

MODULE SPECIFICATION

NAME:

MIDAS

FUNCTION:

This is the mainline of the system. It does initialization of system parameters, and contains the main control loop. Display window update, speed control, dial and function key reading, system message displays and calls to the display and simulation routines are done in the loop. The command parser is also contained as an internal subroutine. It parses and executes commands read from the keyboard in command mode. These commands are either executed within the command parser, or external command handlers are called to execute them. A system initialization routine is also called as an internal routine. This initializes display and simulation variables, and calls two other external initialization routines to set up the display and simulation.

CALLED BY:

GMS

PARAMETERS:

none

ENTRY POINTS:

MIDAS, GETOK, MIUPDAT

NORMAL EXITS:

Re-IPL's GMS on halt command from user.

ERROR CONDITIONS:

Exits on bad initialization of display.

INTERNAL ROUTINES CALLED:

COMPARESE: Contains command parser and calls to command handlers. Certain smaller commands (CLEAR, RESET, DEBUG, GMS, GO and END) are handled directly by COMPARSE.

GETOK: (GLOBAL ROUTINE) Parses the command input buffer into tokens, which are returned in a global buffer area (TOKEN).

MIUPDAT: (GLOBAL ROUTINE) Updates display window parameters and polls function keys. Keys 0-7 are used for system control and are handled here. All other keys are free to be used in the simulation. A mask is set to reflect these key hits.

INITSYS: Calls system initialization routines to initialize display and simulation. Puts user in command environment.

EXTERNAL ROUTINES CALLED:

PROSTART, QUERYDYN, PROTERM: PROCRUSTES routines

MIDASBUG, MSBINT, MIDINIT, MISIMINT, MIDISPLY, MIDASIM,
MIFILE, MILOAD MISET, MIMEMM, MISAVE, MIRECL: MIDAS
processors

SEGDELET, MULTIPAC, TYPEOUT, SEGLOAD, SVCCA: GMS utilities

EXTERNAL DATA REFERENCED:

MIDASCB: MIDAS common data area
PROCRUST: PROCRUSTES common data area
BHEADER: PROCRUSTES buffer header
STATREC: MIDAS simulation status record.

STORAGE UTILIZATION:

Dynamic storage allocated for auxilliary status record and
memory page. Automatic storage allocated for saved status
record.

ALGORITHM:

After system initialization, the main control loop is
entered, where window parameters, simulation speed, and
function keys are read. Depending on one of six operating
modes, the command parser/processor is called (COMMAND
mode), the simulation routines and display routines are
called (REAL TIME, NORMAL, and SINGLE STEP modes), or just
the simulation routines are called (DEBUG mode). The loop
terminates on the user set halt flag, and the system is
cleared, dynamic storage freed, and GMS is re-IPLed.