, FONT, DELT, ANIM, etc. The next eight bytes are the name of the resource. The next two bytes are the length of this resource in bytes in byte switched order. The last two bytes are always nulls and are the entry boundary. So, in the example above, the length in hexadecimal notation of the text resource todtxt3 is 018e.

To find a resource, the program calculates the offset into the file by finding the length of all resources before that one and then reads the number of bytes in the map entry length for that resource. If all of the above makes complete sense to you, then you can successfully change the length of resources. If not, then it is best not to try to change the length of any resource, as it will corrupt any resources coming after that one.

Warning: Be very careful when using a hex editor on any .LFD file. X-Wing is prone to lock-ups or other problems if these files are significantly altered. You should be especially careful about changing the length of the file or any resource within it.

Modifying Tour of Duty Names and Descriptions

Modifying the Tour of Duty names and descriptions that are shown at the tour of duty registration desk requires a hex editor. The file which contains this information is BMISSION.LFD in the \RESOURCE subdirectory if you have B-Wing. It is MISSIONS.LFD if you have X-Wing only or X-Wing CD.

The Tour of Duty descriptions and names begin at byte offset 3B5D of BMISSION.LFD. Each section of the text is separated by the value 00 hex (null). Each tour is preceded by two nulls in a row, followed by a control code which is the length of the resource in bytes (including the control byte but NOT the buffering nulls on either end of the resource fragment), and another null. So, for example, the original tour 1 entry in Hex and ASCII is as follows:

```
0000420041204e      B A N
455720414c4c590054686520456d7069      EW ALLY The Empi
7265206c61756e636865732061206361      re launches a ca
6d706169676e00616761696e73742074      mpaign against t
686520526562656c6c69gf6e2e      he Rebellion.
```

The characters in bold above denote the line breaks on the tour desk. You may have up to three lines of text in the tour desk. The first line should be the Tour of Duty name in capital letters. The second and third line are a very short description of the tour. Note that in this example, line two completely fills the space available on the tour desk, a mere 30 characters.

Editing the Tour Intro Text

The tour of duty introduction text is displayed as a scrolling text after a tour is chosen at the tour desk and the tour is entered. This text is stored in the BTITLE.LFD file for B-Wing and in the TITLE.LFD file for X-WING or X-Wing CD. The tour of duty introduction text begins at byte offset 67a6 of BTITLE.LFD. Each tour of duty has a separate resource entry in the file. As with the tour of duty description text on the tour desk line breaks are denoted by an entry of hex 00. A new paragraph is marked by the sequence 000a00. You can freely move line breaks and paragraph markers within each tour intro. If you wish to change the length of the resource you must also change the resource length indicator in the header of the file AND where it appears at the very start of the resource. Use hex 20 (space) for any unneeded room in the resource if you do not wish to alter the resource length.

Modifying Historical Mission Descriptions and File Names

Like the tour desk descriptions, the Historical Mission descriptions are stored in BMISSION.LFD (or MISSION.LFD). Each tour has a separate entry in the file. The resource names for the historical missions are: acombat, xcombat, ycombat and bcombat for the A-Wing, X-Wing, Y-Wing and B-Wing respectively. The extra bonus missions of X-Wing CD are stored in the, surprise, bonus resource.

Each historical mission resource includes nine subsections. These are:

1. the names of the mission files
2. the mission names that appears in the historical mission selection room on the screen
- 3-9. the description text for one mission that appears in the historical mission selection room on the screen

Each section is preceded by two bytes which show the length of that section, the text of the section (with names separated by null bytes for sections 1 and 2) and then two null bytes. So, for example the first section plus the header section of the acombat resource would look like this:

```

5445585461636f6d626174001c04      TEXTacombat---
000008002e00617761697374656d0077    -----awaistem-w
616167677231006d61783200636f6e76    aaggr1-max2-conv
6f7932006d617831350077617265636f    oy2-max15-wareco
6e310000                               n1--

```

This would be followed by the length bytes for section 2 and then the data for section 2, etc. In the above example, length bytes are shown in bold. The byte in italics is the number of missions in the tour of duty plus 2 (why I don't know).

So, to edit the mission names, simply edit the text of each mission name and adjust the length bytes for the entire resource both here and at the start of the file and also the length bytes just before the mission names (the second bolded bytes above).

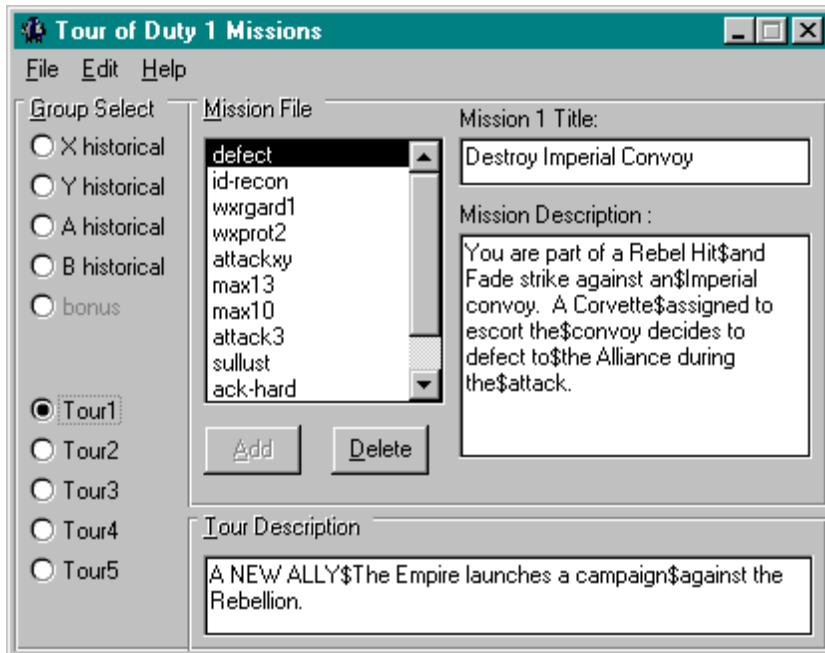
Changing mission names and descriptions on the mission selection screen is done in a similar manner, but each mission description has its own sub-resource as noted above. Mission description text is always centered in the display such that the longest line is centered, others are ragged right margins. The maximum number of characters per line is about 25. Text does not wrap, you must manually force a line break with a null (hex 00). A maximum of 7 lines of mission description can be displayed.

Changing File Names and Descriptions for Missions in a Tour of Duty

This is handled in an identical manner to that of the historical missions, except that the tours of duty are stored in their own resources. Each tour has a resource structure identical to that of the historical missions.

Tour of Duty Editor

The X-Wing Tour of Duty Editor allows you to edit the missions and their descriptions in each tour of duty. This lets you replace an existing tour of duty by your own. The editor is a Windows freeware utility and comes complete with a help file that explains everything you'll need to know. It also includes a utility to edit the scrolling text at the start of each tour.



How Do I Get XTOD

XTOD is a freeware program created by Robert Delinsky and is available on CompuServe and the CRS *Liberty* web site. You can contact the author at:

Robert S. Delinsky

CompuServe : 70651,3316

Internet: 70651,3316@compuserve.com

Appendix A: Standard Ship Specifications

This appendix lists ship specifications as determined from X-Wing for use in building custom ships or modifying standard ships for use in a mission. Information is shown in the units specified in the source material. So, for example, speed is measured in MGLT. Often the numbers shown here cannot be used directly with a ship editing utility. This appendix therefore also includes a conversion table that will allow you to convert the raw performance data into values usable in the ship editing utilities.

Ship Data Table

The following data table was taken from the BFLIGHT.OVL file. Note that this data conflicts with the published specifications for many ships in the Tech Room of the game, mostly in the hull and shield ratings. In addition, some ships have different specifications in TIE Fighter than those in X-Wing (most blatantly the TIE Advanced).

<u>Ship</u>	<u>Speed</u>	<u>Hull</u>	<u>Shield</u>	<u>Power</u>	<u>Accel</u>	<u>Roll</u>	<u>Pitch</u>
X-Wing	100	21	50	300	12	44	15
Y-Wing	80	42	75	250	8	28	13
A-Wing	120	15	50	400	16	60	18
B-Wing	90	63	100	250	12	36	14
T/F	100	10	0	100	15	48	20
T/I	110	17.5	0	100	16	50	22
T/B	80	30	0	100	10	50	17
T/A	145	15	50	100	?	?	50
GUN	90	30	100	100	12	64	15

Unit Conversion

This table shows how units are converted for use in two ship editing packages.

<u>Unit</u>	<u>XWSE</u>	<u>XMW</u>	<u>Type</u>
MGLT	2.25x	1.00x	Speed
RU	100x	1.00x	Hull
SBD	100x	1.00x	Shield
KTU	1.00x	1.00x	Power
Acc	1.00x	1.00x	MGLT/Second
Roll	1.00x	0.10x	Roll Rate
Pitch	1.00x	?	Pitch Rate

Firepower Table

This section shows the firepower of the various weapons available in X-Wing in terms of fully charged laser blast equivalents.

<u>Weapon</u>	<u>LBE</u>
Fully Charged Laser	1
Proton Torpedo	20
Concussion Missile	6

In general a fully charged laser blast equivalent is approximately equal to 5 SBD or 5 RU. Calculating this is at best an inexact science, however this seems to be valid in practice for the starfighters. Note also, the Hull and Shield ratings for capital ships do not seem to be in the same units as those for smaller ships. For example, according to BFLIGHT.OVL the Shuttle, Corvette, and B-Wing have identical shield ratings. However it takes approximately 20 fully charge laser blasts to bring down the shields of a B-Wing, whereas it takes approximately 80 for a Corvette. And whereas the TIE Fighter is rated at 1/5 the hull strength of a CRV it takes only two laser

blasts to destroy a TIE Fighter and 40 for the CRV. Unfortunately the ratio of 4/1 does not seem to be consistent for each Capital Ship.

Appendix B: Standard X-Wing Mission Files

This appendix contains a list of all of the missions included in the original X-Wing games plus the Imperial Pursuit and B-Wing Tours of Duty released by LucasArts. It also includes data on the modified and additional missions included in the X-Wing Collector's CD version.

Missions are divided into sections corresponding to the Tour of Duty and Historical Missions. File names do not include extensions. Each mission has two files with the same name but differing extensions. Mission definitions have the file extension .XWI. Mission briefing definitions have the extension .BRF.

Historical Missions

<i>X-Wing #</i>	<u>File</u>	<u>Name</u>
1	WAISTEM	Dev's Sidestep
2	MAX4	Wingmen are Important
3	SATLIT1	Destruction of Surveillance Satellites
3*	SATLIT1	Destruction of Surveillance Satellites (X-Wing CD)
4	MAX5	Beat the Odds
5	HALLEY	Rescue at Mon Calamari
6	KEYAN	Farlander's First Mission

<i>Y-Wing #</i>	<u>File</u>	<u>Name</u>
1	YWASTEM	Commerce Raid
2	YWAISTEM	Y-Wing Gunnery Practice
3	HELLO	S.O.S from Twi'Lek Corvette Karinne
4	MAX7	Prisoners from Kessel
5	WYRESC2	Escape from Mytus VII
6	ACKBAR	Interception and Capture
6*	ACKBARE	Interception and Capture (X-Wing CD)

<i>A-Wing #</i>	<u>File</u>	<u>Name</u>
1	AWAISTEM	Raid on an Imperial Repair Dock
2	WAAGGR1	Aggressor Squadron Training
3	MAX2	Intercept TIE Bomber Run
4	CONVOY2	Attack Run on Supply Freighters
5	MAX15	Protect Returning Starfighters
6	WARECON1	Deep Space Reconnaissance

<i>B-Wing #</i>	<u>File</u>	<u>Name</u>
1	T5H1WB	Project Shantipole
2	T5H2MB	Assault Imperial Convoy
3	T5H3MB	Capture the Frigate Priam
4	T5H4WB	B-Wing Attack on the Shrike
5	T5H5WB	Attack Death Star Surface
6	T5H6MB	Death Star Trench Run

<i>Bonus #</i>	<u>File</u>	<u>Name</u> (X-Wing CD only)
1	WOTAN1AW	A-Wing Bonus Mission 1
2	WOTAN2XW	X-Wing Bonus Mission 2
3	WOTAN3BW	B-Wing Bonus Mission 3
4	MAX101AW	A-Wing Interception
5	MAX102XW	Assist Convoy Under Attack

A New Ally

#	<u>File</u>	<u>Name</u>
1	DEFECT	Destroy Imperial Convoy
2	ID-RECON	Reconnaissance Mission
3	WXRGARD1	Fly Point During Evacuation
4	WXPROT2	Protect Medical Frigate
4*	WXPROT2E	Protect Medical Frigate (X-Wing CD)
5	ATTACKXY	Ambush Imperial Supply Convoy
6	MAX13	Raid for R-2 Units
7	MAX10	Recover Stolen X-Wings
8	ATTACK3	Rescue Sullustan Tech Staff
8*	ATTACK3E	Rescue Sullustan Tech Staff (X-Wing CD)
9	SULLUST	Diplomatic Summit at Sullust
10	ACK-HARD	Rescue Sullustan Leader
10*	ACK-HARE	Rescue Sullustan Leader (X-Wing CD)
11	CYGNUS	Capture Staff from Cygnus
12	MAX20	Recover Explosive Warhead

The Great Search

#	<u>File</u>	<u>Name</u>
1	STARSNDB	Rescue from Star's End
1*	STARSNDE	Rescue from Star's End (X-Wing CD)
2	RESCUE1	Rescue Wookie Slaves
3	YSTRIKE5	Attack Weapons Convoy
4	WYCAPT2	Capture Stolen Freighter
5	MAX9	Protect Captured Satellites
5*	MAX9E	Protect Captured Satellites (X-Wing CD)
6	CRNDRFT1	Ambush in the Cron Drift
7	MAX18	Protect a Disabled X-Wing
8	MAX1	Stop Hyperdrive Replacement
9	STD1	Take Out Intrepid's Escort
10	STD2	Destroy the Intrepid
11	LEIA	Deliver Plans to Princess Leia
12	INTCEP1	Protect Princess Leia

The Gathering Storm

#	<u>File</u>	<u>Name</u>
1	DEFEND2	Guard Weapons Transfer
2	YRAID	Destroy Repair Dock
3	MAX14	Capture Military Transport
4	MAX17	Scramble!
5	WYRESC3	Intercept and Capture
6	LARRY1	Destroy Imperial Base
7	LARRY2	Destroy Priam's Escort
8	LARRY3	Capture the Frigate Priam
8*	LARRY3E	Capture the Frigate Priam (X-Wing CD)
9	ASSAULT2	Capture Ethar I and II
10	MAX19	Guard Vital Supply Depot

11	DEFEND1	Defend the Independence
12	DSTAR1	Begin Death Star Assault
13	DSTAR2	Attack Death Star Surface
13*	DSTAR2E	Attack Death Star Surface (X-Wing CD)
14	DSTAR3	Death Star Trench Run
14*	DSTAR3E	Death Star Trench Run (X-Wing CD)

Imperial Pursuit

#	File	Name
1	T4M01AM	Escort Corvettes Fleeing Yavin
2	T4M02XM	Provide Area Protection
3	T4M03XW	Ambush of the Cruiser Maximus
4	T4M04AW	Protect the Frigate Anvil
5	T4M05XW	Abandon Ship!
6a	T4M06XMA	Guard Repair Operations
6b	T4M06XMB	Protect Vital Supply Container
7	T4M07YM	Hide and Seek
8a	T4M08YMA	Clear Minefield at Jump Point
8b	T4M08XMB	Destroy Imperial Comm Sat
9	T4M09AM	Guard Cargo Transfer Area
10	T4M10AW	Grain Snatch
11	T4M11YW	Capture Ghorin's Y-Wings
12a	T4M12XMA	Raid on Imperial Storage Area
12b	T4M12XMB	Corvette Alley
13	T4M13YW	Grain Exchange
14	T4M14AM	Confirm Grain Delivery
15	T4M15AW	Steal Advanced TIE Fighter
16a	T4M16AWA	Escort Convoy to Jump Point
16b	T4M16XWB	Support for Possible Allies
17	T4M17AM	Attack the Frigate Red Wind
18	T4M18YM	Capture Imperial Gunboats
19	T4M19YM	Capture Corvette X
20	T4M20XM	Defend the Ram's Head
20*	T4M20XM	Defend the Ram's Head (X-Wing CD)

B-Wing

#	File	Name
1	T5M01WX	Protect B-Wing Assembly Area
2	T5M02WX	Cover Assembly Area Evacuation
3	T5M03WA	Protect B-Wing Delivery
4	T5M04MB	Destroy TIE Staging Area
5	T5M05MB	Destroy Secret Weapons Base
6	T5M06MY	Prisoner Rescue
7	T5M07MX	Help Neutrals Out of Ambush
8	T5M08WA	Escort VIP to Alliance Cruiser
9	T5M09MA	Guard Cargo Pickup
10	T5M10WB	Probe Capture
11a	T5M11WBA	Destroy Corvette Base
11b	T5M11MBB	Destroy Imperial Base
12	T5M12MB	Intercept Imperial Attack
13	T5M13MA	Protect B-Wing Delivery
14a	T5M14WXA	Capture Imperial Frigate

14b	T5M14MBB	Capture Imperial Officers
15	T5M15WA	Escort B-Wings on Attack
16	T5M16WB	Attack Probe Calibration Site
17a	T5M17MAA	Ambush Arms Shipment
17b	T5M17WBB	Disrupt Delivery of New TIEs
18	T5M18WB	Destroy the Relentless!
19	T5M19MB	Operation "Blunt Stick"
19*	T5M19ME	Operation "Blunt Stick" (X-wing CD)
20a	T5M20MBA	Save the Cruiser Cathleen
20b	T5M20WBB	Escape to Hoth!

Appendix C: Other Sources of Information

This appendix briefly lists other publications that you may find useful in designing custom missions for X-Wing. This list is by no means exhaustive, but all of these publications are readily available and contain valuable data.

X-Wing: The Official Strategy Guide

This is a commercially available book written by Rusel DeMaria which has voluminous information on each of the missions in the first three X-Wing tours of duty, as well as ship information, mission scoring data, and detailed mission descriptions in the form of a story narrative. An excellent volume for any X-Wing enthusiast. Retail price \$19.95 (US).

TIE Fighter: The Official Strategy Guide

This is a commercially available book written by Rusel DeMaria which has voluminous information on each of the missions in the original TIE Fighter battles, as well as ship information, mission scoring data, and detailed mission descriptions in the form of a story narrative. Unfortunately some information is incorrect, especially with respect to mission goals. Retail price \$19.95 (US).

XMB.DOC

This file is part of the XMB shareware package. It gives basic rules of operation for the XMB program, how to use the interface, etc. While adequate, it is not sufficient for serious users of XMB, as it is quite terse.