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_PT layer

Stop ID ✖

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

Stops_PT layer

Custom QGIS plugin – *Fieldwork Preparation* tab > *Toggle Auto-Increment of Stops*

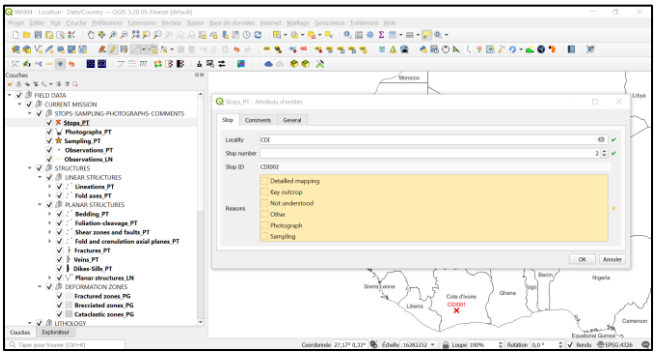
1) Toggle off → Semi-manual incrementation of Stop #:

Set Default Value for *Locality* Prefix
Ensure the last entered value for the *Locality p*refix is stored as a default in QField, so it is pre-filled for subsequent entries. This simplifies data entry for locations where the prefix remains constant.

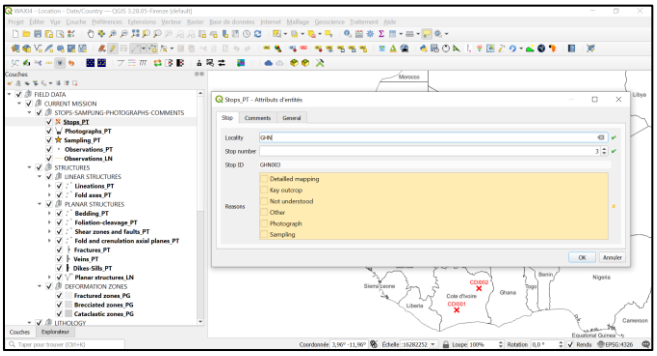
Automatic Increment of *Stop* # Value – not Dependent on *Locality* Value
- When the *Locality* prefix remains unchanged, the *Stop* # value should automatically increment with each new entry.

- The default starting value for *Stop* # is **1**, but this value should remain editable to accommodate specific needs.

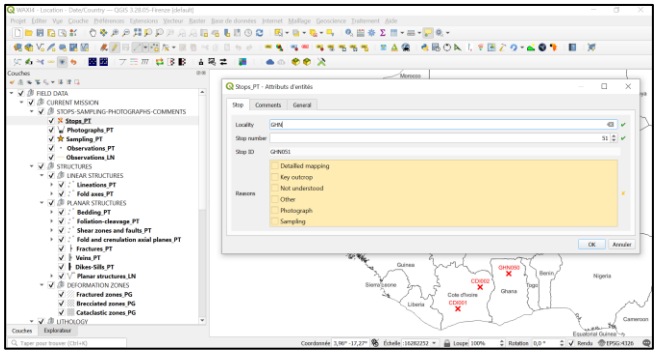
Reset *Stop* # for New *Locality* Value
- When transitioning to a new locality (*i.e.,* the *Locality* prefix changes), the *Stop* # should be reset to **1** or any other specified value as needed by the user.



CDI001 Stop point entered,
→ Next entry is automatically set to CDI002



GHN002 Stop point entered,
Then the Locality *prefix is set to GHN: the next entry is automatically set to GHN003 instead of GHN001,* ***the Stop # must be rest to 1 (or any other value) by the user***



GHN050 Stop point entered (in case 49 Stop points already exist in the area)
→ Next entry is automatically set to GHN051

Stops_PT layer

Custom QGIS plugin – *Fieldwork Preparation* tab > *Toggle Auto-Increment of Stops*

2) Toggle on → Automatic incrementation of Stop #:

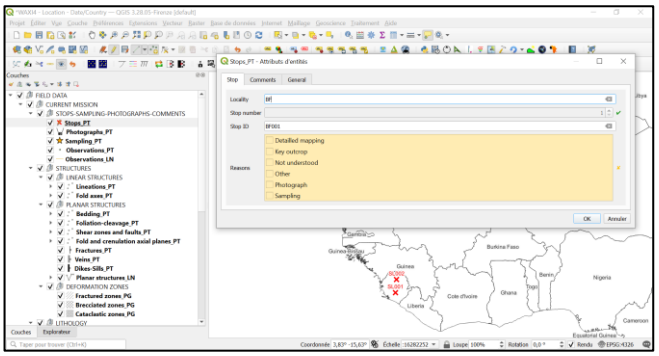
Set Default Value for *Locality* Prefix
Ensure the last entered value for the *Locality p*refix is stored as a default in QField, so it is pre-filled for subsequent entries. This simplifies data entry for locations where the prefix remains constant.

Automatic Increment of *Stop* # Value – Dependent on *Locality* Value

- When the *Locality* prefix remains unchanged, the *Stop* # value should automatically increment with each new entry.

- The default starting value for *Stop* # is **1** but cannot be modified, contrary to the previous, more flexible option.

- When transitioning to a new locality (i.e., the *Locality* prefix changes), the *Stop* # is automatically reset to **1**. This ensures consistent and logical numbering within each locality, despite it prevents from accounting for the existence of legacy Stops points for this locality. There is therefore a risk for *Stop ID* duplicates when compiling the data with existing databases.



Change of locality from SL to BF after entering multiple stop datapoints
→ *Next entry is automatically set to BF001, but cannot be edited*

Sampling_PT layer

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

Photographs_PT layer

Photo ID

TABS	ATTRIBUTES	DESCRIPTION
Details	*Photo ID*	Text attribute to reference photographs
	Image Direction	Rotation of the symbol towards the trend (0-360°) along which the photograph has been taken
Photograph	*Photograph*	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	*Comments*	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 ±90° from the correct orientation. Additionally, there may be a 180° uncertainty depending on the side of the device used during capture.

Observations_PT layer

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

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	

GPS Tracks_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	

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.

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

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-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	

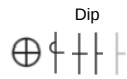
Lineations_PT layer

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

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		

Bedding-Lava flow-S0_PT layer

Symbols rotate along right-hand rule strike value



TABS	ATTRIBUTES	DESCRIPTION
Polarity	*Polarity*	Indicate the bedding vergence: normal, inverted, vertical or unknown
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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = 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.

•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.

Foliation-cleavage_PT layer

Symbols rotate along right-hand rule strike value

Dip value

TABS	ATTRIBUTES	DESCRIPTION
Structure	*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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = Strike (right-hand rule)-dip
	Dip	Dip value (0-90°) labelled on the symbol
	Kinematics	One-choice dropdown list to select kinematics (apparent movement for strike-slip structures, relative block movement for others). In case of transpression-transtension, select the dominant component
	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.

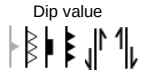
•If ***Strike (Right-Hand Rule) - Dip*** is selected, the *Dip Direction* field will not appear in the attribute form. Instead, it will be automatically calculated.

•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.

Shear zones and faults_PT layer

Symbols rotate along right-hand rule strike value



TABS	ATTRIBUTES	DESCRIPTION
Structure	*Deformation Regime (at the Macro-Scale)*	One-choice dropdown list to indicate the macroscopic-scale deformation style (brittle to ductile)
	Type	One-choice dropdown list to indicate apparent kinematics (different symbols)
	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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = Strike (right-hand rule)-dip
	Dip	Dip value (0-90°) labelled on the symbol
	Kinematics	One-choice dropdown list to select kinematics (apparent movement for strike-slip structures, relative block movement for others). In case of transpression-transtension, select the dominant component
	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*

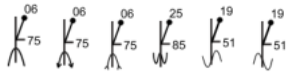
Toggle your preferred measurement convention for planar structures to establish it as the default for all layers where planar structural measurements are recorded.

•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.

Folds_PT layer

Symbols rotate along right-hand rule strike value 

TABS	ATTRIBUTES	DESCRIPTION
Structure	*Fold Type – classified according to…*	Set of one-choice dropdown lists to characterise the fold geometry relative to *Concavity / Facing* (mandatory field), *Thickness of Folded Layers, Tighness, Dip of the Axial Surface* and *Plunge of the Fold Axis*
	Particular Fold Shape	Multiple-choice checklist to indicate particular fold shapes observed
	Generation	One-choice dropdown list to indicate the related deformation event at the ROI scale
Orientation - Kinematics	*Trend – Fold Axis*	Trend value (0-360°) along which the symbol rotates There is a fold axis symbol only if this field is filled
	Plunge – Fold Axis	Plunge value (0-90°) labelled on the symbol. There is a fold axis symbol only if this field is filled
	Measurement Convention	Indicates if the orientation of the fold axial plane is entered as strike (right-hand rule)-dip or dip-dip direction
	Strike (Right-Hand Rule) – Fold Axial Plane	Right-hand rule strike value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = Dip-dip direction There is a fold axial plane symbol only if this field is filled
	Dip Direction – Fold Axial Plane	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = Strike (right-hand rule)-dip There is a fold axial plane symbol only if this field is filled
	Dip – Fold Axial Plane	Dip value (0-90°) labelled on the symbol There is a fold axial plane symbol only if this field is filled
	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.

•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.

Fractures_PT layer

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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = 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.

•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.

Veins_PT layer

TABS	ATTRIBUTES	DESCRIPTION
Structure	*Vein Shape and Orientation*	One-choice dropdown list to select classify veins in terms of finite strain
	Vein Texture – Crystal Growth	One-choice dropdown list to select classify veins in terms of precipitation dynamics
	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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = 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.

•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.

Dike-Sills_PT layer

TABS	ATTRIBUTES	DESCRIPTION
Structure	*Lithology*	One-choice dropdown list to select among several lithologies
	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
	Deformation - Strain Intensity	One-choice dropdown list to indicate at what extent the object is deformed
	Deformation – Strain Pattern	Multiple-choice checklist to indicate the observed strain patterns
	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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = 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.

•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.

Lithological contacts_PT layer

Dip value

Symbols rotate along right-hand rule strike value

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 *Lithology 1* 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 *Lithology 2* belongs to, if appropriate
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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = 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.

•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.

Custom QGIS plugin – *Fieldwork Preparation > Edit Dictionaries*

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

Lithological contacts_LN layer

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

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 *Lithology 1* 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 *Lithology 2* belongs to, if appropriate
	Reliability	One-choice dropdown list to to specify the nature of the drawn spatial extent of the cnsidered contact, *i.e.,* 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 *Measurement Convention* = 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 *Measurement Convention* = 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	

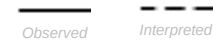
Custom QGIS plugin – *Fieldwork Preparation > Define Default Structural Measurement for Planar Structures*
See previous page.

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.

Planar structures_LN layer

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



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 to specify the nature of the drawn spatial extent of the considered structure, *i.e.,* 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 *Measurement Convention* = Dip-dip direction.
	Dip Direction	Dip direction value (0-360°) along which the symbol rotates, auto-filled if *Measurement Convention* = 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.

Deformation zones_PG layer

TABS	ATTRIBUTES	DESCRIPTION
Deformation	*Deformation Intensity*	One-choice dropdown list to select among different degrees of deformation
Comments	*Comments*	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	*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
	Stratigraphy	One-choice dropdown list to select the relevant stratigraphic unit
	Younging	If *Younging Evidence* = 'Yes', indicate the *Younging Trend* (0-360°)
Deformation	*Strain Intensity*	One-choice dropdown list to select among different degrees of strain
	Tectonite Type	One-choice dropdown list to select from L- to S-tectonite
	Strain Pattern	Multiple-choice checklist to indicate the observed strain pattern(s)
Alteration	*Alteration intensity*	One-choice dropdown list to indicate at what extent the lithological unit is altered
	Alteration Distribution	Multiple-choice checklist to indicate the observed alteration pattern(s)
	Alteration Nature	Multiple-choice checklist to indicate the alteration type(s)
Metamorphism	*Metamorphic facies*	One-choice dropdown list to indicate the metamorphic facies reached by the rock
	Index Minerals	Multiple-choice checklist to indicate the presence of metamorphic minerals (list of abbreviations labelled below the symbol when not null)
Mineralisation	*Abundance and Distribution*	One-choice dropdown list to indicate mineralisation abundance (from <25% to >75%) and distribution (e.g., veins and stringers)
	Minerals of Interest	Multiple-choice checklist to indicate the presence of ore-bearing minerals
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 > 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

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

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 *Younging Evidence* = 'Yes', indicate the *Younging Trend* (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

Sedimentary lithologies_PT

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

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 *Younging Evidence* = 'Yes', indicate the *Younging Trend* (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	*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
	Grain Size	Two one-choice dropdown lists to select the *Dominant Grain Size* and the related *Lithology* (mandatory field)
	Components	Multiple-choice checklist to indicate the presence of various volcanoclastic components
	Lithofacies	Three one-choice dropdown lists to indicate the *Bedding*, *Jointing* and *Grading* presence and nature, two multiple-choice checklists to indicate the presence of *Fabric features* and *Volcanosedimentary Structures*
	Composition	One-choice dropdown list to select among potential igneous extrusive lithologies for *Clast Composition*, 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%)
	Younging	If *Younging Evidence* = 'Yes', indicate the *Younging Trend* (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

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

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
	Composition	One-choice dropdown list to select the *Lithology* (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%)
	Lithofacies	Two one-choice dropdown lists to indicate the *Flow* and *Jointing* presence and nature, one multiple-choice checklist to indicate the presence of other *Volcanic Structures*
	Texture	One one-choice dropdown list to indicate the *Crystal Abundance* (presence and size of crystals), more fields allow for characterising the nature of *Porphyritic Texture* when observed, and there is one multiple-choice checklist to indicate the presence of other *Volcanic Textures*
	Younging	If *Younging Evidence* = 'Yes', indicate the *Younging Trend* (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	*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
	Composition	One-choice dropdown list to select the *Lithology* (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%)
	Texture	Two multiple-choice checklists to indicate the *Crystal Size* populations and the *Magmatic Texture* 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.

LITHOLOGY

Metamorphic lithologies_PT

Symbols rotated anti-clockwise

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 *Metamorphic Lithology* (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	*Lithology*	Write the name of the host rock (auto-completion to match a list of host rocks)
	Stratigraphic Unit	One-choice dropdown list to select the relevant stratigraphic unit
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 > Edit Dictionaries*

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

Alteration zones_PG layer

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

Magnetic susceptibility_PG layer

TABS	ATTRIBUTES	DESCRIPTION
Lithology	*Rock Type*	One-choice dropdown list to indicate the overall typology of the rock (names of previous layers, from **Local** to **Metamorphic lithologies**)
	Stratigraphic Unit	One-choice dropdown list to select the relevant stratigraphic unit
	Lithology	One-choice dropdown list the correct lithology among options listed for the *Rock Type* selected
Measurement	*Measured Magnetic Susceptibility (.10^{-3} SI) – Reading #1* to *5*	Enter the measured value (2 decimal digits) – up to 5 values can be entered
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 > Edit Dictionaries*

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