

Exercise 2: Hunting for Errors

Time: 25 minutes

Goal: Learn how to identify and understand common data issues using the PRISM Validator.

What You'll Learn

By the end of this exercise, you will:

- Use the PRISM Validator to check for errors
- Understand different types of validation messages (Error, Warning, Info)
- Identify common pitfalls in raw data (formatting, types, ranges)
- Discover how PRISM helps you catch issues before they ruin your analysis

Starting Materials

Look in the `bad_examples/` folder inside this exercise. It contains 13 files, each with at least one deliberate error or “messy” feature.

Your Task: The Bug Hunt

Instead of following a script, your goal is to explore these files and see what PRISM tells you about them.

Step 1: Loading the “Messy” Files

1. Open **PRISM Studio** (<http://localhost:5001>)
2. Go to the **Converter** → **Survey Data Converter**
3. Select any file from the `'bad_examples/'` folder and click **“Upload”**.

Step 2: Investigate


For each file you load, ask yourself:

- **Does it load at all?** (Some files have fundamental formatting issues).
- **Does the Preview look right?** (Check the columns and rows).
- **What happens when you try to map columns?** (Are some columns missing or weirdly named?).
- **Are there any warnings or errors on the screen?** (Look for red or orange boxes).

Step 3: Specific Challenges

Can you find the files that have these specific problems?

- A file that isn't actually tab-separated (TSV).
- A file where a participant appears twice.
- A file where someone entered a number that is “impossible” for that scale.
- A file that is completely empty.



MRI-LAB GRAZ
PRISM Studio

Port_Vario

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 Dataset Validation


Validate your psychological dataset structure and metadata

Current Project: Port_Vario

/Volumes/Evo/data/prism_hub/Port_Vario


Validate Current Project

Change Project

 Dataset Validation

The PRISM Validator ensures your dataset follows the PRISM structure and BIDS standards. It checks for required files, naming conventions, and validates metadata against JSON schemas.

1. Select Dataset



Select your dataset folder

Choose a folder to start validation

Browse Folder

2. Schema Version

stable (default)

Select the schema version to use for validation. "stable" is recommended.

2b. Template Library Root (Optional)

/Volumes/Evo/data/prism_hub/Port_Vario/code/library

If your dataset uses external survey/biometrics templates, specify the library folder here.

3. Validation Mode

☒ Full Validation (PRISM + BIDS)

Recommended. Validates PRISM extensions and runs the official BIDS validator.

☐ PRISM Only

Only validates PRISM-specific modalities (survey, biometrics, etc.) and structure.

☐ BIDS Only


Only runs the standard BIDS validator. Skips PRISM-specific schema checks.

☐ Show BIDS Warnings (can be verbose)

Choose how you want to validate your dataset.


Start Validation

Select a folder to start validation




Privacy First

Files are processed locally. Nothing is uploaded to external servers.




BIDS Ready

Ensures your dataset is compatible with standard BIDS tools and apps.



Detailed Reports

Comprehensive validation results with statistics and error categorization.




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Browser Compatibility


Folder Upload: Requires Chrome 21+, Firefox 50+, Safari 11.1+, or Edge 79+


 Expected Dataset Structure

```
dataset/
├── dataset_description.json
├── participants.tsv (optional)
├── sub-01/
│   ├── ses-001/ (optional)
│   │   ├── survey/
│   │   └── biometrics/
│   └── anat/
├── sub-02/
└── ...
```

Supported Modalities:


 survey/ - Survey/Behavioral responses

 biometrics/ - Biometric assessments (VO2max, plans)

 physiological/ - Standard BIDS physio

PRISM Studio version: 2.0.0

Note: Dataset validation is performed locally. Files are never uploaded to external servers.



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Report an Issue

Maintained by Karl Koschutnig


Built with  for the research community

Figure 1: Exercise 2 UI (Light Mode)

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Exercise 2 Challenge

Pick one of the “broken” files. Try to identify exactly what is wrong, and if you’re feeling adventurous, open the file in a text editor (like Notepad or VS Code), fix the problem, and try uploading it again to see if it passes!

Next Steps: Once you’ve mastered the art of finding bugs, let’s look at how to process clean data.

Ready for Exercise 3? → Go to ‘../exercise_3_using_recipes/‘