How to Interpret the XLChek Report

(Layman-friendly, section by section)

This is the **most important document** for users.

Executive Summary (Top of the Page)

What this tells you

This is the **overall health rating** of the workbook.

You will see:

- **LOW** → Workbook is structurally safe
- **MEDIUM** → Some risks exist, review recommended
- **HIGH** → Serious risk of incorrect results

Example explanation

"HIGH risk because circular references and high-impact cells were detected."

📌 **Think of this like a medical diagnosis** — it doesn't tell you *everything*, but it tells you **how worried you should be**.

Per-Sheet Diagnostics Table

This table answers:

Which sheet is risky, and why?

Columns explained

Column	Meaning
Sheet	Sheet name
Risk	LOW / MEDIUM / HIGH
Formulas	Number of formula cells
Circular Cells	Cells involved in circular logic
High-Risk Cells	Cells with large downstream impact
Reason	Plain-English summary

How to use it

- Start with **HIGH**
- Then review **MEDIUM**
- LOW usually needs no action

Key Risk Highlights (The Big Counters)

These are **signals**, not errors.

🔁 Circular References

What it means

- A formula depends on itself (directly or indirectly)

Why it matters

- Results may change unpredictably
- Excel may silently recalculate wrong totals

Always serious.

⚡ Volatile Function Hits

Examples:

- `OFFSET`
- `INDIRECT`
- `NOW`, `TODAY`

Why it matters

- Workbook recalculates unexpectedly
- Performance issues
- Hard to audit logic

🔗 Symbolic References

Examples:

- Named ranges
- Structured table references

Why it matters

- Expands dependency surface
- Makes impact analysis harder
- Not “wrong”, just riskier

Embedded (Hard-coded) Constants

Example:

```
=A1 * 1.31
```

Why it matters

- Hidden business assumptions
- Exchange rates, tax rates, margins

- Easy to forget, hard to audit

📌 These are **candidates for Inputs**, not automatic errors.

Hard-coded Constants Table

This table answers:

Where are the hidden numbers baked into formulas?

Columns explained

Column	Meaning
Cell	Where it is
Literal	The number
Op	Operator used
Function	Surrounding function
Formula	Exact formula

What to do

- Move important numbers into an **Inputs sheet**
- Replace `*1.31` with `*FX_RATE_CELL`

Top High-Risk Cells (Impact Radius)

This answers:

If this cell is wrong, how much breaks?

Downstream Reach

- Number of cells affected by this one

Direct Fan-out

- Immediate dependents

📌 These cells deserve:

- Comments
- Documentation
- Extra testing

Circular Reference Details

Shows:

- Exact cells involved in loops

Action

- Break the loop
- Or clearly document why it exists

Orphan Calculations (If Present)

These are:

- Formulas **not used by any other formula**

Why it matters

- Dead logic
- Forgotten calculations
- Maintenance risk

📌 Not always wrong — but always worth questioning.

What XLChek Does *Not* Do

Important for trust:

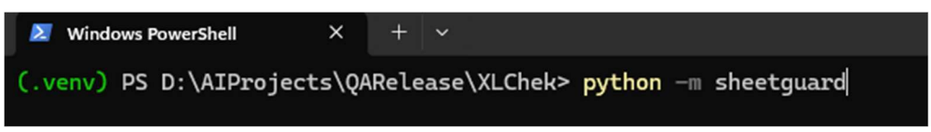
- ❌ Does not judge business correctness
- ❌ Does not recalculate values
- ❌ Does not change files
- ❌ Does not "fix" spreadsheets

It only highlights **structural risk**.

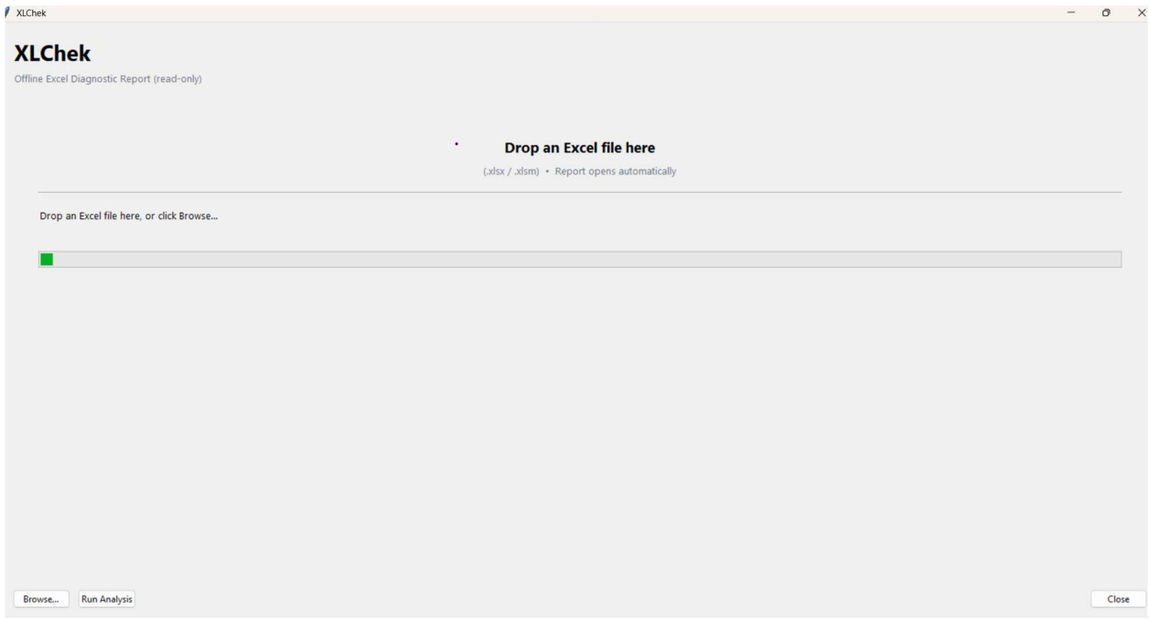
Step-by-Step Usage

1. **Run in Power Shell:**

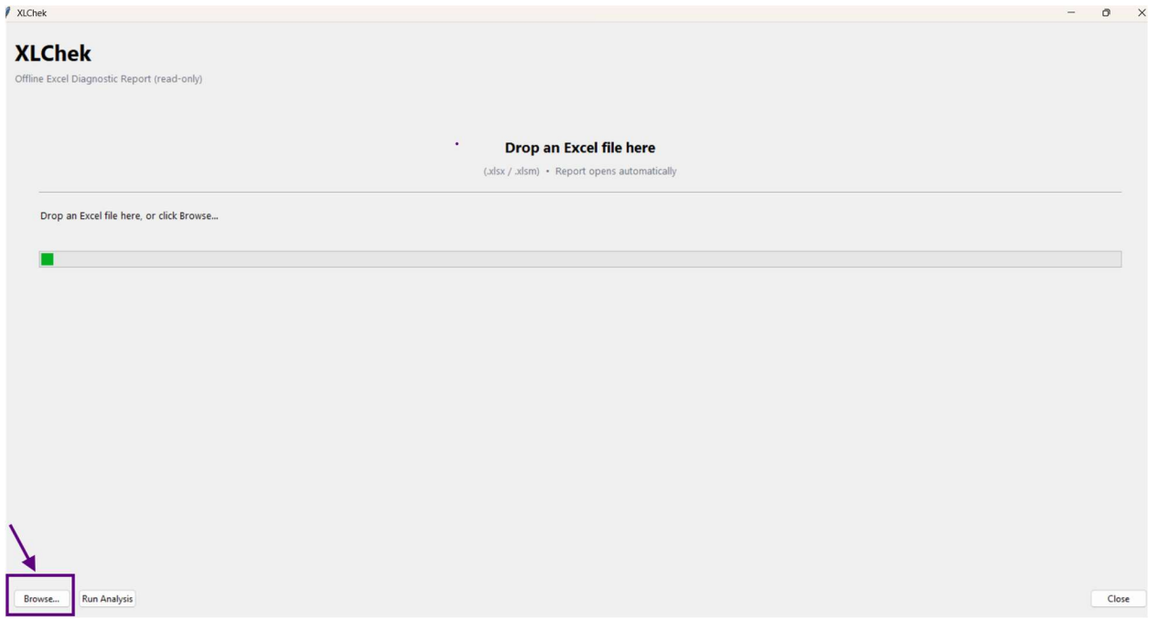
   python -m sheetguard



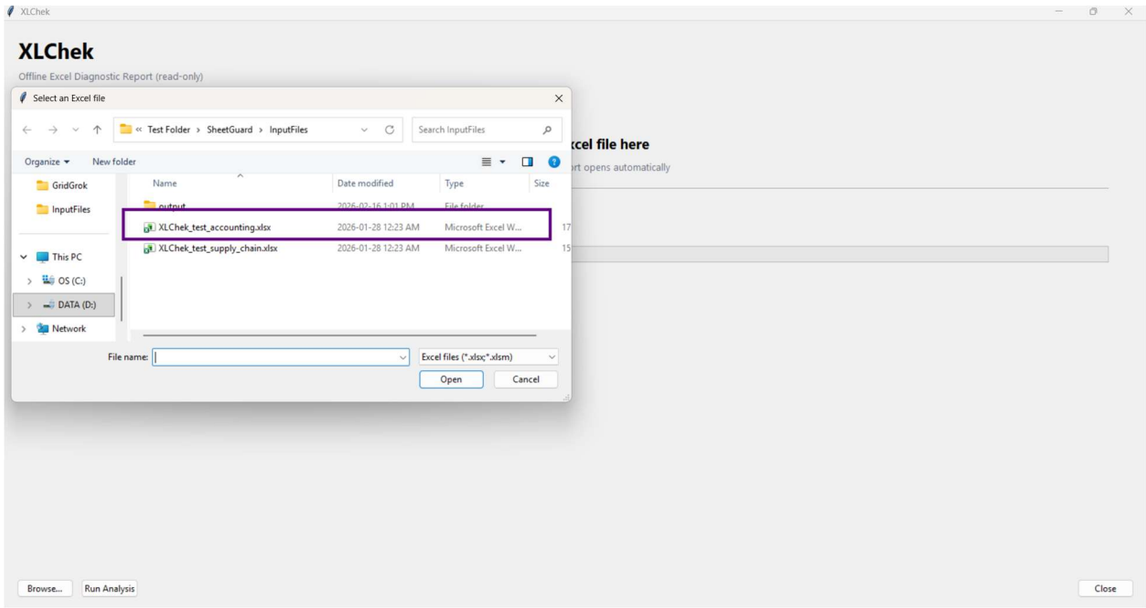
2. XLChek Window

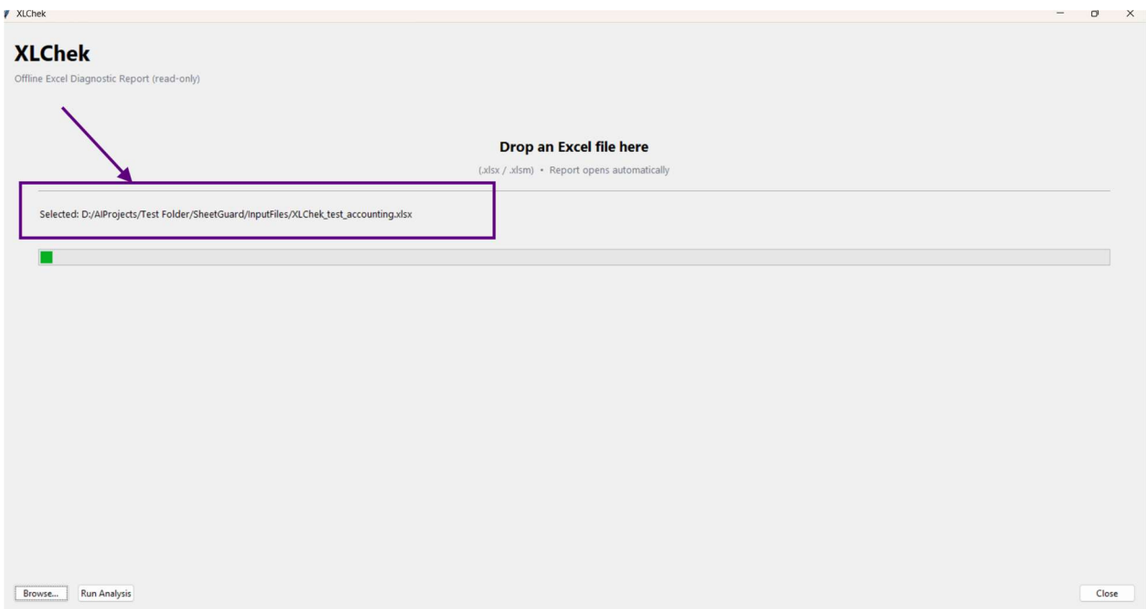


3. Click Browse

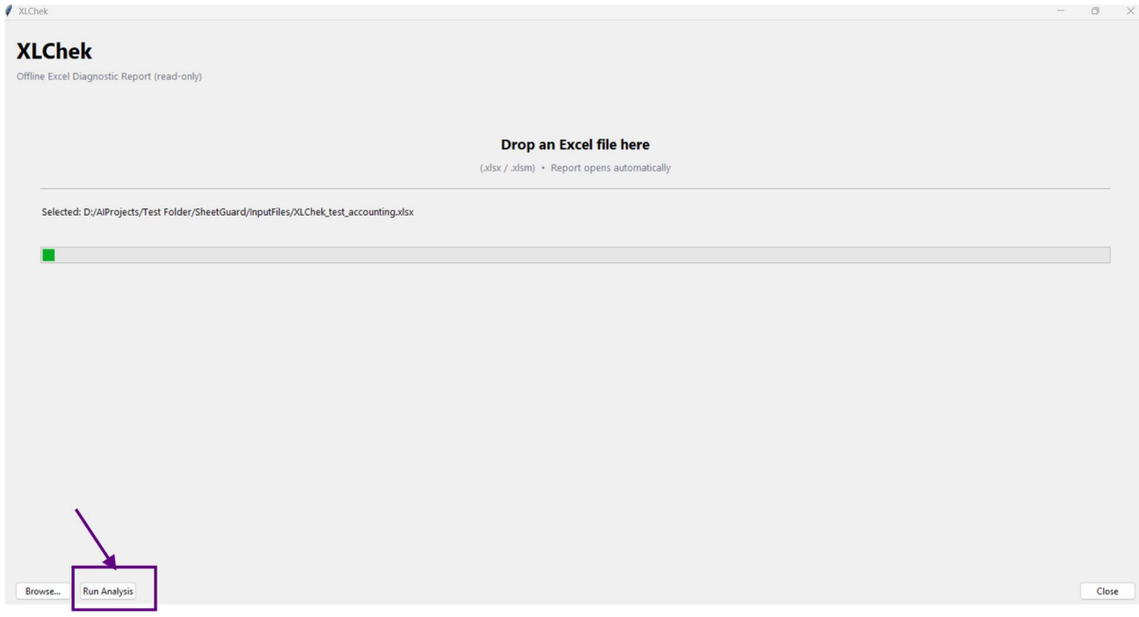


4. Select Excel

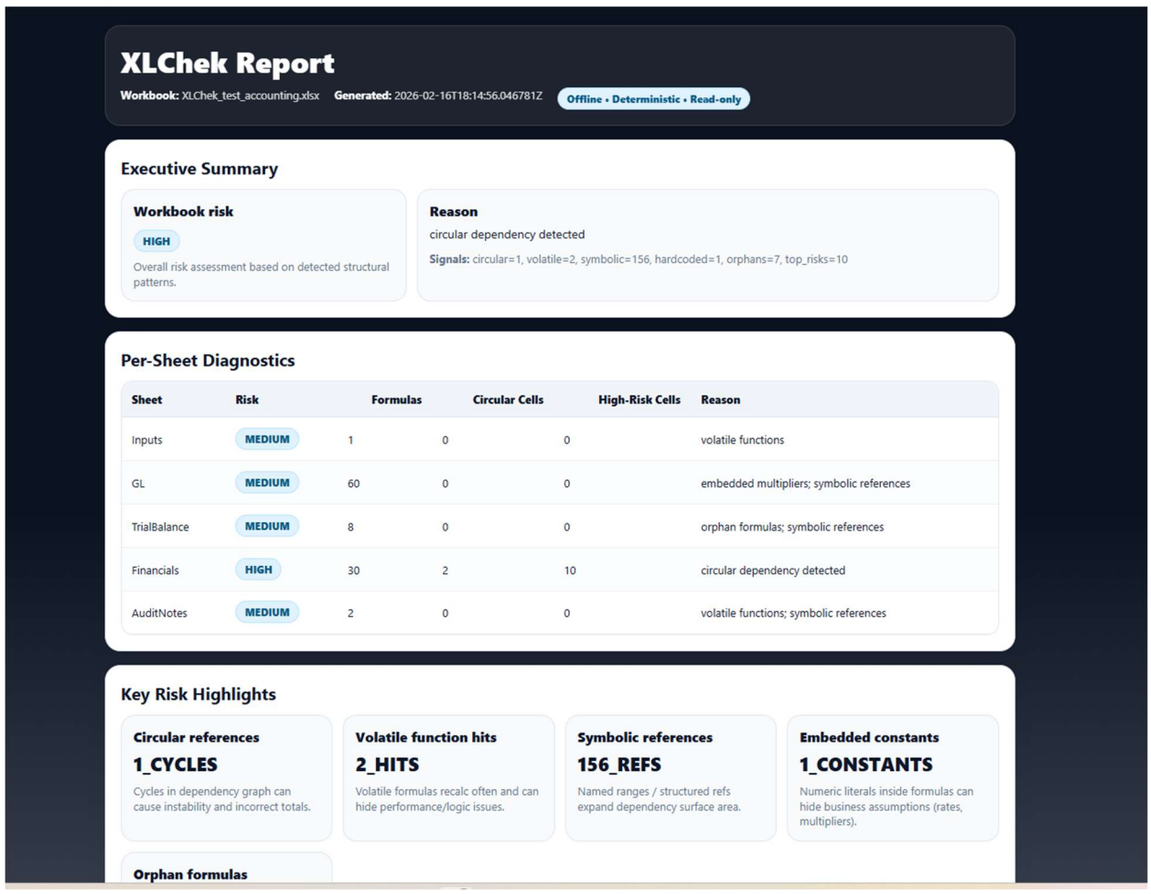




5. Click Run Analysis



6. View report



7. Output Files

The application generates output files in the same directory where the user selects the input files. Upon processing, the application automatically creates an output folder in this location with the following hierarchical structure**:**

```
[Input File Directory]/
└── output/
    └── [Date & Timestamp]/
        ├── [Input File Name].sheetguard.report.html
        └── [Input File Name].sheetguard.step5.json
```