



The Poor Man's Mod Guide 4

by Charles Belva

Version 1.2

FPRS scenario designers have been waiting with bated breath for the release of Mod Guide 4 which was to finally unlock the secrets of the FPRS data files only to have their hopes dashed after every patch release. Finally there is hope, no not the mod guide, but a cheat sheet of sorts. Through trial and error and with some “assistance” provided by Cap’n Darwin after spiking his coffee with a powerful truth serum, slowly the data files have been revealing their secrets. This “cheat sheet” was created to share the knowledge gained with others who can’t wait to dive into the data files and create their own unique forces and formations. This guide will not answer every question you will have about editing a data file. Such things as the formulas and calculations used to arrive at some of the values are locked away in the ultra-top secret security vault in the OTS headquarters. Even the most skillful and devious of spies have yet to find a way to crack open these secrets.

NOTE: Before editing a user data file, it is recommend that you make a copy of the data file you intend to edit and then rename it so that you do not lose the original. You will find that the original OTS data file to be most helpful in locating examples of things you want to do and in trouble shooting problems that come up.

Before, during, or after altering a data file, you can tailor the looks to fit your force. You can change the name, color, graphics like the flag. Feel free to experiment.

Israeli National Defaults			
Time Frame Start:	1970		
Time Frame End:	1975		
Headquarter Values			
Regiment / Brigade Command Radius	6000	meters	
Battalion/Squadron Command Radius	4000	meters	
Company/Troop Command Radius	4000	meters	
Base Order Rate per HQ per Cycle	2.00		
Medium EW Orders Degrade	15	%	
High EW Orders Degrade	30	%	
HQ Loss/Order Loss	1.00		
Hardware Quality Values			
Electronics	8	of 10	<u>Sensors/ECCM</u>
Counter-Measures	8	of 10	<u>ECM (Active/Passive)</u>
Default Military Unit Values			
Training	8	0 to 10	<u>Local Initiative</u>
Morale	75	0 to 100	0 = None
Local Initiative	3		1 = Slight
Risk Profile	1		2 = Moderate
			3 = Generous



NATIONAL TAB

American National Defaults			
Time Frame Start:		1979	
Time Frame End:		1989	
			
Headquarter Values			
Regiment / Brigade Command Radius	6000	meters	
Battalion/Squadron Command Radius	4000	meters	
Company/Troop Command Radius	4000	meters	
Base Order Rate per HQ per Cycle	2.0		
Medium EW Orders Degrade	15	%	
High EW Orders Degrade	30	%	
HQ Loss/Order Loss	1.0		
Hardware Quality Values			
Electronics	9	of 10	Sensors/ECM
Counter-Measures	9	of 10	ECM (Active/Passive)
Default Military Unit Values			
Training	7	0 to 10	Local Initiative
Morale	70	0 to 100	0 = None
Local Initiative	3		1 = Slight
Risk Profile	2		2 = Moderate
			3 = Generous
Air Force Values			
Delay: Air Strike	10	minutes	
Target Zone Discretionary Radius	2000	meters	Risk Profile
0 = Do or die			
1 = Bold			
2 = Prudent			
3 = Cautious			
Artillery Values			
Delay: Pre-Planned Fire	2	minutes	
Delay: On Call Fire	5	minutes	
Delay: Between Fire Missions	5	minutes	
% CB Detection	40	%	
Max FSCC Age - Static Target	20	minutes	
Max FSCC Age - Moving Target	10	minutes	
FSCC - Min Tubes per Mission	4	subunits	
Artillery Load Out Types			
Field Guns	SM:IL:RA:SC:ICM		
Mortars	SM:IL		
Rockets	SM:SC:ICM:JM		
Engineering Values			
River Crossing Time	15	minutes	
Stream Crossing Time	10	minutes	
Swimming Prep Time	5	minutes	
Game Defaults:			
Unit Counter Background Color	003C9376		
Unit Counter Background Image	US-BGD.bmp		
Subunit Stacking Limit	35		
Insignia	National US.png		
Commander Name	Hudson		
Force Name	Team Yankee		
Country Name	American		
Side	Blue		
Equipment Cost Factor	1.5		

Time Frame Start/End: Set the period of time reflected by this data set. Scenarios created in the editor must be set for this period.

Headquarter Values

Command Radius: Set the command radius for each type HQs (Regiment/Brigade, Battalion/Squadron, Company/Troop) in meters.

Base Order Rate per HQ per Cycle: For limited orders, sets the number of orders each HQ will generate per turn.

Medium/High EW Orders Degrade: The % negatively affects both the OODA command cycle and the the orders generated per turn with Limited Orders selected.

HQ Loss/Order Loss: For limited orders, the numbers of orders loss per turn due to the loss of a HQ.

Hardware Quality Values

Electronics: Quality of electronic equipment such as sensors, radios, etc used by a force (Quality set as on a scale of 1-10 with 10 being the best).

Counter-Measures: Quality of electronic counter-measures equipment for a force (Quality set as on a scale of 1-10 with 10 being the best).

Default Military Unit Values

Training: An identifier representing the average amount of prewar training received. (Scale of 1-10 with 10 being the best).

Morale: A number from 1 to 100 (best) representing the mental state of the unit at the beginning of the scenario.

Local Initiative: An indication of the local HQs freedom and initiative to access the situation and act on their own at times in opposition to their given orders.

Risk Profile: Sets the force's determination and ability to stand and fight.

Air Force Values

Delay: Air Strike: The time delay in minutes for the arrival of an on call air strike.

Target Zone Discretionary Radius: The distance in meters that a pilot will search for an alternate target if primary target is no longer present.

Artillery Values

Delay: Pre-Planned fire: Delay in minutes for the arrival of pre-planned artillery fire mission.

Delay: On Call Fire: Delay in minutes for the arrival of on call fire mission.

Delay: Between Fire Mission: Delay in minutes between fire missions.

% CB Detection: The chance that a fire mission will be detected and attacked by counter battery.

Max FSCC Age-Static Target: The time that a static (non-moving) target will remain in the FSCC queue once it is detected.

Max FSCC Age-Moving Target: The time that a moving target will remain in the FSCC queue.

FSCC-Min Tubes per Mission: The minimum number of artillery tubes that an artillery battery must have available in order to execute an FSCC attack.

Artillery Load Out Types

Use to set the artillery rounds load out for field guns, mortars, and rocket launchers. The following are the abbreviations for the different type rounds: SM—Smoke; IL—Illumination; RA—Radiation. SC—FASCAM (Scatterable Mines); ICM—Improved Conventional Munitions; JM—Electronic Jamming. (Note—IL, RA, and JM are currently not used in FPC).

Engineering Values

Setting for the amount of time it takes units for this force to build a bridge to cross a river and and the preparation time it takes for units that are “swimming” the stream.

Game Defaults

Unit counter Background Color: This field is basically obsolete with the new counters.

Unit Counter Background Image: The graphic file in the Country’s Data folder for the unit counters.

Subunit Stacking Limit: The maximum number of subunits that the force is allow to place in a single hex.

Insignia: Default Graphic file in the Country’s Data folder for this force’s insignia. Insignia can be changed in the scenario editor.

Commander Name/Force Name: Default names for Commander and Force. The names can be changed in the scenario editor.

Country Name: This must be a unique name for this data file. This will be the name that will appear in the scenario editor on the “Set Key Scenario Parameters” page where the player selects the data files for the force/country that they want to use in their scenario. If the name is not unique to the data file, it may not appear in the editor.

Side: Select “Blue” for Player 1 and “Red” for Player 2

Equipment Cost Factor: This factor is multiplied with the cost of equipment/subunit for that side to determine the victory points that are awarded for the loss of said equipment/subunit.

WEAPON TAB

American Weapons											
WEAPTAG	Name	Description	Type	Role	Year In	Year Out	Accuracy	Range	Effective Range	Min Range	
AAA1	12.7mm M85	Anti-Aircraft Gun	AAA	AD,AP	1974	1997	3	2000	660	0	
AG9	30mm GAU-8	Aircraft Cannon	Air-Gun	AT,AP,AD	1977	2020	6	2000	660	0	
AO1	1000lb	Iron Bomb	Air-Ord	AP,AT	1983	2008	1	2000	2000	0	
ATGM4	BGM-71E TOW-2A	Anti-Tank Guided Missile	ATGM	AT	1987	2020	18	3750	3750	0	
EXP1	Claymore Mine	Explosive Device	Explosive	AP,AT	1967	1984	5	25	12	0	
ARTY7	155mm M198	Medium Artillery Gun	Field Gun	AP,AT	1979	2006	1	23000	23000	1000	
SA5	M16 Rifle	Medium Small Arms	Small Arms	AP	1965	2020	2	400	132	0	
TG4	105mm M68	Medium Tank Cannon	Tank Gun	AT,AP	1975	1989	2	5000	1650	0	

WEAPTAG: A unique alphanumeric name given to each weapon. You can look at the examples in the official OTS data files to get ideas for setting your own WEAPTAG.

Name: The common name of the weapon. Examples: M16 Rifle, 50 cal MW, 120mm M256.

Description: More detailed description of the equipment. See examples in data files-should be self-explanatory.

Type: Short description of the weapon's type. The Weapon Types are specific. The following types are used:

AAA—Anti-Aircraft Gun

AGL—Automatic Grenade Launcher

Air-Gun—Aircraft Machine Gun/Cannon

Air-Ord—Air Delivered Missile/Munition

Air-Rkt—Air Delivered Rocket

Anti-Tank—Recoilless Rifle

ATGM—Anti-Tank Guided Missile

Auto Cannon

Chem—Chemical Weapon

Explosive—Explosive Device

Field Gun—Artillery Piece

Flame—Flame Weapon

ISW—Infantry Support Weapon

MG—Machine Gun

Mortar

Nuke—Nuclear Warhead

Rocket

RPG—Rocket Propelled Grenade

SAM—Surface to Air Missile

Small Arms

Tank Gun

VSW—Vehicle Support Weapon

Role: A two letter code defining the role or roles of the weapon. AD = Air Defense, AP = Anti-Personnel, AT = Anti-Tank

Year In: The year the weapon entered service.

Year Out: The year the weapon was taken out of service.

Accuracy: A numeric description of the accuracy of the weapon. (see **Special Note** at the end of this guide for additional information)

Range: For artillery and missiles it is the “maximum range” of the weapon. For ballistic weapons it is the “maximum effective range” of the weapon. All ranges are measured in meters.

Effective Range: Like “Accuracy” the exact formulas that were used in setting this attribute is locked in the OTS vault. In reviewing the OTS data bases the following patterns were observed that may be helpful in setting your own effective ranges: For air delivered ordnance such as bombs and missiles, guided weapons like ATGMs, artillery and mortars, and surface to air missiles, the Effective Range is the same as the Range. For rockets, non-air delivered flame weapons and explosive devices; the Effective Range is determined by multiplying the Range by .5. For muzzle velocity weapons, the Effective Range is determined by multiplying the Range by .33.

Minimum Range: The minimum distance a weapon must travel before it become effective.

American Weapons								
WEAPTAG	Name	Description	SA Value	AP Pen	HEAT Pen	Specials	Sound Effect	
AAA1	12.7mm M85	Anti-Aircraft Gun	4	1	0	AD	HSA.wav	
AG9	30mm GAU-8	Aircraft Cannon	10	0	0	AD	gat.wav	
AO1	1000lb	Iron Bomb	33	0	0		bomb.wav	
ATGM4	BGM-71E TOW-2A	Anti-Tank Guided Missile	1	0	67	TW, PGO	atgm.wav	
EXP4	Satchel Charge	Explosive Device	7	0	11	SW	blast.wav	
ARTY7	155mm M198	Medium Artillery Gun	8	0	0	SM, IL, SC, RA, ICM, LG	hvy arty.wav	
SA5	M16 Rifle	Medium Small Arms	2	0	0	SA	MSA.wav	
TG4	105mm M68	Medium Tank Cannon	4	18	29		tank gun.wav	

SA Value: Stands for “Small Arms Value” and is a measure of the output of the weapon. (see **Special Note** at end of guide)

AP Pen: Stands for Armor Penetration for kinetic rounds. The AP Pen number is determined by dividing the mm of steel that a kinetic round can penetrate by 15.

HEAT Pen: Stands for the Armor Penetration for HEAT rounds. The HEAT Pen number is determined by dividing the mm of steel that the HEAT round can penetrate by 15.

Specials: Defines additional roles that the weapon can perform along with special ammunition that certain weapons can use. The following abbreviations are used:

AD—Air Defense	PGO—Precision Guided Optical (TV/IR/Laser)
ARM—Anti-Radiation Missile	PGR—Precision Guided Radar
CHN—Chemical Non-Persistent	RA—Radiation
CHP—Chemical Persistent	SA—Small Arms weapons
FL—Flame Based Weapon	SC—FASCAM (scatterable mines)
ICM—Improved Conventional Munition	SM—Smoke Ammunition
IL—Illumination	SW—Infantry Support Weapon
JM—Electronic Jamming	TA—Top Attack weapon
NC—Nuclear Capable	TW—Tandem Warhead

Sound Effect: Just what it says, this is the sound file that is played when the weapon system fires in the game. Files are located in the “Audio” subfolder inside the “Assets” folder.

UNIT TAB

The Unit Tag is where the weapons created in the Weapon Tag are organized to form the subunits that are then used to form the different units and formations used in the games (see Formation Tag).

American Units											
SU Tag	Name	PICID	Description	SU Type	1st Year Avail	Last Year Avail	Crew	Mobility	Speed	Int Capacity	Ext Capacity
US2	A-10 Warthog	A10.bmp	CAS Aircraft-Gun/IB/CBU/FAE	AIR-AT	1977	2020	1 Jet		900	0	0
US81	OH-6A+ Cayuse	OH6.bmp	Attack Helicopter-Gun	HELO-AT	1968	1982	2 Rotor		273	0	0
US178	M109A6 Paladin	M109A6.bmp	Self Propelled Artillery	SPARTY	1985	2020	6 Track		63	0	0
US197	M1A1 Abrams	M1A1.bmp	Main Battle Tank	TANK	1987	1990	4 Track		66	0	0

SU Tag: Stands for Subunit Tag. This is a unique name assigned by the person creating/editing the data base. Each type of subunit needs its own name unique SU Tag.

Name: The common name of this subunit type.

PICID: The picture graphic file that will be displaced for this subunit on the counter, the UDP, the Subunit Panel, and the Subunit Inspector. The file is found in the “Common” subfolder inside the “Data” folder.

Description: A short description of the subunit (see the OTS data files for examples).

SU Type: An abbreviated name that is used to group the different subunits by types.

Examples: “Tank” could be used to group all tanks. Inf could be used to group all non-mech infantry subunits. See OTS data files supplied with the game for other examples.

ACAR—Armoured Car

Air-AT—Jet or Prop CAS Aircraft

Air-LB—Jet or Prop CAS Aircraft

APCT—Tracked APC

APCW—Wheeled APC

ARTY—Towed Artiller

ATWS—Towed Anti-Tank Weapon System

COMV—Command Vehicle

FLAK—Towed Flak

HELO-AT—Attack Helicopter

HELO-UT—Utility Helicopter

HELO-SC—Scout Helicopter

INF—Infantry Unit

INF-AG—RPG Infantry Unit

INF-AM—ATGM Infantry Unit

INF-AT—Anti-Tank Infantry Unit

INF-GL—Grenade Launcher Unit

INF-HQ—Hqquarters Unit

INF-ME—Mechanized Infantry Unit

INF-MG—Machine Gun Unit

INF-MO—Motorized Infantry Unit

INF-MR—Mortar Infantry Unit

INF-SC—Scout Unit

INF-SM—SAM Infantry Unit

MTR—Towed Mortar Unit

RECCE—Recon Unit

RKT—Towed Rocket Launcher

SAM—Fixed SAM Launcher

SPARTY—Self Propelled Artillery

SPAT—Self Propelled Anti-Tank

SPFLAK—Self Propelled Flak

SPMTR—Self Propelled Mortar

SPRKT—Self Propelled Rocket

SPSAM—Self Propelled SAM

SSM—Surface to Surface Missile

TANK-AM—Amphibian Tank

TANK-FL—Flame Tank

TANK—Tank (Light to MBT)

TANK-SG—Self Propelled Gun

UTYA—Artillery Towing Vehicle

UTYT—Utility Transport Tracked

UTYW—Utility Transport Wheeled

1st Year Avail: The first year that the subunit would be in service.

Last Year Avail: The last year that the subunit would be in service.

Crew: The number of individuals that would be needed to fill/crew the particular subunit.

Mobility: The mode of movement that the subunit would use. Type available are Leg, Track, Wheel, Rotor, Jet, Rocket, and None.

Speed: The maximum road speed of the subunit in km/hour.

Int Capacity: Indicates whether a subunit can carry another subunit inside and whether a subunit can be carried by another subunit. Code: 1=subunit can carry another subunit, 0=subunit can't carry another subunit, -1=subunit can be carried by another subunit.

Ext Capacity: Indicates whether a subunit can tow another subunit. Code: : 1=subunit can tow another subunit, 0=subunit can't tow another subunit, -1=subunit can be towed by another subunit.

American Units							
SUTag	Name	PICID	Description	SU Type	FC/RF	Stab	Weapon List
US2	A-10 Warthog	A10.bmp	CAS Aircraft-Gun/IB/CBU/FAE	AIR-AT	4	5 AVS	AG9*19, FL7*4, AO16*4, AO8*4
US81	OH-6A+ Cayuse	OH6.bmp	Attack Helicopter-Gun	HELO-AT	1	4 AVS	AC13*15
US178	M109A6 Paladin	M109A6.bmp	Self Propelled Artillery	SPARTY	0	0	ARTY9*40, AAA12*90
US197	M1A1 Abrams	M1A1.bmp	Main Battle Tank	TANK	9	9 TI, LRF	TG10*40, VSW6*120, AAA12*90, AAA15*90

FC/RF: An indication of the quality of the fire control (FC) or range finder (RF) equipment used by a unit if any. The range is 1 (no equipment) to 10 (best). (see **Special Note** at the end of guide)

Stab: A numeric representation of the stability system of a platform and its effectiveness when firing on the move. The range is 1 (no system) to 10 (best). (see **Special Note** at end of guide)

Sensor List: List of sensors used by a subunit. The following abbreviations are used:

AGS—Advanced Gun Sights

ASR—Air Search Radar

AVS—Avionics

ECCM—Electron Counter-Counter Measures

GSR—Ground Search Radar (not used)

IR-L—Longranged IR Sights

IR-S—Short Ranged IR Sights

LRF—Laser Range Finder

NV—Night Vision-Light Amplification Sights

STC—Stadia coincidence Sight

STR—Stadia Reticule Sight

TI—Thermal Imaging Sight

Weapon List: Weapon systems from the Weapon Tag that are used by the subunit are listed in this column along with their basic ammunition load. The format is “WEAPTAG*#” where the “#” is the basic ammo load for that weapon system.

American Units						
SUTag	Name	PICID	Description	SU Type	PF	Specials
US2	A-10 Warthog	A10.bmp	CAS Aircraft-Gun/IB/CBU/FAE	AIR-AT	14	NT, ECM, RWR, DCM
US81	OH-6A+ Cayuse	OH6.bmp	Attack Helicopter-Gun	HELO-AT	5	ECM, RWR, DCM
US178	M109A6 Paladin	M109A6.bmp	Self Propelled Artillery	SPARTY	3	QS, SI
US197	M1A1 Abrams	M1A1.bmp	Main Battle Tank	TANK	33	ACA4, SD, LWR

PF: Stands for Protection Value for the unit based on the thickness of its calculated frontal armor verses kinetic based weapons. To calculate a unit's PF, use the following formula:
$$((\text{Frontal Hull armor in mm}/15) * 0.3) + ((\text{Frontal Turret armor thickness in mm}/15) * 0.7) = \text{PF}.$$

If you are using a more detailed frontal armor assessment for the hull or turret (IE a specific area break down), taking an average of the numbers or a percentage summation based of area breakdown will work as well.

If the vehicle has no turret, then the PF = Frontal Hull armor in mm/15.

Aircraft and Helicopters are going to fall into a best guess based on finding a similar aircraft in terms of weight and engines. The original setup was lost in a computer crash. Southern Storm will be using a new calculation for aircraft and helicopters PF values and we will document that (and not flub up the backups ☺)

Specials: A list of special ability of a subunit.

ACA(1-4)—Advance Composite Armor
ACM—Active Counter Measures
AD—Air Defense Capable
AM—Amphibious Unit
AW—All Weather
DCM—Defensive Counter Measures
ECM—Electronic Counter Measures
ERA(1-4)—Explosive Reactive Armor
HL—Heavy Lift Capable (Not Used)
LB—Level Bomber
LO—Low Obscured Construction
LWR—Laser Warning Deceiver
MMS—Mask Mounted Sight
NBC—NBC Vulnerable

NT—Night Capable
PA—Parachute Capable (Not Used)
QS—Quick Shoot Capable
RC—Recon Unit
RWR—Radar Warning Receiver
SD—Smoke Discharger
SI—Multiple Rounds Simultaneous Impact (Not Used)
SKT—Armored Skirts
ST—Stealth Construction
TC—Tow Capable
TIJ—Thermal-Optical Jamming System
TLM—Tube Launched Missile
XF—Area Fire Capable

CompID: Stands for Compilation ID and is similar to the SU Type but allows you to break "like subunits" into more specific/customized groups (Example: SU Type "UTYW" is broken down in CompID as "TRUCK" AND "JEEP").

FORMATIONS TAB

This where the whole process comes together. The Formation Tag is where you assemble the units and formations that will be used in the scenario editor to build your orders of battle.

American Formations						
Description	Code	Tag	Composition (Tags = 1A1/BR or RG name)	Role	Unit Siz	Is HQ
Battalions						
Armoured Battalion	USA1	%d/	USA2, USA3*4, USA6, USA9	Tank	II	
>Battalion HQ	USA2	BHQ	TANK*2, COMV*4, INF-HQ*4, JEEP*5	HQ	I	II
>Tank Company	USA3	%C/	USA4, USA5*3	Tank	I	
>Company HQ	USA4	CHQ	TANK*2, US38	HQ	..	I
>Tank Platoon	USA5	%d/	TANK*4	Tank	...	
>Mortar Battery	USA6	Mtr/	USA7, USA8	SPArty	I	
>Company HQ	USA7	CHQ	COMV	HQ	..	I
>Mortar Battery	USA8	%d/	SPMTR*6	SPArty	I	
>Scout Platoon	USA9	RC/	USA10, USA11*2	Recce	...	
>Platoon Leader	USA10	HQ	RECCE-M*2, INF-CAV*2	Recce	..	...
>Scout Section	USA11	%d/	RECCE-M*2, INF-CAV*2	Recce	..	

Description: The Description is the generic name of the type of formation or unit being assembled (Example: Tank Battalion, Company HQ, Recon Platoon).

Code: This is a unique nomenclature that is used in the Composition column to build a formation. In the official OTS data files we used a two letter abbreviation for the Nationality and a two digit alphanumeric number with the letter corresponding to the formation and a number for the unit (see examples in the official OTS data files).

Tag: The tag is used in auto-generating part of the nomenclature of units in the scenario editor. Some syntax rules: Names or abbreviations are added to the front of the name given to the unit in the scenario editor. Any name or abbreviation which ends in a "/" is used to designate the unit/formation as that type of unit/formation. The tags used in the official OTS data files:

BgdHQ— This tag is added to the front of the name of the unit. Normally it is used for Bde HQs.
 RHQ— This tag is added to the front of the name of the unit. Normally it is used for Rgt HQs.
 BHQ—This tag is added to the front of the name of the unit. Normally it is used for Bn HQs.
 SHQ— This tag is added to the front of the name of the unit. Normally it is used for Sq HQs.
 CHQ—This tag is added to the front of the name of the unit. Normally it is used for Co HQs.
 THQ— This tag is added to the front of the name of the unit. Normally it is used for troop HQs.
 PHQ— This tag is added to the front of the name of the unit. Normally it is used for HQs in general.
 HQ— This tag is added to the front of the name of the unit. Normally it is used for Plt HQs.
 SAM—This tag is added to the front of the name of the unit. Used for SAM units.
 AH— This tag is added to the front of the name of the unit. Used for attack helo units.
 UH— This tag is added to the front of the name of the unit. Used for utility helo units.
 OH— This tag is added to the front of the name of the unit. Used for scout helo units.
 A/C-- This tag is added to the front of the name of the unit. Used for aircraft units.
 %d/—This adds a numerical designation to the front of a unit beginning with "1".
 %C/--This adds an alphabetic designation to the front of a unit beginning with "A".
 Mtr/—Used to designate a formation as mortar.
 RC/—Used to designate a formation as recon.

SPA/—Used to designate a formation as self-propelled artillery.
 Arty/--Used to designate a formation as field artillery.
 Rkt/—Used to designate a formation as rocket artillery.
 AA/—Used to designate a formation as air defense.
 AH/—Used to designate a formation as attack helicopter.
 AT/—Used to designate a formation as anti-tank.

Composition: This is where the individual units are assembled to form the units/formations. To assemble a unit, you can use either the SUTag or the CompID columns in the Units Tab. To build a formation, you use the nomenclature found under the Code column for the specific units to make up the formation. The format that is used for listing the units or formations is “name*#” where “name” is the USTag, CompID, or Code and “#” is the number of this type unit in the formation.

NOTE—You cannot use SUTag/CompID and formation Codes in the same composition (example: “USA2, USA3*4, USA6, USA9” or “TANK*2, COMV*4, INF-HQ*4, JEEP*6” are ok; “USA2 , USA3*4, TANK*2, COMV*4” is not ok and will cause the scenario to crash).

Role: This defines the function or role of the unit/formation.

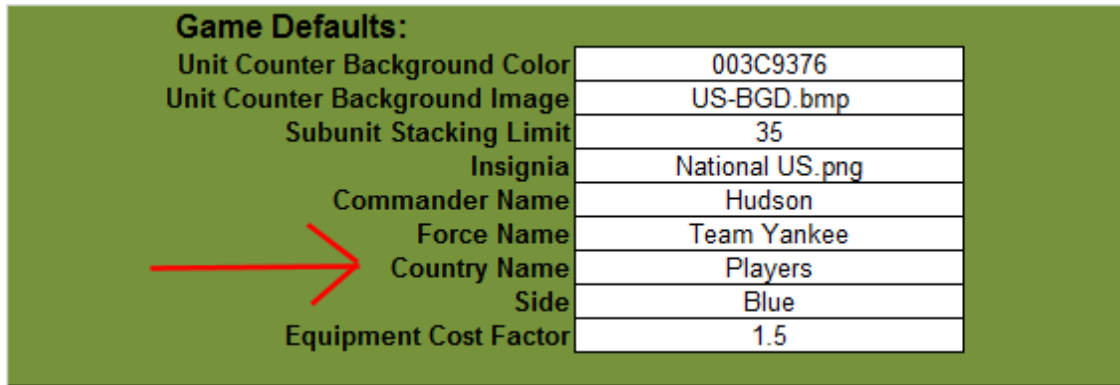
HQ	SPAT	Arty
Inf	AntiTank	NBC
MechInf	Flak	Air
Tank	Helo	Truck
Recce	SPArty	Blank

Unit Size: This defines the size of the formation such as brigade, battalion, company, platoon, etc. NATO symbols are used to designate the unit sizes. Example: X = Brigade, III = Regiment, II = Battalion, I = Company, ... = Platoon, .. = Section/Squad, . = Team.

Is HQ Of: If the unit is a headquarter, this shows the size of the unit that the headquarters belongs to.

Let's build a formation!

In this example we will use the American-User data file with a few modifications in order to build our formation. First open the data file and resave it as "Players-USER.xls". Next, go to the National Tab and change the "Country Name" under "Game Defaults" to "Players".



Game Defaults:	
Unit Counter Background Color	003C9376
Unit Counter Background Image	US-BGD.bmp
Subunit Stacking Limit	35
Insignia	National US.png
Commander Name	Hudson
Force Name	Team Yankee
Country Name	Players
Side	Blue
Equipment Cost Factor	1.5

After this go to the Formations Tab and clear the "Clear the Contents" (highlight data except the headings, right click and select "Clear Content"). Now, resave the file.

Now Let's Build: We will work from line to line down the spread sheet of the Formation Tab.

1. Line 3
 - a. Description column add "<Test Division>".
 - b. That is all the data that will be added to line 3. The "<>" symbols identify "Test Division" as the name of the formation/section that we are building and will be displayed in the Force tree in the scenario editor.
2. Line 4
 - a. Description column add "Brigades".
 - b. Leave the rest of the line blank.
3. Line 5
 - a. Description column add "Brigade".
 - b. Code column add "USA1" This will be the name we will give this unit.
 - c. Composition column—Leave blank for now.
 - d. Role column add "MechInf".
 - e. Unit Size column add "X".
4. Line 6—Leave Blank.
5. Line 7
 - a. Description column add "Brigade Assets".
 - b. Leave the rest of the line blank.

6. Line 8
 - a. Description column add ">Brigade HQ" (The ">" symbol connects the unit "Brigade HQ" under the "Brigade Assets" caption in the force tree).
 - b. Code column add "USB1" This will be the name we will give this unit.
 - c. Tag column add "BgdHQ".
 - d. Composition column add "COMV*6, INF-HQ*4, JEEP*2" (COMV and INF-HQ is selected from the SU Type column in the Units Tag while JEEP is from the ComID Column).
 - e. Role column add "HQ".
 - f. Unit Size column add "I".
 - g. Is HQ Of column add "X".
7. Line 9—Leave Blank.
8. Line 10—Description column add "-----".
9. Line 11
 - a. Description column add "Battalions".
 - b. Leave the rest of the line blank.
10. Line 12
 - a. Description column add ">Tank Battalion"
 - b. Code column add "USC1".
 - c. Tag column add "%d/" (Adds a number to the name of each unit beginning with 1).
 - d. Role column add "Tank".
 - e. Unit Size column add "II".
11. Line 13
 - a. Description column add ">Battalion HQ".
 - b. Code column add "USC2".
 - c. Tag column add "BHQ".
 - d. Composition column add "TANK*2, COMV*4, INF-HQ*4, JEEP*5". (TANK,COMV, and INF-HQ is selected from the SU Type column in the Units Tag while JEEP is from the ComID Column).
 - e. Role column add "HQ".
 - f. Unit Size column add "I".
 - g. Is HQ Of column add "II".
12. Line 14
 - a. Description column add "Tank Company"
 - b. Code column add "USC3".
 - c. Tag column add "%C/". (Adds a Letter starting with "A" to the name of each Company)
 - d. Role column add "HQ".
 - e. Size Unit column add "I".

13. Line 15
 - a. Description column add ">Company HQ".
 - b. Code Column add "USC4".
 - c. Tag column add "CHQ".
 - d. Composition column add "TANK*2, US38" (TANK is selected from the SU Type column in the Unit Tag while US38 is selected from the SU Tag).
 - e. Role column add "HQ".
 - f. Unit Size column add "..".
 - g. Is HQ Of column add "I".
14. Line 16
 - a. Description column add ">Tank Platoon".
 - b. Code column add "USC5".
 - c. Tag column add "%d/".
 - d. Composition column add "TANK*4".
 - e. Role column add "Tank".
 - f. Unit Size column add "...".
15. Line 17
 - a. Description column add "Recon Platoon".
 - b. Code column add "USC6".
 - c. Tag column add "RC/".
 - d. Role column add "Recce".
 - e. Size Unit column add "...".
16. Line 18
 - a. Description column add ">Platoon Leader".
 - b. Code column add "USC7".
 - c. Tag column add "HQ".
 - d. Composition column add "RECCE-M*2, INF-CAV*2" (See Units Tag).
 - e. Role column add "Recce".
 - f. Size Unit column add "..".
 - g. Is HQ Of column add "...".
17. Line 19
 - a. Description column add ">Scout Section".
 - b. Code column add "USC8".
 - c. Tag column add "%d/".
 - d. Composition column add "RECCE-M*2, INF-CAV*2" (See Units Tag).
 - e. Role column add "Recce".
 - f. Unit Size column add "..".
18. Line 20
 - a. Description column add "-----".
 - b. Code column add "-" (this will force the Description column dashed line to place a line break between the Tank Battalion and the Mech Battalion).

19. Line 21

- a. Description column add "Mech Battalion"
- b. Code column add "USD1".
- c. Tag column add "%d/".
- d. Role column add "MechInf".
- e. Size Unit column add "I"

20. Line 22

- a. Description column add ">Battalion HQ".
- b. Code column add "USD2".
- c. Tag column add "BHQ".
- d. Composition column add "APCT*2,COMV*5".
- e. Role column add "HQ"
- f. Unit Size column add "I".
- g. Is HQ Of column add "I".

21. Line 23

- a. Description column type "Mech Company"
- b. Code column type "USD3".
- c. Tag column type "%C/".
- d. Role column add "MechInf".
- e. Size Unit column add "I"

22. Line 24

- a. Description column add ">Company HQ".
- b. Code Column add "USD4".
- c. Tag column add "CHQ".
- d. Composition column add "APCT, US38, INF-HQ*2"
- e. Role column add "HQ".
- f. Unit Size column add "..".
- g. Is HQ Of column add "I".

23. Line 25

- a. Description column add ">Mech Platoon".
- b. Code column add "USD5"
- c. Tag column add "%d/".
- d. Composition column add "APCT*4, INF-ME*3, INF-GL, INF-MG, INF-AM".
- e. Role column add "MechInf".
- f. Unit Size column add "...".

24. Line 26

- a. Description column add "Mortar Battery".
- b. Code column add "USD6".
- c. Tag column add "Mtr/".
- d. Role column add "SPArty".
- e. Unit Size column add "I".

25. Line 27

- Description column add ">Company HQ".
- Code column add "USD7".
- Tag column add "CHQ".
- Composition column add "COMV*2".
- Role column add "HQ".
- Unit Size column add "..".
- Is HQ Of column add "I".

26. Line 28

- Description column add ">Mortar Battery".
- Code column add "USD8".
- Tag column add "%d/".
- Composition column add "SPMTR*6".
- Role column add "SPArty".
- Unit Size column add "I".

27. Line 29—Description column add "===== ".

Now we are ready to finish our formations:

- Line 5—Composition column add "USB1, USC1*2, USD1".
- Line 12—Composition column add "USC2, USC3*3, USC6".
- Line 14—Composition column add "USC4, USC5*3".
- Line 17—Composition column add "USC7, USC8*2".
- Line 21—Composition column add "USD2, USD3*3, USD6".
- Line 23—Composition column add "USD4, USD5*3".
- Line 26—Composition column add "USD7, USD8".

This concludes our demonstration in constructing a formation in the Formations Tag. If you did it correctly your data file should look like this below:

<Test Division>						
Brigades						
Brigade	USA1		USB1, USC1*2, USD1	MechInf	X	
Brigade Assets						
>Brigade HQ	USB1	BgdHQ	COMV*6, INF-HQ*4, JEEP*2	HQ	I	X

Battalions						
>Tank Battalion	USC1	%d/	USC2, USC3*3, USC6	Tank	II	
>Battalion HQ	USC2	BHQ	TANK*2, COMV*4, INF-HQ*4, JEEP*5	HQ	I	II
Tank Company	USC3	%C/	USC4, USC5*3	Tank	I	
>Company HQ	USC4	CHQ	TANK*2, USC3	HQ	..	II
>Tank Platoon	USC5	%d/	TANK*4	Tank	...	
Recon Platoon	USC6	RC/	USC7, USC8*2	Recce	...	
>Platoon Leader	USC7	HQ	RECCE-M*2, INF-CAV*2	Recce	..	...
>Scout Section	USC8	%d/	RECCE-M*2, INF-CAV*2	Recce	..	

Mech Battalion						
>Battalion HQ	USD1	%d/	USD2, USD3*3, USD6	MechInf	II	
Mech Company	USD2	BHQ	APCT*2, COMV*5	HQ	I	II
>Company HQ	USD3	%C/	USD4, USD5*3	MechInf	I	
>Mech Platoon	USD4	CHQ	APCT, USC3, INF-H2*2	HQ	..	II
Mortar Battery	USD5	%d/	APCT*4, INF-ME*3, INF-GL, INF-MG, INF-AM	MechInf	...	
>Company HQ	USD6	Mtr/	USD7, USD8	SPArty	I	
>Mortar Battery	USD7	CHQ	COMV*2	HQ	..	II
	USD8	%d/	SPMTR*6	SPArty	I	
=====						

You should now be able to load this in the scenario editor. The data base should be visible on the "Set Key Scenario Parameters page under Player 1 as "Players-USER".

If you have any additional questions, I recommend that you study the official OTS data files that came with the game. You should be able to solve most of your questions by following those examples. With the information in this guide you should have enough information to edit any data file or, for the more daring, to create your own.

SPECIAL NOTE: The formulas used to generate the specific numbers for some of the weapon systems attributes (Accuracy, Effective Range, SA Value, FC/RF, and Stab) are locked up in the OTS ultra-secret vault. Only one man, Cap'n Darwin, has the combination to the vault. I recommend you direct your questions to him. Meanwhile, you can compare your weapons that are similar to the ones used in the OTS official data bases as a short cut in setting your own values.