

ScreenShot Management (SSM)

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V1.0

From version 2.5, SHAKER integrates the SSM standard.

This standard allows an emulator to generate screenshots on demand of the executable code.

The principle consists in using a "neutral" opcode not used by the Z80A but which will be identified by an emulator.

This management can be conditional (or compiled on purpose during tests).

There are 79 Z80A instructions prefixed by ED.

177 "neutral" non-active codes can therefore be used after an "ED" prefix code.

The SSM system uses two distinct principles.

The first is a stand-alone SSM principle that uses 175 of the available codes.

The second uses the 2 remaining codes and works only in conjunction with the management of a CSL file (see second standard).

SSM AUTONOMOUS

The following sequence of bytes represents an SSM request for the emulator: #ED #LL #ED #HH (# indicates a hexadecimal value).

#LL and #HH can each be :

- between #00 and #3F (included)
- between #7F and #9F (included)
- between #A4 and #A7 (included)
- between #AC and #AF (included)
- between #B4 and #B7 (included)
- between #BC and #BF (included)
- between #C0 and #FD (included)

When the Z80A emulator processes an SSM request:

- It collects the 2 values LL and HH
- These two values allows to generate a ScreenShot just after reading HH value.

Note:

An SSM code is recognized when 2 consecutive series of ED xx are encountered. For example, if we have ED 3F 00 ED 3E ED 3D , the LL code is 3E and the HH code is 3D.

The 00 (or any other code <> ED) resets the expectation of the 16-bit SSM code.

Image name format required for SHAKER:

<Emulator name>_<CRTC number>_<HHLL code>.<image extension>

The format of the image (and therefore its extension) depends solely on the emulator.

Examples:

CRTC 2, ED E3 ED 02 with AMSPIRIT: **AMSPIRIT_2_02E3.bmp**

CRTC 0, ED DA ED 01 with SUGARBOX: **SUGARBOX_0_01DA.jpg**

SSM SCRIPT

#ED #FE and **#ED #FF** codes are used in conjunction with a CSL type file.

See definition of a CSL file.

#ED #00 #ED #00 is a specific SSM code, used to break a wait_ssm0000 instruction in a CSL file.

See definition of a CSL file.