# Workflow MS 2 - Useful MicroStation and InRoads Key-ins

This document describes and provides syntax for commonly used MicroStation and InRoads key-ins. Where 'x', 'y', and 'z' characters are entered in the Key-in Syntax column, the user will replace those characters with the desired numbers. Items in italics require the user to provide the desired cell name or view name.

| MicroStation / InRoads Key-ins | | |
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| **Angle Key-ins and Precision Inputs** | | |
| **Key-In Command** | **Key-In Syntax** | **Description** |
| Set Active Angle | aa=xx^xx'xx.xx" | This sets the Active Angle. |
| Set Active Angle by 2 Points | Active angle pt2 | Required input – two <D> clicks. This sets the Active Angle based on the angle defined by the two data clicks and the zero axis. |
| Coordinate Key-in | xy=xx.xx,yy.yy,zz.zz | This command inputs a <D> at the specified x, y, and z coordinate. The z (elevation) entry is not used in 2D drawings and is optional in 3D drawings |
| Relative Coordinate Key-in | dl=xx.xx,yy.yy,zz.zz | This command inputs a <D> at the specified x, y, and z distance from the last <D> or <T>. The z (elevation) entry is not used in 2D drawings and is optional in 3D drawings. The distances are measured along the design axes (x is left and right in the top view, y is up and down in the top view, z is into and out of the screen in the top view.) |
| View Coordinate Key-in | dx=xx.xx,yy.yy,zz.zz | This command inputs a <D> at the specified x, y, and z distance from the last <D> or <T>. The distances are measured along the view axes so that x is left and right on the screen, y is up and down on the screen, z is into and out of the screen. |
| Distance / Angle Key-in | di=xx.xx,xx^xx'xx" | This command inputs a <D> at the specified distance and angle from the last <D> or <T>. |
| Station / Offset Key-in | so=xxx+xx.xx,xx.xx | This is an InRoads key-in and a geometry project must be loaded for it to work. The command inputs a <D> at the station and offset from the active alignment. The "+" is not required in the key-in |
| Station / Elevation Key-in | se=xxx+xx.xx,xx.xx | This is an InRoads key-in and a geometry project must be loaded for it to work. An InRoads profile is also required. This command inputs a <D> at the station and elevation within the profile. The "+" is not required in the key-in. |

| MicroStation / InRoads Key-ins | | |
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| **Angle Key-ins and Precision Inputs** | | |
| **Key-In Command** | **Key-In Syntax** | **Description** |
| Distance / Grade Key-in | dg=xx.xx,x.xx% | This is an InRoads key-in and a geometry project must be loaded for it to work. An InRoads profile is also required. This command inputs a <D> at the distance and grade from the last point entered in the profile. This command is primarily used with the Add Vertical PI command. |

| MicroStation / InRoads Key-ins | | |
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| **MicroStation Settings** | | |
| **Key-In Command** | **Key-In Syntax** | **Description** |
| Set Key Point Divisor | ky=x | This command sets the key point devisor to the number indicated. The key point divisor divides an element in to the indicated number of equal parts and makes a snap point at each division |
| Set Active Scale | as=xx.xx | This command sets the X, Y, and Z scales to the specified value. |
| Set X Scale | xs=xx.xx | This command sets only the X axis scale to the specified value. |
| Set Y Scale | ys=xx.xx | This command sets only the Y axis scale to the specified value. |
| Set Z Scale | zs=xx.xx | This command sets only the Z axis scale to the specified value. |
| Set Active Line Terminator | lt=*cell name* | This command sets the line terminator to the specified cell. |
| Set Terminator Scale | ts=xx.xx | This command sets the line terminator scale factor to the specified cell. |

| MicroStation / InRoads Key-ins | | |
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| **View Controls** | | |
| **Key-In Command** | **Key-In Syntax** | **Description** |
| Open Saved View | vi=*saved view* | After executing the key-in, <D> in the view to be updated. In addition to user created saved views, the following default views can be used: top, bottom, left, right, front, and back. |
| Create a Saved View | sv=*saved view* | After executing the key-in, <D> in the view to be saved. This command is used to create a saved view without using the Saved Views dialog box. |
| Rotate View | rv= xx^xx'xx", xx^xx'xx",xx^xx'xx" | This command rotates the view around the design axes. The angles are for the x, y, and z axis. For example to rotate a Top view 90 degrees, the key-in would be rv=0,0,90. This rotates the view about the z axis (the one that goes in and out of the monitor.) The carat symbol is not required if the rotation is in whole degrees. |
| Set Active Z | az=xx.xx | After executing the key-in, <D> in the view. This sets the elevation at which elements are placed. Snapping to an element overrides the active depth and uses the elevation of the item snapped to unless the ACS Plane Snap lock is toggled on. |
| Find Active Z | az=? | After executing the key-in, <D> in the view. This displays the current active depth (elevation) in the MicroStation Message Center. |
| Set Delta Z | dd=xx.xx | After executing the key-in, <D> in the view. This changes the active depth (elevation) by the amount specified in the key-in. |
| Set Display Depth | dp=-xx.xx,xx.xx | After executing the key-in, <D> in the view. This sets the viewable elevation range. The fist number in the key-in is the low elevation and the second is the high elevation. Elements outside of this range cannot be seen. If you cannot see some elements or only partial elements are displayed, try setting the display depth to -100,000,100,000 (dp=-100000,100000) |
| Find Display Depth | dp=? | After executing the key-in, <D> in the view. This displays the current display depth (elevation range) in the MicroStation Message Center. |

| MicroStation / InRoads Key-ins | | |
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| **View Controls** | | |
| **Key-In Command** | **Key-In Syntax** | **Description** |
| Set Relative Display Depth | dd=? | After executing the key-in, <D> in the view. This adjusts the current display depth (elevation range) by the amount specified. The fist number in the key-in is the low elevation and the second is the high elevation. |
| Set Active Level | lv= *level name or number* | This command sets the active level to the specified level |
| Level On | on= *level name or number* | This command turns the specified levels on. Key-in on=all to turn all levels on. |
| Level Off | of= *level name or number* | This command turns the specified levels off. Key-in of=all to turn all levels (except the active level) off. |

# AccuDraw Key-ins

There are a number of key-ins that make working with AccuDraw easier. The table below lists some on the most commonly used key-ins and describes what they do.

| MicroStation / InRoads Key-ins | | |
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| **AccuDraw Key-ins** | | |
| **Key-In Command** | **Key-In Syntax** | **Description** |
| Compass Type | *Space Bar* | This command toggles the AccuDraw compass between the distance/ direction (round) compass to the X, Y, Z (square) compass |
| View Rotation | v | This command rotates the AccuDraw compass so that it is orthogonal to the view. |
| Base Rotation | b | This command rotates the AccuDraw compass so that it is orthogonal to the element that was drawn last. |
| Top Rotation | t | This command rotates the AccuDraw compass so that it is orthogonal to the Top view. If you are in a Front, Back, or side view you will only see the edge of the AccuDraw compass. |

| MicroStation / InRoads Key-ins | | |
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| **AccuDraw Key-ins** | | |
| **Key-In Command** | **Key-In Syntax** | **Description** |
| Front Rotation | f | This command rotates the AccuDraw compass so that it is orthogonal to the Front view. If you are in a Top, Bottom, or side view you will only see the edge of the AccuDraw compass. |
| Side Rotation | s | This command rotates the AccuDraw compass so that it is orthogonal to the Side view. If you are in a Top, Bottom, Front, or Back view you will only see the edge of the AccuDraw compass. |
| X axis Lock | x | This command works when the AccuDraw compass is in the XYZ mode. This command locks the X axis to the distance that the cursor is from the starting point measured along the X axis. |
| Y axis Lock | y | This command works when the AccuDraw compass is in the XYZ mode. This command locks the Y axis to the distance that the cursor is from the starting point measured along the Y axis. |
| Z axis Lock | z | This command works when the AccuDraw compass is in the XYZ mode. This command locks the Z axis to the distance that the cursor is from the starting point measured along the Z axis. Note: the cursor cannot move along the Z axis in a Top view. |
| Distance Lock | d | This command works when the AccuDraw compass is in the distance/ angle mode. This command locks the distance that the cursor is from the starting point of the element. |
| Angle Lock | a | This command works when the AccuDraw compass is in the distance/ angle mode. This command locks the angle that the cursor is from the starting point of the element based on the rotation of the AccuDraw compass. |
| Set Origin | o | This command allows you to place the next element a specific distance from the last entered point using the AccuDraw toolbox. |