

## **History**

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WRITTEN BY		July 20, 2024	

**REVISION HISTORY**

NUMBER	DATE	DESCRIPTION	NAME

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## Chapter 1

# History

### 1.1 Main

- Development History of FMS -

```
1.0
2.0
3.0
```

### 1.2 1.0

```
1.0 3-Nov-89 First version ever 5176 bytes (4424 without symbols hunk)
~~~~~
\textdegree{} Written by Matt Dillon.
```

### 1.3 2.0

There was a problem with 2.0, which I didn't foresee until after I released it. Apparently, Matt Dillon released a 2.0 version himself, which was not spread as much as v1.0, and as my work was based on the 1.0 disassembly, Matt's 2.0 was better. Maybe he fixed some bugs, but I know for sure, that he improved his algorithms, as the performance of his 2.0 matches, and sometimes beats my 2.0. Not so much crap code was generated, but still, some unused code exist ;^)

Because of this confusion, some people thought my version may be a fake, or worst still, a virus! I ensure you, that no such code exists, and my coding was a genuine release.

2.0

```
Matts Version 16-Apr-90 2684 bytes
~~~~~
\textdegree{} I'm unsure what exactly Matt changed as I don't have ↔
the
history file, just the actual device.
\textdegree{} Compiler changed, better code generated.
```

\textdegree{} Uses registers instead of stack-based args.

My version 10-Apr-96 3992 bytes (3832 bytes-68020+ version)  
 ~~~~~  
 \textdegree{} Disassembled, and rewritten in Assembly.  
 \textdegree{} Removed Data hunk, so all variables can be addressed  
     using PC relative addressing modes.  
 \textdegree{} Removed duplicate routines.  
 \textdegree{} Made as PC relative as possible (Smaller executable)  
 \textdegree{} Removed possible odd-address violations.  
 \textdegree{} Moved some routines inline.  
 \textdegree{} Replaced Dice-C MovMem with a call to Exec/CopyMem()  
     This will be faster, esp. if CopyMemQuicker is running.  
 \textdegree{} All jumptables, and common called routines have been  
     aligned to 32bit boundaries.  
 \textdegree{} Include 68020+ version.  
 \textdegree{} Various obvious optimisations.  
 \textdegree{} Converted some standard C routines to use register ↔  
     based  
     arguments instead of stack-based args.  
 \textdegree{} All Jump-tables are now word-based.  
 \textdegree{} ExtFunc entry of jumptable was missing, Now added, ↔  
     for  
     future compatability.  
 \textdegree{} Uses a BSS area at the end of Code hunk for smaller  
     executable size.

## 1.4 3.0

3.0 16-Jun-96 bytes (2232 bytes-68020+ version)  
 ~~~~~  
 \textdegree{} Rebuilt using Matts 2.0 device, as this has better  
     algorithms, and may have fixed bugs I don't know about.  
 \textdegree{} Jump table is now byte-based, for speed.  
 \textdegree{} Merged all into one hunk, added as much PC ↔  
     relativity as  
     possible.  
 \textdegree{} Removed duplicate routines.  
 \textdegree{} Moved some routines inline.  
 \textdegree{} Common called routines aligned to 32bit boundaries.  
 \textdegree{} Included 68020+ version.  
 \textdegree{} ExtFunc entry of jumptable was missing, Now added, ↔  
     for  
     future compatability.  
 \textdegree{} Uses a BSS area at the end of Code hunk for smaller  
     executable size.

Note, I have only added in-depth optimisation to the BeginIO function as the rest of the device code is only executed at open/close time, which is pretty pointless optimising. I may optimise it for 3.1, but there won't be any speed gains, but maybe a smaller executable.