Leica Infinity Objects

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Leica Infinity is an object-oriented software. The objects are the basic entities for performing operations. All objects are intelligent objects which means that they are interrelated with each other.

Symbol	Object	Description
	Points	A point is a named object that represents a location with either local or global latitude and longitude coordinates, and possibly a height or elevation.
	Lines	A line is used to describe feature objects by drawing a line between two or more points.
	Areas	An area is a closed line object.
	Setups	A setup is the source of any measurement observation.
	Observations	An observation is the measurement that defines the source of a point.
	GNSS Tracks	A GNSS Track is an object resulting from processing moving or mixed data.
	Traverses	A traverse is a series of intervisible points at which angles are measured and also distances can be measured, to determine the station setups.
	Sets of Angles	A set of angles is a series of observations that are reduced to an angular value. The angular value is then coordinated from the source of the observations.
	Surfaces	A surface is a triangulation network representing points, scan points, lines and areas.
	Scan Groups	A scan group is a defined group of scans that represents a single object, used for cleaning or surface creation.
	Scans	A scan is a measurement object from the data source.
	Image Groups	An image group is a defined group of images that a user can measure image points from.
	Images	An image is a picture captured that is represented by its position or object it is assigned to.
	Georeferenced Images	An image that has been ortho rectified and can be placed in the project coordinate reference frame.
	Alignments	The alignment is a linear object made of multiple segments geometrically defined and joined together.

Symbol	Object	Description
		It defines the route of a road construction, generally its centreline or axis.
	Roads	A road is made of several objects including a centreline and a material layer. The material layer describes the stringlines assigned to it.
	Material Layers	Are the layers constituting a road. A Material Layer groups a set of stringlines that belong to the same level, material or phase of construction.
	Cross Sections	A cross section is a slice or cut at a certain chainage of the road, displaying the position of different linear features connected together in a cross section view.
	Cross Section Assignments	Result from cross sections templates being assigned to a road. Stringlines result from interconnecting cross section assignments.
	Stringlines	Are special line objects that can either be imported from CAD or defined via cross section assignment.

Point Roles and Point Symbols

Symbol	Point Role	Description
	Control point (not fixed in adjustment)	This is a Control point that is not considered for adjustment and not fixed.
	1D Control point (fixed in height)	This is a 1D Control point that is considered for adjustment, fixed only in height.
	2D Control point (fixed in position)	This is a 2D Control point that is considered for adjustment, fixed only in position.
	3D Control point (fixed in position and height)	This is a 3D Control point that is considered for adjustment and fixed in position and height.
	Adjusted measured point	This is a measured point that has been adjusted by least squares method or in a traverse computation. The Adjusted Least Squares point role will include the adjustment method 3D, 2D or 1D.
	Station Setup	This is a point on which a station setup exists after import of field data.
	Averaged Point	This point is derived by averaging two or more measured points.
	TPS reduced measurement	This point is generated from the reduced observation computed from sets of angles, reduced foresights or a traverse.

Symbol	Point Role	Description
✳	TPS measured with reflector	This is a point that has been measured using a reflector.
✳	TPS measured reflectorless	This is a reflectorless measured point.
✳	TPS measured	This is a point that has been measured without instrument EDM information. Typically such points are imported from XML.
✳	TPS measured Setup point (with reflector)	This is a Control point used in a Setup application and a measurement has been taken with reflector EDM.
✳	TPS measured Setup point (reflectorless)	This is a Control point used in a Setup application and a measurement has been taken with reflectorless EDM.
✛ ✪	GNSS Measured Fixed	This is an RTK measured or post-processed phase fixed point (most accurate).
✦ ✪	GNSS Phase Measured xRTK/Widelane	This is an xRTK measured or a Widelane post-processed phase fixed point.
✦ ✪	GNSS - PPP converged	This is a point measured with Precise Point Positioning, final position converged.
✦ ✪	GNSS Measured Float	This is a measured point float solution (less accurate).
✦ ✪	GNSS - PPP converging	This is a point being measured with Precise Point Positioning, final position not yet converged.
⊕ ✪	GNSS Measured Code	This is a measured point code solution (least accurate).
▣ ▣	GNSS Navigated	This is a GNSS point with lower accuracy measured without using a reference station.

ⓘ When the GNSS point roles have got a green background then this indicates a tilted measurement.

✛	GNSS Measured	This is a measured GNSS point with unknown solution type. Typically such points are imported from XML or SKI ASCII.

Symbol	Point Role	Description
	GNSS Track Post Processed	This is a post-processed GNSS Track (using a reference station).
	GNSS Track Navigated	This is a post-processed GNSS Track computed by applying the SPP technique (without using a reference station).
	GNSS Track Averaged	This is a GNSS Track derived by averaging two or more post-processed tracks.
	Level Measured	This is a point measured by Level staff.
	Offset point	This is a point for which an offset observation has been measured or entered.
	Auto point	This is a point measured with the Auto Points application.
	Computed point	This is a point calculated by an application and not measured with an instrument.
	User-entered point	This is a manually entered point.
+	Point (Unknown)	This is a point for which no point role can be defined on import. Typically such points are imported from XML.
	Point (Deleted)	This is a point which has been deleted on the instrument and could be recovered.