
User's Guide

InfoSnap

Release 2.1.0

Chris Zakrewsky

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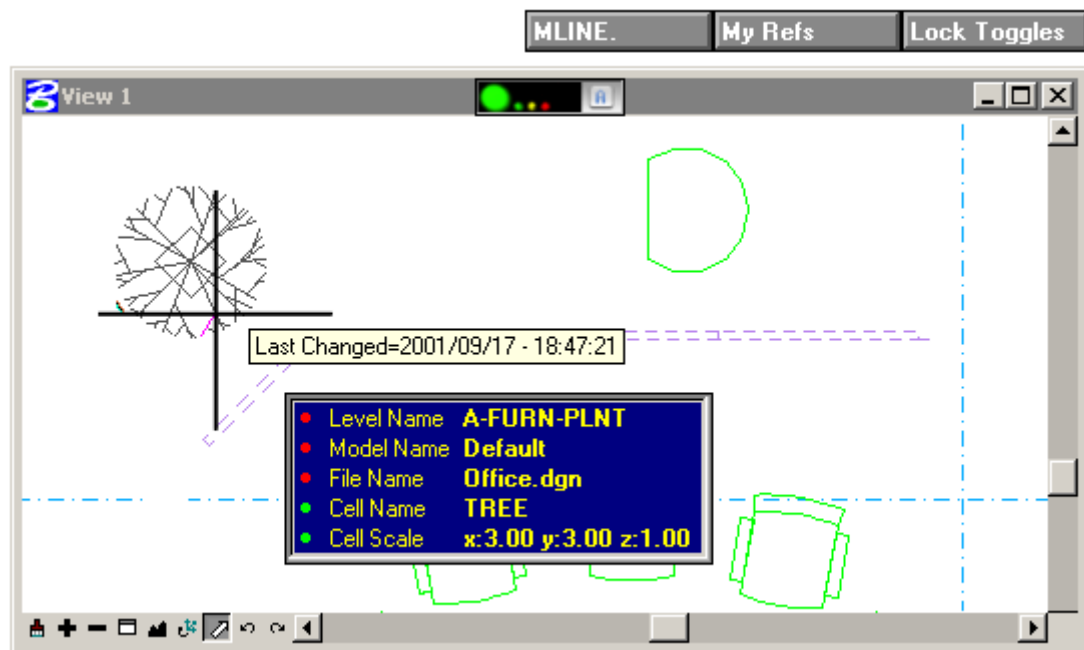
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Introduction

InfoSnap, release 2.1.0

- Instant access to element source, attributes, and data.
- With a single click of the tentative button you instantly have all the information you could wish for, right next to the cursor.
- Additionally, you can instantly make those attributes active and quickly reuse them for new elements
- You can gain full control over AccuSnap's balloon
- Perform instant navigation across reference files and DGN models
- Cleanup precious working area by automatically hiding or shrinking (and expanding) MicroStation dialog boxes on cursor flyover
- Create context-sensitive menus popping up automatically at your cursor when needed
- Perform ad-hoc length estimates directly in graphics while executing another tool
- And more... much more.



Enjoy the ride.

Recommended reading:

"THE SURVIVOR'S GUIDE TO MICROSTATION V8" (order from: <http://AdageBooks.com>)

This book – the 13th in the Survivor's Guide series – provides comprehensive coverage of all the major functional components of this important release of MicroStation.

As with other books in the Survivor's Guide series, topics go far beyond just what's new, investigating how the new features and facilities impact the way we work. Coverage includes: Models, the new Level structure, the amazing new DWG functionality, Design History and the new unlimited Undo features, Level Libraries, Filtering, AccuSnap, and much, much more.

Also included is important coverage of the tools and facilities that help us get our jobs done: AccuDraw, Reference Files, Plotting, MS Basic, Utilities, Snaps & Constraints, Element Selection & Power Selector, Dimensioning, Tools, Menubars, Tips and Tricks, Customization, and more.

InfoSnap is covered in a dedicated chapter of "The Survivor's Guide to MicroStation V8" by Keith Little. ISBN 1-885315-51-1

CHAPTER 1

Copyright and License Agreement

InfoSnap

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Team uStation AB
Älta Strandväg 37B
SE-138 33 ÄLTA
Sweden

Phone: +46 (8) 773 1003
E-Mail: `c h r i s @ u s t a t i o n . s e`
Website: <http://www.ustation.se>

CHAPTER 2

InfoSnap Settings-1

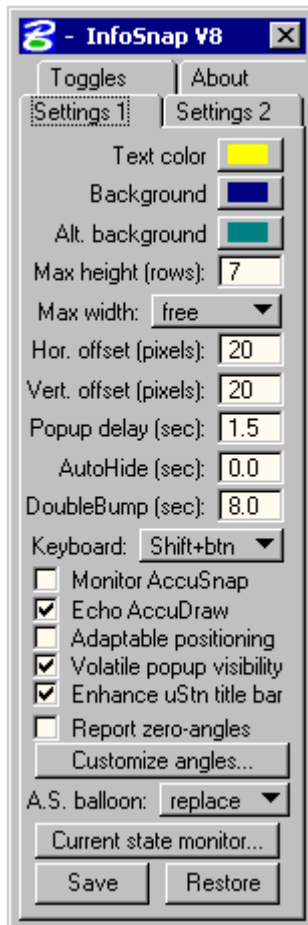


Fig 1.

TEXT COLOR: Foreground color of textual output in the popup.

BACKGROUND: Default background color of textual output in the popup.

ALT. BACKGROUND: Background color whenever the displayed information is actually overridden by another value (for example element color is overridden by active level symbology).

MAX HEIGHT: Maximum number of rows to display in the popup. The actual number of displayed rows may be less than specified here depending on whether there is enough data to fill all the selected Toggles (for example you may have specified a toggle for Area but the selected element is just a straight line, so Area display is not applicable because it cannot be computed).

MAX WIDTH: Preset maximum width of the popup.

HOR. & VERT. OFFSET: When the popup is set to follow cursor's position, this is the number of pixels to shift the popup from the actual cursor position.

POPUP DELAY: When the popup is set to follow cursor's position, this is the delay between the snap event and the moment when the popup shows up on the desktop. It is advisable to set this delay to a several seconds if you feel that popup is showing up too often. If you set it for example to 3 seconds and you snap to elements once every second you will not see the popup until you finish the snapping sequence. The other possibility is to mute (mute is controlled by keyin or from Toggles tab) the popup window altogether and bring it up only when necessary by pressing Alt+Space keys on the keyboard.

AUTOHIDE: If not zero, the time period after which the popup will disappear automatically. The value set to zero disables this feature.

Tip: If you wish to temporarily cancel automatic hiding of the popup just click inside the popup. However after the next snap, AutoHide will be reactivated.

DOUBLEBUMP: If not zero, the time period for the mouse gesture (described below) that automatically shrinks just about any dialog box in MicroStation as soon as the mouse pointer leaves its area (and expanded back to its normal size when you touch it again).

In addition it is the time period during which you can dismiss InfoSnap's main popup window by crossing quickly its border several times, in the same manner as when registering dialog boxes for automatic shrinking (described below).

If it is set to zero, shrinking dialog boxes and dismissing main InfoSnap popup using the gesture is disabled. If you want to disable this feature for all dialogs but leave it active for InfoSnap's popup, deselect '*Dbl.Bump left edge*', '*Dbl.Bump right edge*' and '*Dbl.Bump bottom edge*' instead.

Tip: You may also disable using gestures and/or keyboard by setting the appropriate **Bump** option in Settings-2.

Activate this feature separately for each dialog box by registering it with the '*DoubleBump*' feature. Do it either by quickly crossing the dialog box border with the mouse as follows: place the cursor within the dialog box and move it quickly downward and outside the dialog box and then upward and back into the dialog box, two times in a row within time span set in **DoubleBump**, or by using an **override** described below. The dialog box title (in the title bar) should change to be prefixed by an asterisk (*) if you did it fast enough. Practice this a few times on different dialog boxes to get the feeling.

You can define which borders of dialog box should trigger registration by enabling appropriate option: '*Dbl.Bump left edge*', '*Dbl.Bump right edge*' or '*Dbl.Bump bottom edge*'.

Important: this feature works differently on the InfoSnap pop-up. If the popup is touched by the cursor twice (from any direction) within specified time period, the popup is dismissed (not shrunk). It can be brought back to the screen by pressing simultaneously Alt-Space on the keyboard.

Tip: you can always **override** automatic shrinking of the dialog box by pressing the left mouse button together with the key defined in '*Keyboard*' setting (described later on) while hovering over this dialog box. Do not click on its title bar as this has no effect here, and try to avoid clicking directly on list boxes. The dialog box title (in the title bar) should change to be prefixed by an asterisk (*) when the dialog becomes susceptible to **DoubleBump**.

Tip: You can **automate** your pre-selections of several dialog boxes by editing *\$InfoSnap-DoubleBump\$.txt*

KEYBOARD: Enables keyboard shortcuts to most common operations within InfoSnap: *Home*, *End*, *Insert* and *Arrow Keys* (you can define optional qualifier keys as well). It is also used to enforce registration/deregistration of dialog boxes for **DoubleBump** and **AutoNuke** features when used together with a click of mouse buttons on the selected dialog box. '*Key alone*' means direct action without a *Ctrl*, *Shift* or *Alt* modifier.

Note that toggling visibility of the popup (i.e. recalling it when it is not visible) is hardwired to **Alt+Space** chord of keystrokes and cannot be modified.

Note: default configuration is '*Ctrl-key*' which means *Ctrl-Home*, *Ctrl-Insert*, *Ctrl-LeftClick* etc.

'Home' activates the parent model of the current (active) model as seen in the InfoSnap model tree (model tree is visible in the pane behind the **Home**-icon)

'End' performs the very same operation as the **Pin**-icon

'Insert' performs the very same operation as the **Rubber Stamp**-icon

'Arrow keys': *Up & Down*: insert and scroll the highlight within the popup, *Left & Right*: browse recorded snap data (snap history)

Important note: even if you do not intend to operate the InfoSnap popup from the keyboard, you will need to define this option anyway in order to operate some aspects of the '*DoubleBump*' feature (automatic dialog box shrinking).

MONITOR ACCUSNAP: When active, every snap event triggered by AccuSnap will be processed like a regular tentative point by InfoSnap.

ECHO ACCUDRAW: When enabled, AccuDraw readout is presented (echoed) near the cursor.

ADAPTABLE POSITIONING: Enables adaptable logic to the positioning of the main PopUp. If you move the cursor slightly in any direction just after a snap (tentative point) but before the popup opens, you indicate by this where you don't want to see the popup. For example if you move the cursor to the right, popup will be shown to the left of cursor and vice versa.

VOLATILE POPUP VISIBILITY: If enabled, makes InfoSnap balloon automatically go away when cursor leaves the view area or lands on a dialog box (just like it used to be in MicroStation V7). In other words, balloon will stay visible as long as cursor is within the view area. On the other hand, parking your balloon in a fixed position (see *Mode of operation* chapter) will make it immune to this behavior and InfoSnap balloon will stay visible regardless of cursor position.

ENHANCE USTN TITLE BAR: If enabled, a more detailed information will be shown in MicroStation's main title bar, including full file path, active working units, active scale and current workmode.

REPORT ZERO ANGLES: If enabled, angles of zero-degrees will be reported. The default is to not show angles with zero values.

CUSTOMIZE ANGLES...: Opens new dialog box where you can define the axis defining each zero-degree angle and the direction of angle readout for all planes of rectangular coordinate system.

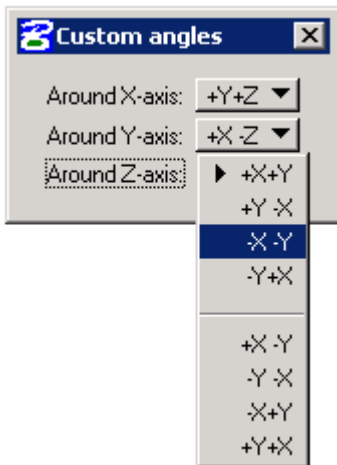


Fig 2.

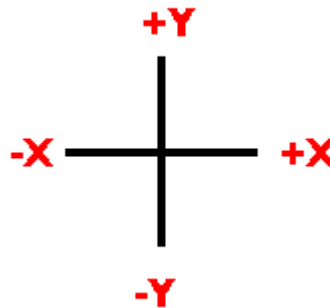


Fig 3.

Observe the convention used to denote the starting axis and the direction of angle:

+X+Y means: starting from the positive X-axis toward the positive Y-axis (i.e. counter-clockwise)

+X-Y means: starting from the positive X-axis toward the negative Y-axis (i.e. clockwise), etc.

A.S. BALLOON: defines how information should be inserted into the AccuSnap balloon popup. You must have the AccuSnap **pop-up info** balloon activated in order to use this option (from MicroStation menu: Settings->Snaps->AccuSnap).

CURRENT STATE MONITOR: A diagnostics and status window described separately in the Settings-2 chapter.

SAVE: Save the current state of InfoSnap Settings and current InfoSnap mode of operation.

RESTORE: Restore the current state of InfoSnap Settings and current InfoSnap mode of operation. Reads both setting files.

Tip: You can close this dialog at any time. To **reopen** it reload InfoSnap (key in: MDL LOAD INFOSNAP) or reopen via the Right-Click popup-menu in InfoSnap's popup window. You can also access this dialog box via View Buddy pull down menu (via 'I-Snap' button).

CHAPTER 3

InfoSnap Settings-2

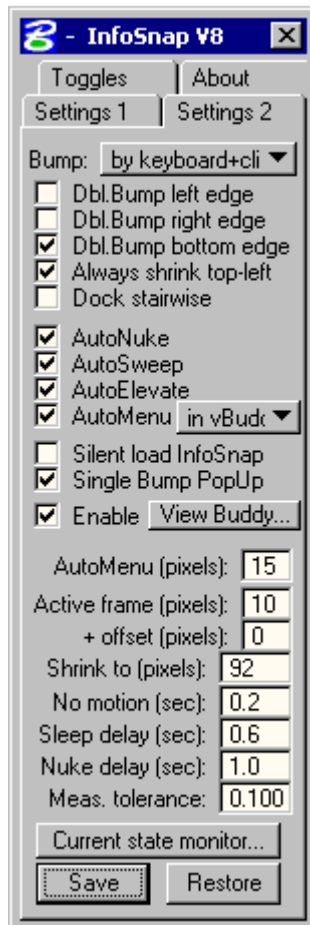


Fig 1.

BUMP: Enables different ways of operating InfoSnap's **DoubleBump** registration of dialog boxes for automatic shrinking. Selection of *'By keyboard+click'* enables a keyboard modifier defined in *'Keyboard'*-option in Settings-1 to be used along with a mouse click and disables the zig-zag mouse gesture. Selection of *'By mouse gesture'* does the opposite, and *'either way'* enables both.

DBL.BUMP XXX EDGE: Define which borders of a dialog box should trigger registration with *'DoubleBump'* by enabling whichever is appropriate: *'Dbl.Bump left edge'*, *'Dbl.Bump right edge'* or *'Dbl.Bump bottom edge'*.

Note: by default *'Dbl.Bump xxx edge'* defines shrinking direction as well. This can be overridden. See also the **Single Bump PopUp** setting for other features controlled by enabling these edges.

ALWAYS SHRINK TOP-LEFT: Override the shrinking direction to default vertical-upward with the origin set at the upper left corner of the dialog box.

DOCK STAIRWISE: Enforces a special alignment of shrunk dialog boxes making browsing a little easier. Already docked shrunk dialog boxes are not affected by this setting until you re-dock them.

AUTONUKE: Controls automatic hiding of dialog boxes when approaching them with the cursor and triggering the hiding when cursor ceases its motion within the selected '*Active frame*' area. Note that 'nonuke'-keyword may be used to make any dialog box entirely immune to 'AutoNuke'.

Note: you can always **override** automatic hiding of the dialog box by pressing **right** mouse button together with the key defined in '*Keyboard*' setting (described later on) while hovering over this dialog box. Do not click on its title bar as this has no effect here, and try to avoid clicking on list boxes. The dialog box title (in the title bar) should change to be prefixed by an exclamation mark (!) when the dialog becomes immune to **AutoNuke**.

AUTOSWEEP: Controls an automated mass-hiding of several dialog boxes obscuring the selected view. It is kind of **AutoNuke** on steroids. When activated, if the cursor is hovering over view's border or title bar, all dialog boxes obscuring this view are temporarily removed from sight. They are restored to their positions as soon as the cursor leaves the view's area or is placed on any other visible dialog box or menu. If you move the cursor to another view, the dialog boxes which are also obscuring this view as well will not be restored until the cursor is moved outside of this view. Note that the '*nonuke*'-keyword may be used to make any dialog box entirely immune to **AutoSweep**.

AUTOELEVATE: Brings a partially obscured dialog box or view to the front as soon as the cursor is hovering over its border or title bar.

AUTOMENU: Activates context-sensitive popup menus. This is a very powerful functionality which is fully described in a separate chapter: *Configuring AutoMenu*. Please look there for all important details.

SILENT LOAD INFO SNAP: When enabled, loading InfoSnap will not automatically open the 'Toggles' dialog box. Note that an attempt to reload an already loaded InfoSnap will result in the opening of the 'Toggles' dialog box so this setting only applies to initial load.

SINGLE BUMP POPUP: This option enables quick dismissing of InfoSnap's popup with a single touch by cursor. Dialog box edge which (when single-crossed with cursor) should be triggering the dismissal of the popup is defined with **DbI.Bump xxx edge** settings. Crossing remaining edges (which at the least are including the top edge) will simply activate the icon bar in the popup and not dismiss it.

ENABLE VIEW BUDDY: This enables threat detection and activates a small *Alarm Panel* to display current threat level. See the *View Buddy* chapter for more information on possible threats to monitor.

AUTOMENU (PIXELS): Defines the size of AutoMenu activator and the width of the strip triggering AutoMenu pull down menus on cursor fly-over.

Note: Now you can visually check where the *'AutoMenu strips'* are just by pushing (and holding depressed!) the test button in *'Current State Monitor'* dialog box. *'AutoMenu strips'* are shown in blue color when they are active and in red color if the feature has been disabled.

ACTIVE FRAME (PIXELS): Defines the virtual boundary around the unshrunk dialog box.

The meaning of *'Active frame'* for the **DoubleBump** feature: as long as the cursor is within this boundary, the dialog box will not shrink. When the cursor is outside this boundary for the time period larger than defined in *'Sleep delay'*, the dialog box collapses (shrinks) automatically. The default width is 20 pixels.

The meaning of *'Active frame'* for the **AutoNuke** feature: whenever the cursor ceases its movement while hovering over the *'Active frame'*, the dialog box will disappear. As soon as the cursor is moved outside the *'Active frame'*, the dialog box will reappear again. If the dialog box is approached without halting the cursor over the *'Active frame'*, normal usage of the dialog will be maintained.

+ OFFSET (PIXELS): Defines the offset of a virtual boundary from the unshrunk dialog box. It makes it possible to keep the cursor just outside the edges of a dialog box without triggering **AutoNuke**, thus making resizing of dialog boxes much easier by avoiding unintentional nukes. The default offset is 5 pixels (counted outward from a dialog box border). In other words, it pushes the *'Active frame'* away from a dialog box by 5 pixels creating a neutral zone around the dialog box.

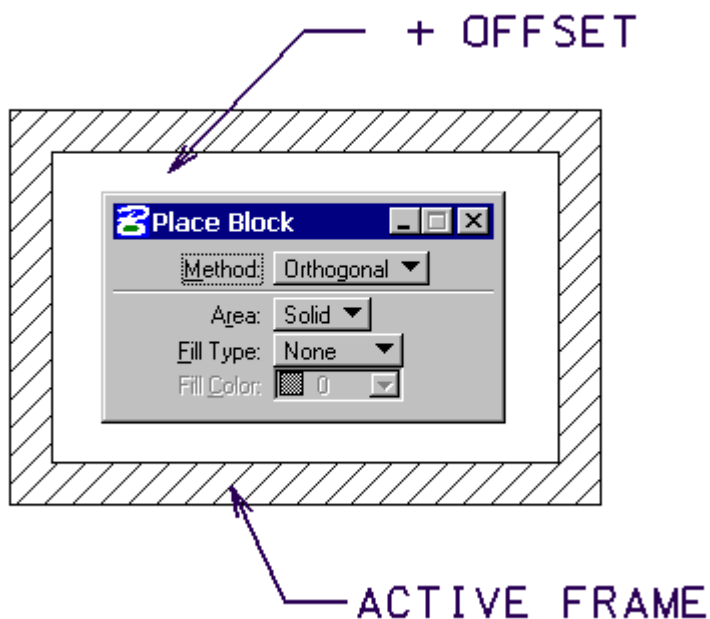


Fig 2.

Note: Now you can visually check where the '*Active frames*' are just by pushing (and holding depressed!) the test button in '*Current State Monitor*' dialog box. '*Active frames*' are shown in cyan color when they are active and in red color if the feature has been disabled.

SHRINK TO: The horizontal size of shrunk dialog boxes.

NO MOTION: Defines the time which has to elapse before the standstill cursor is considered being stationary. Currently the stationary cursor triggers unshrinking DoubleBump'ed dialog boxes and dismissing the main PopUp if '*SingleBump PopUp*' is activated.

SLEEP DELAY: Defines a delay before some actions are executed with regard to InfoSnap GUI. The larger value will give the less responsive feeling of GUI, the smaller value gives more immediate responses which may be undesirable in many cases. The default is 0.3sec. Currently this setting controls the time period before the icon menu is shown in the main popup and delay before shrinking DoubleBump-ed dialog boxes.

MEAS. TOLERANCE: Precision for area/volume computations. Set it to a (much) higher value if you experience very slow response times on curved geometry in some working units setups.

EDIT: Shortcut to DoubleBump settings file. Starts the NOTEPAD applet with the settings file opened and ready for editing.

CURRENT STATE MONITOR: This dialog box monitors InfoSnap's context in real time. It is used mainly for trouble-shooting.

Dialog box information is necessary to automate the DoubleBump feature in configuration file:
\$InfoSnap-DoubleBump\$.txt

SAVE: Save the current state of InfoSnap Settings and current InfoSnap mode of operation.

RESTORE: Restore the current state of InfoSnap Settings and current InfoSnap mode of operation. Re-reads both setting files.

Tip: You can close this dialog at any time. To **reopen** it reload InfoSnap (key in: MDL LOAD INFOSNAP) or reopen via the Right-Click popup-menu in InfoSnap's popup window. You can also access this dialog box via View Buddy pull down menu (via 'I-Snap' button).

CHAPTER 4

View Buddy

View Buddy (aka vBuddy) instantly makes you aware about any of several threats that you may encounter (when you least expect them!) when working in MicroStation. Think of it as highly customizable warning lamp. In addition, it can provide you with an entry point for *AutoMenu* feature (described separately in *Configuring AutoMenu* chapter).

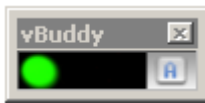


Fig 1.

vBuddy places a small *Alarm Panel* as a dockable dialog box (Fig 1.), or integrates it in Views title bar. When you hover the cursor in the vBuddy alarm box it automatically opens a slam-down showing detailed information about the current alarm (if any) and gives a mechanism to control what event should or should not trigger an alarm and how (Fig 2.).

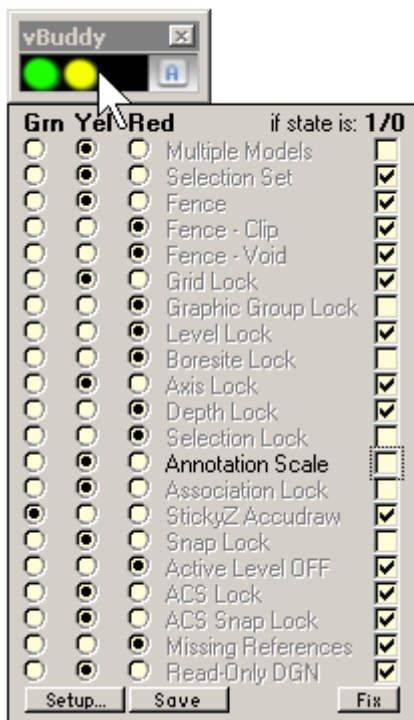


Fig 2.

Here, for instance, we have defined that whenever *Annotation Scale* lock is not active (state=0), a Yellow (Yel=ON) alarm should be triggered. And it was. We can see that this is the only item which description is shown in black. All others are shown in grey color (which means: *currently not triggered*).

Three leftmost radio button columns define the chosen color of the Alarm Light: Green, Yellow or Flashing Red. The rightmost column of checkboxes defines the state of the event which should trigger the alarm, either ON=1 or OFF=0.

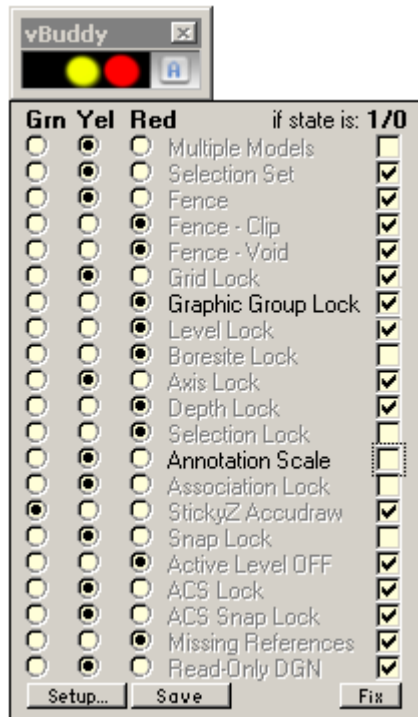


Fig 3.

In Fig 3. we are inspecting what triggered the Red alarm (in this example it was *Graphic Group Lock* being *Active=ON*).

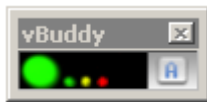


Fig 4.

Once we inspected the cause of alarm and move the cursor away, the slam-down collapses and *Alarm Panel* returns to Green state awaiting for new events. The tree dots are shown as a reminder that there are still some alarm events present, but you have inspected them already.

However, whenever any new trigger is activated/deactivated by MicroStation which in turn results in displaying the yellow or red light, warning indicator will reverse back to showing correct warning level (red or yellow). When all triggers are showing green light, the warning indicator will display it as green light without three dots.

In other words, warning indicator will always report new 'red' and 'yellow' states but upon reviewing them by the user it will reset back itself to 'green' state, but yet it will indicate whether there is a non-green indication present.

You can easily customize the number and the order of events monitored by vBuddy. Simply select *Setup* (as shown in Fig 5.).

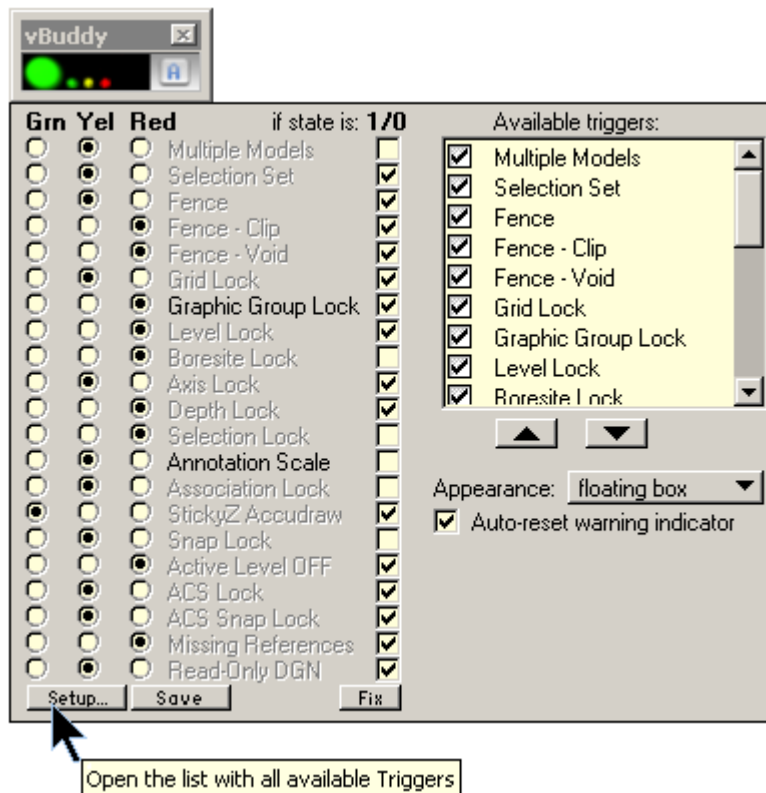


Fig 5.

The listbox on the right side lists all available triggers. You can change their order by placing the highlight on the one to move and use buttons below the list box to move this item. Deselect those you are not interested in by unselecting the check box to the left of trigger names.

You can choose to integrate the *Alarm Panel* in MicroStation Views. Use the **APPEARANCE** option button to do it.

If you don't want vBuddy to reverse to Green state every time after inspecting active alarm triggers, deselect the option **AUTO-RESET WARNING INDICATOR**. The change is that vBuddy will now accumulate all triggered states in its *Alarm Panel* and show them in real time but you may miss out some events if their color was previously triggered by something else (i.e. persistent states like 'Missing Reference Files' can overshadow more transient ones like 'Selection Set').

Lastly, press **SAVE** to make your choices persistent. That's about customizing vBuddy.

The '**A**' icon on the right side of *Alarm Panel* belongs to *AutoMenu* (when you hover the cursor over 'A' it will trigger a context sensitive pull down menu whose content is determined by the type of element that you have snapped to -- see *Configuring AutoMenu* chapter for more information).

For your convenience there are two more buttons worth mentioning: the **I-SNAP** button (not shown) and **FIX** button.

Pressing the *I-Snap* button will open the main *InfoSnap Settings* dialog box (if not already open). *InfoSnap Settings* dialog box will close automatically when you move cursor out of it.

Pressing the *Fix* button will open MicroStation *Lock Toggles* dialog box by default (or any other dialog box you want - see the INFOSNAP_VIEWBUDDY_SLAVE_OPEN in *Environment Variables* chapter for more info). This dialog box will close automatically when you move cursor out of it.

You can also create your own warning indicators. ViewBuddy supports up to two separate user-defined entries in the threat list in ViewBuddy. Suitable keyins are listed "InfoSnap key-ins" chapter.

CHAPTER 5

Measuring

Ad-hoc measuring. The much requested feature known from venerable InfoGlider for MicroStation 95 thru v7 is now implemented in both InfoSnap V8 and XM: the ability to make ad-hoc "rubber-band measurements".

To enable this feature make sure that you have selected something other than 'disabled' (or 'btn alone') in the 'Keyboard' option button ("Settings-1"). Then press this key while moving mouse cursor within a view area.

Example: In "Settings-1" we set 'Keyboard' = 'Shift+btn' (see the Fig 1.)

Now press the 'Shift'-key on your keyboard when moving mouse pointer over the MicroStation view. The "rubber band" is drawn parallell to your view surface and the length of it is dynamically shown near the cursor.

Now let the 'Shift'-key go off and move the mouse. The "rubber band" disappears. That's it, no need to press mouse buttons at all!

Please note that measurements are only approximate as they are computed from the cursor position at the very moment when you pressed Shift-button on the keyboard rather than from exact snap points (which are cheerfully ignored).

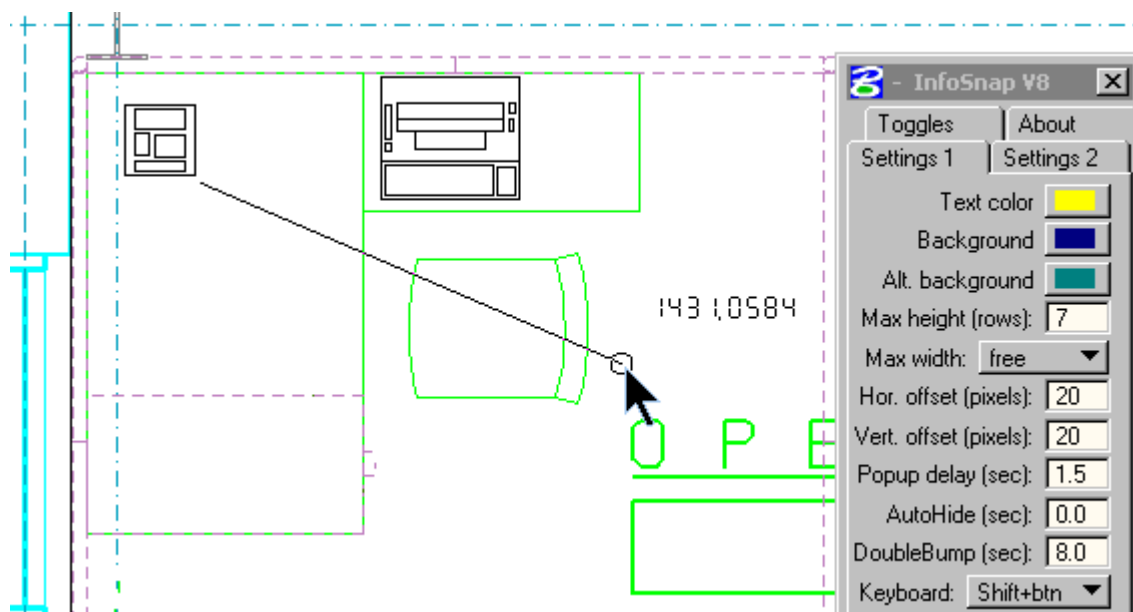


Fig 1. This is how it looks in MicroStation V8.

The output following the cursor is "1431.0584" in the captured moment.

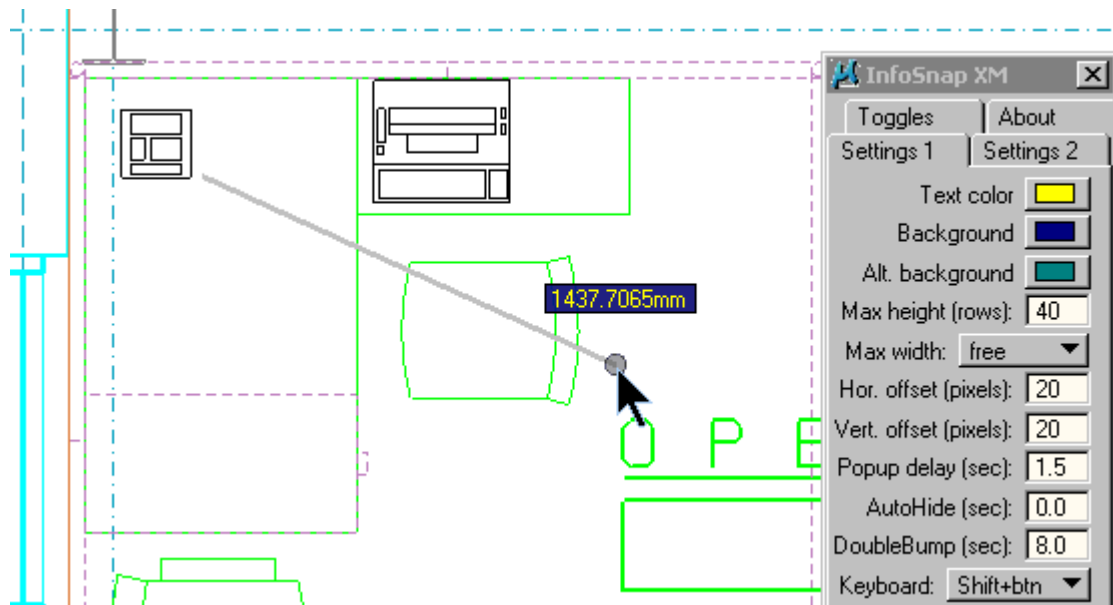


Fig 2. This is how it looks in MicroStation XM.

The output following the cursor is "1437.7065mm" in the captured moment.

Note that colors of the text in the measurement pop-up are the same as for main InfoSnap pop-up and are set in 'Settings-1' tab.

CHAPTER 6

InfoSnap Toggles

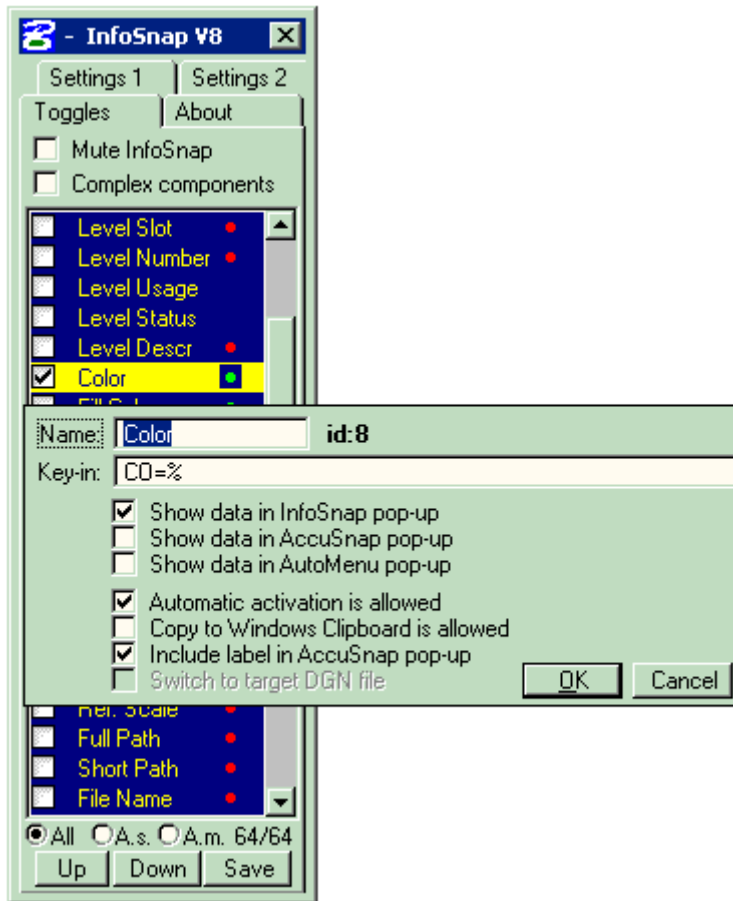


Fig 1.

MUTE INFO SNAP: suspend information retrieval (disable popup).

COMPLEX COMPONENTS: When active, information in the popup pertains to the single component of a complex element rather than complex element in its entirety (for example a line element within a cell, rather than the cell itself). This is different from MicroStation's AccuSnap balloon output.

[V]: enable/disable the display of the corresponding field in InfoSnap's main popup (and AccuSnap's balloon if appropriate).

NAME: how to edit: double-click on the name column and do your name editing in a modal popup.

ID:# this is the unique Toggle ID number. For example in Fig 1 the ID number for the Color toggle is 8. Toggle ID numbers are used in key-ins for defining the subject Toggles.

KEY-IN: how to edit: double-click on the name column and do your key-in editing in a modal popup. Insert the percent character (%) wherever you want InfoSnap to insert the actual value retrieved from the design file. You can use SELVIEW 0 if a datapoint is required in the current view.

SHOW DATA IN INFO SNAP: when this option is enabled, the corresponding field and its value retrieved from the design file will be inserted into InfoSnap's main pop-up balloon.

SHOW DATA IN ACCU SNAP: when this option is enabled, the corresponding field and its value retrieved from the design file will be inserted into AccuSnap's pop-up balloon. See '*A.S. balloon*' in Settings-1 for more info.

SHOW DATA IN AUTOMENU: when this option is enabled, the corresponding field and its value retrieved from the design file will be inserted into dynamic AutoMenu sub-menu with the same name as its corresponding Toggle. You **MUST** enable **Show data in InfoSnap** for this Toggle as well because **Show data in AutoMeny** is simply *reusing* data gathered by main InfoSnap balloon. See the *Configuring AutoMenu* chapter for all important details.

AUTOMATIC ACTIVATION IS ALLOWED: when this option is enabled, the corresponding field in the InfoSnap main popup will be automatically processed when you press the '*Insert*' -key (with an appropriate modifier) or when you use the '*Rubber Stamp*' icon or Right-Click menu in popup.

COPY TO WINDOWS CLIPBOARD IS ALLOWED: when this option is enabled, the corresponding field in the InfoSnap main popup will be automatically copied to Windows Clipboard when you press the '*Insert*' -key (with an appropriate modifier) or when you use the '*Rubber Stamp*' icon or Right-Click menu in popup. Note that only one field at a time may be copied to Windows Clipboard. The last one copied is available for pasting to any other application you like.

INCLUDE LABEL IN ACCU SNAP POPUP: when this option is enabled, the 'Name' will be inserted as a label for its corresponding value.

SWITCH TO TARGET DGN FILE: when this option is enabled, InfoSnap will activate the reference file when processing this Toggle. For example the 'Level Name' toggle is depending on this setting: if enabled, InfoSnap will activate the owning model from the reference file before activating the level, if disabled it will try to activate the level with the same name if it can be found in currently active file.

ALL: show all available toggles.

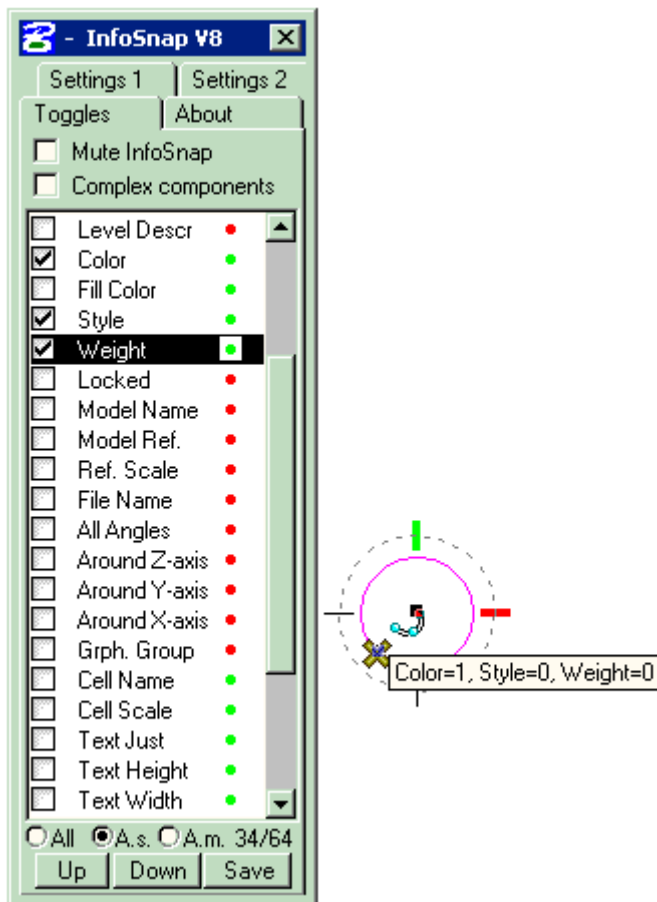


Fig 2.

A.S: show only those toggles which can be inserted into AccuSnap balloon (see Fig 2.).

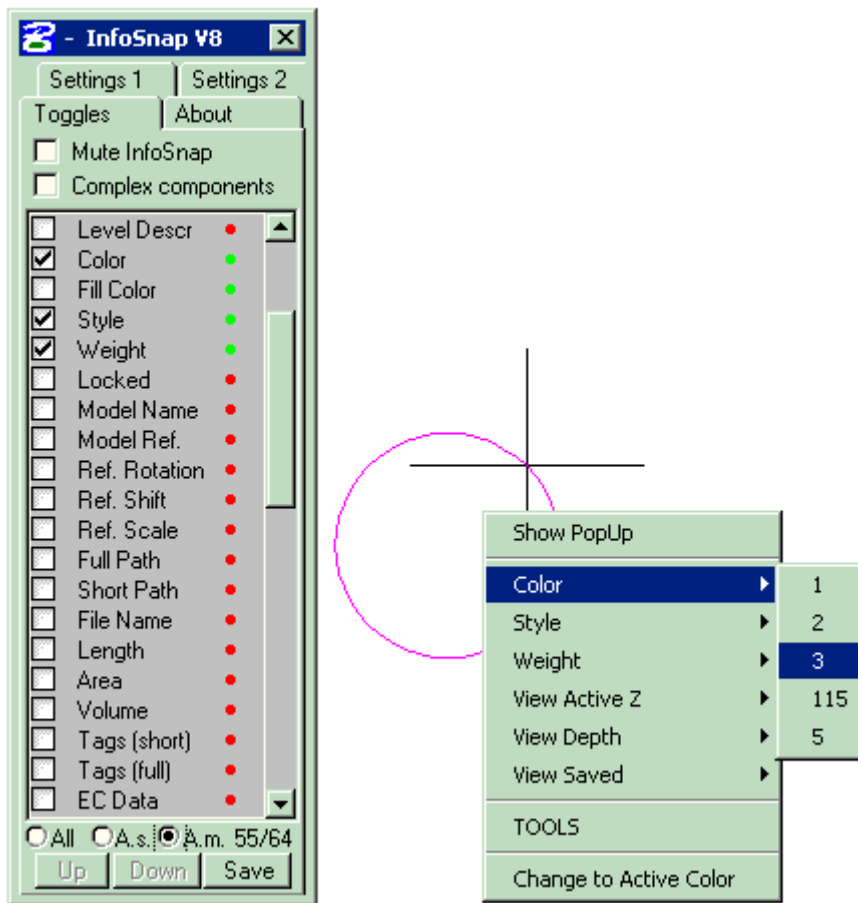


Fig 3.

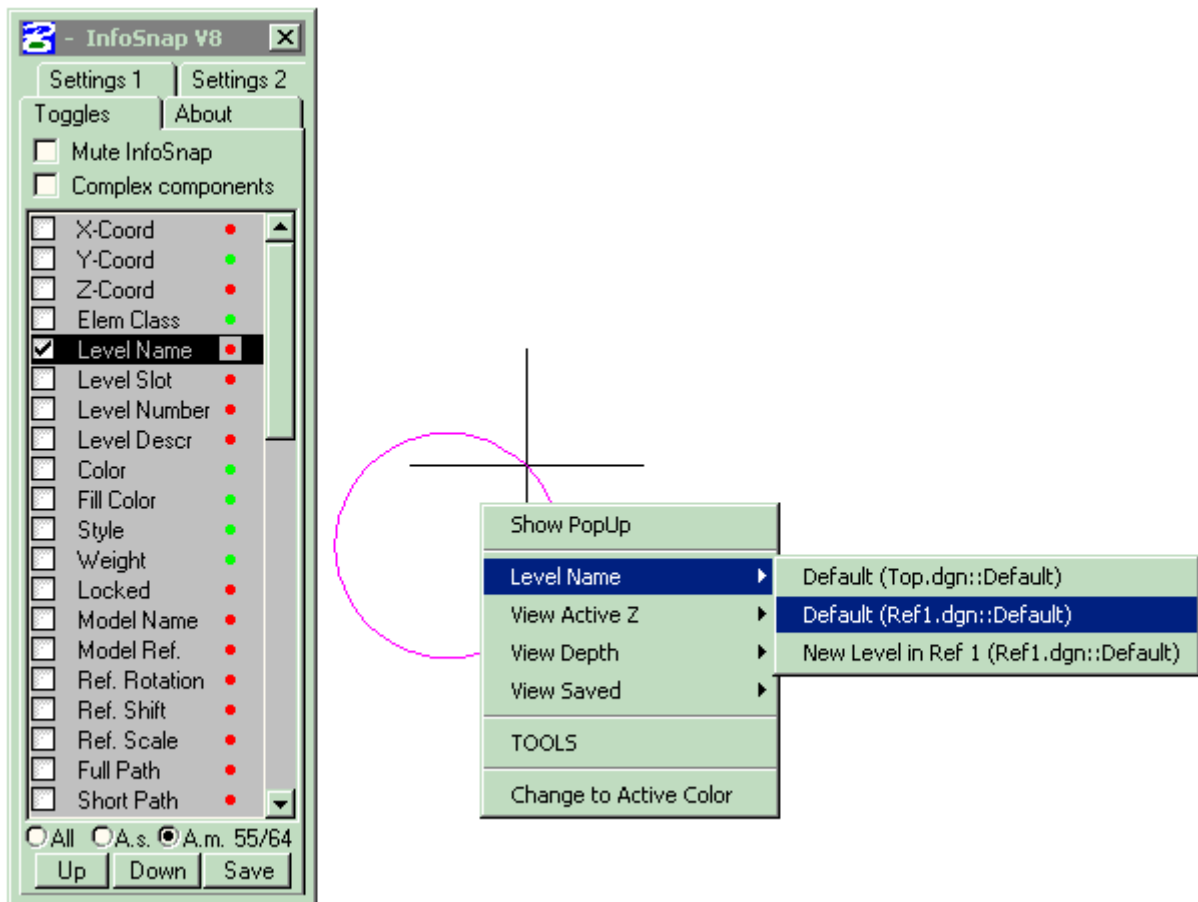


Fig 4.

A.M: show only those toggles which can be inserted into AutoMenu popup menu (see Fig 3. and Fig 4.). You MUST enable **Show data in InfoSnap** for this Toggle as well because **Show data in AutoMenu** is simply *reusing* data gathered by main InfoSnap balloon.

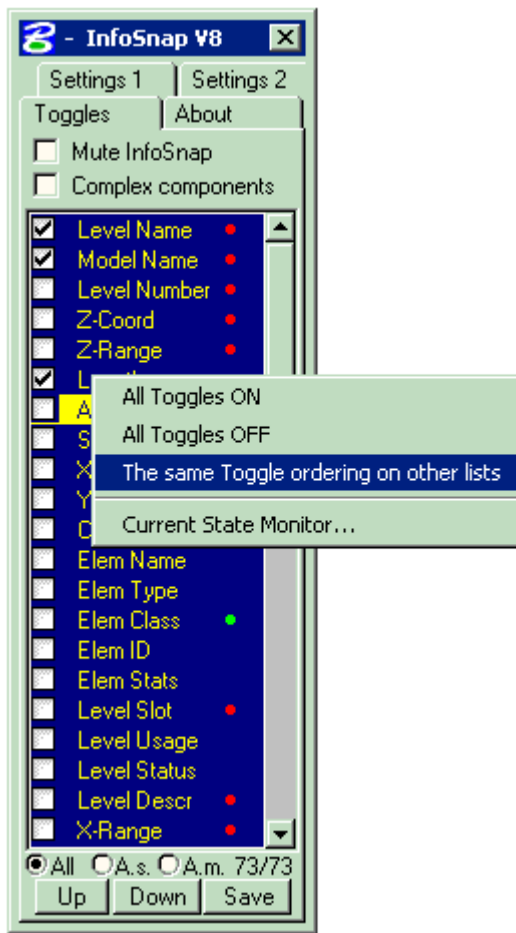


Fig 5.

UP / DOWN: change the display order in popup: highlight the row you want to move up or down by clicking on its name and press “Up” or “Down” buttons as many times as needed to move the row to its new position. Do not forget to press 'Save' in Settings tab when you are done.

Note: main InfoSnap popup balloon, *AccuDraw* popup and *AutoMenu* have separate toggle lists here. This means that you can maintain separate sort orders and separate display states for all three lists.

SAVE: Save the current state of InfoSnap Settings and current InfoSnap mode of operation.

Green and Red dots: a Green dot denotes a toggle that has an assigned Key-in and for which the 'Automatic activation' of the key-in is enabled. A Red dot denotes a toggle that has an assigned Key-in but 'Automatic activation' of the key-in is disabled. No dot denotes a toggle which can not have any assigned key-in at all. Placing the mouse cursor just to the right of a dot, will activate a balloon showing the associated key-in.

ALL TOGGLES ON/OFF: enable/disable all Toggles in this list with one click.

SYNCH OTHER TOGGLE LISTS: force all items on remaining two lists (*AccuSnap* and *AutoMenu*) to follow the main list's sort order. This saves a lot of time when reordering items on "All" list and applying the same order for other lists.

CURRENT STATE MONITOR: yet another short-cut to beloved *Current State Monitor*.

CHAPTER 7

InfoSnap key-ins

Key-in	Usage
INFOSNAP SETTINGS	Use to open or close the main Settings (and Toggles) dialog box
INFOSNAP RESTORESETTINGS	Re-read saved settings from the disk (force loading shrunk dialog boxes if necessary)
INFOSNAP STATEMONITOR	Use to open or close the Current State Monitor dialog box
INFOSNAP MUTE	Use to toggle the Mute setting
INFOSNAP MUTE ON	Use to enable the Mute setting
INFOSNAP MUTE OFF	Use to disable the Mute setting
INFOSNAP COMPLEX	Use to toggle the Complex Components setting
INFOSNAP COMPLEX ON	Use to enable the Complex Components setting (i.e. skip data in complex headers)
INFOSNAP COMPLEX OFF	Use to disable the Complex Components setting (i.e. report data in complex headers)
INFOSNAP POPUPTOGGLE ON #	Enable the visibility of the Toggle-# in InfoSnap popup (obtain Toggle-# via Edit Toggle)
INFOSNAP POPUPTOGGLE OFF #	Disable the visibility of the Toggle-# in InfoSnap popup (obtain Toggle-# via Edit Toggle)
INFOSNAP POPUPTOGGLE ALLON	Enable visibility of all Toggles in InfoSnap popup
INFOSNAP POPUPTOGGLE ALLOFF	Disable visibility of all Toggles in InfoSnap popup
INFOSNAP POPUPMODE	Toggle between Element Info and Model History

Key-in	Usage
INFOSNAP POPUPACTIVATE	The same as Rubber-stamp icon or 'Insert' hotkey
INFOSNAP HOME	The same as 'Home' hotkey
INFOSNAP ASNAPTOGGLE ON #	Enable visibility of the Toggle-# in AccuSnap balloon (obtain Toggle-# via Edit Toggle)
INFOSNAP ASNAPTOGGLE OFF #	Disable visibility of the Toggle-# in AccuSnap balloon (obtain Toggle-# via Edit Toggle)
INFOSNAP ASNAPTOGGLE ALLON	Enable visibility of all Toggles in AccuSnap balloon
INFOSNAP ASNAPTOGGLE ALLOFF	Disable visibility of all Toggles in AccuSnap balloon
INFOSNAP CLIPBOARDTOGGLE ON #	Enable access to Windows Clipboard for the Toggle-# (obtain Toggle-# via Edit Toggle)
INFOSNAP CLIPBOARDTOGGLE OFF #	Disable access to Windows Clipboard for all Toggles in AccuSnap balloon
INFOSNAP CLIPBOARDTOGGLE ALLON	Enable access to Windows Clipboard for all Toggles in AccuSnap balloon
INFOSNAP CLIPBOARDTOGGLE ALLOFF	Disable access to Windows Clipboard for the
INFOSNAP CUT <any text>	<any text> is the text string to be inserted in Windows Clipboard
INFOSNAP NEWDIALOG ActionString	<ActionString> is the text string following the format defined in the DoubleBump settings file. See the notes below (1).
INFOSNAP ZEROANGLE	Use to toggle the 'Report zero-angles' setting
INFOSNAP ZEROANGLE ON	Use to enable the 'Report zero-angles' setting
INFOSNAP ZEROANGLE OFF	Use to disable the 'Report zero-angles' setting
INFOSNAP XROTATION Option	Define rotation angle readout. See the notes below (2).

Key-in	Usage
INFOSNAP SCALE value unit	Where 'value' is any value by which the measured length should be multiplied and where 'unit' is any text string which will be used as the unit name. Note that simply giving the keyin: "INFOSNAP SCALE value unit" will set all three scales described below to the corresponding value.
INFOSNAP LENGTHSCALE value unit	Example: your DGN Settings define 1 millimeter as the Master Unit. You want readout in InfoSnap to be presented in meters instead: INFOSNAP LENGTHSCALE 0.001 m
INFOSNAP AREASCALE value unit	Example: your DGN Settings define 1 millimeter as the Master Unit. You want readout in InfoSnap be presented in squared meters instead: INFOSNAP AREASCALE 0.001 m
INFOSNAP VOLUMESCALE value unit	The description is analogic to AREASCALE and LENGTHSCALE above.
INFOSNAP DECIMALS number	Where 'number' is a number of decimal places in SCALE'd floating point value (i.e. precision). Note that specifying this setting will force InfoSnap to use Master Units for all SCALE'd output.
INFOSNAP AUTOMENU	It toggles (activates / deactivates) a new context-sensitive menu system
INFOSNAP AUTOMENU ON	It activates a new context-sensitive menu system
INFOSNAP AUTOMENU OFF	It deactivates a new context-sensitive menu system
INFOSNAP TOGGLEPOPUP	It has the same effect as pressing Alt+Space keys on the keyboard. Toggles visibility of main popup balloon without changing its position.
INFOSNAP SHOWPOPUP	Brings main popup balloon to current cursor position. Balloon is opened if it was already closed.

Key-in	Usage
INFOSNAP EXCHANGEAUTOMENU path	<p>When issued without optional path parameter, it simply reloads the current AutoMenu settings file.</p> <p>When issued with path, the environment variable INFOSNAP_AUTOMENU is temporarily set to the new path and the new settings file is loaded. The change is not persistent (i.e. not saved between sessions).</p> <p>Can be used within AutoMenu settings files to chain several hierarchies of these files.</p>
INFOSNAP SHOWAUTOMENU	Activates AutoMenu popup directly under the cursor! Cursor must be positioned within any view or else this keyin will be cheerfully ignored (the reason for this is assuring the correct operation of SELVIEW keyin)
INFOSNAP ACCUDRAW DISTANCE xxx	Keyins for AccuDraw control. They are to be used with Toggles which are giving either length, distance or angle readout (shown as xxx below, but use the % character when redefining Toggles). Example: Replace default keyin in the "Length" Toggle: PLACE TEXT; % with INFOSNAP ACCUDRAW DISTANCE % Activating this Toggle will now result in 'Length' being supplied for 'Distance' in AccuDraw switched to angular mode. 'Distance' will be locked in AccuDraw.
INFOSNAP ACCUDRAW ANGLE xxx	
INFOSNAP ACCUDRAW X xxx	
INFOSNAP ACCUDRAW Y xxx	
INFOSNAP ACCUDRAW Z xxx	
INFOSNAP AUTOSWEEP ON	Self-explanatory keyins for controlling AutoSweep feature. When INFOSNAP AUTOSWEEP ON is issued and cursor is hovering over drawing area within a view, all dialog boxes intersecting this view will be swept off the sight until cursor leaves this area.
INFOSNAP AUTOSWEEP OFF	

Key-in	Usage
INFOSNAP ECHOACCUDRAW ON	Self-explanatory keyins for controlling Echo AccuDraw feature.
INFOSNAP ECHOACCUDRAW OFF	
INFOSNAP ECHOACCUDRAW	

Key-in	Usage
INFOSNAP VBUDDY1 [option] [Label]	<i>Where:</i>
INFOSNAP VBUDDY2 [option] [Label]	<i>VBUDDY1, VBUDDY2 - is a trigger selector (defines first or second trigger as a target)</i>
Options:	
ONSLEEP	<i>ONSLEEP (state = 0 or FALSE),</i>
ONACTIVATE	<i>ONACTIVATE (state = 1 or TRUE) - define which state will activate alarm</i>
RED	<i>RED, YELLOW, GREEN - assigns the light color for this trigger to be used when the alarm is triggered</i>
YELLOW	
GREEN	<i>ACTIVATE - request activate event (i.e. set state to TRUE)</i>
ACTIVATE	
SLEEP	<i>SLEEP - request sleep event (i.e. set state to FALSE)</i>

Example:

In a script composed of keyins to manage backups, you may add the following keyins to trigger a vBuddy alarm when the backup has failed:

; if state will be set to TRUE for VBUDDY2

INFOSNAP VBUDDY2 ONACTIVATE

; use red light

INFOSNAP VBUDDY2 RED

; and set state to TRUE now and tell the user that we have a "Backup Failure!"

INFOSNAP VBUDDY2 ACTIVATE Backup Failure!

And use following keyin when it succeeds:

; set state to FALSE, display green light and set message to "Backup OK"

INFOSNAP VBUDDY2 SLEEP Backup OK

NOTES

(1) *NEWDIALOG* action string format (defined in the *DoubleBump* settings file) is:

State,ApplicationId,DialogId,TitleOverride,Key-In

Where 'State' is one of REQUIRED: *top, left, right, none, nonuke, hide*

- where '*top*' means shrink to title bar
- where '*left*' means shrink to left border (currently the same as '*top*')
- where '*right*' means shrink to right border
- where '*none*' forbids any kind of shrinking
- where '*nonuke*' forbids any kind of automatic nuking AND shrinking
- where '*hide*' makes any dialog box permanently invisible (use with caution!)

Where 'ApplicationId' is the REQUIRED name of the owner MDL application (use asterisk '*' to match any application)

Where 'DialogId' is the REQUIRED dialog box number in MDL resource (use asterisk '*' to match any number)

Where 'TitleOverride' is the OPTIONAL dialog box title override

Where 'KeyIn' is the OPTIONAL key-in to force opening this dialog box (if you want it to auto-open)

See the delivered DoubleBump settings file template for complementary examples: \$InfoSnap-DoubleBump\$.txt

Use InfoSnap 'Current state monitor' (in the Settings tab) to obtain 'ApplicationId' and 'DialogId' with cursor.

(2) XROTATION Options

Example:

+X+Y counter-clockwise, starting from positive X-axis

+X-Y clockwise, starting from positive X-axis

Other valid options:

around X-axis: +Y+Z +Z-Y -Y-Z -Z+Y +Y-Z -Z-Y -Y+Z +Z+Y

around Y-axis: +Z+X +X-Z -Z-X -X+Z +Z-X -X-Z -Z+X +X+Z

around Z-axis: +X+Y +Y-X -X-Y -Y+X +X-Y -Y-X -X+Y +Y+X

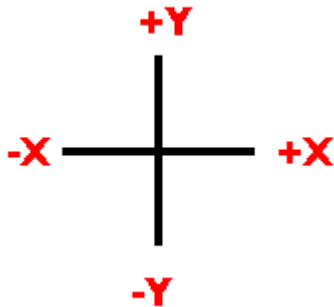


Fig 1. Quadrants around Z-axis.

CHAPTER 8

Configuring AutoMenu

The main interface to AutoMenu is comprised of two consecutive events:

- 1 Snapping to an element (or snapping to nothing)
- 2 Moving cursor toward the edge of the view (or moving close to snap point -- this is depending on your preference, as set in 'Settings-2' tab)

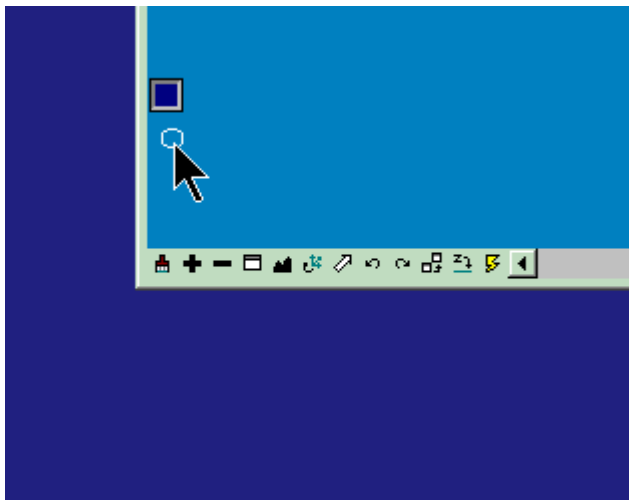


Fig 1.

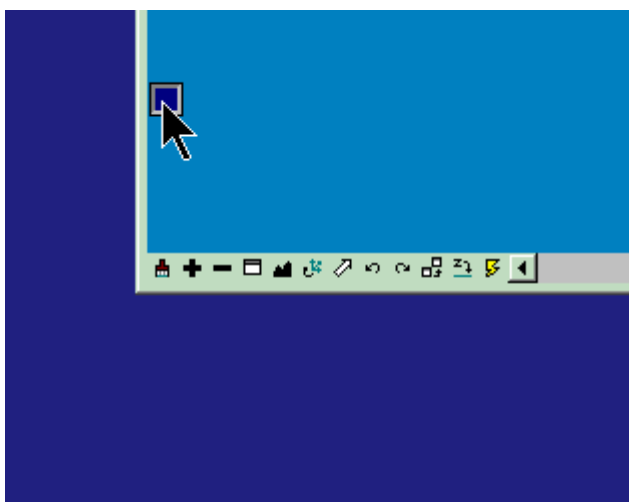


Fig 2.

When the cursor is in close proximity to view edge (or to snap point), a small activator square appears close to (or just beneath) the cursor (Fig 1.). Whenever you want to activate AutoMenu's popup menu, just let the cursor hover over the activator square (Fig 2.).

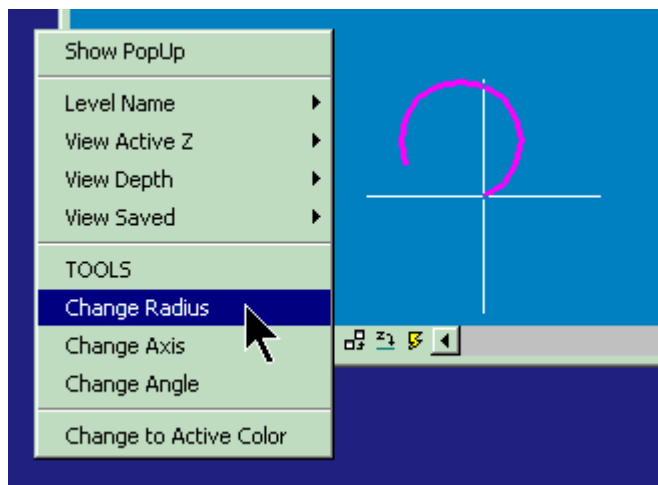


Fig 3.

If you let the cursor hover over activator square, a pull-down menu will open automatically with menu choices which relate to the element you have just snapped before. On the other hand, if you let the cursor stay outside of the activator square, it will disappear after a short while. Place cursor on the menu if you want it to stay (Fig 3.) or it will disappear after a fraction of a second as well.

Note, that menu content depend on what you have snapped to and what you have defined in AutoMenu settings file. AutoMenu settings file is located through `INFOSNAP_AUTOMENU` environment variable. An example file is delivered for your convenience and should be placed wherever `INFOSNAP_AUTOMENU` points to (check in *Current State Monitor* if in doubt and consult the '*Environment variables*' chapter for more information about defining `INFOSNAP_AUTOMENU`). Make also sure that '**AutoMenu**' is enabled in '*Settings-2*'.

AutoMenu functionality can be divided into following two main areas:

- 1 Snap data recycling
- 2 Context-sensitive menus and toolboxes

Snap data recycling:

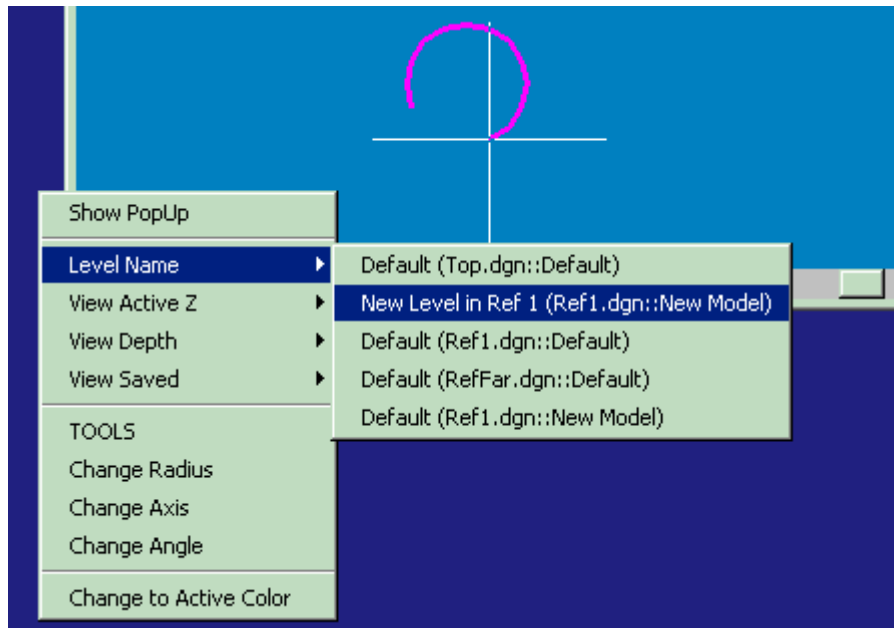


Fig 4.

Any Toggle can be assigned as data provider for AutoMenu. It is done in 'A.m.'-list in 'Toggles' tab. It is important that this Toggle is selected as Active (in 'All'-list) as well. As soon as you snap to something, associated data is inserted into AutoMenu under menu entry with the same name as its corresponding Toggle. If you have marked some listings in InfoSnap main popup as 'frozen' (pin icon), only data belonging to those 'frozen' lists will be passed to AutoMenu. Selecting this recycled data from AutoMenu will activate associated keyin and perform the desired action. You may want to experiment with Level Name as your selected Toggle and discover the new power of file/model navigation it reveals for you. Example of such output is shown in Fig 4.

Context-sensitive menus (and icon toolboxes!):

You can define any number of context-sensitive menus which will be displayed according to currently displayed element type (as usually shown in InfoSnap main popup balloon). This element type is normally retrieved by InfoSnap from the same element you most recently snapped to. Delivered sample settings file defines menus for Line, Text, Arc and a few other elements. You may want to add a bunch of your own menus. I am sure that you absolutely want to do that, especially when you look closer at delivered example entries called "TOOLS" and how they work. In Fig 3 and 4 we have snapped to an arc. AutoMenu shows us following choices: *Change Radius*, *Change Axis* and *Change Angle*. In addition to that, selecting TOOLS opens... *Arcs Toolbox*! How come?

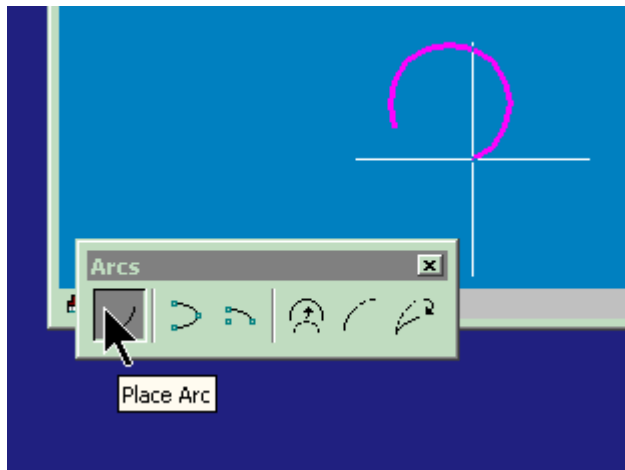


Fig 5.

Look closer at the following entry in delivered \$InfoSnap-AutoMenu\$.txt:

```
; ARC
;
16,TOOLS,DIALOG TOOLBOX ARC
16,Change Radius,MODIFY ARC RADIUS;DX=0,0
16,Change Axis,MODIFY AC AXIS;DX=0,0
16,Change Angle,MODIFY ARC ANGLE;DX=0,0
```

The first two lines are comments (i.e. begin with semicolon) and are disregarded by InfoSnap. The third row says: whenever snapped element is of type 16 (Arc) insert menu entry called *TOOLS* and execute keyin DIALOG TOOLBOX ARC whenever the *TOOLS* entry is selected by user.

And consequently, the next row says: whenever snapped element is, again, of type 16 (Arc) insert another menu entry called *Change Radius* and execute keyins: MODIFY ARC RADIUS and DX=0,0 whenever the *Change Radius* entry is selected by user.

And so forth. Pretty basic?

Controlling AutoMenu look-and-feel:

'Settings 2'-tab has two new controls for fine tuning AutoMenu:

- 1 The size of magic button (activator square which shows up when the cursor is near to the view border and activates itself on fly-over when you barely place cursor over it and stop moving) and the width of AutoMenu strip which triggers magic button to show up. You can visually confirm the current width of the strip in 'Current State Monitor' which has a special test-button for this purpose (if you selected 'AutoMenu: at snap point' in 'Settings-2', you should snap to something before pressing this test button).
- 2 The position of magic button relative to cursor position. Simply adjust to your taste, whether you want magic button to show up close to view border or exactly at snap point (see Fig 6.).

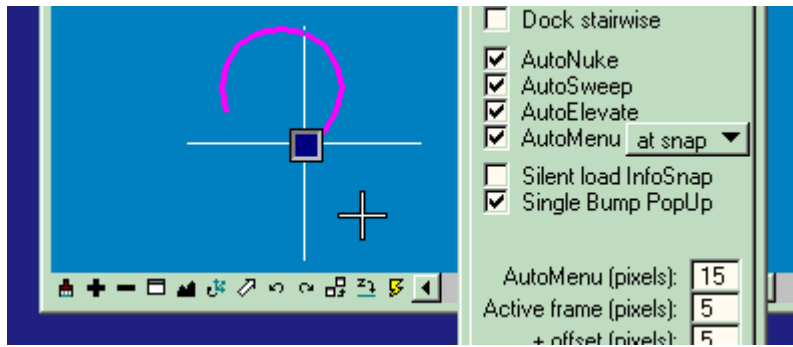


Fig 6.

Special use of SELVIEW keyin:

MicroStation's keyin "SELVIEW n" is used to issue a datapoint in a View "n" from within keyin command sequence.

InfoSnap however introduces an extended meaning to this keyin whenever "n" is defined as "0" (zero). In infoSnap's context keyin "SELVIEW 0" means either the view where the last snap has occurred or where the AutoMenu has been activated.

In our context it always correspond to the view where the main pop-up balloon or AutoMenu has been recently shown (i.e. from which the associated keyins were issued). "SELVIEW 0" is part of default keyins associated with following new Toggles: "View Depth", "View Saved" and "View Active Z". So now you know a little more about how the AutoMenu magic is done ;-)

Default keyins for those Toggles are:

"View Depth" -> "DP=%;SELVIEW 0"

"View Active Z" -> "AZ=%;SELVIEW 0"

"View Saved" -> "VI=%;SELVIEW 0"

This makes applying View Depth retrieved from one view to several other views a breeze.

Reversing the order of MicroStation operation:

Example:

1. draw a few lines (plain lines, not SmartLines)
2. snap to one of them, but *do not* Accept with datapoint
3. activate AutoMenu (assuming delivered example settings file)
4. select 'Extend' from it
5. move your cursor back to close proximity of this line

Now you are in the middle of 'extend line' operation and your currently snapped line is a subject to it!

This is how you can use reversed order of operations: i.e. select element first and choose the operation later. I thought that you ought to know about this possibility.

CHAPTER 9

Mode of operation

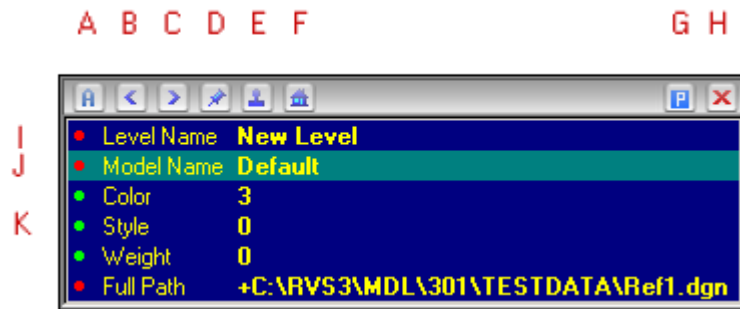


Fig 1.

STATIC MODE (G) is denoted by a blue 'P' icon.

The popup will stay at the designated place all the time in this mode.

DYNAMIC MODE (G) is denoted by a blue 'arrow' icon.

The popup will pop up in close proximity to the cursor in this mode (this is like the heads up in the previous editions of InfoSnap for MicroStation 95/SE/J).

Clicking on the Mode icon toggles the mode (and the corresponding icon).

Note that the Save Settings button in Setup saves the mode of operation. Next time you start InfoSnap, the mode which was active at Save will be the default mode on start-up.

Relocating the popup (regardless of its mode) is done by clicking on the free space between Home (F) and Mode (G) icons and dragging the popup window while the mouse button remains pressed down.

A (A) icon let you activate current AutoMenu popup (this feature is described separately).

BROWSING ARROWS (B & C) icons let you browse between the last 20 screens of popup. Every snap event generates a new listing, unless you snap several times to the same element. When 20 listings are generated, the oldest one is discarded when the 21-st snap occurs, and so forth. You can prevent discarding of any listing by marking it up with Pin-icon (described below). The current listing's number is listed in upper left corner of popup (A).

PIN (D) icon lets you mark (freeze) any listing in popup. The icon changes to green 'P'. Marked listing will not be discarded when new snaps are processed. This is a handy thing when working with AutoMenu feature which will be constrained to contents of marked listings only (otherwise it would reuse all available listings).

'DOT'-ICON (I,J,K) in the listing denotes information that can be reused (or activated) by double-clicking on it in popup or clicking on the **Rubber Stamp**-icon. For instance, a double-click on Model Name will open this model for editing, double click on color number will make this color active and so forth. If you wish other things to happen you can always edit action strings in the *Toggles*-tab of the InfoSnap Setup dialog box (they are regular MicroStation key-ins after all). Hint: double-clicking on the Level Name in popup, besides activating the Level itself, will activate the Model if the model is in another file. If the Model is in the Active File, the models will not be switched.

Dot-icon colors (as maintained in *'Toggles'*-tab):

green dot (K) = the row has an associated action and has been selected for 'Automatic activation'

red dot (I,J) = the row has an associated action and has NOT been selected for 'Automatic'

no dot = the row is dead, has no action at all (action wise, nothing will happen)

RUBBER STAMP (E) icon lets you reuse entire sets of reusable information. Highlight several rows (holding Ctrl or Shift button on keyboard) in any listing (rightmost column). Whenever you want to reuse the highlighted set, browse to it with Browsing Arrows and press the **Rubber Stamp**. Use a **Pin**-icon to freeze the entire set if you know you'll need it later.

Instead of using the **Rubber Stamp** icon, the same action can be performed from the keyboard: just press the *'Insert'*-key (along with modifier defined in the *'Keyboard'* option in Settings-1).

You can enable Automatic Activation for frequently re-used fields. Do it in the *'Toggles'*-tab described separately.

HOME (F) icon displays The Model Tree which let you move fast to any of the Models ever listed in popup, or ever activated during the same design session. Think of it like a history of visited (or targeted) Models (see the *Model History tree* chapter).

Some navigational actions can be performed from keyboard: just press the *'Home'*-key (along with a modifier defined in the *'Keyboard'* option in Settings-1, default is Ctrl) to switch to the model which was active immediately before you entered the currently active model.

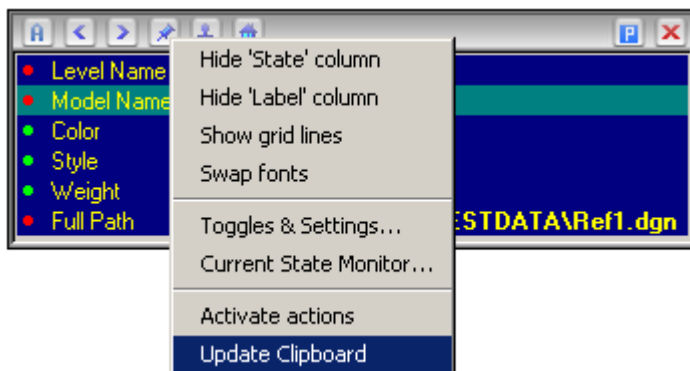


Fig 2.

Finally, the Right-Click menu allows you customizing popup and performing several common tasks.

In order to use *'Update Clipboard'*, the *"Copy to Windows Clipboard allowed"* property must be enabled for Toggles which are allowed to access Windows Clipboard. See *'InfoSnap Toggles'* chapter for more information.

CHAPTER 10

Current State Monitor

This dialog box monitors InfoSnap's context in real time. It is used mainly for trouble-shooting.

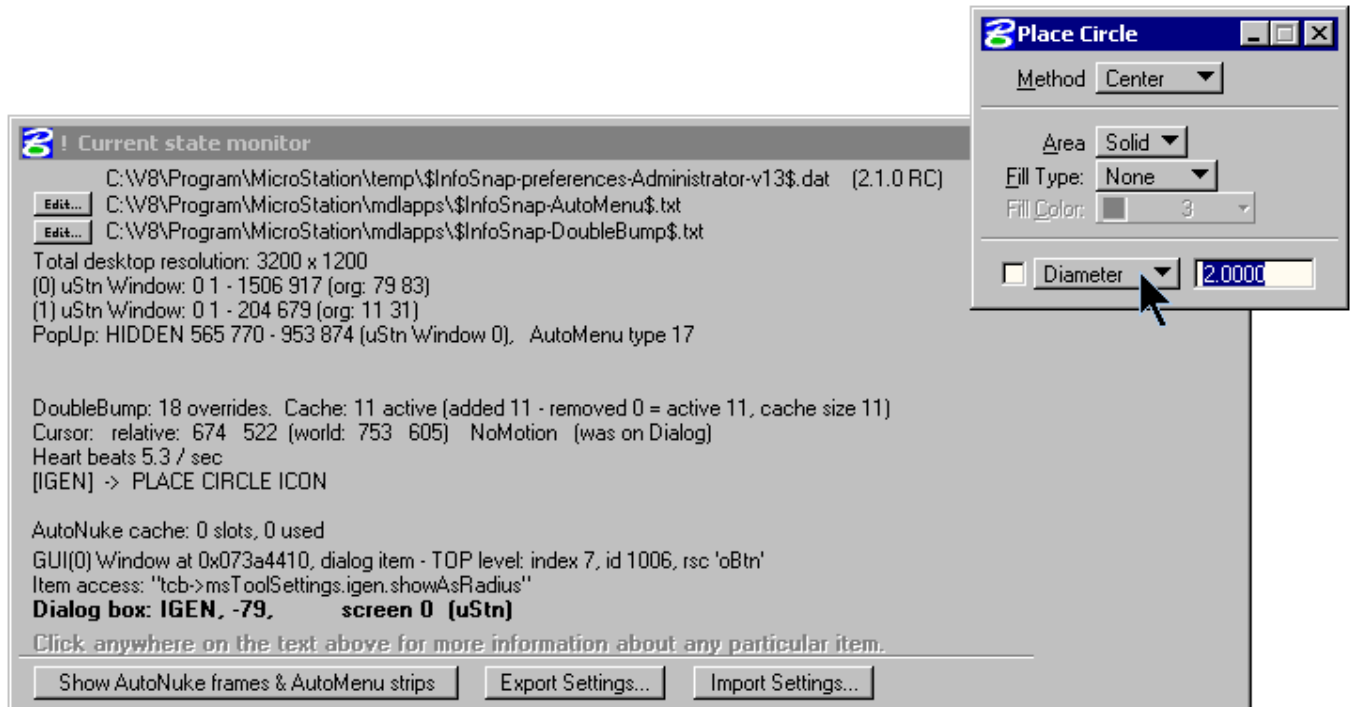


Fig 1.

You will also need to open this dialog box when tracing other dialog boxes identification numbers and their owners (MDL program name, task ID). In figure 3 above, you can see that your cursor is hovering above dialog box number -79 (minus seventy nine) belonging to application VIEWCTRL.

Dialog box information is necessary to automate the **DoubleBump** feature in configuration file:
\$InfoSnap-DoubleBump\$.txt

Other useful tidbits are: key-in triggering currently active command (here: PLACE CIRCLE ICON), the program variable behind the selected dialog box item (here tcb->msToolSettings.igen.showAsRadius), etc. This stuff may be useful when writing your own programs/macros.

EXPORT SETTINGS... - 'Current State Monitor' has been enhanced with export functionality. Pressing the new "Export Settings..." button will export all InfoSnap settings along with active MicroStation user preference file (*.UPF) file to the selected folder. This functionality will both aid all future problem reporting to me and can also be used to conveniently backup a snapshot of all InfoSnap settings.

Pressing this button will prompt for the destination folder and collect all settings files into the chosen folder and finally create an archive library which contain all InfoSnap data files in format which is suitable for "Import" (see below). Only the file with extension "*.Exported" is necessary to move all data files to another computer, the rest is copied simply for the convenience of having all current copies in one place.

IMPORT SETTINGS... InfoSnap data files can be exported and imported across different MicroStation installations. Import logic resolves naming differences for affected data files and places them in correct locations (overwriting current ones without any warning). Only files with the extension "*.Exported" are processed (unpacked in place and copied to proper destinations). Note that MicroStation user preference file (*.UPF) can not be copied to its destination because it will be overwritten when exiting MicroStation. This file can be replaced manually when MicroStation is not running. Also special caution applies to MicroStation user preference files as they are usually not very portable between computers with different screen resolutions.

SHOW AUTONUKE FRAMES & AUTOMENU STRIPS: With this test button you can visually check where the 'Active frames' are just by pushing (and holding depressed!) it. 'Active frames' are shown in cyan color when they are active and in red color if the feature has been disabled. 'AutoMenu strips' are shown in blue color when they are active and in red color if the feature has been disabled. Snap to anything before pressing test button so you can see where the strips are relative to snap point. Please look in to *Configuring AutoMenu* chapter for all important details.

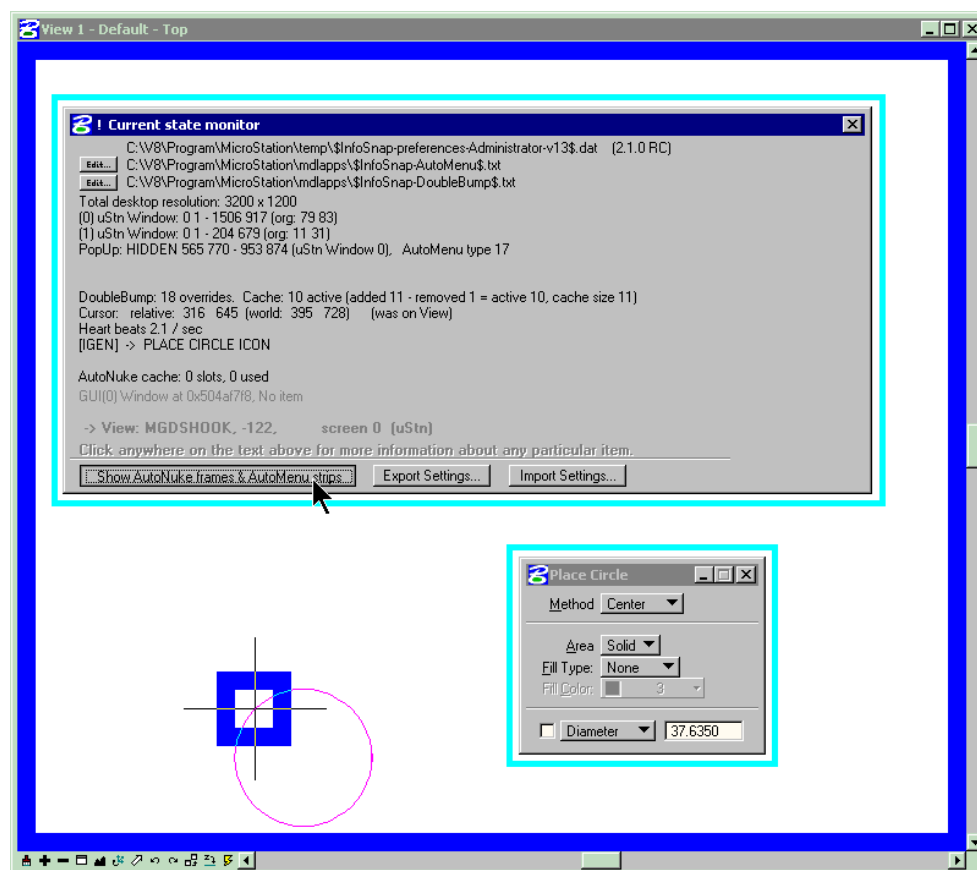


Fig 2.

CHAPTER 11

Model History tree

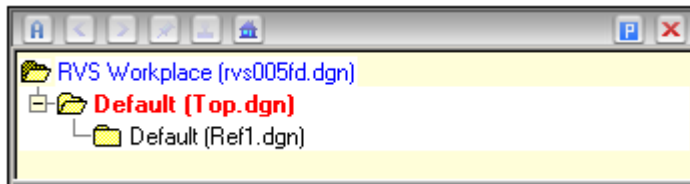


Fig 1.

Models View is presented as a dynamic tree of Models. This tree does not reflect the reference file structure in any way. Instead, it reflects the way you have accessed or visited these models. The current model is displayed in red. The model you just left is displayed in blue. Other models which you have identified by snapping to elements or visited in the past are shown in black. The tree is updated whenever you explicitly open the DGN Model for editing or just snap to an element contained in a referenced DGN Model (aka "Reference File").

In order to jump to any DGN Model in the tree (i.e. to make it the Active Model), simply double-click on it. For example, this is what happens when we double-click on model Default in Ref1.dgn:

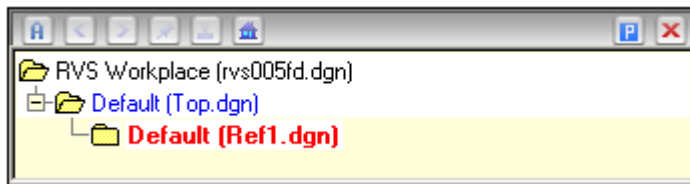


Fig 2.

Now when we have switched to this model, it is now displayed in red color as an active model.

Please also keep in mind that pressing Ctrl-Home will always bring you to the model shown in blue color.

CHAPTER 12

Environment variables

Environment variables can be defined at operating system's level (Control Panel->System->Advanced) or in MicroStation (Workspace->Configuration).

The following variables have special meaning for InfoSnap:

Name	Value/Description	Remark
INFOSNAP_SETTINGS	c:/path/to/your/directory/ If not defined, MS_TMP will be used instead, where the file " <i>\$InfoSnap-preferences-UserName-v13\$.dat</i> " will be created with all preferences defined by user <i>UserName</i> .	1
INFOSNAP_DOUBLEBUMP	c:/path/to/your/directory/ If not defined, the directory where InfoSnap was installed will be used. In that case InfoSnap expects to find the data file " <i>\$InfoSnap-DoubleBump\$.txt</i> " in this directory.	1
INFOSNAP_TEXTEDITOR	name of applet This variable defines text editor to be used for editing DoubleBump settings file. If this variable is not defined, NOTEPAD.EXE will be used as the default text editor.	

Name	Value/Description	Remark
INFOSNAP_ECHO	1 This variable activates echoing of (InfoSnap-issued) keyins to MicroStation Message Center. Keyin templates are user editable extensions to most of InfoSnap Toggles. Whenever the Toggle is being activated, the associated keyin is executed. By defining this variable you may monitor all information being sent from InfoSnap to MicroStation in response to using Toggles (for example via Ctrl-Insert key).	
INFOSNAP_LOG	1 This variable exist for debugging purposes. When defined, InfoSnap will create the text file InfoSnap_EventLog.txt in your root directory. New file is created each time InfoSnap is loaded. When InfoSnap manages MicroStation GUI (via AutoNuke, DoubleBump, etc.) it will write all intercepted GUI events to this file. Do not define this variable unless absolutely necessary, as it negatively affects MicroStation's and InfoSnap's performance.	
INFOSNAP_AUTOMENU	c:/path/to/your/directory/ If not defined, the directory where InfoSnap was installed will be used. In that case InfoSnap expects to find the data file "\$InfoSnap-AutoMenu\$.txt" in this directory.	1

Name	Value/Description	Remark
INFOSNAP_VIEWBUDDY_SLAVE_OPEN	View Buddy can display a slave dialog box for the convenience of altering locks or other settings which triggered the alarm indicator.	
INFOSNAP_VIEWBUDDY_SLAVE_CLOSE	<p>You may define any dialog box as a slave via key-ins assigns to these variables as follow:</p> <p>Slave dialog box is accessible from View Buddy control panel via 'Fix' button. If defined, both variables should point to valid keyins. The first one is executed when user presses the 'Fix' button on View Buddy control panel, the second one is executed when View Buddy decides to close the control panel because cursor has been moved away from it.</p> <p>If they are not defined, the first variable defaults to keyin "DIALOG LOCKTOGGLES" which opens Lock Toggles alongside View Buddy control panel, and the second one closes the Lock Toggles dialog box. If you have a slave dialog box already opened manually, the 'Fix' button will not do anything at all.</p>	
INFOSNAP_MANUAL_UPDATES	When defined and set to any value: globally disables the automatic checking for InfoSnap program updates. If not defined, InfoSnap automatically performs one check for available updates when loaded. No information from your computer is ever transferred through the Internet during the check nor during the update.	

Name	Value/Description	Remark
INFOSNAP_SEED_SETTINGS	Handy variables for deploying InfoSnap on intranets.	
INFOSNAP_SEED_AUTOMENU		
INFOSNAP_SEED_DOUBLEBUMP	Whenever InfoSnap is not able to locate any of its settings files on the local machine, it will look into pathes defined by these environment variables. Each of them should point to fully qualified path ending with the file name of the respective settings file. If missing file is succesfully located, it will be copied to the local machine and used locally from now on.	
INFOSNAP_LAYOUT	Can be set to path where the file containing the snapshot of current dialog box positions is stored. The file will be created automatically. If not defined, it defaults to MS_TMP. This variable is rarely needed.	

Remark 1:

INFOSNAP_SETTINGS, INFOSNAP_AUTOMENU and INFOSNAP_DOUBLEBUMP environment variables are even more flexible: When they contain only the file path (i.e. are terminated with a backslash '\'), the file name will be automatically generated and appended by InfoSnap. If they define a full file path together with a file name (i.e. are not terminated with a backslash '\'), this file name will be used instead.

FOR EXAMPLE:

**INFOSNAP_DOUBLEBUMP = C:\DATA\
WILL RESULT IN: C:\DATA\\$_INFOSNAP-DOUBLEBUMP\$.TXT**

**INFOSNAP_DOUBLEBUMP = C:\DATA\MYBUMPS.TXT
WILL RESULT IN: C:\DATA\MYBUMPS.TXT**

The current location of both configuration files is listed in the Current State Monitor dialog box (accessible through Settings).

CHAPTER 13

How to

How to fix these:

RANDOM DIALOG BOXES SHRINK UNEXPECTEDLY. I WANT ONLY VERY FEW OF THEM TO SHRINK, AND ONLY SOMETIMES.

Answer: You want to know how to disable cursor registration of dialog boxes for shrinking. By default, all dialogboxes can be registered by rapidly crossing their lower border a few times with the cursor. This ability can be disabled, yet you still will be able to override it and register any dialog box with keyboard and a click on mouse button. In 'Settings-2' change 'Bump' from 'either way' to 'by keyboard+click', then press 'Save' to save settings. Now you can register (and unregister) dialog box by pressing a designated key (default is 'Ctrl') and while this key is kept depressed clicking with mouse somewhere inside the dialog box.

WHEN SNAPPING TO A SEGMENT OF A COMPLEX ELEMENT, INCORRECT (LENGTH, COLOR, LEVEL ETC.) IS REPORTED.

Answer: You want to distinguish information pertaining to a single component from information pertaining to the overall complex element which is owning this particular component. Just above the 'Toggles' listbox there is a toggle button named 'Complex components'. It controls whether information is retrieved from a member of complex element or the complex element itself. Whatever the current selection is, you want the opposite. You may want to assign the keyin INFOSNAP COMPLEX to a function key and use it to toggle between those two settings.

WHEN I START MICROSTATION, REFERENCES DIALOG BOX AND LEVEL MANAGER ARE ALREADY SHRUNK. WHY?

Answer: You want to remove References and Level Manager from the list of preset operations executed by InfoSnap when the design file is opened. This list is maintained in a file: *\$InfoSnap_DoubleBump\$.txt*. By default, References and Level Manager are two examples added to the end of this file. Commenting them out is sufficient. If you don't know where to find this settings file, open 'Current state monitor' in 'Settings-1' and press the Edit button there.

WHEN I START MICROSTATION, INFO SNAP TOGGLES DIALOG BOX IS ALWAYS OPENED. CAN I STOP IT DOING SO?

Answer: You want to operate InfoSnap in so called silent mode. In '*Settings-2*' enable toggle: '*Silent load InfoSnap*' then press '*Save*' to save settings. Now you can close InfoSnap dialog box. It will not reopen unless you issue keyin: INFOSNAP SETTINGS.

AUTOMENU SHOWS ONLY ONE CHOICE: "SHOW POPUP". WHY IT IS DOING SO?

Answer: InfoSnap could not locate your *\$InfoSnap-AutoMenu\$.txt* configuration file. Open *Current State Monitor* and make sure that this file exists where InfoSnap expects to find it. See also the description of INFOSNAP_AUTOMENU environment variable.

CHAPTER 14

Installation and fine tuning

Basic installation

- 1 Copy the following files to your \MicroStation\MDLAPPS directory:
InfoSnap.ma
InfoSnap.dll
InfoSnap.chm
\$InfoSnap-DoubleBump\$.txt (*copy this file ONLY if it does not exist in target directory!*)
\$InfoSnap-AutoMenu\$.txt (*copy this file ONLY if it does not exist in target directory!*)
- 2 Start MicroStation V8 and select: Workspace -> Configuration -> DesignApplications.
- 3 Select InfoSnap from 'Available Applications', Press 'Add' and 'OK'. Make sure that InfoSnap is the last item in the list.
- 4 Restart MicroStation.

Advanced users may want to place the line 'MS_DGNAPPS > INFOSNAP' as the last line in their mslocal.cfg files, after the %include statement instead of using MicroStation Workspace Configuration dialog box.

Tip: you need to consult the chapters: 'Environment Variables' and 'Trouble Shooting' for more information.

Fine tuning of the DoubleBump and AutoMenu features

Open *\$InfoSnap-DoubleBump\$.txt* in any text editor. In this file you can set miscellaneous overrides and defaults for shrinking dialog boxes. The file is supposed to be self explanatory.

Open *\$InfoSnap-AutoMenu\$.txt* in any text editor. In this file you can set hierarchical menu entries and associated DGN element types. The file is supposed to be self explanatory. Please look in to *Configuring AutoMenu* chapter for all important details.

Both files are easily accessible thru *Current State Monitor*. Simply press corresponding **Edit** button there.

Trouble shooting

This section gathers real life problems and solutions as found by the author or other users. In the case of solutions provided by users, their names are quoted either as initials or Internet pseudonyms unless requested otherwise by authors. The information is provided in the spirit of solving tricky problems but Team uStation AB and Chris Zakrewsky take no responsibility whatsoever for accuracy or fitness of information provided in this chapter. We will replace parts of this information whenever a better solution is found, but you still may only use it at your own risk.

Environment: MicroStation + SynchByLevel add-on

Problem description:

If SYNCHBYLEVEL Select enhancement is installed, there will be a warning written to Message Center each time SYNCHBYLEVEL circumvents snatching data from the InfoSnap popup (i.e. snatched element symbology is not activated as active symbology).

Solution (by Chris Zakrewsky/Jeffrey Malter, July 26, 2003):

If you don't want SYNCHBYLEVEL to interfere with InfoSnap, make sure that you have the Level Name and Number being defined AFTER the Color, Weight and Style in InfoSnap Toggles tab (only then they take precedence over SYNCHBYLEVEL's all overrides).

Another workaround is to attempt snatching twice. At the second time the level is already changed and SYNCHBYLEVEL does not interfere.

Environment: MicroStation + DGNAPPS

Problem description:

WARNING: InfoSnap is not set as the very last item in your MS_DGNAPPS (Design Applications) configuration. See the docs how to avoid InfoSnap malfunction.

This warning is issued as the response to a weird (and reproducible) problem with MicroStation 8.1.1.9 as identified by *Jamey White* in Beta 5i. Some applications (like DAILYTIP) seriously interfere with InfoSnap if they are loaded as a Design Application *after* InfoSnap.

Solution (by Jamey White/Jeffrey Malter, July 21, 2003):

Make sure that InfoSnap is the very last item in the list: Workspace -> Configuration> Category (All) -> MS_DGNAPPS -> Edit, or as an advanced user you may want to place the line 'MS_DGNAPPS > INsFOSNAP' as the last line in your mslocal.cfg file, after the %include statement instead of using MicroStation Workspace Configuration dialog box.

Environment: ProjectWise

Problem description:

Unexpected read-only files.

Double clicking on the top DGN Model in the Model History Tree (or pressing the 'Home'-key) returns to home DGN but MicroStation warns that file is now Read-Only. Jumping to other DGN Models does not exhibit any anomalies.

Solution (by C.L. Oct. 18, 2002):

After double clicking on the top DGN Model or pressing the 'Home'-key, when ProjectWise asks "Do you wish to check-out <FilenameToBeOpened>", answer: YES. When ProjectWise asks "Do you wish to check-in <CurrentlyOpenedFile>", answer: NO. You may be breaking some rules here by keeping several files checked out, but there seems to be no other way.

Environment: MicroStation XM + Help*Problem description:*

Help window may disappear.

Solution (by Author, 2007):

Set the variable MS_BROWSERMAKECHILDWINDOW = 1

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