

Kuper Pragma Files and Environment Files

There are several mysterious files in a typical Kuper directory. Most of these are used to configure the Kuper hardware environment.

The basic Kuper configuration file (**RTMC.env**) holds data about the computer memory environment, address and interrupt settings, and a path to the current data directory.

The RTMC.env file should only be created or changed using the **SETRTMC.exe**, program since there are non-ASCII characters and string formatting is important.

Past this, Kuper uses a series of “pragma” files to control and initialize hardware and software features.

Many of these files contain no data, their mere presence or absence enables or disables a software feature. Other files contain information for specific hardware settings. Note that some of these functions use the same resources (like data channels or serial ports) so they can interfere with each other if you turn on everything. Often, a Kuper directory will contain most of these files with the extension “.off” appended, as disabled placeholders.

Some important pragma files you may encounter are...

K2KI and RTMC16: Tells the software about the presence of a K2001 or RTMC16 hardware card. Baring one of these, the software assumes a legacy RTMC48 hardware card. RTMC16 is now rare since the software no longer fully supports these cards.

KNODADDR: Base address for servicing a Kuper node via one of the secondary high-speed RS422 ports on the K2001 card. Only applicable on the K2001 card

OSC: Trims the exact frequency of the on-board oscillator for applications needing high-precision timing, uses specific arguments.

K2SER: Enables position streaming to an external device via one of the secondary high-speed RS422 ports on the K2001 card. Only applicable on the K2001 card

DA720 and DACADDR: Enable pragma, and base address file, for analog output using an RTS DA720 12 bit D/A card, uses specific arguments.

DMXCARD: Enables DMX streaming function via one of the secondary RS422 ports on the K2001 card. Only applicable on the K2001 card, uses specific arguments.

STILLCAM: Enables a “shutter open” signal on the triggerbit port for digitally triggered cameras. Only applicable on the K2001 card, uses specific arguments.

EXTCOM: Automatically enables external serial control via the COM2 port by invoking screen command line “so1” at startup. Presence only, needs no data.

FIZ: Enables Preston command streaming function via one of the secondary RS422 ports. Presence only, needs no data.

ABSJOY: Enables “hard mapped” serial joystick functions, uses specific arguments.

TCAUDIT: Enables the timecode subsystem. Presence only, needs no data.

PWIDTH: Sets the minimum step pulse width, equivalent to the “mr” command line, uses specific arguments.

LASTIS and MGRGDATA: Default move name and channel select for the incremental save command.

Some other files you may encounter in a Kuper directory are...

RTMC130.exe or RTMC130X.exe: The actual Kuper executable.

DOS4GW.exe: The industrial DOS kernel under which the Kuper actually runs.

B.tab: A machine resource lookup table, not editable, do not disturb.

AXES.set: Default axis setup, not editable, do not disturb.

QUIT.pos, QUIT.set, QUIT.tmp: Axes position, setup and move file, autosaved on exiting Kuper. May be restored with the “utilfiles”/”reload previous quit data” commands.

TEMP.mov: Temporary move file created by invoking “save temp” command; will reload with “load temp” command.

#####.set: People tend to save rig setups in the Kuper directory, most operators append a “.set” extension to make file identification easier.