artisan basic

# introduction

ARTISAN BASIC is an extension of MSX BASIC. It is targeted at MSX1 machines with 64Kb memory and a disk system.

The idea for development came after competing in MSX BASIC competition.

<https://www.msxblog.es/concurso-msx-basic-9o-edicion/>

I have always felt that the capabilities of the machine could have been better exploited under BASIC.

The main areas that ARTISAN extension is focusing on are:

* Extended memory support
* Bitmap operations
* Animation support
* Sound player

Extension loads itself in page 1 at address #4000 and provides several new commands. Following sections will describe main functionality groups and details about each new command are given later. Refer to the table of contents.

|  |  |  |
| --- | --- | --- |
| Version | Date | Description |
| 0.8 |  | Initial version |

# extended memory support

Standard MSX BASIC allows access to 32Kb of memory. In 64Kb systems there is another 32Kb hidden beneath ROM in pages 0 and 1. ARTISAN basic allows memory to be copied to and from this upper 32Kb. Additionally copying to and from VRAM can come from and to this upper 32Kb. Commands from other sections that take memory buffers as parameters can read data from this area of memory. There are also a few commands that allow copying data from and to VRAM.

Commands included are:

* FILRAM
* FILVRM
* MEMCPY
* MEMVRM
* VRMMEM

Since ARTISAN BASIC code also resides in this upper 32Kb, not all of it is free for use by programs. Memory map is given below:

Chart

Description automatically generated

ARTISAN BASIC does not occupy any memory below &H8000 allowing BASIC programs to have the same amount of free memory for code and variables as without the extension.