

Foreword

All layers include attributes that are automatically populated but do not appear in the attribute table, as they are only required for compilation purposes via the **custom QGIS plugin**. These attributes are described as follows:

- UUID: Provides an universally unique identifier for every new entity entered.
- Layer: Specifies the name of the field data layer (e.g., « Photographs_PT »).
- CRS: Indicates the coordinate reference system of the layer, which is essential for integration with other field databases.
- Virtual ID: Matches the value of the Stop_ID attribute if it is not NULL. Otherwise, it is generated using the custom QGIS plugin.
- Geometry: Represents the geometry of each entity recorded in the layer.
- Existing Databases – Raw Data and Reference: Contains all raw data and references to databases that have been imported and harmonised with the GEOL-QMAPS template architecture using the custom QGIS plugin, for legacy purposes.

These attributes are not included in the subsequent descriptions.

Note: All dropdown lists and multiple-choice checklists mentioned in what follows are editable in QGIS prior to export for QField, using the custom QGIS plugin.

If new values are added to lists that influence attribute symbology, default symbols will be applied when the data is used. Consequently, symbology may require revision either before or after fieldwork to ensure optimal visualisation of the collected field data.

STOPS-SAMPLING-PHOTOGRAPHS-COMMENTS-GPS TRACKS

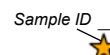
Stops_PT layer

Stop ID
X

TABS	ATTRIBUTES	DESCRIPTION
Stop	<i>Locality</i>	Prefix value to distinguish stops in different localities
	<i>Stop #</i>	Integer value → the Stop # automatically increments per locality
	<i>Stop ID</i>	Concatenation of the <i>Locality</i> prefix and <i>Stop #</i> (e.g., ABC001, ABC010, f055, f154, 005 if no prefix value entered)
	<i>Reasons</i>	Multiple-choice checklist to indicate reasons for stopping at this location.
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms.
General (metadata, semi-automatic form filling)	<i>Field Mission</i>	Name of the field mission (automatic filling → extracted from QGIS project title, to be set using the custom QGIS plugin)
	<i>Country</i>	Name of the country (automatic filling → extracted from QGIS project title, to be set using the custom QGIS plugin)
	<i>Date</i>	Date and hour of the data entry (automatic filling)
	<i>User</i>	One-choice dropdown list. Enter the list of users and set a default user using the custom QGIS plugin

STOPS-SAMPLING-PHOTOGRAPHS-COMMENTS-GPS TRACKS

Sampling_PT layer



TABS	ATTRIBUTES	DESCRIPTION
Sampling	<i>Sample ID</i>	Text attribute to reference samples
	<i>Sample Type</i>	One-choice dropdown list to select the typology of the sample (grab, drill core, etc...).
	<i>Sample Description</i>	One-choice dropdown list to select the typology of the sample (vein, host rock, etc...).
	<i>Host Rock</i>	Write the name of the host rock (auto-completion to match a list of host rocks)
	<i>Sampled for</i>	Multiple-choice checklist to indicate expected analytical work and justify why this sample is collected
	<i>Sample Photograph</i>	Name of the picture taken from the mobile device camera or uploaded from mobile device gallery, stored in a DCIM folder at the root of the QField Project Folder
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General (metadata, semi-automatic form filling)	<i>Field Mission</i>	Name of the field mission (automatic filling → extracted from QGIS project title, to be set using the custom QGIS plugin)
	<i>Country</i>	Name of the country (automatic filling → extracted from QGIS project title, to be set using the custom QGIS plugin)
	<i>Date</i>	Date and hour of the data entry (automatic filling)
	<i>User</i>	One-choice dropdown list. Enter the list of users and set a default user using the custom QGIS plugin
	<i>Corresponding Stop ID</i>	Automatic filling with the last <i>Stop ID</i> entered in the Stops_PT layer, editable if needed

Custom QGIS plugin – Data Management > Picture Management

At the root of the QField Project Folder, a DCIM folder is created, containing field and sample photographs loaded within the QField project. After completing fieldwork, users are instructed to copy this repository into the 0_FIELD_DATA folder located at the root of the QGIS mapping project. However, users may choose to store the photographs in a different repository on their computer's disk.

The *Source* attribute of the layer (non-editable within the attribute form) has a default value that might not correspond to the actual location of the picture repository. This misalignment prevents the display of **Map Tips** miniatures for field and sample photographs in QGIS.

The **Picture Management** tool allows users to update the *Source* attribute, aligning it with the folder containing photographs associated with both existing and future entities in the **Photographs_PT** and **Sampling_PT** layers.

STOPS-SAMPLING-PHOTOGRAPHS-COMMENTS-GPS TRACKS

Photographs_PT layer



TABS	ATTRIBUTES	DESCRIPTION
Details	<i>Photo ID</i>	Text attribute to reference photographs
	<i>Image Direction</i>	Rotation of the symbol towards the trend (0-360°) along which the photograph has been taken
Photograph	<i>Photograph</i>	Name of the picture taken from the mobile device camera or uploaded from mobile device gallery, stored in a DCIM folder at the root of the QField Project Folder
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – Data Management > Picture Management

At the root of the QField Project Folder, a DCIM folder is created, containing field and sample photographs loaded within the QField project. After completing fieldwork, users are instructed to copy this repository into the 0_FIELD_DATA folder located at the root of the QGIS mapping project. However, users may choose to store the photographs in a different repository on their computer's disk.

The *Source* attribute of the layer (non-editable within the attribute form) has a default value that might not correspond to the actual location of the picture repository. This misalignment prevents the display of **Map Tips** miniatures for field and sample photographs in QGIS.

The **Picture Management** tool allows users to update the *Source* attribute, aligning it with the folder containing photographs associated with both existing and future entities in the **Photographs_PT** and **Sampling_PT** layers.

Custom QGIS plugin – Data Management > Use Photograph Metadata to Retrieve Image Direction

Certain cameras embed EXIF metadata in photographs, which may include the *Image Direction*. Instead of manually inputting *Image Direction* based on compass readings, this tool enables users to extract the information directly from the EXIF metadata, with automatic correction for magnetic declination.

User Considerations:

- **Ensure Metadata Capture:** Verify that the mobile device or camera records relevant EXIF metadata, specifically the Image Direction.
- **Metadata Consistency:** Confirm the accuracy of the metadata concerning the orientation of the device when capturing the photograph. For example, on some devices (e.g., Google Pixel 7a), photographs taken in landscape mode might have a recorded Image Direction that is offset by $\pm 90^\circ$ from the correct orientation. Additionally, there may be a 180° uncertainty depending on the side of the device used during capture.

STOPS-SAMPLING-PHOTOGRAPHS-COMMENTS-GPS TRACKS

Observations_PT layer

Comments
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TABS	ATTRIBUTES	DESCRIPTION
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

STOPS-SAMPLING-PHOTOGRAPHS-COMMENTS-GPS TRACKS

Observations_LN layer

Comments

TABS	ATTRIBUTES	DESCRIPTION
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

STOPS-SAMPLING-PHOTOGRAPHS-COMMENTS-GPS TRACKS

GPS Tracks_LN layer

Comments

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TABS	ATTRIBUTES	DESCRIPTION
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

GPS Tracking in QField

To activate tracking, ensure that positioning is enabled in QField.
Next, open the side dashboard, long-press on the **GPS Tracks_LN** where you want to save your tracks, and select the *Setup Tracking* button to configure the tracking session.

STRUCTURES > LINEAR STRUCTURES

Lineations_PT layer

Symbols depend on kinematics and rotate along lineation trend indicated by the rounded extremity
Reverse and normal-slip kinematics: the arrow indicates the relative movement of the hanging wall

Plunge


TABS	ATTRIBUTES	DESCRIPTION
Structure	Type	One-choice dropdown list to indicate the lineation typology
	Generation	One-choice dropdown list to indicate the related deformation event at the ROI scale
	Bearing Minerals	Multiple-choice checklist to indicate mineral(s) expressing the lineation, if appropriate
Orientation	CASE WHEN Type of Measurement IS Trend – Plunge (default value)	
	Trend	Trend value (0-360°) along which the symbol rotates
	Plunge	Plunge value (0-90°) labelled on the symbol
	Orientation of the Plane of Reference: strike (or dip direction) and dip of the ref. plane, pitch value and quadrant indicator are not required but can be entered	
	Kinematics	One-choice dropdown list to select apparent kinematics. In case of transpression-transension, select the dominant component (strike-slip vs normal- or reverse-slip)
	Measurement Confidence Index	One-choice dropdown list to select a confidence grade for the current measure
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

STRUCTURES > LINEAR STRUCTURES

Lineations_PT layer

Symbols depend on kinematics and rotate along lineation trend indicated by the rounded extremity
Reverse and normal-slip kinematics: the arrow indicates the relative movement of the hanging wall

Plunge


TABS	ATTRIBUTES	DESCRIPTION	
Structure	Type	One-choice dropdown list to indicate the lineation typology	
	Generation	One-choice dropdown list to indicate the related deformation event at the ROI scale	
	Bearing Minerals	Multiple-choice checklist to indicate mineral(s) expressing the lineation, if appropriate	
Orientation	CASE WHEN Type of Measurement IS Pitch		
	Trend and Plunge values are automatically calculated		
	Strike or Dip Direction of the Reference Plane	Right-hand-rule value or dip direction (0-360°). Enter one or the other, the second one is automatically calculated	These data enable to calculate the exact trend and plunge of the considered lineation. The symbol rotates along the calculated trend and the calculated plunge is labelled.
	Dip of the Reference Plane	Dip value (0-90°)	
	Measured Pitch	Pitch value (0-90°)	
	Does the lineation plunge in the strike (right-hand-rule) direction?	YES or NO, equivalent to the quadrant information	
	Kinematics	One-choice dropdown list to select apparent kinematics. In case of transpression-transtension, select the dominant component (strike-slip vs normal- or reverse-slip)	
	Measurement Confidence Index	One-choice dropdown list to select a confidence grade for the current measure	
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms	
General	Same as Sampling_PT layer		

STRUCTURES > PLANAR STRUCTURES

Bedding-Lava flow-S0_PT layer

Symbols rotate along right-hand rule strike value 

TABS	ATTRIBUTES	DESCRIPTION
Polarity	<i>Polarity</i>	Indicate the bedding vergence: normal, inverted, vertical or unknown
Orientation	<i>Measurement Convention</i>	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	<i>Strike (Right-Hand Rule)</i>	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	<i>Dip Direction</i>	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	<i>Dip</i>	Dip value (0-90°) labelled on the symbol
	<i>Measurement Confidence Index</i>	One-choice dropdown list to select a confidence grade for the current measure
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Define Default Structural Measurement for Planar Structures*

Toggle your preferred measurement convention for planar structures to establish it as the default for all layers where planar structural measurements are recorded.

•If **Strike (Right-Hand Rule) - Dip** is selected, the *Dip Direction* field will not appear in the attribute form. Instead, it will be automatically calculated.

•Alternatively, if **Dip-Dip Direction** is chosen, the *Strike (Right-Hand Rule)* field will be hidden and similarly computed automatically.

This functionality ensures data consistency and simplifies data entry while allowing flexibility in measurement preferences.

STRUCTURES > PLANAR STRUCTURES

Foliation-cleavage_PT layer

Symbols *rotate along right-hand rule strike value*  Dip value

TABS	ATTRIBUTES	DESCRIPTION
Structure	<i>Generation</i>	One-choice dropdown list to indicate the related deformation event at the ROI scale
Orientation - Kinematics	<i>Measurement Convention</i>	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	<i>Strike (Right-Hand Rule)</i>	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	<i>Dip Direction</i>	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	<i>Dip</i>	Dip value (0-90°) labelled on the symbol
	<i>Kinematics</i>	One-choice dropdown list to select kinematics (apparent movement for strike-slip structures, relative block movement for others). In case of transpression-transension, select the dominant component
	<i>Measurement Confidence Index</i>	One-choice dropdown list to select a confidence grade for the current measure
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

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STRUCTURES > PLANAR STRUCTURES

Shear zones and faults_PT layer

Symbols rotate along right-hand rule strike value

Dip value



TABS	ATTRIBUTES	DESCRIPTION
Structure	<i>Deformation Regime (at the Macro-Scale)</i>	One-choice dropdown list to indicate the macroscopic-scale deformation style (brittle to ductile)
	<i>Type</i>	One-choice dropdown list to indicate apparent kinematics (different symbols)
	<i>Generation</i>	One-choice dropdown list to indicate the related deformation event at the ROI scale
Orientation - Kinematics	<i>Measurement Convention</i>	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	<i>Strike (Right-Hand Rule)</i>	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	<i>Dip Direction</i>	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	<i>Dip</i>	Dip value (0-90°) labelled on the symbol
	<i>Kinematics</i>	One-choice dropdown list to select kinematics (apparent movement for strike-slip structures, relative block movement for others). In case of transpression-transension, select the dominant component
	<i>Measurement Confidence Index</i>	One-choice dropdown list to select a confidence grade for the current measure
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

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STRUCTURES > PLANAR STRUCTURES

Folds_PT layer

Symbols rotate along right-hand rule strike value



TABS	ATTRIBUTES	DESCRIPTION
Structure	<i>Fold Type – classified according to...</i>	Set of one-choice dropdown lists to characterise the fold geometry relative to <i>Concavity / Facing</i> (mandatory field), <i>Thickness of Folded Layers</i> , <i>Tighness</i> , <i>Dip of the Axial Surface</i> and <i>Plunge of the Fold Axis</i>
	<i>Particular Fold Shape</i>	Multiple-choice checklist to indicate particular fold shapes observed
	<i>Generation</i>	One-choice dropdown list to indicate the related deformation event at the ROI scale
Orientation - Kinematics	<i>Trend – Fold Axis</i>	Trend value (0-360°) along which the symbol rotates There is a fold axis symbol only if this field is filled
	<i>Plunge – Fold Axis</i>	Plunge value (0-90°) labelled on the symbol. There is a fold axis symbol only if this field is filled
	<i>Measurement Convention</i>	Indicates if the orientation of the fold axial plane is entered as strike (right-hand rule)-dip or dip-dip direction
	<i>Strike (Right-Hand Rule) – Fold Axial Plane</i>	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction There is a fold axial plane symbol only if this field is filled
	<i>Dip Direction – Fold Axial Plane</i>	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip There is a fold axial plane symbol only if this field is filled
	<i>Dip – Fold Axial Plane</i>	Dip value (0-90°) labelled on the symbol There is a fold axial plane symbol only if this field is filled
	<i>Measurement Confidence Index</i>	One-choice dropdown list to select a confidence grade for the current measure
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – Fieldwork Preparation > Define Default Structural Measurement for Planar Structures

Toggle your preferred measurement convention for planar structures to establish it as the default for all layers where planar structural measurements are recorded.

•If **Strike (Right-Hand Rule) - Dip** is selected, the *Dip Direction* field will not appear in the attribute form. Instead, it will be automatically calculated.


•Alternatively, if **Dip-Dip Direction** is chosen, the *Strike (Right-Hand Rule)* field will be hidden and similarly computed automatically.

This functionality ensures data consistency and simplifies data entry while allowing flexibility in measurement preferences.

STRUCTURES > PLANAR STRUCTURES

Fractures_PT layer

Dip value
Symbols rotate along right-hand rule strike value



TABS	ATTRIBUTES	DESCRIPTION
Structure	Width (mm)	One-choice dropdown list to indicate the appropriate range of width
	Spacing (mm)	One-choice dropdown list to indicate the appropriate range of spacing in a fracture set
	Infilling	Multiple-choice checklist to indicate mineral(s) partially filling fractures, if appropriate
	Generation	One-choice dropdown list to indicate the related deformation event at the ROI scale
Orientation - Kinematics	Measurement Convention	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	Strike (Right-Hand Rule)	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	Dip	Dip value (0-90°) labelled on the symbol
	Measurement Confidence Index	One-choice dropdown list to select a confidence grade for the current measure
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – Fieldwork Preparation > Define Default Structural Measurement for Planar Structures

Toggle your preferred measurement convention for planar structures to establish it as the default for all layers where planar structural measurements are recorded.

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This functionality ensures data consistency and simplifies data entry while allowing flexibility in measurement preferences.

STRUCTURES > PLANAR STRUCTURES

Veins_PT layer

Dip value
Symbols rotate along right-hand rule strike value 

TABS	ATTRIBUTES	DESCRIPTION
Structure	<i>Vein Shape and Orientation</i>	One-choice dropdown list to select classify veins in terms of finite strain
	<i>Vein Texture – Crystal Growth</i>	One-choice dropdown list to select classify veins in terms of precipitation dynamics
	<i>Width (mm)</i>	One-choice dropdown list to indicate the appropriate range of width
	<i>Spacing (mm)</i>	One-choice dropdown list to indicate the appropriate range of spacing in a fracture set
	<i>Infilling</i>	Multiple-choice checklist to indicate mineral(s) partially filling fractures, if appropriate
	<i>Generation</i>	One-choice dropdown list to indicate the related deformation event at the ROI scale
Orientation - Kinematics	<i>Measurement Convention</i>	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	<i>Strike (Right-Hand Rule)</i>	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	<i>Dip Direction</i>	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	<i>Dip</i>	Dip value (0-90°) labelled on the symbol
	<i>Measurement Confidence Index</i>	One-choice dropdown list to select a confidence grade for the current measure
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Define Default Structural Measurement for Planar Structures*

Toggle your preferred measurement convention for planar structures to establish it as the default for all layers where planar structural measurements are recorded.

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•Alternatively, if **Dip-Dip Direction** is chosen, the *Strike (Right-Hand Rule)* field will be hidden and similarly computed automatically.

This functionality ensures data consistency and simplifies data entry while allowing flexibility in measurement preferences.

STRUCTURES > PLANAR STRUCTURES

Dike-Sills_PT layer

Dip value
Symbols rotate along right-hand rule strike value



TABS	ATTRIBUTES	DESCRIPTION
Structure	<i>Lithology</i>	One-choice dropdown list to select among several lithologies
	<i>Width (mm)</i>	One-choice dropdown list to indicate the appropriate range of width
	<i>Spacing (mm)</i>	One-choice dropdown list to indicate the appropriate range of spacing in a fracture set
	<i>Deformation - Strain Intensity</i>	One-choice dropdown list to indicate at what extent the object is deformed
	<i>Deformation – Strain Pattern</i>	Multiple-choice checklist to indicate the observed strain patterns
	<i>Generation</i>	One-choice dropdown list to indicate the related deformation event at the ROI scale
Orientation - Kinematics	<i>Measurement Convention</i>	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	<i>Strike (Right-Hand Rule)</i>	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	<i>Dip Direction</i>	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	<i>Dip</i>	Dip value (0-90°) labelled on the symbol
	<i>Measurement Confidence Index</i>	One-choice dropdown list to select a confidence grade for the current measure
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Define Default Structural Measurement for Planar Structures*

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This functionality ensures data consistency and simplifies data entry while allowing flexibility in measurement preferences.

STRUCTURES > PLANAR STRUCTURES

Lithological contacts_PT layer

Dip value
Symbols rotate along right-hand rule strike value  

TABS	ATTRIBUTES	DESCRIPTION
Contact	<i>Type</i>	One-choice dropdown list to select among potential contact geometries
	<i>Lithology 1</i>	Write the name of the first lithology exposed along the contact, auto-completion activated
	<i>Stratigraphic Unit 1</i>	One-choice dropdown list to select the relevant stratigraphic unit <i>Lithology 1</i> belongs to, if appropriate
	<i>Lithology 2</i>	Write the name of the second lithology exposed along the contact, auto-completion activated
	<i>Stratigraphic Unit 2</i>	One-choice dropdown list to select the relevant stratigraphic unit <i>Lithology 2</i> belongs to, if appropriate
Orientation	<i>Measurement Convention</i>	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	<i>Strike (Right-Hand Rule)</i>	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	<i>Dip Direction</i>	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	<i>Dip</i>	Dip value (0-90°) labelled on the symbol
	<i>Measurement Confidence Index</i>	One-choice dropdown list to select a confidence grade for the current measure
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – Fieldwork Preparation > Define Default Structural Measurement for Planar Structures

Toggle your preferred measurement convention for planar structures to establish it as the default for all layers where planar structural measurements are recorded.

•If **Strike (Right-Hand Rule) - Dip** is selected, the *Dip Direction* field will not appear in the attribute form. Instead, it will be automatically calculated.

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This functionality ensures data consistency and simplifies data entry while allowing flexibility in measurement preferences.

Custom QGIS plugin – Fieldwork Preparation > Edit Dictionaries

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.

STRUCTURES > PLANAR STRUCTURES

Lithological contacts_LN layer

+ Symbol line with the symbol corresponding to the vergence of the contact, if appropriate

Observed Interpreted

TABS	ATTRIBUTES	DESCRIPTION
Contact	Type	One-choice dropdown list to select among potential contact geometries
	Lithology 1	Write the name of the first lithology exposed along the contact, auto-completion activated
	Stratigraphic Unit 1	One-choice dropdown list to select the relevant stratigraphic unit <i>Lithology 1</i> belongs to, if appropriate
	Lithology 2	Write the name of the second lithology exposed along the contact, auto-completion activated
	Stratigraphic Unit 2	One-choice dropdown list to select the relevant stratigraphic unit <i>Lithology 2</i> belongs to, if appropriate
	Reliability	One-choice dropdown list to specify the nature of the drawn spatial extent of the considered contact, <i>i.e.</i> , observed or interpreted
Orientation	Measurement Convention	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	Strike (Right-Hand Rule)	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction. There is a vergence marker along the line drawn only if this field is filled
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip There is a vergence marker along the line drawn only if this field is filled
	Dip	Dip value (0-90°) labelled on the symbol There is a vergence marker along the line drawn only if this field is filled
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Define Default Structural Measurement for Planar Structures*

See previous page.

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

See previous page.

When drawing the contact, ensure it aligns with the strike direction and the drawing points towards this direction, especially in cases of non-vertical dip. Misalignment will cause the vergence marker to point in the opposite direction, leading to incorrect representation.

STRUCTURES > PLANAR STRUCTURES

Planar structures_LN layer

+ Symbol line with the symbol corresponding to the type of structure selected

Observed Interpreted

TABS	ATTRIBUTES	DESCRIPTION
Structure	Type	One-choice dropdown list to select among potential structures
	True or Apparent Kinematics (if Appropriate)	One-choice dropdown list to indicate whether kinematic indicators observed along the structure reflect apparent or true kinematics, for simple shearing-related structures.
	Reliability	One-choice dropdown list to specify the nature of the drawn spatial extent of the considered structure, <i>i.e.</i> , observed or interpreted
Orientation	Measurement Convention	Indicates if the orientation is entered as strike (right-hand rule)-dip or dip-dip direction
	Strike (Right-Hand Rule)	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if <i>Measurement Convention</i> = Strike (right-hand rule)-dip
	Dip	Dip value (0-90°) labelled on the symbol
Comments	Comments	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Define Default Structural Measurement for Planar Structures*

See previous page.

When drawing the contact, ensure it aligns with the strike direction and the drawing points towards this direction, especially in cases of non-vertical dip. Misalignment will cause the potential vergence marker of symbol lines representative of different structures to point in the opposite direction, leading to incorrect representation.

STRUCTURES > DEFORMATION ZONES

Deformation zones_PG layer



TABS	ATTRIBUTES	DESCRIPTION
Deformation	<i>Deformation Intensity</i>	One-choice dropdown list to select among different degrees of deformation
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

LITHOLOGY

Local lithologies_PT

Symbol rotated anti-clockwise
If entered, the "Y" symbol points towards the younging trend



TABS	ATTRIBUTES	DESCRIPTION
Lithology	<i>Outcrop Quality</i>	One-choice dropdown list to indicate the nature of the outcrop observed
	<i>Lithology</i>	One-choice dropdown list to indicate the lithology of the observed outcrop
	<i>Stratigraphy</i>	One-choice dropdown list to select the relevant stratigraphic unit
	<i>Younging</i>	If <i>Younging Evidence</i> = 'Yes', indicate the <i>Younging Trend</i> (0-360°)
Deformation	<i>Strain Intensity</i>	One-choice dropdown list to select among different degrees of strain
	<i>Tectonite Type</i>	One-choice dropdown list to select from L- to S-tectonite
	<i>Strain Pattern</i>	Multiple-choice checklist to indicate the observed strain pattern(s)
Alteration	<i>Alteration intensity</i>	One-choice dropdown list to indicate at what extent the lithological unit is altered
	<i>Alteration Distribution</i>	Multiple-choice checklist to indicate the observed alteration pattern(s)
	<i>Alteration Nature</i>	Multiple-choice checklist to indicate the alteration type(s)
Metamorphism	<i>Metamorphic facies</i>	One-choice dropdown list to indicate the metamorphic facies reached by the rock
	<i>Index Minerals</i>	Multiple-choice checklist to indicate the presence of metamorphic minerals (list of abbreviations labelled below the symbol when not null)
Mineralisation	<i>Abundance and Distribution</i>	One-choice dropdown list to indicate mineralisation abundance (from <25% to >75%) and distribution (e.g., veins and stringers)
	<i>Minerals of Interest</i>	Multiple-choice checklist to indicate the presence of ore-bearing minerals
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – Fieldwork Preparation > Edit Dictionaries

The user can enter new local lithologies and stratigraphic units of interest in the *Local lithologies/List of lithologies* and *Lithologies/Stratigraphic column* dictionaries, respectively.

Ensure that the symbology of the layer is updated with the new lithologies entered. To do so, visit the *Symbology* tab after double-clicking on the name of the layer. If this is not done correctly before exporting to a QField package, the default symbol will be displayed for the affected entities.

LITHOLOGY

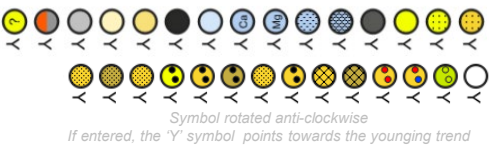
Supergene lithologies_PT



TABS	ATTRIBUTES	DESCRIPTION
Lithology	Outcrop Quality	One-choice dropdown list to indicate the nature of the outcrop observed
	Lithology	One-choice dropdown list to indicate the lithology of the observed outcrop
	Stratigraphic Unit	One-choice dropdown list to select the relevant stratigraphic unit
	Younging	If <i>Younging Evidence</i> = 'Yes', indicate the <i>Younging Trend</i> (0-360°)
Deformation Alteration Metamorphism Mineralisation Comments	Same as Local lithologies_PT layer	
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.



Sedimentary lithologies_PT

TABS	ATTRIBUTES	DESCRIPTION
Lithology	Outcrop Quality	One-choice dropdown list to indicate the nature of the outcrop observed
	Lithology	One-choice dropdown list to indicate the lithology of the observed outcrop
	Stratigraphic Unit	One-choice dropdown list to select the relevant stratigraphic unit
	Sedimentary Structures	Multiple-choice checklist to indicate the presence of sedimentary structures
	Younging	If <i>Younging Evidence</i> = 'Yes', indicate the <i>Younging Trend</i> (0-360°)
Deformation Alteration Metamorphism Mineralisation Comments	Same as Local lithologies_PT layer	
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.

LITHOLOGY

Volcanoclastic lithologies_PT



Symbol rotated anti-clockwise
If entered, the 'Y' symbol points towards the younging trend

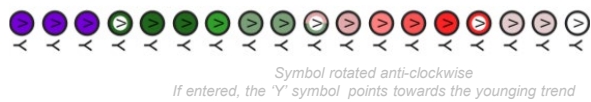
TABS	ATTRIBUTES	DESCRIPTION
Lithology	<i>Outcrop Quality</i>	One-choice dropdown list to indicate the nature of the outcrop observed
	<i>Stratigraphic Unit</i>	One-choice dropdown list to select the relevant stratigraphic unit
	<i>Grain Size</i>	Two one-choice dropdown lists to select the <i>Dominant Grain Size</i> and the related <i>Lithology</i> (mandatory field)
	<i>Components</i>	Multiple-choice checklist to indicate the presence of various volcanoclastic components
	<i>Lithofacies</i>	Three one-choice dropdown lists to indicate the <i>Bedding</i> , <i>Jointing</i> and <i>Grading</i> presence and nature, two multiple-choice checklists to indicate the presence of <i>Fabric features</i> and <i>Volcanosedimentary Structures</i>
	<i>Composition</i>	One-choice dropdown list to select among potential igneous extrusive lithologies for <i>Clast Composition</i> , another one to indicate if you want to enter modal composition: if yes, depending on the choice, possibility to enter proportions of quartz, alkali and plagioclase feldspars and feldspathoid or olivine, pyroxene, hornblende and plagioclase feldspar (normalised to 100%)
	<i>Younging</i>	If <i>Younging Evidence</i> = 'Yes', indicate the <i>Younging Trend</i> (0-360°)
Deformation Alteration Metamorphism Mineralisation Comments	Same as Local lithologies_PT layer	
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.

LITHOLOGY

Igneous extrusive lithologies_PT



TABS	ATTRIBUTES	DESCRIPTION
Lithology	<i>Outcrop Quality</i>	One-choice dropdown list to indicate the nature of the outcrop observed
	<i>Stratigraphic Unit</i>	One-choice dropdown list to select the relevant stratigraphic unit
	<i>Composition</i>	One-choice dropdown list to select the <i>Lithology</i> (mandatory field), another one to indicate if you want to enter modal composition: if yes, depending on the choice, possibility to enter proportions of quartz, alkali and plagioclase feldspars and feldspathoid or olivine, pyroxene, hornblende and plagioclase feldspar (normalised to 100%)
	<i>Lithofacies</i>	Two one-choice dropdown lists to indicate the <i>Flow</i> and <i>Jointing</i> presence and nature, one multiple-choice checklist to indicate the presence of other <i>Volcanic Structures</i>
	<i>Texture</i>	One one-choice dropdown list to indicate the <i>Crystal Abundance</i> (presence and size of crystals), more fields allow for characterising the nature of <i>Porphyritic Texture</i> when observed, and there is one multiple-choice checklist to indicate the presence of other <i>Volcanic Textures</i>
	<i>Younging</i>	If <i>Younging Evidence</i> = 'Yes', indicate the <i>Younging Trend</i> (0-360°)
Deformation Alteration Metamorphism Mineralisation Comments	Same as Local lithologies_PT layer	
General	Same as Sampling_PT layer	

Custom QGIS plugin – Fieldwork Preparation > Edit Dictionaries

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.

LITHOLOGY

Igneous intrusive lithologies_PT



Symbols rotated anti-clockwise

TABS	ATTRIBUTES	DESCRIPTION
Lithology	<i>Outcrop Quality</i>	One-choice dropdown list to indicate the nature of the outcrop observed
	<i>Stratigraphic Unit</i>	One-choice dropdown list to select the relevant stratigraphic unit
	<i>Composition</i>	One-choice dropdown list to select the <i>Lithology</i> (mandatory field), another one to indicate if you want to enter modal composition: if yes, depending on the choice, possibility to enter proportions of quartz, alkali and plagioclase feldspars and feldspathoid or olivine, pyroxene, hornblende and plagioclase feldspar (normalised to 100%)
	<i>Texture</i>	Two multiple-choice checklists to indicate the <i>Crystal Size</i> populations and the <i>Magmatic Texture</i> patterns observed
Deformation Alteration Metamorphism Mineralisation Comments	Same as Local lithologies_PT layer	
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.

Metamorphic lithologies_PT



TABS	ATTRIBUTES	DESCRIPTION
Lithology	Outcrop Quality	One-choice dropdown list to indicate the nature of the outcrop observed
	Stratigraphic Unit	One-choice dropdown list to select the relevant stratigraphic unit
	Metamorphic Lithology	One-choice dropdown list to select the <i>Metamorphic Lithology</i> (mandatory field)
	Composition (for Ortho-Derived Rocks Only)	Indicate if you want to enter modal composition (for ortho-derived rocks only): if yes, depending on the choice, possibility to enter proportions of quartz, alkali and plagioclase feldspars and feldspathoid or olivine, pyroxene, hornblende and plagioclase feldspar (normalised to 100%)
Deformation Alteration Metamorphism Mineralisation Comments	Same as Local lithologies_PT layer	
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.

LITHOLOGY

Lithology zones_PG layer

*Infilling motif based on point
symbols for every lithology listed in
the different dictionaries*

TABS	ATTRIBUTES	DESCRIPTION
Lithology	<i>Lithology</i>	Write the name of the host rock (auto-completion to match a list of host rocks)
	<i>Stratigraphic Unit</i>	One-choice dropdown list to select the relevant stratigraphic unit
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.

LITHOLOGY

Alteration zones_PG layer



TABS	ATTRIBUTES	DESCRIPTION
Alteration	<i>Alteration intensity</i>	One-choice dropdown list to indicate at what extent the lithological unit is altered
	<i>Alteration Distribution</i>	Multiple-choice checklist to indicate the observed alteration pattern(s)
	<i>Alteration Nature</i>	Multiple-choice checklist to indicate the alteration type(s)
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

GEOPHYSICAL MEASUREMENTS

Magnetic susceptibility_PG layer



TABS	ATTRIBUTES	DESCRIPTION
Lithology	<i>Rock Type</i>	One-choice dropdown list to indicate the overall typology of the rock (names of previous layers, from Local to Metamorphic lithologies)
	<i>Stratigraphic Unit</i>	One-choice dropdown list to select the relevant stratigraphic unit
	<i>Lithology</i>	One-choice dropdown list the correct lithology among options listed for the <i>Rock Type</i> selected
Measurement	<i>Measured Magnetic Susceptibility ($\cdot 10^{-3}$ SI) – Reading #1 to 5</i>	Enter the measured value (2 decimal digits) – up to 5 values can be entered
Comments	<i>Comments</i>	5000 char. to provide additional information and/or details missing in current forms
General	Same as Sampling_PT layer	

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

The user can enter stratigraphic units of interest in the *Lithologies/Stratigraphic column* dictionary.