

(Originally from
<http://www.ailis.de/~k/archives/13-Privateer.html>
 and recovered through Way Back Machine Archive)

Privateer

After finding some old PC hardware and a good old standard Soundblaster 16 I've played one of my favorite games again: Privateer. Here I will store some data I collected from the game, maybe it is useful for others (or for me if I play it again in some years).

By the way: Did you know you can play Privateer under Linux? All you need is the great program [DOSBox](#). Note that you have to disable EMS memory in the configuration to play Privateer. But also note that the game is awfully slow even on a Pentium IV with 1.7 GHz. So I only used DOSBox to make screenshots from the game.

With DOSBox you can also play Privateer on Windows 2000/NT/XP. I have not tried that but I'm pretty sure it's also awfully slow. A better solution is to use Windows 9x/Me. With [MyJEMM](#) Privateer will run natively on these Windows versions. Just copy the MyJEMM files to the Privateer folder and click on myjemm.exe. If you want to play Righteous Fire instead you have to specify the parameter -r to the call of myjemm.exe.

MyJEMM has some nice advantages. The main advantage is that you can play Privateer with a USB Joystick because Windows emulates the necessary DOS calls. So I was now able to play Privateer with my Sidewinder Pro USB joystick. But there is one problem: Privateer detects two joysticks. Maybe because my joystick has so many buttons. The game will calibrate both joysticks on startup and I was only able to calibrate the first one. But here is a solution: After calibrating the first joystick, kill the game (you are under Windows, you know what to do) and go to the privateer folder. You will find a file there with the name joya.dat. Just copy it to joyb.dat. Now start Privateer again. This time the game thinks that it already has calibrated the second joystick and skips the calibration. Voila.

Another advantage is that you may use some soundcards which are not DOS compatible. Haven't tested it because I have a good old Soundblaster 16 for the good old ISA bus. Fully DOS compatible.

Here is a backup of MyJEMM version 1.4 in case the above link is dead: [myjemm14.zip](#) (16 KB).

Privateer Weapons

Guns

This table lists all available guns in Privateer and Righteous Fire with all known data. Some values are different to the values mentioned in the manual. My values are extracted from the game itself (using a hex editor). I think Origin has changed the values after writing the manual to improve the game play. That may be the reason for the differences.

In the column *Abuse Limit* you can see how much damage the weapon can resist. There is no unit for these values so the table just contains the values used by the game. The higher the value the more damage a gun can resist.

Illustration	Name	Velocity	Lifetime	Range	Armor penetration	Refire delay	Energy use	Abuse Limit	Price
	Laser	1400 kps	3.40 s	4758 m	2.0 cm	0.30 s	4 GJ	370	1000 Cr
	Mass Driver	1100 kps	3.40 s	3738 m	2.6 cm	0.35 s	5 GJ	380	1500 Cr
	Meson Blaster	1300 kps	3.40 s	4418 m	3.2 cm	0.40 s	8 GJ	390	2500 Cr
	Neutron Gun	960 kps	3.40 s	3263 m	6.2 cm	0.65 s	16 GJ	450	5000 Cr
	Particle Cannon	1000 kps	3.40 s	3398 m	4.3 cm	0.50 s	11 GJ	400	10000 Cr
	Ionic Pulse Cannon	1200 kps	3.40 s	4078 m	5.4 cm	0.60 s	15 GJ	430	20000 Cr
	Tachyon Cannon	1250 kps	3.40 s	4248 m	5.0 cm	0.40 s	8 GJ	470	40000 Cr
	Plasma Gun	940 kps	3.40 s	3195 m	7.2 cm	0.72 s	19 GJ	500	80000 Cr
	Plasma Gun (Righteous Fire)	940 kps	3.40 s	3195 m	8.5 cm	0.65 s	17 GJ	500	80000 Cr
	Fusion Cannon (Righteous Fire)	1350 kps	3.40 s	4588 m	6.6 cm	0.50 s	11 GJ	470	100000 Cr
N/A	Steltek Gun	1175 kps	3.40 s	3993 m	10.0 cm	0.45 s	19 GJ	22000	N/A
N/A	Steltek Gun (Righteous fire)	1175 kps	3.40 s	3993 m	6.0 cm	0.45 s	19 GJ	22000	N/A
N/A	Boosted Steltek Gun	1250 kps	4.00 s	5000 m	19.0 cm	0.37 s	17 GJ	22000	N/A
N/A	Boosted Steltek Gun (Righteous Fire)	1250 kps	4.00 s	5000 m	1.0 cm	0.37 s	17 GJ	22000	N/A
N/A	Drone Steltek Gun	1050 kps	3.40 s	3568 m	3.0 cm	0.75 s	17 GJ	22000	N/A

How to extract the values from the game

The above values are extracted from the game itself using a hex editor. If you want to try this yourself (or maybe you want to change the values) you should open OBJECTES.TRE or (for Righteous Fire) PRSO.TRE with a hex editor and search for the weapon identifier:

Identifier	Weapon
LASRTYPELASER	Laser
MASSTYPEMASS	Mass Driver
MESNTYPEMESON	Meson Blaster
PARTTYPEPARTICLE	Particle Cannon
IONCTYPEIONIC	Ionic Pulse Cannon
TCHNTYPETACHYON	Tachyon Cannon
PLSMTYPEPLASMA	Plasma Gun
ZAPPTYPEZAPPER	Fusion Cannon
PLSMTYPEALIEN	Steltek Gun

You will find the Steltek Gun three times. The first one is the unboosted one, the second one is the boosted gun and the last one is the gun the drone uses.

If you have found the weapon entry ignore all 00 values behind the identifier. They are just placeholders. The next values are the values you are looking for. These are the values of the Tachyon cannon with descriptions of the values:

```
d6 01 00 e2 04 00 66 03 00 00 66 00 00 00 08 00 32 00
^^ ^^  ^^ ^^  ^^ ^^  ^^  ^^  ^^ ^^
Abuse Velocity Lifetime Refire Energy Damage
```

Note that you have to swap 16 bit values. So the *Abuse Limit* is 01d6 which is decimal 370.

You have to divide *Refire Rate* and *Lifetime* by 256 to get the real value. Example: Lifetime is 0366 in hex, 870 in decimal and 3.40 if divided by 256.

Damage must be divided by 10 to get the gigajoule value. I'm not sure now if I got it right. Some sources on the internet says the Boosted Steltek Gun has 19.0 cm damage in Privateer and 1.0 cm in Righteous Fire. By just using the first byte I don't get these values. These two weapons has the second byte set to FF instead of 00 so I think this is a negative value. And indeed: If I read it as a negative value and remove the minus sign, I get 19.0 and 1.0. If you have any hints, if you can tell me if this is correct and if you can tell me the reason for this *strange* data storage, please contact me.

The Range can be calculated by multiplying the *Lifetime* and *Velocity*. Note that the unit *kps* can **not** mean *kilometers per second*. I think it means *klicks per second* and *klick* means *meter*. So *kps* is the same as *mps* or *m/s* (meters per second).

Projectiles

This table lists all available projectiles in Privateer and Righteous Fire with all known data.

Illustration	Name	Velocity	Lifetime	Range	Armor penetration	Price	Note
	Proton Torpedo	1200 kps	3.00 s	3600 m	20.0 cm	15 Cr	Fires straight.
	Dumbfire (DF) Missile	1000 kps	8.00 s	8000 m	13.0 cm	20 Cr	Fires straight.
	Heat Seeker (HS) Missile	800 kps	9.00 s	7200 m	16.0 cm	35 Cr	Locks onto engine of target. Best used from behind target.
	Image Recognition (DF) Missile	850 kps	9.00 s	7650 m	17.5 cm	75 Cr	Locks onto shape of target. If used on Pirate Talons it may attack Militia Talons instead.
	Friend or Foe (FF) Missile	900 kps	8.00 s	7200 m	17.5 cm	100 Cr	Locks only onto enemies.

How to extract the values from the game

The above values are extracted from the game itself using a hex editor. If you want to try this yourself (or maybe you want to change the values) you should open OBJECTS.TRE and search for the weapon identifier:

Identifier	Weapon
TORPTYPETORPEDO	Proton Torpedo
MSSLTYPEDUMBFIRE	Dumbfire (DF) Missile
MSSLTYPEHEATSEEK	Heat Seeker (HS) Missile
MSSLTYPEIMAGEREC	Image Recognition (IR) Missile
MSSLTYPEFRNDFOE	Friend or Foe (FF) Missile

If you have found the weapon entry ignore all 00 values behind the identifier. They are just placeholders. The next values are the values you are looking for. These are the values of the FF Missile with descriptions of the values:

84 03	08	00 88 13 af
^^ ^^	^^	^^
Velocity	Lifetime	Damage

Note that you have to swap 16 bit values. So the *Velocity* is 0384 which is decimal 900.

Lifetime is here directly stored as seconds. So you don't need to divide the value by 256 to get the real value.

The Range can be calculated by multiplying the *Lifetime* and *Velocity*. Note that the unit *kps* can **not** mean *kilometers per second*.

I think it means *klicks per second* and *klick* means *meter*. So *kps* is the same as *mps* or *m/s* (meters per second).

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