

Exercise 9: Basic Diagram Validation

Goal

Validate and correct a diagram

Introduction

Diagram validation is not limited to the validation of GXT files. The same validation rules that are applied for GXT files are also applied to newly-captured diagrams.

Diagrams read from a database are considered correct as long as they are not modified,

enabling them to be transferred from one database to another even if they do not satisfy the new validation rules. This is what we are now going to test.

Task 1 : Validate a diagram

- From your work database, open the WZ emission beam diagram of notice 90998027.
- Validate this diagram by clicking on the **Diagram | Validate** menu.

The GXT editor view is automatically activated and displays the GXT file corresponding to the validated diagram together with a series of error messages.

These messages indicate that several open contours do not have their furthestmost points located on the horizon.

- Return to the Diagram View by right-clicking the editor window and selecting **View Diagram**)
- Change the projection (**View | Characteristics**) to "Plate Carrée".

The problem is now clearly visible.

Task 2: Correct a diagram

To correct this problem, you could add points using the GXT editor but it will be simpler in this case to use one of the **filtering tool** whose properties is to ensure that, after filtering, an open contour has its two extremities on the horizon.

- Select an open contour.
- Select the **Tools | Filter** menu
- Select the **Extend to horizon** filter and press the Enter key
- The filtered line is displayed in blue on top of the original line. To complete the filter action, you have to "accept" the new filtered line so that it replaces the original line. To do so you can again use the context menu or more simply press the Enter key.

The filtering of the first contour modifies the diagram, which triggers its validation.

All incorrect contours are displayed in bold and dotted form.

Task 3: Correct all invalid contours

We leave as an exercise to correct all invalid contours using the filter tool.

To correct the error VAL_E003 ("A contour segment is too small"), you can either use the GXT editor to delete one of the close points or use the "Remove close points" filter