DOCUMENTATION FILE FOR:

KEYS 4.0

A Keyboard Macro Program for AutoCad® Release 12

Written by Richard Livecchi, A.I.A.
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The following describes how *KEYS 4.0* functions as an AutoCad enhancement, how each command works, and how you can easily customize the settings. *KEYS 4.0* comes with the files in the following list:

        ACADKEYS.LSP
        ACADPGP.LSP
        INSTALL.TXT
        KEYS_40.INI
        KEYS_40.LSP
        KEYS_40.WRI
        KEYS_CB.SCR
        KEYS_QPU.SCR
        KEYS_RD.DAT
        KEYS_RD.SCR
        REGISTER.TXT
        README.KYS

If you did not receive all of the files on the list, you can contact Richard Livecchi (me) for the missing file(s). Each file is important for the functioning of the *KEYS 4.0* program. I suggest creating a backup subdirectory in the AutoCad directory and copy your acad.lsp and acad.pgp files to this directory just in case something unforutate should happen. Better safe than sorry.

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        The ACADKEYS.LSP file simply contains the single line that must be in the acad.lsp file. This tells AutoCad to load the program.
        The ACADKEYS.PGP file is a replacement for the alias section of the acad.pgp file. This file is critical to the proper functioning of *KEYS 4.0* and the rest of this documentation assumes this replacement has occured.
        The INSTALL.TXT talks about how to install the keys program.
        The KEYS_40.INI file stores all of the custom settings and variables for the *KEYS 4.0* program. This is the file you can change how some of the commands function. You can pick layers, text sizes, variables, and more. Be very careful when modifying this file, if modified incorrectly, *KEYS 4.0* will probally error.
        The KEYS_40.LSP is the main program file.
        The KEYS_40.WRI is this file.
        The KEYS_CB.SCR is a script file used by the *KEYS 4.0* Clipbord command. This will be explained later on in this file.
        The KEYS_QPU.SCR is a script file used by the *KEYS 4.0* Quick-Purge command. This will be explained later on in this file.
        The KEYS_RD.DAT and KEYS_RD.SCR are files used by the *KEYS 4.0* Retreive-Drawing command. This will be explained later on in this file.
        The REGISTER.TXT explains how to register this program, licensing information, and support.
        The README.KYS is the sales-pitch file.

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Explaination of KEYS 4.0 Commands:

In the following explainations, the following text conventions apply:

>*A*   denotes the key stroke combination necessary to activate the command. Every key stroke combination must be folowed by either the "enter" or "return" key or the "space bar".

>`Arc`   denotes an AutoCad command incorporated in the program.

>*Arc*   denotes a *KEYS 4.0* command. This may include an AutoCad command that has been modified by the *KEYS 4.0* program.

The explainations have been put in alphabetical order to help in future referencing. This program originated from my AutoCad wishlist (wished it would do something it doesn't). These are all simple commands designed to automatically make redundant decisions for you, so you can put your time to the best use.Use and enjoy.

The *KEYS 4.0* program does not redefine any of AutoCad's commands. The standard AutoCad commands are always available to you through the conventional menu system that comes with AutoCad. This program has not been tested with any third party vendors, their menus, or command assignments. So some conflicts may appear and if so, no intentional harm is intended. This program can not harm AutoCad itself as distributed by AutoDesk. It will work with the Dos 386 Extender as well as the Windows Version. Other platforms have not been tried. These are AutoLisp routines to aid you in drawing with AutoCad. no special hardware or software is required other than AutoCad. It's a handy program that should help you draw better and faster.

KEYS 4.0 takes advantage of the little bit of memory in your keyboard. By using *KEYS 4.0*, you can input one command after another (up to 16 characters typically). You can stack your commands and actually get the computer to catch up to you. If you currently use a digitizer, or the menu system on screen, you must wait for AutoCad to finish one command before you can choose another. In many instances, you may be wasting time waiting for that redraw or regen. You may also be wasting time switching layers back and forth, changing properties, etc. Or how about losing a days work because you remembered to save after a crash. This program is designed to automate some of those redundancies. *KEYS 4.0* helps you make better use of your time and lets you concentrate a little more on what you're drawing rather than distracted with mundane repetative commands. Read on and see how.

===== *A* =====

A   `Arc`   Begins the AutoCad Arc command.

AA   `Area`   Begins the AutoCad Area command.

AE   *Area-Entity*   Begins the *KEYS 4.0* Area-Entity command. This command simply starts the AutoCad area command and automatically selecting the entity option.
This   command assumes a polyline, circle or other entity is ready to be
selected.

AL   *Align*   Begins the *KEYS 4.0* Align command. I wrote this under release 11 when AutoCad didn't have one yet. I prefer it over AutoCad's. Just remember,
the first   entity chosen must be a line, block or text.

AR   `Array`   Begins the AutoCad Array command.

===== *B* =====

B   Break   Begins the AutoCad Break command.

BA   *Break-At* Begins the **KEYS 4.0** Break-At command. This command simply starts the
AutoCad break command and automatically selecting the first option, then the
@ option. The command pauses each time for your input when needed.

BF   *Break-First*   Begins the **KEYS 4.0** Break-First command. This command simply starts the
AutoCad break command and automatically selecting the first option.
The   command pauses each time for your input when needed.

BH   BHatch   Begins the AutoCad BHatch command.

BL   *Breakline*   Begins the **KEYS 4.0** Breakline command. This command draws a ployline on a
specified layer with a standard breakline symbol a the midpoint. You will
be   prompted for the two endpoints of the polyline, the program does the
rest. The   layer is specified in the KEYS.INI file. This can be any layer
you choose. See   "Modifying KEYS.INI File" later on. The layer is then changed
back to its previous   value automatically.

BX   *Box*   Begins the **KEYS 4.0** Box command. This command asks you for the opposite
corners and draws a closed polyline with those corners. This is a hold-
over from   the R11 version. I prefer it over the rectangle command in
AutoCad because this   command turns off the osnaps when it draws the box. The
rectangle command   doesn't (which can be annoying sometimes).

===== *C* =====

C   Copy   Begins the AutoCad Copy command.

CB   *Clipbord* Begins the **KEYS 4.0** Clipbord command. This command wiil copy, cut, and
paste items between drawings. This is especially handy in the Dos version of
AutoCad. It will create a drawing file named CLIPBORD.DWG and
overwrite it   each time the command is used. The origin point for all
insertions is 0,0,0 of the   original drawing file. You can open the clipbord
drawing and modify it prior to   pasting it into another drawing. This will also
work in the Windows version, but   unlike AutoCad, the drawing file isn't deleted.
A tad more flexible, you paste as   long as you like until you cut or copy again.

CH   Chprop   Begins the AutoCad Chprop command.

CL   *Copy to Layer*   Begins the **KEYS 4.0** Copy to Layer command. First, you select the entities you
want to copy. Then you pick an entity on the layer you want them copied
to. The   entities are copied to that layer, linetypes are only change if the entities
are   drawn "by layer".

CM   *Copy Multiple*   Begins the **KEYS 4.0** Copy Multiple command. This command simply starts the
AutoCad copy command and automatically selecting the multiple option.

CR   Circle   Begins the AutoCad Cicle command.

CT   *Copy To*   Begins the **KEYS 4.0** Copy To command. First, you will be prompted for the X-
direction distance and then the Y-direction. These can either be keyed in
or a   distance can be digitized on screen. Note that even if digitized on the
screen,   each direction must be done one direction at a time. Then select the
objects to   be moved. The objects will be moved and the values for the
distance will become   the default values the next time the command is used.
These defaults are also   used with the Move To and the Stretch To commands.

===== *D* =====

D   Distance   Begins the AutoCad Distance command.

DA   *Dim-Aligned*   Begins the **KEYS 4.0** Dim-Aligned command. This command places dimensions as specfied in the KEYS.INI file settings. The program proceeds as described. First, the layer is changed as specified in the KEYS.INI file. This can be any layer you choose as with all of the settings. Next, the osnaps are switched to the specified setting. Next, the following dim variables are changed per the KEYS.INI file: dimblk, dimasz, dimtsz, and dimaso. These settings seem to be the most individual, no two ever seem to agree on these settings. **KEYS 4.0** will override the current drawing settings, so be careful. See "Modifying KEYS.INI File" later on. The dimension is then placed without giving the option for changing the text. (**KEYS 4.0** assumes you aren't fudging your drawings.) After placement, the layer and osnaps are switched back to their previous values automatically.

DC   *Dim-Cont*   Begins the **KEYS 4.0** Dim-Continue command. This command places dimensions as specfied in the KEYS.INI file settings. The program proceeds as described. First, the layer is changed as specified in the KEYS.INI file. This can be any layer you choose as with all of the settings. Next, the osnaps are switched to the specified setting. Next, the following dim variables are changed per the KEYS.INI file: dimblk, dimasz, dimtsz, and dimaso. The first extension line is automatically suppressed to avoid dupliate lines in a file. These settings seem to be the most individual, no two ever seem to agree on these settings. **KEYS 4.0** will override the current drawing settings, so be careful. See "Modifying KEYS.INI File" later on. The dimension is then placed without giving the option for changing the text. (**KEYS 4.0** assumes you aren't fudging your drawings.) After placement, the layer and osnaps are switched back to their previous values automatically.

DDA   Ddatte   Begins the AutoCad Attribute Edit Dialog Box.

DDAD   Ddattdef   Begins the AutoCad Attribute Definition Dialog Box.

DDAT   Ddattext   Begins the AutoCad Attribute Extraction Dialog Box.

DDC   Ddchprop   Begins the AutoCad Change Properties Dialog Box.

DDD   Dddims   Begins the AutoCad Dimensions Dialog Box.

DDE   Ddemodes   Begins the AutoCad Entity Creation Dialog Box.

DDED   Ddedit   Begins the AutoCad Text Edit Dialog Box.

DDG   Ddgrips   Begins the AutoCad Grips Dialog Box.

DDI   Ddinsert   Begins the AutoCad Insert Dialog Box.

DDL   Ddlmodes   Begins the AutoCad Layer Dialog Box.

DDM   Ddmodify   Begins the AutoCad Modify Dialog Box.

DDN   Ddrename   Begins the AutoCad Rename Dialog Box.

DDO   Ddosnap   Begins the AutoCad Osnap Dialog Box.

DDP `Ddptype` Begins the AutoCad Point Style Dialog Box.

DDR `Ddrmodes` Begins the AutoCad Drawing Aids Dialog Box.

DDS `Ddselect` Begins the AutoCad Entity Selection Settings Dialog Box.

DDU `Ddunits` Begins the AutoCad Units Dialog Box.

DDUC `Dducs` Begins the AutoCad UCS Control Dialog Box.

DDUS `Dducsp` Begins the AutoCad UCS Orientation Dialog Box.

DDV `Ddview` Begins the AutoCad Views Dialog Box.

DDVP `Ddvpoint` Begins the AutoCad VPoint Dialog Box.

DH *Dim-Horz* Begins the ***KEYS 4.0*** Dim-Horizontal command. This command places dimensions as specfied in the KEYS.INI file settings. The program proceeds as described. First, the layer is changed as specified in the KEYS.INI file. This can be any layer you choose as with all of the settings. Next, the osnaps are switched to the specified setting. Next, the following dim variables are changed per the KEYS.INI file: dimblk, dimasz, dimtsz, and dimaso. These settings seem to be the most individual, no two ever seem to agree on these settings. ***KEYS 4.0*** will override the current drawing settings, so be careful. See "Modifying KEYS.INI File" later on. The dimension is then placed without giving the option for changing the text. (***KEYS 4.0*** assumes you aren't fudging your drawings.) After placement, the layer and osnaps are switched back to their previous values automatically.

DI `Divide` Begins the AutoCad divide command.

DL *Dim-Leader* Begins the ***KEYS 4.0*** Dim-Leader command. This command places the dimensions leader as specfied in the KEYS.INI file settings. The program proceeds as described. First, the layer is changed as specified in the KEYS.INI file. This can be any layer you choose as with all of the settings. Next, the osnaps are switched off. Next, the following dim variables are changed per the KEYS.INI file: dimblk, dimasz, dimtsz, and dimaso. These settings seem to be the most individual, no two ever seem to agree on these settings. ***KEYS 4.0*** will override the current drawing settings, so be careful. See "Modifying KEYS.INI File" later on. The text is then purposely left blank. (***KEYS 4.0*** assumes you already placed the text.) After placement, the layer and osnaps are switched back to their previous values automatically.

DN *Dtext* Begins the ***KEYS 4.0*** Drawing Name command. This command simply puts the name of the drawing in the slide bar menu area below the AutoCad menus. This is handy sometimes for the Dos version of AutoCad.

DT *Dtext* Begins the ***KEYS 4.0*** Dtext command. This command simply starts the AutoCad dtext command. ***KEYS 4.0*** assumes that the current text size and rotation are correct and accepts them automatically as defaults. (Note: If you specify a height when defining the text style, this command will not function appropriately. The text height will become the rotation value.)

DV *Dim-Vert* Begins the ***KEYS 4.0*** Dim-Vertical command. This command places dimensions as specfied in the KEYS.INI file settings. The program proceeds as described. First, the layer is changed as specified in the KEYS.INI file. This can be any layer you choose as with all of the settings. Next, the osnaps are switched to the specified setting. Next, the following dim

variables are changed per the
dimaso. These settings seem to be the
on these settings. *KEYS 4.0* will
careful. See "Modifying KEYS.INI
without giving the option for changing
aren't fudging your drawings.) After placement,
back to their previous values automatically.

KEYS.INI file: dimblk, dimasz, dimtsz, and
most individual, no two ever seem to agree
override the current drawing settings, so be
File" later on. The dimension is then placed
the text. (*KEYS 4.0* assumes you
the layer and osnaps are switched

DVW   `Dview`   Begins the AutoCad dview command.

===== *E* =====

E   `Erase`   Begins the AutoCad erase command.

ED   *Edit*   Begins the *KEYS 4.0* edit command. This command analyzes the entity you
select and determines if it is text, an attributed block, or an exploded
attributed   block. Once this is done, it will bring up the appropriate dialog
box for editting that   entity. You don't have to remember ddedit or ddatte,
this picks it for you. This will   not work with associative dimensions.

EL   `Ellipse`   Begins the AutoCad ellipse command.

EP   `Explode`   Begins the AutoCad explode command.

EQA   *Eq-Aligned*   Begins the *KEYS 4.0* Equal-Aligned command. This command places
dimensions as specfied in the KEYS.INI file settings. The program
proceeds as   described. First, the layer is changed as specified in the
KEYS.INI file. This can   be any layer you choose as with all of the settings.
Next, the osnaps are   switched to the specified setting. Next, the following
dim variables are changed   per the KEYS.INI file: dimblk, dimasz,
dimtsz, and dimaso. These settings seem   to be the most individual, no two
ever seem to agree on these settings. *KEYS 4.0*   will override the current drawing
settings, so be careful. See "Modifying KEYS.INI   File" later on. The dimension is then
placed automatically inserting "equal" for the   text. After placement, the layer and
osnaps are switched back to their previous   values automatically.

EQC   *Eq-Cont*   Begins the *KEYS 4.0* Equal-Continue command. This command places
dimensions as specfied in the KEYS.INI file settings. The program
proceeds as   described. First, the layer is changed as specified in the
KEYS.INI file. This can   be any layer you choose as with all of the settings.
Next, the osnaps are switched   to the specified setting. Next, the following dim
variables are changed per the   KEYS.INI file: dimblk, dimasz, dimtsz, and
dimaso. The first extension line is   automatically suppressed to avoid dupliate
lines in a file. These settings seem to   be the most individual, no two ever
seem to agree on these settings. *KEYS 4.0*   will override the current drawing
settings, so be careful. See "Modifying KEYS.INI   File" later on. The dimension is then
placed automatically inserts "equals" for   the text. After placement, the layer
and osnaps are switched back to their   previous values automatically.

EQH   *Eq-Horz*   Begins the *KEYS 4.0* Equal-Horizontal command. This command places
dimensions as specfied in the KEYS.INI file settings. The program
proceeds as   described. First, the layer is changed as specified in the
KEYS.INI file. This can   be any layer you choose as with all of the settings.
Next, the osnaps are switched   to the specified setting. Next, the following dim
variables are changed per the   KEYS.INI file: dimblk, dimasz, dimtsz, and
dimaso. The first extension line is   automatically suppressed to avoid dupliate
lines in a file. These settings seem to   be the most individual, no two ever
seem to agree on these settings. *KEYS 4.0*   will override the current drawing
settings, so be careful. See "Modifying KEYS.INI   File" later on. The dimension is then
placed automatically inserts "equals" for   the text. After placement, the layer

and osnaps are switched back to their previous values automatically.

EQV *Eq-Vert* Begins the **KEYS 4.0** Equal-Vertical command. This command places dimensions as specfied in the KEYS.INI file settings. The program proceeds as described. First, the layer is changed as specified in the KEYS.INI file. This can be any layer you choose as with all of the settings. Next, the osnaps are switched to the specified setting. Next, the following dim variables are changed per the KEYS.INI file: dimblk, dimasz, dimtsz, and dimaso. The first extension line is automatically suppressed to avoid dupliate lines in a file. These settings seem to be the most individual, no two ever seem to agree on these settings. **KEYS 4.0** will override the current drawing settings, so be careful. See "Modifying KEYS.INI File" later on. The dimension is then placed automatically inserts "equals" for the text. After placement, the layer and osnaps are switched back to their previous values automatically.

ERT *Ent-Rotate* Begins the **KEYS 4.0** Entity-Rotate command. This command will rotate all of the selected entities you pick about their origin points respectively. This was designed to work with blocks, but will work with just about any entity. (Note: Rotating polylines will give unpredictable results because the program doesn't locate an origin point.)

ESC *Ent-Scale* Begins the **KEYS 4.0** Entity-Scale command. This command will scale all of the selected entities you pick about their origin points respectively. This was designed to work with blocks, but will work with just about any entity. (Note: Rotating polylines will give unpredictable results because the program doesn't locate an origin point.)

EX Extend Begins the AutoCad extend command.

===== *F* =====

F Fillet Begins the AutoCad fillet command.

FC 3dface Begins the AutoCad 3dface command.

FL *Freeze-Layer* Begins the **KEYS 4.0** Freeze-Layer command. This command will let you freeze a layer by picking a visible entity. This command will not freeze the current layer.

===== *G* =====

===== *H* =====

H Hatch Begins the AutoCad hatch command.

HD *Header* Begins the **KEYS 4.0** Header command. This command places polyline box as specfied in the KEYS.INI file settings. The program proceeds as described. First, the layer is changed as specified in the KEYS.INI file. This can be any layer you choose as with all of the settings. Next, the osnaps are switched off and the polyline width variable is set to 0. Next, the command act the same as the Box command See "Modifying KEYS.INI File" later on. The polyline is then placed. After placement, the layer, ployline width variable and osnaps are switched back to their previous values automatically. This command was developed for the fast placement of door and windows headers in

architectural plans, hence the name.

===== *I* =====

I　　Insert　　　　Begins the AutoCad insert command.

===== *J* =====

===== *K* =====

===== *L* =====

L　　Line　　　　Begins the AutoCad line command.

LA　　Layer　　　Begins the AutoCad layer command.

LD　*Leader*　　　Begins the **KEYS 4.0** Leader command. This command places a leader as
specfied in the KEYS.INI file settings. The program proceeds as

described. First,　　　　the layer is changed as specified in the KEYS.INI file. This can be any
layer you　　　　　　choose as with all of the settings. Next, the osnaps are
switched off and the　　　polyline width variable is set to 0. Next, you pick the
start point and then the text　　location. An arrow is drawn at the start point
and a horizontal tick at the text　　location automatically. This leader command
work completely separate from the　dimension leader command by AutoDesk.
See "Modifying KEYS.INI File" later on.　The leader is then placed. After placement,
the layer, ployline width variable and　　osnaps are switched back to their
previous values automatically.

LDD　*Leader (dot)*　　Begins the **KEYS 4.0** Leader (dot) command. This command works identically to
the leader command (LD) with a single exception. This places a dot instead of an
arrow.

LI　　List　　　　Begins the AutoCad list command.

LL　*Lock-Layer*　　Begins the **KEYS 4.0** Lock-Layer command. This command will let you lock a
layer by picking a visible entity. This command will not lock the current

layer.

LN　*Leader-Note*　　Begins the **KEYS 4.0** Leader command. This command places a leader as
specfied in the KEYS.INI file settings. The program proceeds as

described. First,　　　　the layer is changed as specified in the KEYS.INI file. This can be any
layer you　　　　　　choose as with all of the settings. Next, the osnaps are
switched off and the　　　polyline width variable is set to 0. Next, you pick the
start point and then the text　　location. An arrow is drawn at the start point
and a horizontal tick at the text　　location automatically. This leader command
work completely separate from the　dimension leader command by AutoDesk.
See "Modifying KEYS.INI File" later on.　The leader is then placed and you begin the
dtext command immediately. After　　placement, the layer, ployline width variable
and osnaps are switched back　　　to their previous values automatically.

LNN　*Leader-Note*　　Begins the **KEYS 4.0** Leader (dot) command. This command works identically to
　　(dot)　　　the leader-note command (LN) with a single exception. This places a dot instead
of an arrow.

| **LO** | *Layer-Off* | Begins the **KEYS 4.0** Layer-Off command. This command will let you turn off a layer by picking a visible entity. This command will not turn off the |

current layer.

| **LP** | *List-Prop* | Begins the **KEYS 4.0** List Properties command. This command will the type of entity, its layer, its color, and its linetype by picking a visible entity. The |

data is
for the

listed out in the next line on the screen, no need to flip to a text screen basic entity information. You can only pick one entity at a time.

| **LT** | Linetype | Begins the AutoCad linetype command. |

| **LTL** | LT load | Begins the AutoCad linetype command and tries to load all of the linetypes in the default file (usually the acad.lin file). This command sometimes may not |

finish if
finish the

some linetypes have already been downloaded. You may just have to command.

===== *M* =====

| **M** | Move | Begins the AutoCad move command. |

| **ML** | *Move to Layer* | Begins the **KEYS 4.0** Move to Layer command. First, you select the entities you want to move. Then you pick an entity on the layer you want them |

moved to. The
if the entities are

entities are then moved to that layer, linetypes are only change drawn "by layer".

| **MR** | Mirror | Begins the AutoCad mirror command. **KEYS 4.0** will automatically turn the ortho lock on everytime the command is used. It does not reset it. |

| **MS** | MSpace | Switches the user to model space. |

| **MT** | *Move To* | Begins the **KEYS 4.0** Move To command. First, you will be prompted for the X-direction distance and then the Y-direction. These can either be keyed in |

or a
screen,
objects to
distance will become
These defaults are also

distance can be digitized on screen. Note that even if digitized on the each direction must be done one direction at a time. Then select the be moved. The objects will be moved and the values for the the default values the next time the command is used. used with the Copy To and the Stretch To commands.

| **MV** | Mview | Begins the AutoCad mspace command. |

===== *N* =====

| **N** | *Note* | Begins the **KEYS 4.0** Note command. This command simply starts the AutoCad dtext command after switching you to the text layer specified in the KEYS.INI file settings. **KEYS 4.0** assumes that the current text size and rotation are |

correct
height when
appropriately. The text
then automatically switched

and accepts them automatically as defaults. (Note: If you specify a defining the text style, this command will not function height will become the rotation value.)   The layer is back to its previous setting.

| **NO** | *Numbering* | Begins the **KEYS 4.0** Numbering command. This command places number text starting at 1 as the default. You can key-in any number you want. The |

next default
current layer
drawing. (Note: If you

value is one more than the previous value. The text is placed on the and style. The default is remembered until you leave the specify a height when defining the text style, this

command will not function   appropriately. The text height will become the rotation
value.)

===== *O* =====

O   `Offset`   Begins the AutoCad offset command.

OD   *Offset-Delete* Begins the **KEYS 4.0** Offset Delete command. This command will offset the
                            selected entity on the side you indicated at the distance you key-in. It
will then   delete the original entity. The distance you key-in will be the default the
next time   the command is used.

OF   *Layers Off*   Begins the **KEYS 4.0** Layers Off command. This command will turn off all
                            layers in the drawing except the current layer.

ON   *Layers On*   Begins the **KEYS 4.0** Layers On command. This command will turn on all
                            layers in the drawing except those that are frozen.

OO   `Oops`   Begins the AutoCad oops command.

OP   `Open`   Begins the AutoCad open command.

OS   `Osmode`   Begins the AutoCad osmode command.

===== *P* =====

P   *Pan*   Begins the **KEYS 4.0** Pan command. This pan command is a repeating center-
                            point pan command. The point picked on the screen becomes the
center of the   screen and keeps repeating. A blank value, return or enter
breaks the command.   This pan will automatically turn off all osnaps and the
ortho lock while panning is in   progress, These values will be returned to their
previous values when panning is   done. This command also has an automatic
save built into it. Once the drawing is   between 15 and 20 minutes old, the next
time pan is invoked, the drawing will be   saved to its original file. No more
losing hours of work.

PE   `Pedit`   Begins the AutoCad pedit command.

PL   `Pline`   Begins the AutoCad ployline command.

PS   `PSpace`   Switches the user to paper space.

PU   `Purge`   Begins the AutoCad purge command.

===== *Q* =====

QPU   *Quick-Purge*   Begins the **KEYS 4.0** Quick Purge command. This command saves your current
                            drawing and ends it. Reopens the same drawing and automatically starts the
                            AutoCad purge command. (Note: This command will error if AutoCad
wouldn't   normally ask you to save or discard changes.)

===== *R* =====

R   *Redraw*   Begins the **KEYS 4.0** Redraw command. This command performs a redraw on

Once the
invoked, the
of work.

you drawing. This command also has an automatic save built into it.
drawing is between 15 and 20 minutes old, the next time pan is
drawing will be saved to its original file. No more losing hours

RB *Reblock*

command will
ready for viewing.
drawing. This is great for

Begins the **KEYS 4.0** Reblock command. This is a handy little program that will
allow you to select entities and pick the block origin point. This
place then write the entities to itself and reopen the drawing
This purges out everything that is unnecessary in the
creating libraries.

RC *Rotate-Copy*

picking on the
command and the rotate

Begins the **KEYS 4.0** Rotate Copy command. You select the entities you want to
rotate copy, key-in the angle of choice, and the program will rotate and copy the
entities. The rotation angle can be selected by either key-in or by
screen. This selected angle will become the default this
command.

RD *Retrieve Dwg*

before
normally

Begins the **KEYS 4.0** Retrieve Drawing command. This command saves your
current drawing and ends it. Reopens the previous drawing you were in
the current drawing. (Note: This command will error if AutoCad wouldn't
ask you to save or discard changes.)

RE Rectangle   Begins the AutoCad rectangle command.

RG Regen   Begins the AutoCad regen command.

RT *Rotate*

entities. The
the screen. This
rotate-copy

Begins the **KEYS 4.0** Rotate command. You select the entities you want to
rotate, key-in the angle of choice, and the program will rotate the
rotation angle can be selected by either key-in or by picking on
selected angle will become the default this command and the
command.

===== *S* =====

S Stretch   Begins the AutoCad stretch command.

SC *Scale*

This
entity-scale

Begins the **KEYS 4.0** Scale command. You select the entities you want to
scale, key-in the scale factor, and the program will scale the entities.
selected scale factor will become the default this command and the
command.

SD Solid   Begins the AutoCad solid command.

ST *Stretch To*

or a
screen,
objects to
the distance will
These defaults

Begins the **KEYS 4.0** Stretch To command. First, you will be prompted for the X-
direction distance and then the Y-direction. These can either be keyed in
distance can be digitized on screen. Note that even if digitized on the
each direction must be done one direction at a time. Then select the
be stretched. The objects will be stretched and the values for
become the default values the next time the command is used.
are also used with the Copy To and the Move To commands.

SV Save   Begins the AutoCad save command.

SVA *Save To A:* Begins the **KEYS 4.0** Save To A: command. This command will save your
current drawing to the A drive.

SVB *Save To B:* Begins the **KEYS 4.0** Save To B: command. This command will save your

current drawing to the B drive, (if you have one).

===== *T* =====

T   `Trim`   Begins the AutoCad trim command.

TH   `Thickness`   Begins the AutoCad thickness command.

===== *U* =====

U   `Undo`   Begins the AutoCad undo command.

UC   `UCS`   Begins the AutoCad ucs command.

UL   *Unlock Layer* Begins the **KEYS 4.0** Unlock Layer command. This command will unlock a layer
                         by selecting an entity on that layer.

UU   *User USC*   Begins the **KEYS 4.0** User UCS command. This command will ask you for the
                         angle you want to change your ucs. Then you will be given the option to
rotate the   entire drawing so that the new current ucs is orthogonal to your screen.
This   rotating will not work in paper space.

===== *V* =====

VA   *Var-Aligned*   Begins the **KEYS 4.0** Varies-Aligned command. This command places
                         dimensions as specfied in the KEYS.INI file settings. The program
proceeds as   described. First, the layer is changed as specified in the
KEYS.INI file. This can   be any layer you choose as with all of the settings.
Next, the osnaps are   switched to the specified setting. Next, the following
dim variables are changed per the KEYS.INI file: dimblk, dimasz,
dimtsz, and dimaso. These settings seem to be the most individual, no two
ever seem to agree on these settings. **KEYS 4.0** will override the current drawing
settings, so be careful. See "Modifying KEYS.INI File" later on. The dimension is then
placed automatically inserting "varies" for the text. After placement, the layer and
osnaps are switched back to their previous values automatically.

VC   *Var-Cont*   Begins the **KEYS 4.0** Varies-Continue command. This command places
                         dimensions as specfied in the KEYS.INI file settings. The program
proceeds as   described. First, the layer is changed as specified in the
KEYS.INI file. This can   be any layer you choose as with all of the settings.
Next, the osnaps are switched to the specified setting. Next, the following dim
variables are changed per the KEYS.INI file: dimblk, dimasz, dimtsz, and
dimaso. The first extension line is automatically suppressed to avoid dupliate
lines in a file. These settings seem to be the most individual, no two ever
seem to agree on these settings. **KEYS 4.0** will override the current drawing
settings, so be careful. See "Modifying KEYS.INI File" later on. The dimension is then
placed automatically inserts "varies" for the text. After placement, the layer
and osnaps are switched back to their previous values automatically.

VH   *Var-Horz*   Begins the **KEYS 4.0** Varies-Horizontal command. This command places
                         dimensions as specfied in the KEYS.INI file settings. The program
proceeds as   described. First, the layer is changed as specified in the
KEYS.INI file. This can   be any layer you choose as with all of the settings.
Next, the osnaps are switched to the specified setting. Next, the following dim

variables are changed per the
dimaso. The first extension line is
lines in a file. These settings seem to
seem to agree on these settings. *KEYS 4.0*
settings, so be careful. See "Modifying KEYS.INI
placed automatically inserts "varies" for
and osnaps are switched back to their

KEYS.INI file: dimblk, dimasz, dimtsz, and
automatically suppressed to avoid dupliate
be the most individual, no two ever
will override the current drawing
File" later on. The dimension is then
the text. After placement, the layer
previous values automatically.

VV　　*Var-Vert* Begins the *KEYS 4.0* Varies-Vertical command. This command places
dimensions as specfied in the KEYS.INI file settings. The program proceeds as
described. First, the layer is changed as specified in the KEYS.INI file.

This can
osnaps are switched
changed per the
extension line is
settings seem to
settings. *KEYS 4.0*
careful. See "Modifying KEYS.INI
automatically inserts "varies" for
osnaps are switched back to their

be any layer you choose as with all of the settings. Next, the
to the specified setting. Next, the following dim variables are
KEYS.INI file: dimblk, dimasz, dimtsz, and dimaso. The first
automatically suppressed to avoid dupliate lines in a file. These
be the most individual, no two ever seem to agree on these
will override the current drawing settings, so be
File" later on. The dimension is then placed
the text. After placement, the layer and
previous values automatically.

===== *W* =====

W　　*Zoom-Window*　　Begins the *KEYS 4.0* Zoom Window command. This command starts the zoom
command, automatically selects the window option, and overrides the
current　　　　　　　　　　osnap settings with a none setting.

WB　　Wblock　　Begins the AutoCad wblock command.

===== *X* =====

X　　Xref　　Begins the AutoCad xref command.

===== *Y* =====

===== *Z* =====

Z　　Zoom　　Begins the AutoCad zoom command.

Z9　　*Zoom 90*Begins the *KEYS 4.0* Zoom 90% command. This command decreases your
current screen setting by 90%.

ZD　　*Zoom Dynamic*　　Begins the *KEYS 4.0* Zoom Dynamic command. This command starts the zoom
command and automatically selects the dynamics option.

ZE　　*Zoom Extents*　　Begins the *KEYS 4.0* Zoom Extents command. This command starts the zoom
command and automatically selects the extents option.

ZI　　*Zoom In*　　Begins the *KEYS 4.0* Zoom In command. This command increases your current
screen setting by 50%.

ZO　　*Zoom Out*　　Begins the *KEYS 4.0* Zoom In command. This command decreases your
current screen setting by 50%.

ZP	*Zoom Previous*	Begins the ***KEYS 4.0*** Zoom Previous command. This command starts the zoom command and automatically selects the previous option.

===== *others* =====

0-9	*Osnaps*	***KEYS 4.0*** sets the keys 0-9 as preset osnaps or osnap combinations. These are set in the KEYS.INI file. These can be any combiination you choose.
See		"Modifying KEYS.INI File" later on. You have up to 10 settings you can customize. If you leave a setting blank, you will be told that the
osnap settings		were unchanged. These setting can usually be invoked
transparently by putting a '		before the number, such as '1. This even works in paper space
dependingon the		command.
Reset	*Reset*	This ***KEYS 4.0*** command allows you in one key-in reset some drawing parameters specified in the KEYS.INI file. See "Modifying KEYS.INI
File"		

==
=

Modifying the KEYS.INI File:

One of unique features of the ***KEYS 4.0*** program is customizable features. You, the user, get to set the layers you want to use. You get to pick the osnaps. You get to set variables for your style of using AutoCad. This program was designed with that in mind. Everyone has a style using cad, everyone has standards, everyone wants to save time drawing. This program is set up to help you achieve this to some degree. This program is highly customizable in an easy fashion and the core of that is the KEYS.INI file. This is where you express your standards and style.

The KEYS.INI file can be edited with any ascii text editor, such as Windows Notepad. I recommend not using a word processing program at all. There are a few rules to editting this file which if not followed could basically wipe out a third of the program. So, be careful. First rule is do not add or delete any lines in the file. The second rule is only edit or change characters after the equals sign (=). Editting before will screw things up.

The nice thing about this setup is that you edit this file on the fly and the editting has immediate results. For example, suppose the Leader-Note command is putting notes on layer "text". Now say you want them on layer "notes". Edit the KEYS.INI file from "text" to "notes" in the appropriate place and the next time the LN command is used, the notes will be on layer "notes". If the layer isn't already there, the LN command will create like all of the ***KEYS 4.0*** commands. This change takes place without reloading the program and without reentering the drawing. Right away.

You can create different ini files for different clients, or users who share a computer, or particular jobs. It can be a very flexible tool. I do suggest that you make a backup of the original KEYS.INI file just in case the editting doesn't work as smoothly as you hoped.

Here goes the explanation. Each section has a bracketed title. This is for my benefit as the progrmmer. Inside each bracket is a number, 10 in the example below. This is the line number of the file. If ***KEYS 4.0*** isn't working right , check to make sure these line number do correspond with the actual line of the file. Remeber, the second rule. Do not add or delete any lines in the KEYS.INI file.

The section is used by the RESET command:

```
[10.default settings]
deflt_os=3              -default osmode (integer - see your AutoCad manuals)
deflt_or=1              -default ortho lock  (1=on, 0=off)
deflt_bp=0              -default blipmode (1=on, 0=off)
```

```
deflt_ly=0                    -default layer (not used currently)
deflt_tx=0.09375              -default textsize (real number - decimal)
deflt_pw=0.000                -default pline width (real number - decimal)
deflt_fd=1                    -default dialog box option (1=dialogs on, 0=dialogs off)
```

The next section is used by couple different commands as explained:

```
[20.text settings]
text_lay=a-text               -supplies the layer name for the BL and N commands
text_siz=0.09375              -supplies the text size to BL, LD, LDD, LN, LNN, and N commands.
```

The next section is used by all of the dimension commands as explained:

```
[30.dimension settings]
dims_lay=a-dims               -the layer name the dimensions will be placed.
dims_aso=on                   -controls the use of associative dimensions (on or off).
dims_asz=0.125                -size of the dimension arrow, dots, or custom block in dimensions (real number -
                                   decimal) This doesn't have any affect on the LD, LDD, LN, LNN
commands                                          since they are independant from the dimension settings.
dims_blk=.                    -name of the dimension block used (" . " means none).
dims_tsz=0.03125              -ticksize used in dimensioning (0 allows the use of a block - see AutoCad
                                   manuals for detailed description for dimensioning.)(real number -
decimal).
dims_lsz=0.09375              -size of the arrow in the dimension leader command ( real number - decimal).
ledr_lay=a-dims               -the layer name the dimesion leader will be placed.
dims_osp=3                    -the osnap setting for the dimension command (integer - see you AutoCad
                                   manuals)
```

The next section is used by the HD, LD, LDD, LN, LNN commands:

```
[40.command settings]
not used                      (commands that were deleted from the program)
not used
headr_ly=a-door-head          -the layer name for the HD command.
ledra_ly=a-text               -the layer name for the LD and LN commands.
ledrd_ly=a-symb               -the layer name for the LDD and LNN commands.
```

The next section is used by custom osnap settings: See your AutoCad manuals for the integer combinations for setting osnaps. You can have 10 preset osnaps that can work transparently in almost all AutoCad commands (both in paper space and model space) and in most of the *KEYS 4.0* commands.

```
[50.custom settings]
osnap_k1=0                    -osnap setting for key 1
osnap_k2=3                    -osnap setting for key 2
osnap_k3=35                   -osnap setting for key 3
osnap_k4=1059                 -osnap setting for key 4
osnap_k5=1187                 -osnap setting for key 5
osnap_k6=                     -osnap setting for key 6
osnap_k7=                     -osnap setting for key 7
osnap_k8=                     -osnap setting for key 8
osnap_k9=                     -osnap setting for key 9
osnap_k0=                     -osnap setting for key 0
```

The next section is set aside for future commands in future versions of *KEYS*. Your suggestions and comments are welcome.

Have fun and enjoy the *KEYS 4.0* .