

FEdit v1.01

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As of September 2011, FEdit v1.01 is released to the public domain. Below are some instructions for how to use FEdit together with the xroar emulator.

- Download the ROM files for a Dragon 64 (IC17) and SuperDos E6. The files can be found at <http://archive.worldofdragon.org>.
- Rename the two ROMS to d64_1.ROM and dplus49b.ROM and start xroar.
- Inside xroar, press CTRL+L and select FEdit.dmk
- Finally, type LOAD"FEDIT.BIN" followed by EXEC

CHAPTER 1 - INTRODUCTION

FEdit is a text editor and differs slightly from an ordinary word processor. The reason why I started writing this editor, was that I needed a tool for viewing and editing my PC text files. I also needed the whole 256 IBM character set. Since I had never heard about any such program for the Dragon, I started writing FEdit. The main features are:

- IBM's international character set (Code Page 437).
- Up/Download facility via RS-232 (Dragon 64).
- 64*23 characters on screen at once.
- Scrolling which enables 255 columns.
- Keyboard repeat / delay time control.
- Fully menu driven commands.

- Fast. Written entirely in assembly.
- Block move / copy / delete commands.
- Search and Replace functions.
- Page Up / Page Down / Line End keys.
- A file selector when loading files.

I think a lot of Dragon users with IBM compatible printers, will love this editor. Now it is possible to have all the 256 characters in your files. The Dragon is not famous for it's huge keyboard, but still I managed to squeeze all the function keys into the Dragon keyboard. To access the extended characters, I have decided to use the same method as on PC's. Press down the CLEAR key. Then the cursor stops flashing and the editor waits for you to type in three numbers. These numbers build up the ASCII value of the character you want. Now you can for instance typeset mathematical formulas like this one:

$$\int_2^n x dx \quad \text{or} \quad y = \sqrt{x}$$

The integral symbols are available on CLEAR 244 and CLEAR 245 and the square root on CLEAR 251. Please note that you always have to type three numbers, even when the first one is a zero. For instance A can also be typed as CLEAR 065.

For convenience the enire IBM character set is shown in Table 1. It is always handy to have a copy of such a list while typing, so if you don't have one in a book, you can print this one. (Provided you are the lucky owner of an IBM compatible printer and have set the correct DIP switches.)

Some of the first characters (0-31) are not shown, but given common names. Like BE for BELL and BS for BackSpace. I didn't include these in the table because they would mess the whole thing up when printed.

As a Norwegian, I use a lot of the international characters. Since all the other editors/word processors I have seen on the Dragon don't "care" about the non-English users, I think and hope FEdit will be popular among users who need special alphabets which include for instance æ, ø, å, ä, ö etc.

000	NUL	032		064	@	096	'	128	Ç	160	á	192	L	224	α
001		033	!	065	A	097	a	129	ü	161	í	193	⊥	225	β
002		034	"	066	B	098	b	130	é	162	ó	194	⌊	226	Γ
003		035	#	067	C	099	c	131	â	163	ú	195	⌋	227	π
004		036	\$	068	D	100	d	132	ä	164	ñ	196	—	228	Σ
005		037	%	069	E	101	e	133	à	165	Ñ	197	⌈	229	σ
006		038	&	070	F	102	f	134	å	166	ª	198	⌋	230	μ
007	BEL	039	'	071	G	103	g	135	ç	167	º	199	⌋	231	τ
008	HS	040	(	072	H	104	h	136	ê	168	¿	200	⌋	232	Φ
009	HT	041	)	073	I	105	i	137	ë	169	¬	201	⌋	233	Θ
010	LF	042	*	074	J	106	j	138	è	170	¬	202	⌋	234	Ω
011	VT	043	+	075	K	107	k	139	ï	171	½	203	⌋	235	δ
012	FF	044	,	076	L	108	l	140	î	172	¼	204	⌋	236	∞
013	CR	045	-	077	M	109	m	141	ì	173	¡	205	=	237	φ
014	SO	046	.	078	N	110	n	142	Ä	174	«	206	⌋	238	ε
015	SI	047	/	079	O	111	o	143	Å	175	»	207	⌋	239	∩
016		048	0	080	P	112	p	144	É	176		208	⌋	240	≡
017	DC1	049	1	081	Q	113	q	145	æ	177		209	⌋	241	±
018	DC2	050	2	082	R	114	r	146	Æ	178		210	⌋	242	≤
019	DC3	051	3	083	S	115	s	147	ô	179		211	⌋	243	≥
020	DC4	052	4	084	T	116	t	148	ö	180		212	⌋	244	/
021		053	5	085	U	117	u	149	ò	181		213	⌋	245	J
022		054	6	086	V	118	v	150	û	182		214	⌋	246	÷
023		055	7	087	W	119	w	151	ù	183		215	⌋	247	≈
024	CAN	056	8	088	X	120	x	152	ÿ	184		216	⌋	248	°
025	EM	057	9	089	Y	121	y	153	Ö	185		217	⌋	249	•
026		058	:	090	Z	122	z	154	Ü	186		218	⌋	250	·
027		059	;	091	[	123	{	155	ç	187		219	⌋	251	√
028		060	<	092	\	124	|	156	£	188		220	⌋	252	ⁿ
029		061	=	093	]	125	}	157	¥	189		221	⌋	253	²
030		062	>	094	^	126	~	158	ƒ	190		222	⌋	254	■
031		063	?	095	_	127		159	f	191		223	⌋	255	

Table 1: THE IBM INTERNATIONAL CHARACTER SET (CODE PAGE 437).

I will end this introduction chapter by listing all the function keys in FEdit. I have chosen key combinations which I find easy to remember:

Up one line	- The up arrow
Down one line	- The down arrow
Up one page	- Shift + up arrow
Down one page	- Shift + down arrow
Goto end of line	- Shift + right arrow
Backspace	- Shift + left arrow
Delete char on cursor	- Clear + left arrow
Insert on/off toggle	- Shift + @ (at,alpha)
To enter the menus	- Break
International char	- Clear + ASCII value
Caps Lock	- Shift + 0 (zero)

Well, that's the "hot" keys. The rest of the manual is written in separate files all with the DOC extension. Chapter two is in the file MENU.DOC. This DOC file describes how to use the commands in the menus.

CHAPTER 2 - THE MENUS

This chapter will describe all the menus in detail. The menus are activated by pressing the BREAK key. You will notice that the menu bar will change from showing the line and column number, to a list of keywords. Each keyword describes the commands in the menu below. The keywords are in order:

FILE - EDIT - KEYS - COMMS - PRINT - OTHER

Chapter 2.1 - THE FILE MENU

Load Text
Save Text
Load Block
Save Block
Status Info
Quit

2.1.1 LOAD TEXT

When choosing this command, the first one in the FILE menu, a window will appear in the middle of the screen. Inside this window a directory of the disk in the current drive will be displayed. The first name in the list is inverted. The first name in the directory is always the default name. To choose another filename, simply move the inverted rectangle up and down using the arrow keys. When you have put the rectangle on the file you want to load, press the ENTER key. After a few seconds, the text will appear and the cursor will be flashing on the first character in the text. Since the file selector window can only display nine names, the last name will always be: "More files ...". If you choose this one, the next nine filenames on the drive will be displayed until there are no more names in the directory. If you choose the "LOAD TEXT" command by accident, choose "More Files" until there are no filenames left. FEdit will then return to the text already in memory. PLEASE NOTE that when loading a file, the text in memory will be destroyed! Also note that because of a bug in DragonDos/SuperDos, the editor will not always be aware of a disk-swap. This is because the DOS has it's own directory in memory. Should this happen, just choose "MORE FILES" until you return to the text, and then try again. Then everything should be OK.

2.1.2 SAVE TEXT

Just as with the previous command, a window will appear when choosing this command. In fact, nearly all the commands display a window. In the window you will be asked for the filename and the extension. Press ENTER after the filename and ENTER after the extension, and the text in memory will be saved to the current drive. Be sure that your disk is formatted and have enough free space. You may press the BREAK key anytime when inserting both filename and extension, and this will take you back to the text without saving anything.

2.1.3 LOAD BLOCK

The LOAD TEXT command erases everything already in memory before it loads the new text. Sometimes you might be interested in inserting one file into another. That is what the LOAD BLOCK command is used for. The text you want to load, will be inserted at the cursor. The new text will be marked as an ordinary block, (See chapter 2.2.2) with white characters on a black background. If the two texts are too large to fit into the buffer, you will be told and nothing will happen.

2.1.4 STATUS INFO

This command will show you how many lines, words and characters there are in your text. If you have defined a block, the same information will be given for that one. The last line in the window tells how many bytes are left in the buffer. You should use this command frequently when working with large files, otherwise you could experience a "BUFFER FULL" message in the middle of a BLOCK COPY command for instance. If you have very few bytes left in the buffer, split your document in several smaller files.

2.1.5 QUIT

This command doesn't need much explanation. A window will be displayed with the words "Do you really want to quit ?". Then choose YES or NO with the up/down arrow keys. If you choose NO, you will return safely to the text. If after choosing YES and when back to the DOS you type EXEC, you'll return to FEdit, but the text is erased. This is an effective way to clear the buffer and start another document.

Chapter 2.2 - THE EDIT MENU

Delete Line Block Begin Block End Move Block Copy Block Delete Block

2.2.1 DELETE LINE

When choosing this command, the line at the cursor will be deleted. If however, the cursor is at the end of a line, the command will have the same effect as DELETE character (CLEAR + left arrow). Be absolutely sure what you are doing when choosing DELETE LINE, because there is no UNDELETE function in this editor.

2.2.2 BLOCK BEGIN & BLOCK END

The delete line command is not suited for deleting a large number of lines, but the BLOCK commands are far more effective. A block is a piece of your text which can be copied, saved or moved to any other place in your text. The block can even be saved to disk or printed. This is useful when you only want to print a small part of a text file, for instance the IBM Character Set in Table 1. You mark the beginning of the block by placing the cursor on the character you want as the start, and then choose BLOCK BEGIN. Then place the cursor at the end of the block and choose BLOCK END. The new defined block will be displayed with inverted characters. When printed, the text will of course be normal black on white characters.

2.2.3 MOVE BLOCK

This command move the block to the place where you have put the cursor. The text at the original position will be deleted. Note that you cannot move a block into itself.

2.2.4 COPY BLOCK

If you have defined a block, this command copies the block to the position at the cursor. The copied version of the text will then be chosen as the new block. If you regret, simply choose DELETE block (see 2.2.5). Please note that you cannot copy a block into itself and if you try this, nothing will happen. If the buffer becomes full during a Block Copy command, you will be told and nothing will happen.

2.2.5 DELETE BLOCK

This is the last command in the EDIT menu, and it should be chosen with caution. The whole block will be erased from the buffer, and it is not possible to get it back. When the command has done its job, there will be no block selection anymore. If you check with the Status Info, you will see that the buffer is now larger than before.

Chapter 2.3 - THE KEYS MENU

Repeat Rate
Delay Time
Key Click

2.3.1 REPEAT RATE

This command can change how many characters per second your keyboard shall repeat. The values you may choose among are: 40 - 30 - 20 - 10 - 5. 40 characters per second is the default value. Please note that these values are only correct when KEY CLICK is off. When the window with the values has appeared, use the up/down arrows to choose a value, as usual.

2.3.2 DELAY TIME

If the keyboard should start repeating immediately after a keypress, it would have been very difficult to write. Therefore you need a delay before the keys repeat. The values you may choose among are (in seconds): 1.00 - 0.75 - 0.50 - 0.25 - 0.00. The default value is 0.50 seconds. I have included the 0.00 seconds option, since this is sometimes useful (for scrolling).

2.3.3 KEY CLICK

This command lets you set the keyclick option on or off. With keyclick on the repeat values will be slightly modified, typically 2-3 characters per second. Personally I prefer to have this option off, and this is also the default value. I know a lot of Atari ST owners love the keyclick, so perhaps some Dragon users will like it too ?

Chapter 2.4 - THE COMM MENU

Baud Rate
Download Text
Upload Text

Before I start describing these commands, I have to mention that they are for the Dragon 64 only. I know that it is possible to "upgrade" the Dragon 32 with a RS-232 port, but I don't know if this is compatible with the port on the '64. So you need a '64 to use these commands. The reason why I have included these functions at all, is that I own a PC in addition to the Dragon, and I needed a tool for transferring text files between them. I already had such a program on the other machine, but none on the Dragon. (NB FEdit doesn't use the handshake codes, XON and XOFF, so you need a communication program on the other machine with a buffer of app. 12 Kilobytes.)

2.4.1 BAUD RATE

You may choose among four baud rates: 300, 600, 1200 and 2400 baud. 1200 baud is the default. The other parameters on the port are: 1 start bit, 8 data bits, 1 stop bit and no parity bit. These parameters are locked and cannot be changed. Since most communication programs support this configuration, this should be no problem.

2.4.2 DOWNLOAD TEXT

This command will download text through the RS-232 port. The "incoming" characters are stored at the cursor position. Please note that these characters will overwrite what is already in the buffer. So it is best to place the cursor at the end of your text, download the new text, define it as a block and then move it to the correct place. To stop the DOWNLOAD mode, press the BREAK key.

2.4.3 UPLOAD TEXT

This command sends the characters in the buffer through the RS-232 port to another machine. Stop the function with the BREAK key. When there are no more characters in the buffer, you'll return to the text. If you have problems with the pin-configuration on the port, follow this setup: couple the CTS and DTR pins together. Leave the -12V and +12V pins open, and only use the TX DATA, RX DATA and GROUND pins.

Chapter 2.5 - THE PRINT MENU

Print All
Print Block
Linefeed Toggle
Choose Printer
Printer Margin

2.5.1 PRINT ALL

After executing this command, the entire text is sent to the printer. NB: If no printer is ready, FEdit waits until you set your printer on-line. You may stop the printing by pressing the BREAK key anytime. BUT remember, if you choose this command with no printer plugged into the Dragon, it is not possible to stop the command. This is because I use a ROM routine, and this routine hangs up when no printer is ready. (I use JSR \$800F.)

2.5.2 PRINT BLOCK

This routine only prints the marked block if you have one. The comments above apply to this routine also.

2.5.3 LINEFEED TOGGLE

A lot of Dragon owners wrote some time ago to the magazine "Dragon User" and asked why they got double linefeed from OS-9's excellent word-processor Stylograph. The reason is that Stylograph sends both carriage return and linefeed after each line. Most printers require this for one single linefeed, but some older printers do a linefeed on carriage return also. In FEdit you may choose if you want to send both carriage return and linefeed or carriage return only after each line. The default is the same as Stylograph, both carriage return and linefeed. (PS: On newer printers there are often a DIP switch for this.)

2.5.4 CHOOSE PRINTER

Here it is possible to choose between a serial or parallel printer. The default is parallel. The serial option is for Dragon 64 only, since the '32 has no RS-232 port. You choose the BAUD rate in the COMM menu. Some serial printers require a end-of-line delay period. This value is locked to half a second.

2.5.5 PRINTER MARGIN

Very often you would like to have a left margin when printing your letters, docu-

ments etc. It is time-consuming and a lot extra work to add the margin as spaces on every line. With the printer margin command, you may set the margin on any column from 1 to 255. The number tells FEdit how many spaces to add in front of each line. The default is 10.

Chapter 2.6 - THE OTHER MENU

- Search
- Repeat Search
- Replace
- Repeat Replace
- Wordwrap
- Reformat Block

2.6.1 SEARCH

When choosing this command, a window will appear with a flashing cursor. You are asked for the search pattern. When pressing ENTER, FEdit will search for this pattern and if found, the cursor will be put on the first occurrence of the pattern in the text. The entire 256 character set is available for searching. If not found, you return to the position where you executed the command. The search starts from the cursor position and continues to the end of the buffer. NB: The search is case-sensitive.

2.6.2 REPEAT SEARCH

If you want to search for the same pattern a lot of times, it is time-consuming to type the pattern for every search. Instead of doing this, you may choose the repeat search. This will repeat the last search command. Please note that you have to put the cursor away from the pattern already found, otherwise you'll get the same pattern again.

2.6.3 REPLACE

You are asked for the search pattern and then the replace pattern. The replace starts from the cursor position. When an exact match is found, the pattern is replaced by the new one.

2.6.4 REPEAT REPLACE

Just as with the SEARCH command, it is time-consuming to retype the search & replace patterns for every replace if you want to the replace more than once so then you may choose the REPEAT REPLACE command. This will repeat the last replace command.

2.6.5 WORDWRAP

The wordwrap in FEdit is not a stand-alone function. To get a proper wordwrap, you also need the REFORMAT BLOCK command (see 2.6.6.) You may set the wordwrap on or off. The default is on and on the 63rd column. When choosing wordwrap on, you are asked for the column where wordwrap should occur. The old value is displayed, and if you want this, just press ENTER or BREAK. By pressing any other key, you clear the column field, and you may enter the new column (from 1 to 255). When a wordwrap occurs, the last word on the line becomes the first on the next line. Any text below will not be affected. If that text also should be wrapped correctly, the typing speed would have been reduced considerably.

2.6.6 REFORMAT BLOCK

Since the lines below a wordwrap are not affected, the text will contain a lot of short lines. To reformat the text to contain as long lines as possible, use the reformat block command. Since you often don't need all the text reformatted (for instance the address field), you have to define the text you want reformatted as a block. What the command does, is to move all the carriage returns in your block. The maximum line length is given by the wordwrap-coloumn.

CHAPTER 3 - HINTS & TIPS

3.1 INSERT ON/OFF

Just a quick note about Insert On/Off. If you are writing far away from the bottom of your text in insert mode on, the system will be slower than usual. This is because FEdit has to push all characters below for each new character in the text. One way to solve the problem, is to copy a block to where you want to insert something, and then use Insert Off to overwrite. This will operate at maximum speed. NB: Also note that if you are standing at the end of a line with insert off, it is not possible to expand the line. To do this, choose insert on.

3.2 THE SPEED UP POKE

The clock rate on the Dragon can be changed from the usual 0.90 MHz to 1.8 MHz by the famous speed-up poke: POKE &HFFD7,1. FEdit doesn't use this poke, so all the keyboard repeat/delay values are with the Dragon operating at 0.90 MHz. However, if your machine can handle the speed-up poke, then the maximum repeat rate will be 66-67 characters per second, instead of 40. (NB: To switch back to 0.90 MHz, use POKE &HFFD6,1.) Please note that the speed-up poke may damage the 6809 microprocessor.

3.3 PRINTER CODES

Since FEdit is a text-editor and not a word-processor, there are no commands for boldface, underline, italics etc, but since FEdit allows the entire 256 character set to be displayed, you may insert some codes directly into your files. One example is formfeed. Formfeed has the ASCII value 12 (In BASIC CHR\$(12)). Place the cursor on the position where you want a new page to start, and press CLEAR 012. This will insert a formfeed in your text. The same can be done with all other printer codes. On Epson printers Italics can be selected with CHR\$(27)+CHR\$(51). Just insert the following in your text CLEAR 027 CLEAR 051, which will set an Epson printer in Italics. (Please note that when using Italics, you cannot use IBM's extended characters on the printer on some printers.)

3.4 DELETING CHARACTERS

Two key-combinations may be used for this, SHIFT+LEFTARROW or CLEAR+LEFTARROW. SHIFT+LEFT is backspace, the other is delete. By pressing delete, the character which the cursor is flashing on will be deleted, and the cursor will remain on the same position. Backspace will delete the character to the left of the cursor, and the cursor will move one position to the left.

3.5 SPEEDING UP

If the cursor is on the 23rd line of the screen and you press ENTER, the whole screen has to be scrolled. This takes some time. To prevent this you may press the UP-ARROW once and then press PAGE-DOWN (SHIFT+DOWNARROW). (This will only speed-up if you are typing at the end of your textfile.)

3.6 CHANGES FROM V1.00

Some minor typing errors in the manual and the program are fixed up. An extra return/linefeed is now sent to the printer after the last page to prevent the error reported by Raymond Roach in Dragon Update December 1990. Lots of thanks to Stephen Knight for helping me with the manual.