

T.O. FALCON-4

---

# **HISTORY**

MANUALS SERIES

# **THE FALCON EPOPEE**

*RELEASE 2017.01*

SPYHAWK

---

**JAN 19, 2017**



<b>Introduction</b>	<b>1</b>
<b>0 Introduction</b>	<b>3</b>
0.1 Foreword . . . . .	3
0.2 Improving this document . . . . .	3
0.3 Website and Graphical chart . . . . .	4
0.4 License . . . . .	4
0.5 Thoughts . . . . .	5
<b>I 1984-1994</b>	<b>7</b>
<b>1 Spectrum Holobyte era</b>	<b>9</b>
1.1 The origins . . . . .	9
<b>II 1994-2001</b>	<b>11</b>
<b>2 MicroProse era</b>	<b>13</b>
2.1 The new benchmark . . . . .	13
2.2 An innovative concept . . . . .	13
2.3 The beginnings . . . . .	14
2.4 The abandonment of Hasbro . . . . .	14
<b>3 Realism Patch era</b>	<b>15</b>
3.1 iBeta . . . . .	15
3.2 Support take over . . . . .	15
3.3 First modifications . . . . .	15
3.4 Realism Patch Group . . . . .	16
<b>4 F4Patch</b>	<b>17</b>
4.1 The maze of patches . . . . .	17
4.2 Universal adoption . . . . .	17

<b>III</b>	<b>2001-2003</b>	<b>19</b>
<b>5</b>	<b>eFalcon era</b>	<b>21</b>
5.1	The leak . . . . .	21
5.2	eRazor . . . . .	21
5.3	eTeam . . . . .	22
<b>6</b>	<b>F4 Unified Team era</b>	<b>23</b>
6.1	The agreement . . . . .	23
6.2	The hoped-for unity . . . . .	23
6.3	SP4 data work . . . . .	24
6.4	ViperOps . . . . .	24
<b>IV</b>	<b>2003-2005</b>	<b>27</b>
<b>7</b>	<b>FreeFalcon era</b>	<b>29</b>
7.1	VO proscription . . . . .	29
7.2	FreeFalcon . . . . .	29
<b>8</b>	<b>BenchMarkSims era</b>	<b>31</b>
8.1	G2i in trouble . . . . .	31
8.2	The surprise . . . . .	31
8.3	Falcon 4.0 Gold: Operation Infinite Resolve . . . . .	32
8.4	SP4 and the F4UT dismantling . . . . .	32
<b>9</b>	<b>The Next Group era</b>	<b>35</b>
9.1	G2Interactive gives up . . . . .	35
9.2	Cease & Desist to BMS . . . . .	35
9.3	FreeFalcon 3 . . . . .	36
9.4	High Fidelity Flight Models . . . . .	36
9.5	Community divergence . . . . .	37
9.6	CobraOne . . . . .	37
<b>V</b>	<b>2005-2008</b>	<b>39</b>
<b>10</b>	<b>Lead Pursuit era</b>	<b>41</b>
10.1	Falcon 4.0: Allied Force . . . . .	41
10.2	OpenFalcon . . . . .	42
10.3	FreeFalcon 4/Red Viper . . . . .	43
10.4	GlobalFalcon . . . . .	43
<b>VI</b>	<b>2008-2011</b>	<b>45</b>
<b>11</b>	<b>Dark Falcon era</b>	<b>47</b>
11.1	Skunkworks . . . . .	47
11.2	FreeFalcon 5 . . . . .	47

11.3 DarkFalcon . . . . .	48
<b>VII 2011-2017</b>	<b>49</b>
<b>12 Falcon BMS era</b>	<b>51</b>
12.1 BMS 4.32 . . . . .	51
12.2 FreeFalcon's remarkable history . . . . .	52
12.3 FreeFalconOSP . . . . .	52
12.4 BMS 4.33 . . . . .	53
12.5 The legal agreement . . . . .	53
12.6 Falcon as today . . . . .	54



**Part**

**Introduction**





### 0.1 Foreword

Having bought “Falcon 4.0” since its original release, I was obviously fascinated by the complexity of the F-16 avionics and the way to use it effectively in the war of the never ending dynamic campaigns. But more than the simulator itself, it is the manner the various members of the community worked to improve the software that captivated most of my attention.

Back in 2002, I started to retrace in writing the “history of Falcon 4” in my native language, continuously updating the article every few months, each time important events occurred within the community. With the recent release of the long awaited Falcon BMS, it was time to update the article again. Not only it is available for the very first time in English, but it has also been entirely reworked to understand better the complex legacy the simulator has left behind.

This document is my personal “Thank you” to the numerous people that gave and still give their free time to keep the Falcon alive. I report here the history of Falcon 4, but it is all of you who made it. I hope you will enjoy the “Falcon Epopee” as much as I enjoyed writing it through the past decade.

~ Spyhawk

### 0.2 Improving this document

Uncountable hours of documentation and blog news reading, community forums browsing and personal messages writing went to this document through the years, not to mention most of its sections have been rewritten many times. It is therefore difficult to grasp the real facts or to stay truly objective, and I will not pretend that what you are about to read is 100% accurate.

Consequently, I'm interested in what you have to say, particularly if you are or have been involved in community development. Simply send me a message on the BMS forums with your remarks, and I will use your input to improve future version of the "Falcon Epopee".

### 0.3 Website and Graphical chart

The last version of this document is always available at the [Falcon 4 History](#)<sup>1</sup> website.

Make use of the visual [History Chart](#)<sup>2</sup> also available online at the same URL to better appreciate your reading.

### 0.4 License

This document is released under the [Attribution-NonCommercial-ShareAlike 4.0 International](#)<sup>3</sup> (CC BY-NC-SA 4.0) license. In a nutshell, you are free to distribute and adapt this document as long as it is not for commercial purpose and that you give the same right to any user of your derived work.

---

<sup>1</sup> <http://sites.google.com/site/falcon4history/>

<sup>2</sup> <https://sites.google.com/site/falcon4history/files/F4history.pdf>

<sup>3</sup> <http://creativecommons.org/licenses/by-nc-sa/4.0/>

## 0.5 Thoughts

From the original *Falcon 4.0* Designer's notes.

---

**Note:** A view from the cockpit, by Pete "Boomer" Bonanni

*Being a fighter pilot is not a thing you do. It is an attitude.*

---

---

**Note:** A view from the computer, by Gilman "Chopstick" Louie

*Military combat flight simulators have always been somewhat controversial. Do these games end up glorifying war? We at MicroProse try to design simulators that help educate individuals who are interested in what it is like to fly modern military aircraft. Unlike computer games, real aircraft have no reset buttons. In real planes, real people die. Nations around the world ask their sons and daughters to put their lives on the line to help defend their own countries and their sovereignty.*

*We hope this product helps all of us better appreciate what we ask these people to do and the sacrifices they make.*

---



# **Part I**

## **1984-1994**



### 1.1 The origins

The Falcon series finds its roots in a product developed by Spectrum Holobyte, designed and produced by Gilman “Chopstick” Louie and programmed by Les Watts under the title of “F-16 Fighting Falcon” for the MSX in 1984. In 1987 the first version of the Falcon saga was released for MS-DOS PC and Macintosh. “Falcon” simulated aerial combat against the MiG-21, but also ground attack against the anti-aircraft missile launchers. The player could perform 12 different missions and choose between five difficulty levels corresponding to five different grades. The game progressed in waves while the difficulty increased over time.

A year later, “Falcon AT” (Falcon 2.0) appeared as a graphically reworked version with additional Amiga and Atari ST versions. “Falcon AT” used primitive polygons instead of bitmap graphics by taking advantage of faster processors and graphics cards technology. The executive producers of the two 3.5” floppy disks of the software were Gilman Louie and Mark Johnson. This version allowed external viewing of the player aircraft and included the MiG-29 as an adversary.

In November 1989 and October 1990 appeared two extensions of the program, respectively “Falcon Mission Disk 1: Operation Counterstrike” and “Falcon Mission Disk 2: Operation Firefight”, both adding new missions and increasing the degree of difficulty. Similarly to the original program, the extensions were positively received by the press for its high level of realism and very good graphics unseen in contemporary simulation games.

“Falcon 3.0” was released in December 1991. This third opus was an intensive application, pushing the computers of that time into their last corner as the F-16A Block 15 was modelled with so many details. Claiming to use flight dynamics from a real military simulator, it required a math co-processor to enable the high fidelity flight mode and was still unplayable in less demanding modes on computers running less than a 386 CPU. This version introduced for the first time the wingers and a dynamic campaign as well as a mission editor, allowing it to obtain benchmark status in the field of flight simulators. Three extensions were created: “Operation Fighting Tiger” in July 1992,

“MiG-29” and “Hornet: Naval Strike Fighter” that introduced additional flyable aircraft in July and December 1993.

In 1993, Spectrum Holobyte acquired MicroProse and released all its products under this brand afterwards. In September 1994, while releasing a “Gold Edition” of Falcon 3.0 that included its various extensions, MicroProse announced the beginning of the development of “Falcon 4.0”.



## **Part II**

**1994-2001**



### 2.1 The new benchmark

“Falcon 4.0” features the F-16C Fighting Falcon Block 50/52 in a fictitious full-scale war on the Korean Peninsula. Its conception by MicroProse has needed more than four years of development and a consequently large amount of dollars. This extraordinary long gestation period and the multiple reports of the commercial release have made of this simulator one of the three or four major vaporware of the video game industry.

At its official release on December 11, 1998, the virtual pilots community discovered “The new benchmark in flight sim technology” as announced in the advertisement. Users were positively surprised by the degree of realism that Falcon 4.0 - or “F4” in short - could bring out of a personal computer, and despite its age this modern air combat simulator is certainly still one of the best on the market.

### 2.2 An innovative concept

This enormous lifetime compared to other entertainment software of similar type is due to the vision of its executive producer Gilman “Chopstick” Louie that other simulators never had. Countless developers of that period and nowadays still primarily focus on the creation of a graphics engine that impresses the user and reproduce as faithfully as possible the behaviour of the aircraft, with perhaps a basic multiplayer code. This approach often results in a realistic and complex simulation, but with a very short lifetime.

The approach taken by the Falcon series is different from all the simulations released before and still unmatched today: the developers created a realistic war zone, and then put a fighter inside it. This is not only an F-16 simulator, but also the simulation of the experience of a fighter pilot by

immersing the player in a war and not just in a plane, giving him a better understanding of the true role of a pilot in a large scale engagement.

When MicroProse created Falcon 4.0, they conceived a monster - a flight simulator that would eclipse all the others.

### 2.3 The beginnings

Turning that vision into lines of code was however a real failure. When released on the game market, Falcon 4.0 was suffering from a multitude of defects making it not commercially viable. The customers were left with a masterpiece that showed only one facet of what it should actually have been. In fact, the software was so unstable that it was nearly impossible to enjoy it.

What happened is that the flight simulator had found itself over budget and MicroProse had either the choice to bring a not finalized product to the market and patch it later, or abandon the development and permanently lose all the invested money. Thus, several official patches quickly came out to correct a large number of bugs. Unfortunately, some features available in previous versions were lost while new options were enabled.

### 2.4 The abandonment of Hasbro

Right after the 1.08us patch release in December 1999, the owner Hasbro Interactive made the fateful decision to close MicroProse offices of Alameda in California, of which the Falcon 4.0 team was part. That is the reason why the developers did not have time to localize this release. Fortunately, some fans of the various European communities made conversion patches for their localized version, allowing each and every pilot to take part of future Falcon 4.0 evolution.

Meanwhile, programmers of the development team and the executive producer Steve “Grout” Blankenship found themselves in an emergency meeting. They contacted Hasbro and asked if it was possible to continue the development of this revolutionary flight simulation by releasing a much more stable executable during the remaining few days they had access to the offices. Hasbro agreed, but was clear on the point that the 1.08us patch would be the only version that would be tested and approved by their internal quality assurance department and therefore the only one they could provide proper support.

### 3.1 iBeta

Since Hasbro allowed this post-official patch and had no longer the resources to test it, the Colorado based quality assurance company iBeta LLC was asked for continuing to work with the programmers in order to release a public version. iBeta agreed to support this last surprise development by maintaining a FAQ on their website. iBeta and its team of public testers thus literally spent hundreds of hours testing the new executable to ensure its quality.

The latest 1.08i2 executable led to a huge increase in performance and stability, especially for the multiplayer mode, although there were still many annoying bugs remaining.

### 3.2 Support take over

In January 2000, after the layoff of the entire Falcon 4.0 development team from MicroProse's offices, the executive producer Eric Marlow thought about a way of keeping releasing updates with the help of iBeta which took over Falcon 4.0 support after its commercial discontinuation. iBeta created then the first version of the patches known under the name "Realism Patch".

### 3.3 First modifications

The objective of iBeta Realism Patch is to modify the performance of weapons and devices to come as close as possible to reality based on information derived from non-confidential data. As the team received permission from Hasbro Interactive to develop externally-driven changes to the software, another group of talented people began to examine the Falcon code using decompilers and hex editors. At the beginning of the year, Sylvain Gagnon, Marco Formato, Mad Max, Poogen

and others began to debug the 108i2 executable. Several new patches were released, with often more than one bug fix per week.

These patches fixed some aspects of the Falcon code that did not work correctly. Some features that were thought lost in the previous official patches were again activated and some bugs that could cause crashes to desktop were corrected by hexadecimal changes.

The Realism Patch concept was begun by Executive Producer Eric “Snacko” Marlow with the support of iBeta LLC. The iBeta Realism Patch patches were released up to version 3.0 by iBeta, when Eric Marlow and iBeta CEO Glenn “Sleepdoc” Kletzky decided that iBeta cannot continue to provide corporate resources for further development. iBeta ceased support of all previous versions of the Realism Patch, and has not been involved in the Realism Patch ever since.

### 3.4 Realism Patch Group

From August 21, 2000, the work undertaken by iBeta was taken over by a group of passionate people, many of whom were the original members of the iBeta Realism Patch team. The “Realism Patch Group” has expanded to include several new members of the F4 community who have been contributing to its development and growth, and has grown to even greater heights than its iBeta days. The members of the Realism Patch Group included current and ex-service pilots and engineers, who brought with them many years of working experience and knowledge on military aviation. The Realism Patch effort has also expanded in scope, and was no longer a data only patch. Extensive executable changes were now made to make full use of the data changes, as well as improving weapons and AI behaviour.

The result of this group stemmed from a close collaboration between all members of the RPG, scattered over four continents. Through its existence, the Realism Patch has taken more than 15,000 emails and thousands of man hours of testing, research and development to produce.

### 4.1 The maze of patches

These first patches were applied to the Falcon 4.0 files with a hexadecimal editor and later by using an utility called “Code Fusion”. Problems quickly began to arise when the executable was modified by a patch because it was difficult to know which patches were applied, which version of the patch was used or when a patch conflicted in the same area of the executable with another one.

Joel “Codec” Bierling began using a method which consisted to rename the executable in a way that reflected which patches were applied. His executables had crazy names such as “Falcon4\_i2\_bbl\_bblfly\_atc\_cursor\_barcap\_reloc.exe” (that was one of the shortest names). Joel quickly realized that this method could not be applied for long at the rate the patches came out.

### 4.2 Universal adoption

In the interest of keeping the cohesion of improvements intact, and driven by his desire to focus his creativity as a programmer in a particular area, Joel Bierling created “F4Patch”. He wrote the first version of his patch manager in a weekend and the first release came out on May 15, 2000. His main concern was: “Will this new tool be accepted by the community?” The success of F4Patch would heavily depend on the acceptance of the authors of patches within the community. Therefore, when Sylvain Gagnon - one of the most prolific patches author at that time - said he would use F4Patch for his next patches, the future of F4Patch was assured.

Today, F4Patch is the standard for any type of patch for Falcon 4.0. With this manager, the user can optionally enable or disable the plethora of individual patches that are available in any Falcon 4.0 major package patches. Customizing the version of Falcon is made much easier. It is also possible

to design packages with installation program, feature which is very appreciated by developers and which allows a complete cohesion with future versions of Falcon 4.0.



**Part III**  
**2001-2003**



### 5.1 The leak

On April 9, 2000, the source code was illegally released by whom to appear to be a former disgruntled employee. This person managed to upload on an FTP server the source code of a development version which she had access to. The leaked code, namely an intermediate version between the 1.07 and 1.08 releases, stayed available online for a very short period of time only. This event marked the beginning of the community development.

### 5.2 eRazor

A talented programmer named eRazor wrote F4DX, a DirectX 6 to DirectX 7 DLL proxy that translated DX6 calls and redirected them to their DX7 counterparts. In doing this, he fixed some of the crashes to desktop that caused problems for many player pilots flying the 108i2 executable with DX7. The community was very impressed and sometime after F4DX was written eRazor came in to IRC and asked a few questions to key people of the defunct MicroProse team. Knowing what he had done in the recent past, mirv didn't hesitate to give him the answers he was searching for.

Inspired by the possible legal ramification, eRazor took advantage of the leaked source code and began to improve Falcon in a way that cannot be made with hexadecimal and data edits only. eRazor worked and reworked on the code for several months while making several public versions of this new 1.07 executable. Fortunately, the copyright owner of Falcon, Hasbro, did not seem really interested in what he did.

Later, mirv was made aware of what was coming in "eFalcon". At this point, it wasn't really anything yet. It was simply one guy trying to make Falcon 4.0 better. This quest started out with improving graphics and frame rates, but almost immediately it became much more than that.

### 5.3 eTeam

At this stage, there were only two and they knew they would need more help. Testers, who were good friends and good pilot boarded on the “eTeam”. Then somewhere along the way, the eTeam picked up some extremely talented programmers - Codec, JJB, Pogo, Marco, Sylvain and <Someone>. The group also picked up some of the best beta tester such as Paul Stewart, Vexx, Apollo 11, several members of the RPG, and the 87th Stray Dogs. By working directly on the program source code, the eTeam was also able to eliminate some major problems and create brand new features, such as ultra-realistic avionics, color MFD, easier multiplayer connections through JetNet, better damage management, active ships and other impressive additions.

And while many people thought that eFalcon was just graphics improvements, this wasn't true at all. eFalcon had developed into a project to transform the original Falcon 4.0 into the most realistic simulation it could be. The end of development

This parallel work of the one of the RPG raised compatibility issues and induced an inevitable rivalry between the two teams. Also, both the eTeam and RPG developed their patches in a legally questionable way when the license of Falcon 4.0 was bought in May 2001 by G2Interactive, the young company founded by Claude “Shadow” Cavanaugh and Eric “Snako” Marlow, the former director of iBeta.

On May 15, 2001, G2 Interactive Inc., a Texas-based interactive entertainment publishing company, signed a “Letter of Intent” with Infogrames Interactive who recently held Hasbro. The final agreement would grant G2i and its wholly owned development group Force 12 Studios the right to develop and publish title based on the Falcon franchise. As the rights were to be acquired in order to develop a new opus in the Falcon saga, G2i team had requested that the changes to the executable of Falcon 4.0 cease in view of its future development. On 6 August 6, 2001, this led to the almost simultaneous releases of the latest versions of the RPG and the eTeam patches. eFalcon 1.10 was approximately 80% to 90% compatible with the Realism Patch 5.0. The final agreement between G2 Interactive and Infogrames was completed on December 20, 2001.

### 6.1 The agreement

After the individual releases of eFalcon 1.10 and the Realism Patch 5.0 that caused so many problems within the community, a solution was found in order to improve the flight experience and to ease the installation procedures for the various patches. All the developers were invited to join their expertise in a community effort to create a single patch with a unified executable, combining better avionics and better graphics with improved AI behaviour and more realistic campaigns.

Although many core members of the RPG didn't want to be under G2i's thumb and preferred to continue their work underground on their own material, most of its members and the entire eTeam boarded in, with the notable exception of eRazor who did not want the new graphics engine on which he was working to be operated by a commercial company. The newly joint group was symbolically named "F4 Unified Team" and was allowed to design the ultimate version of Falcon 4.0 in a series of patches known as "SuperPAK" by accepting a charter of G2i. The charter was giving right to the company to use the work of the newly formed group for its own commercial development, in exchange for the possibility of a legal community development in regards of Infogrames and until a certain deadline only.

### 6.2 The hoped-for unity

On November 13, 2001, the single executable milestone was reached with the release of "SuperPAK 1", bringing together the functionality of all previous patches. Released two months later in January 2002, "SuperPAK 2" took Falcon 4.0 even further. This patch brought all new features, a largely improved artificial intelligence, a new user interface, a revised and corrected campaign engine, and increased stability. More than three years after the initial release of Falcon 4.0, it was an important milestone in the quest for an excellent military flight simulator. But more was to come.

After the release of SP2, the plan was to release a polished “SuperPAK 2a” in late March. The deadline was reached, but the group was allowed by G2i to bypass it to finish the latest modifications to the source code. So much work had been accomplished over that period - new optimizations, bug fixes, countless new features - that it was decided to call this next release “SuperPAK 3”.

With the SP3 released in June 2002, executable changes had come to an end, as the future projects of G2i were being shaped. “Falcon 4.0 Gold: Operation Infinite Resolve” was planned to arrive soon on the market as an updated version of Falcon 4.0 containing the SuperPAK features completed with in-house developed improvements such as the ability to fly the A-10 Thunderbolt II with its own avionics. This updated title should have been followed by “Falcon V” a few years later, with the Roman number “V” symbolizing a renewal in the air combat simulation. However, the quest was not over: thanks to the visionary design of Falcon 4.0 and the adaptations made in the SuperPAK series, there was still ample room for further improvement to be made in the data files.

### 6.3 SP4 data work

Built upon the foundation laid by the previous SuperPAKs, “SuperPAK 4” would not contain any new executable and the F4UT therefore concentrate its work on optimizing the data part of Falcon. This includes flight models, weapons and weapon systems, 3D models, theatres, objectives, and others features. SP4 brought to fruition many of the features introduced in the SP3 executable. In addition, tens of thousands of data entries in the various data tables had been edited, added, reworked and corrected to enhance again this combat flight simulation and the campaign warfare realism.

The work on SP4 proved to be much more difficult than any previous patch. The task was huge and the developers so few, that keeping up the focus and effort wasn’t always possible. In addition, the kind of work needed for SP4 was much more tedious than anything before - working on the source code for the executable and introducing new features is “easier”, more rewarding and more fun; creating new or updated 3D models and textures can be done for a selected single object and be released as a single small patch. SuperPAK 4 however brings it all together - and this big integration package needed not only a huge effort to coordinate all the works into one patch, but also exponentially increased the possibilities of bugs, as the data are all connected together into the Falcon 4.0 world. With nearly 200 testers working on it, the data work could take months to be fully realized.

### 6.4 ViperOps

It was apparent to the now unemployed F4UT coders that much remained to be done on the executable. Although officially disjointed from the F4UT, the underground “ViperOps” group was created in late July 2002, and its members were none other than the previous executable coders of the F4UT and all the leaders of its various subgroups, plus a few others whose experience would be beneficial.

ViperOps discreetly continued to make executable changes, working in particular on bug fixes found in the SP3 and on an improved network code. The group hoped to reveal its existence and

release its current "SuperPAK 5" in work to the public after the expiration of the G2i license on the first of January, 2003. Unfortunately, Atari - renamed from Infogrames - extended the G2i license for one additional year, after which no further contract would be granted to G2i if no product was released on the market during this lap of time.





**Part IV**  
**2003-2005**



### 7.1 VO proscription

Therefore the ViperOps team tried to negotiate another contract with G2i in order to allow them to continue its work. G2i accepted on condition that all the code would be received for usage in its own development and that the agreement would remain secret, allowing the ViperOps executable to be freely offered to the community a few months after the release of G2i product on the market. To ensure compliance with the agreement, the testing executables were locked down to prevent them from running on machine other than that of members of the team. But under those everlasting constraints, an idea started to emerge in the mind of the core ViperOps members.

Not only could the delay in the SP4 stalling be attributed to the enormity of the debugging work, but now also to the commercial purpose of the ViperOps project itself. This new situation was not pleasing all VO members, and one malcontent member released a testing executable to the public regardless of there being no other evidence, with the aim to disrupt the effort and maybe the eternal waiting. This VO executable was outlawed in the community and soon found itself on the P2P network along with a changelog of the executable.

Nonetheless, this locked down executable was also all the needed evidence to empower the rumours implying that ViperOps was stealing the work of the community to start its own commercial project.

### 7.2 FreeFalcon

A direct side effect of the delayed release of the SP4 was that some community members had hundreds hours of work on aircraft skins or new 3D models that were not being released for several months. In February 2003, when it became apparent that a new installer inserting those

new models and skins into Falcon would be the best solution in light of the current situation, several VO members resigned and gathered some great talents to release their own mod.

Staying careful not to make direct claims as to the known intention of the core ViperOps members, the website FreeFalcon.com was announced later in March by these members that did not want their work to be included in a commercial product, or who could no longer stand the long SP4 awaiting.

Free of any agreement with G2i, the FreeFalcon team aims to continue the free development of Falcon 4.0. Thus, FreeFalcon is a dedicated group of 3d modellers, skin artists, programmers, campaign builders, tweakers and just plain old Falcon 4.0 enthusiasts. The group has included people from North America, Europe and Asia, ranging from seventeen to sixty-something years old, with former Army and Naval Aviators, computer programmers, lawyers, students, engineers, skilled labourers and educators.

At first, the team was very small and had relatively little experience in the design of Falcon 4.0 add-ons. The strength of the FF team lay in 3D modelling and skins creation, and also the usage of a very simple installer that gave easily a host of new additions to the SP3. FreeFalcon 1 was built on the foundations of the SP3 and appeared in May 2003. This first add-on was received with some scepticism, as it had some flaws and requires several patches to resolve several major bugs leading to a fair amount of criticism. However, the arrival of the group was enthusiastically welcomed by many in the community.

The team worked hard with a new determination not to repeat past mistakes and aimed to include in FreeFalcon 2 the best of what could be done. At this point, the team began to acquire new members who offered countless contributions to the patch. In addition, the original team began to mature and develop new capabilities that increased the quality of its work. At the release of FF2 in September 2003, it appeared that the patch was a solid work and it became popular within the community.

### 8.1 G2i in trouble

The development of “Falcon 4.0 Gold: Operation Infinite Resolve” was centred on the dynamic campaign code, sophisticated modelling and a new non-fly-by-wire flight model for the A-10 Thunderbolt II. When G2i realized that the flight model of the new A-10 badly integrated with the original code and that the plane barely flew realistically, the company did a full turn back. However, the clock was quickly expiring.

One of the weaknesses of Falcon 4.0 was certainly its graphics engine, which was already several years old and well below current standards. The graphical aspect of SuperPAK 3 had very little changed since the eFalcon era and since the departure of eRazor, it seems that coders of the F4UT did not have much experience in this area of development.

With the above in mind, a new engine might have provided enough modernization to G2i’s package to get Atari interested in allowing a commercial release. Hustler, one of the FreeFalcon team founders who also assisted G2i at that time helped the company by brokering a deal with two experimented individuals, Cobracab and Jam. At the end of August 2003, a 90-day agreement was reached and BenchMarkSims was formed specifically to modify the source code to fulfil this new graphic engine. In exchange of the improvement of the graphical aspect of Falcon and the return of the source code to G2i for its own product, BenchMarkSims obtained the right to provide a freely deliverable executable to the community, while FreeFalcon was assigned perpetual rights to the G2i source code as this “last chance” deal was valuable enough for G2i at that time.

### 8.2 The surprise

On September 20, 2003, when the community did not expect it, BMS released its first beta executable after more than a year without significant improvement in Falcon 4.0. While BMS removed

all of the non-FBW flight model code, added new code that completely broke all but realistic avionics and fixed several bugs that all hoped for, this patch prominently incorporated graphics improvements compatible with the latest video cards.

The BMS group sought to maintain the integrity of all the work done in the past by the different groups. Consequently, the BMS executable retained full compatibility with the SP3 data as well as with the FF1 patch. The VO team having been invited to join the BMS effort, the whole community could expect to see the ViperOps changes released in a next executable.

However, wary of becoming involved with BMS because of what could be called the “G2i factor”, most of the VO members declined. Only the multiplayer code guru, William Mulvihill, showed interest in helping to improve the network code.

### 8.3 Falcon 4.0 Gold: Operation Infinite Resolve

That was without taking into account G2i's willing to release the “Gold” version of Falcon 4.0 to the market. The surprise announcement of “Falcon 4.0 Gold: Operation Infinite Resolve” at the beginning of October led to an outcry in the community Falcon. G2i hoped to release its product before the end of the year to keep the license and the right to develop further Falcon V. The timing being short, the company intended to sell SP3 with the improved graphics brought by BMS.

At the same time, G2i announced that none of the long awaited release of SP4 and the ViperOps executable were to be released to the public to avoid competition with their own new product, and also that all of the data edits made for SP4 and ViperOps code were to be handed over to the company within 5 days or that the developers would face legal reprisal. Under pressure from the community who threatened G2i to boycott the new product if the long awaited SP4 could not be released, G2i strategically retreated in order not to isolate itself from the community that was their future customers whose money was indeed needed for its financial survival and for the future of Falcon V.

Consequently, G2i delayed the release of “Falcon 4.0 Gold: OIR” and let the BMS group continue its development. When the agreement between G2i and BMS expired at the end of November, the BMS members operated under the FreeFalcon's license umbrella, with two executable coders, Saint and Baldeagle, added to the team.

While the effort to improve the network code was done in parallel of the classic BMS patches and resulted in a series of network optimized MP executables, William Mulvihill suddenly disappeared and the enhanced network code never found its way in the main BMS patch. A final BMS 1.03 executable version was released at the first day of the year 2004.

### 8.4 SP4 and the F4UT dismantling

The long-awaited complete overhaul of the SuperPAK data files was finally released February 25, 2004. Built on the foundations left by the previous SuperPAK patches, SP4 introduced data complementing the new features introduced by the SP3 executable. In addition, tens of thousands of entries in the various databases were edited, added, reworked and corrected to make SP4 the biggest and most comprehensive database of military equipment ever available in a public flight simulator. After a year of development, the number of changes is huge and, although not as

apparent as the changes introduced with SP3, they greatly increase the immersion factor in terms of graphics and realistic representation of the war environment and its inhabitants.

There were many reasons that caused the SP4 release delay. Among these, the management team and the developers of the F4UT were somewhat less focused on many on-going projects after the release of SP3, which was in essence a development largely focused on the executable. This does not mean that the work stopped there, but when developing the SP3 the data work undertaken was closely linked to the new features to code and the F4UT was a rigid organization because of this single goal. After the SP3 has been released, work on the data had no goals or deadlines to meet which contributed to some indecision about the release date.

There are also technical reasons related to difficulties to improve theatres and databases which caused an additional delay of several months, personal events involving the lives of members of the team and political reasons: the closer the F4UT approached a decision on the G2i issue, the less the programmers seemed to be motivated to produce a work that could be subsequently transferred. The emergence of FreeFalcon and ViperOps projects has also discouraged many to work for what they considered an ungrateful public as the community did not act admirably in terms of expectation and contribution. Every forum publicly accessible seemed to have a ratio of 20 leechers for one single participating, awaiting their next FreeFalcon patch. However, despite all the delays and the few remaining active developers, it is certain that they had been busy for an entire year.

For all these reasons and in addition to the confidential nature of the ViperOps group that had formed at the time, the direction of F4UT considered that the group development should be disbanded. If the ViperOps group had achieved its objectives of debugging the SP3, it would have resulted in a much better product for the Falcon 4.0 community. That was certainly a risk worth to be taken, but the ViperOps project eventually did not reach its objectives.





---

### The Next Group era

---

#### 9.1 G2Interactive gives up

On February 29, 2004, only a few days after the release of SP4, G2Interactive announced that its best interest was to stop all development based on Atari's intellectual property and engage in a new very promising project, "Fighter Ops". Although G2i was able to pay the annual license fee, the company was unable to create a package that met Atari's approval to renew the license. In fact, the backstory was that Atari's management had already cut a deal with a new, more promising company despite "Falcon 4.0 Gold: OIR" being almost ready to be released.

#### 9.2 Cease & Desist to BMS

On May 27, 2004, the BMS team released the second major version of its patch after having worked for several months on the executable, but the community remained uncertain of future events as Atari immediately requested the file to be removed from the BMS server as well as all download mirrors. Although the BMS work was initially known and allowed by G2i, this specific version is regarded as an unauthorized and illegal release. Fortunately, the short online availability of the patch allowed it to be clandestinely spread to the pilots of the community.

The origin of this code banishment was not really the proper act of Atari, but appeared to be an internal squabble of the various groups. Apparently, the core programmers that worked on Falcon throughout its history and who have developed nearly 90% of the utilities to improve it seemed to have reached an agreement with Atari and to be working discretely. Until the revelation of their official identity and their project, the community nicknamed them TNG, or "The Next Group".

### 9.3 FreeFalcon 3

With the development of the BMS patch, new opportunities emerged in the field of 3D models as well as in the data. There was still some work left to port the last SuperPAK patch, but the team was almost entirely lost. It was time to rebuild it on new foundation to take full advantage of the new executable through a close collaborating with the BMS team. Two former data developers from the disbanded F4 Unified Team provided an additional set of small data modification to make SuperPAK 4 more compatible with the last BMS executable.

Meanwhile, the FreeFalcon team decided to include the new work of BMS and to build its next patch on these new foundations. Work on FreeFalcon 3 began timidly with the centrepiece of the patch being the new F-15 Eagle model by Quake, a model banned in the SuperPAK series by a clause of G2i which initially desired to model it in Falcon V.

Over time the foundations began to be erected and FreeFalcon 3 evolved into a new dimension. Indeed, the work of BMS required the addition of a wide range of new data that were previously unknown. With these preliminary developments began a snowball effect in the ranks of the members of the team and shortly after the team returned to a production regime, packaging all new models, skins, and additional data in a single installer. Other members of the community contributed of their 3D models and skins. New members came to help in different areas while the former continued to earn more and more experience. FreeFalcon 3, the result of all this hard work, arrived in mid-July 2004 in a single installer, avoiding the tedious task of installing previous patches, a daunting procedure known in the community as the “Falcon’s dance”.

Curiously, this installer came with a slightly different executable from that of BMS 2, dealing with certain bugs. Released without the prior consent of all coders, this new executable led to disappointment within the BMS team. Despite this, FreeFalcon coders remained in BMS.

### 9.4 High Fidelity Flight Models

Flight models have come a long way since the release of the original version of Falcon 4.0 in December 1998. Surprisingly, they did not get a major overhaul until work began on the SuperPAK series by the F4UT. Headed up by Tom “Saint” Launder, the first set of fully revamped flight models was featured in the SuperPAK 2 released in January 2002. When it came to the F-16 flight model, Saint and Andre “Raptor One” Joseph did their best to model the F-16C Block 52 given the amount of time, data, knowledge, and capabilities they possessed.

Attempting to model reality is rarely something one gets 100% right on the first attempt, and changes were made in the following SuperPAK patches. SuperPAK 4 attempted to model all the different F-16 blocks flown by the USAF, with each block containing updated aerodynamic data from various technical sources.

While working on the flight models for SuperPAK 4, Raptor One came to the conclusion that he simply couldn’t get the accuracy he was looking for in the F-16 flight models by piecing together thrust and aerodynamic data from various sources and tweaking this data by comparing the performance in the simulation to known performance figures. He also realized how much closer he could come to a 100% accurate F-16 flight model by using available flight performance data in conjunction with basic aircraft performance equations. This was the start of something special.

Unfortunately, Raptor One had to stop these efforts when real life issues became the top priority, and in September 2003, “Mav-jp”, a fellow virtual pilot who also happened to be an aerospace engineer, took over the work he started. This was the start of a project that would take up most of his free time for the next year, and the result of this daunting effort showed up in October 2004, with a set of F-16 flight models simulating various F-16 block performances far more accurately than anything that has come before. This package was compatible with both the SuperPAK 4.1 and FreeFalcon 3 patches using the BMS executable. It included flight models from the F-16 Block 15 to the Block 50/52. The differences are subtle, but learning to use the relative advantages and disadvantages of each with their according tactics and flying styles added a whole new dimension to the Falcon experience.

## 9.5 Community divergence

The HFFMs were subsequently included in the SuperPAK 4.2 update release, but interestingly they didn't find their way in the FreeFalcon 3.1 update.

For the HFFMs addon to work as intended, an extensive modification of the drag index of all the weapons in the Falcon4 world was required. In other words, the HFFMs were the best F-16 flight models available but using those led to using less accurate generic flights models for others aircrafts unless an extensive adaptation work was undertaken. FreeFalcon chose an intermediate solution, using good generic flights models for all aircrafts, but less accurate F-16s flight models than the HFFMs.

This fact denotes a shift in the vision of FreeFalcon. While the original SuperPAK series focused primarily on being an accurate F-16 simulator, FreeFalcon had become a more diversified simulator, a true generic “platform” aiming at modelling a great number of aircrafts and including their respective flights models and cockpits. FreeFalcon's vision is to provide the ability to fly just about any aircraft.

## 9.6 CobraOne

After the release of SuperPAK 4.2 and FreeFalcon 3.1 in late 2004, which provided high-resolution textures or solved minor data issues, a big surprise on the site FreeFalcon appeared in early January 2005 with the release of a shining new executable named Cobra 1.0, enhancing the avionics in some areas, solving a few recurring bugs and readding Windows 95 support that was broken by the last BMS executable. More importantly, this executable appeared to be usable with the database of the FreeFalcon branch only.

With the increased difficulty of supporting FreeFalcon with the locked database and the split executable development, BMS decided to support a single version with the flavour based on SuperPAK 4 to ease its future work. As a result, the FreeFalcon team definitely split off from the BMS code and developed its own version of the code with the CobraOne executable. The split proved not to be a popular move within the Falcon 4.0 community, resulting in a big outcry in the community with FreeFalcon being accused of stealing the work of others. Nonetheless, minor versions of this executable CobraOne quickly followed, solving annoying inaccuracies.



## **Part V**

**2005-2008**



### 10.1 Falcon 4.0: Allied Force

On April 26, 2005, Atari announced the Falcon flight simulation franchise was going to return as a new commercial version to be released on June 28. Published by Graphsim Entertainment, licensed from and distributed by Atari, “Falcon 4.0: Allied Force” was developed by an unknown group called “Lead Pursuit” and focused primarily on stability. It was obvious that the new team was TNG, consisting of the first members who worked on to the executable changes in the early history of Falcon 4.0 and that this product came from the continuous development of the ViperOps executable.

A debated possibility is that the core group of ViperOps decided since the beginning to beat G2i in a race on its own commercial ground, the “soon-to-be-released” SP5 never being planned to be freely released and serving only as a smokescreen to hide the real objective of the ViperOps group. Right after the SP3 code transfer to G2i, ViperOps members worked furiously to win Atari’s favour, and in doing so to influence Atari’s decision not to allow the release of Falcon 4.0: OIR. ViperOps seemingly succeeded in convincing some people at Atari that they possessed a better “next version” of Falcon 4.0 than the one G2i had prepared. When Atari sided with them, G2i’s shot was scuttled and the door was open for Falcon 4.0 Allied Force.

Objectively, “Falcon 4.0: Allied Force” seemed to be a logical extension of the SuperPAK series, with the same focus on stability and overall quality, instead of adding visual additions and half-finished features. Falcon4: AF is somewhat a rationalization of what the community knows, for example by removing the ability to fly any kind of aircraft with the avionics of the F-16 that results in a myriad of poorly simulated aircrafts. The product of Lead Pursuit is a (large) step back in many areas where the work of the community had made great progress while greatly improving other important issues, such as a much more stable multiplayer network code and the inclusion of the Balkan theatre in the default install.

This new commercial release would have been welcomed by the entire community, did all the

latest freely given contributions by community members not ended up in F4:AF. Also, similarities of the graphic engine and network improvements tend to show that part of the BMS code was merged in this commercial release.

Moreover, unless additions come from themselves, LP is very conservative on data changes or implementation of new systems by members of the community. As the group expect to develop full time the next iteration of the Falcon series on the basis of the financial income generated by the sales of F4:AF, it claimed it will vigorously defend its intellectual property, including any modification or redistribution of any portion of Falcon 4.0 and Falcon 4.0: Allied Force, thus directly threatening other unofficial groups.

## 10.2 OpenFalcon

On July 29, 2005, the OpenFalcon group which evolved for some time underground decided to reveal itself. A few months earlier, after the announcement of G2i giving up Falcon 4 Gold: OIR development, the few lasting F4UT data developers recreated a new development group, aiming to continue the F4UT SuperPAK series by incorporating the third major version of the BMS executable in a single installer add-on. During this process it was naturally decided to go a step further and produce the most fabulous Falcon patch to date. This add-on would have taken the name of OpenFalcon 1.0 and was then in beta. Due to the release of “Falcon 4.0: Allied Force” and the threat of legal action, the group decided to respect the license and not to publicly distribute its project to the community. However, the underground work of the OF team continued.

OpenFalcon was formed with the intention to open the mysterious doors of the development by providing tutorials in the forums, while developers would have been available to help and guide anyone wishing to participate in development. New developers would have the opportunity to climb the ladder of development and management within the team. The OpenFalcon strongly believed that the community is Falcon, so it aimed to give the opportunity to anyone to contribute. The OpenFalcon website with its download area would provide all the necessary tools to the community members willing to develop or needing information related with Falcon 4.0 improvement.

As the work of OpenFalcon gathered talents from BMS, the F4UT team and the remaining members of the RPG, this version appeared to have the opportunity of becoming the new reference. An ever realistic avionic and a much more optimized network code seemed to be worked on and progressing well, as shown by a few released Internet videos.

On August 18, 2006, after more than a year of work on this very promising patch, the leak of the beta version 4.1 of OpenFalcon, dated April 23 of that year appeared on the peer-to-peer network. Although this development version is far beyond anything that the community has known in terms of realism and avionics, it is obviously not reaching the expected level of stability of a final version.

The leak appeared to be due to a virtual squadron that had obtain this version by word of mouth, and which threatened OF team to publicly release the beta version if they couldn't obtain the latest release. As the team did not yield to blackmail, the patch was made available to everyone. The OpenFalcon team was completely disgusted and stopped short the work in progress and closed its website, raising fears within the community that the final version of the patch would never see light of the day.



## 10.3 FreeFalcon 4/Red Viper

To the casual virtual pilot, Falcon 4: Allied Force seemed to be the new benchmark of the general public, but this version could not pretend to become the benchmark as the ultimate version for the real enthusiast pilots.

Looking at the community development, two main lines were emerging, FreeFalcon and OpenFalcon databases becoming more inconsistent with each other over time. By the drastic limitation of the right to modify any Falcon 4 version, LP has hampered the work done by the community and made it illegal to distribute new versions, condemning community version to be developed underground.

It was almost certain that OpenFalcon would not be distributed publicly to avoid legal consequences. The original OpenFalcon team thus decided to start the development of an all new simulation not relying on any part of the Falcon 4 source code to overcome legal constraint. The continuous and parallel development of OpenFalcon would be used as a test bed for the new simulator. The OpenFalcon patch could therefore not be counted in the future of Falcon 4 anymore.

But that was not reckoning that FreeFalcon was decided to risk the legal battle if necessary against Lead Pursuit, since the fourth version of their patch with a new version of the executable was publicly released in 2007 and distributed via peer-to-peer. This version of FreeFalcon nicknamed RedViper put on the forefront ever more beautiful and complex 3D models, further data work, a completely new UI, improvement in the weather and particle system and new features through modifications of the executable, bringing also important enhancement in the graphic engine.

Following this surprise announcement, the latest OpenFalcon 4.3 version was published in the very same way only a few days after as a cascading effect. This new leak could be presumably attributed to one of the OpenFalcon developers, to the delight of virtual pilots from around the world.

## 10.4 GlobalFalcon

Upon availability of the latest version of OpenFalcon, a volunteer effort was organized within the community to finalize the OpenFalcon 4.3 patch. Grouped under the name "GlobalFalcon", the work of this independent group from the original OF team was mainly based on the addition and corrections of data, models and anything that could be corrected and improved without modifying the source code.

These new volunteers found an agreement with original team in order to keep the original name of the patch. Soon, an improved OpenFalcon 4.4 version appeared, including a few data patches that had not been implemented in the latest version. On August 15, 2007, the more ambitious version 4.5 returned the disabled weather system with a few hex edits and benefited from a significant FPS improvement by turning off the executable debugging options. Although not considered as non-finalized, version 4.6 fixed several bugs on the cockpit textures and was made available on May 18, 2008. On December 25, 2008, ten years after the release of the original product, OpenFalcon 4.7 completed these cockpit textures improvements while providing a large number of changes, including an updated tactical reference section with numerous photographs, new smoke and lures effects and some improvements to the Eurofighter Typhoon and Mirages aircrafts.



**Part VI**  
**2008-2011**



### 11.1 Skunkworks

While having released a dozen of stabilisation patches for F4:AF, LP was being very discreet about the advancement of their next commercial product, the only published news on the official website in 2009 being a best wishes for the new year. However, the website definitely turned static as those were not repeated again, and in 2010 the Texas based Lead Pursuit Inc. definitely ceased to exist, as confirmed by the online CV of the creator and main leader of LP.

After the death of Lead Pursuit, the most effective effort to breathe new life into Allied Force was brought out by a few individuals within the Skunk1 Industries group. Although not aiming to be compared to OpenFalcon and FreeFalcon, the Skunkworks patch tried to make Allied Force a more viable option, adding skins to models without skins, updating the Tactical reference and working out data bugs without affecting the existing installation. While not reworking any source code, this vast enhancement to Allied Force was warmly received by the Allied Force users. The development of the SkunkWork patch was however discontinued in early 2011, Falcon 4: Allied Force being so closed that any further development was logically a dead end in comparison with the other available branches.

### 11.2 FreeFalcon 5

For its fifth major release, FreeFalcon preannounced more new finest 3D models, further work on the executable and important data improvement, as well as the rework of many other aspect of the simulator. Continually delayed during the year 2008, the greatly expected changes were still not available at the end of the same year. FreeFalcon 5 was eventually released on February 27, 2009, more than 2 years after the previous FreeFalcon patch. This period was recognized as being much too long by the FreeFalcon team as its objective had always been to create an update of the patch at least once a year.

It was acknowledged that this delay was due to several internal reasons that would not be disclosed to the community at that time. Although this fifth version of FreeFalcon contained an extensive amount of new data and 3D models, it is also recognized that some portions of the new code were far from being complete, in particular the multiplayer code that wasn't working as well as in the previous version and that desperately needed to be corrected.

At the same time of the official announcement, a call for contributors was launched. The team was looking for people understanding the underlying mechanics of the campaign engine, having interest in creating terrains and textures, or being experienced in C++. In others words, FreeFalcon was looking explicitly for executable developers. It seems that tensions between the main team and Red Viper developers had led to a split within the team followed by the departure of the Red Viper executable coders, letting the network code in a bad shape and making the future development of FreeFalcon at least uncertain.

The patch having not kept all of its promises, it was somehow a great disappointment among the virtual pilots. On a side note, it seemed that fear of being copied has led the FreeFalcon to crypt the database, making the use of modding tools unusable at some extend.

### 11.3 DarkFalcon

In the meantime, a few videos and screenshots released on the Internet indicated that work on the stopped OpenFalcon project continued. A new and much more discreet team seemed to have taken over the development of the version regarded as ultimate by many. However, no one knew whether this work would be one day available to the general public and this version was unofficially nicknamed "DarkFalcon" by the community.

On February 21, 2009, a first explicit announcement was made by one of the oldest developer of the BMS team in the most active forums of the Falcon community. After the dismissal of the OpenFalcon development group, several developers were eager to continue their work and some core developers formally regrouped under the BenchMarkSims banner. This time, the executable was locked and testers required an activation key, thus avoiding the risk of a new unauthorized leak.

**Part VII**  
**2011-2017**





### 12.1 BMS 4.32

September 4, 2011, will be remembered as a major milestone in the Falcon history. Eight years after their initial beta release in September 2003, the other remaining community development group revealed its new mod “BMS 4.32” to the general public with a presentation video and a completely new website.

Officially renamed “Falcon BMS”, years of time and effort have been put into this release, adding still more improvements, new features and enhancements to Falcon in the meanwhile. The work accomplished is stupendous, and the professionalism involved in this long awaited release brought back some of the same excitement the old MicroProse developer’s notes gave thirteen years before.

Rejoined by the so-called “Red Viper” coders, BMS has worked on an array of features, some of which are simply jaw dropping. With a changelog stated as being more than 1500 pages long, a few articles published along the release highlight the major features and surely help to appreciate how difficult their implementation was, how long it took to get it right and how detailed it is.

Some of those features include a full DirectX 9 converted graphic engine with new lighting effects and shaders, a new terrain engine, multiplayer code improvements, advanced flight modelling believed to be unprecedented in any public flight simulator, accurate weather and environment modelling, improvement in artificial intelligence, upgraded avionics with the latest non classified information, a reworked sound engine, new airfields, a new fully functional 3D 6DOF cockpit, a completely reworked user interface and much more.

Lastly, the EULA distributed with the release and the fact that the database is open for editing illustrates the desire of the BMS team to have as much community involvement as possible while still maintaining a fair and reasonable amount of quality over any official release, and at the very same time attempt to respect all the artists and developers.

Although FreeFalcon seems to include a more extensive set of 3D models and deeper dynamic campaign scenarios, there is little doubt that Falcon BMS is much more stable and bug free and that it will provide the greatest base for the development of subsequent versions in the next decade.

### 12.2 FreeFalcon's remarkable history

Recognizing a unified work between both groups is impossible, as the views of the developers diverge on many aspects, FreeFalcon claims that it will continue to push the limits of Falcon in all areas of potential development in the many years to come, even though the group acknowledges that FreeFalcon can't compete directly with Falcon BMS. Released in April 2012 under a new management team, FreeFalcon 6 seemed to be not much more than a repackaging of the previous work and theatres in a single installer. In regards of the new possibilities offer by the new BMS executable, the survival on the long term of FreeFalcon was somewhat questionable.

Following what seemed to be a power outage of the FreeFalcon server, the answer of this wondering came out on the 16th of January, 2013. Written on behalf of FreeFalcon team by Cobracab in the BMS forums, the "FreeFalcon's remarkable history" reviews the creation of the group, describes the early days of the group and the effort of its most prolific members, the relationship between BMS and FreeFalcon in the dark G2Interactive commercial era, and ultimately outlining the flourishing time of FreeFalcon releases when BMS disappeared for a while. With a strong fan base, strong development and strong leadership, FreeFalcon provided truly astoning artwork and the ability to fly as many aircraft as possible with as great detail as could be allowed. But suddenly and without prior notice, FreeFalcon faded away.

According to the official statement that was later published, the time when the main members felt that the group had nothing more to contribute to the community had come. The time, energy and costs to maintain the website and server no longer served the community best interests.

The development process reached a point where it was unable to move forward in a way that would provide the meaningful advances that the community expected. While productive, theater development lacked from significant progress because of an important shortcoming of active contributors. More importantly, the main code development was halted due to the loss of the current source code, the team being unable to develop a replacement allowing current theaters to work properly, or to fix crucial areas such as code stability, improved multiplayer, refueling and AI. Additionally, the lack of contributors to core material like models, skins, flight models, terrain tiles, campaigns and data accentuated the very slow release process.

Lastly, the official statement invited everyone to put their eyes on BMS development and its very talented, smart and energetic group of people who have made it their mission to continue seeking excellence and take the Falcon community to the future.

### 12.3 FreeFalconOSP

However, a few days later only after what could be one of the lowest days in the Falcon history, some of the individuals of the now defunct FreeFalcon team leaked an older version of the code in a very controversial move. The "FreeFalcon Open Source Project" hopes to build a new open source community on the basis of the old FreeFalcon codebase.

Despite its name, FreeFalconOSP was never granted permission to use the name and logo of FreeFalcon, and the code was publicly made available on GitHub without any prior consent of the legal owner or of any of the previous developers. Despite the code having been freely available to anyone for a few months, this attempt does not seem to have gathered any momentum and the success of that endeavour remains to be seen. In all aspects, this is the end of FreeFalcon as we knew it.

## 12.4 BMS 4.33

After several intermediary bugfixes releases, the next major BMS version landed on October 30, 2015. The work achieved in BMS 4.33 the past two years seems again incredibly outstanding and polished, with the official trailer putting in the spotlight a wide range of new features and improvements.

Besides F-16 model improvements, changes include new cockpits for all F-16 variants and other aircraft, such as the F/A-18 which becomes the backbone of carrier operations and the AV-8 Harrier with fully working V/STOL capabilities. As expected, improved avionics and new weapons are also modelled, besides enhanced radio comms features which especially implement a new radio signal propagation model for more realistic radio sound effects.

The war environment is also visually enhanced with new terrain textures, autogenerated trees and grass, new ground unit, ship and aircraft models. A dynamic weather system with multiple cloud layers completes the improved ground war with new search radars, SAM fire control and launch improvements. With an ever improved multiplayer code and numerous other enhancements, this version proves again that BenchMarkSims exceeds expectations and stands by its reputation.

## 12.5 The legal agreement

On January 21, 2013, Atari SA sought bankruptcy protection because of continuing pressures upon the company as well as difficulty finding investors. Over 100 classics games from the Atari game right assets, including the Falcon franchise rights, was purchased by Tommo Inc. from the Atari bankruptcy proceedings on 22 July 2013.

On January 29, 2016, the forum thread for accessing the 4.33 install materials has been suddenly removed from public view. The new owner contacted the BMS group pointing out that references to Atari being the owner of the Falcon 4 rights are no longer correct and also asked for temporary removal of the links to the BMS installer while licensing issues were being discussed. BMS cooperated with those requests in order to reach an legal agreement with the new owners.

It was on March 23, 2016, that the BMS team announced that an agreement with Tommo Inc. has been reached and that this legal agreement would allow to resume making Falcon BMS community add-on releases now and for the foreseeable future with entire approval from Tommo Inc. While it has always been the BMS team's approach that Falcon BMS is an add-on for use with licensed copies of the original Falcon 4.0 game, the primary element of the agreement with Tommo is that BMS reinforces this principle more strongly, with the installer now checking that a complete copy of the original Falcon 4.0 game is correctly and completely installed on the system. While obtaining an hard-copy of the original Falcon 4.0 is increasingly difficult and can only be achieved by private

sale or eBay, the copies purchased from Steam (as made available there in January 2016) can also be used as a viable and legitimate source for Falcon 4.0 copies.

After years of residing in the grey legal areas, this was a good day for the Falcon community as it provided a solid legal foundation on which to build future improvements in the game that is so cherished by the entire community.

## 12.6 Falcon as today

Since its initial release in December 1998, Falcon 4.0 has been popular among military simulator pilots due to its dynamic war campaign engine, highly detailed aircraft avionics and multi-player capabilities. Empowered by the leak of the source code in April 2000, continual development of the software by community members has allowed Falcon 4.0 to live on years after the MicroProse studios were shut down and official development of the simulator ceased.

Through its history, the patches have made a wide range of additions, improvements and sometimes even complete rewrite of parts of the original program, as such as we now have a Falcon which can't be compared with the original Falcon 4.0. Falcon is a simulator that has become a true benchmark, a reference and probably the combat simulator the most successful of all time.

What the community has been able to achieve is without comparison with what a company could provide with a classic business model in a reasonable timeframe. On the basis of the financial income generated by the sale of F4:Allied Forces, the attempt of Lead Pursuit to develop in fulltime the next instalment of the Falcon franchise did not result in any product on the market. Fighter Ops was certainly a little too ambitious although very promising at first, as its developers ended up in focusing on the training aircraft T-38 Talon only instead of the modelling of the F-16, A-10 and F-15 in different versions. Even though, the development seems to have reached a stall and the outcome of this new franchise is not expected before long despite having been started nearly a decade ago. The DCS series engendered by Eagle Dynamics and its payware add-ons business model looks relatively successful, but what appears as a serious alternative crucially lacks a dynamic campaign engine. Same goes for the "Seven-G" simulator, a realistic F-18 simulator still in development that does not seem to be built around a complete engine war, core feature of Falcon which still stays unmatched as of today.

Despite its internal boundaries established by its creators and the foundations limits inherent to its old age, we can be certain that Falcon will continue to be shaped by its community during several years. In fact, the community that developed around Falcon 4.0 is an unprecedented phenomenon in the world of flight simulators. Never before - and maybe never again - so many talented people have worked so hard to correct and expand a program by dedicating their contribution to improve the virtual experience of all the community.

Even with the news that Falcon was bought, sold or developed under license, the community continued to develop what is now Falcon, and the Falcon community hopes for what Falcon will be tomorrow. Whatever happens, we can nonetheless stay assured that enthusiasts who worked on Falcon for several years can only continue to push the boundaries of the military flight simulation much, much forward.