

Power BI Data Cleaning & Transformation – Error Removal Workflow

Cleaning and preparing your data in Power BI ensures that your reports are accurate, reliable, and meaningful. This guide walks you through the step-by-step process of detecting and fixing errors, transforming columns, and validating results.

1. Finding Errors in a Specific Column

- In Power Query Editor, select the column you want to inspect.
- Look for:
 - Error values (often marked with a small red triangle).
 - Blank or null entries.
 - Unexpected data formats or outliers.
- Use the Column Quality and Column Profile features to identify inconsistencies.

2. Using the TRIM Function

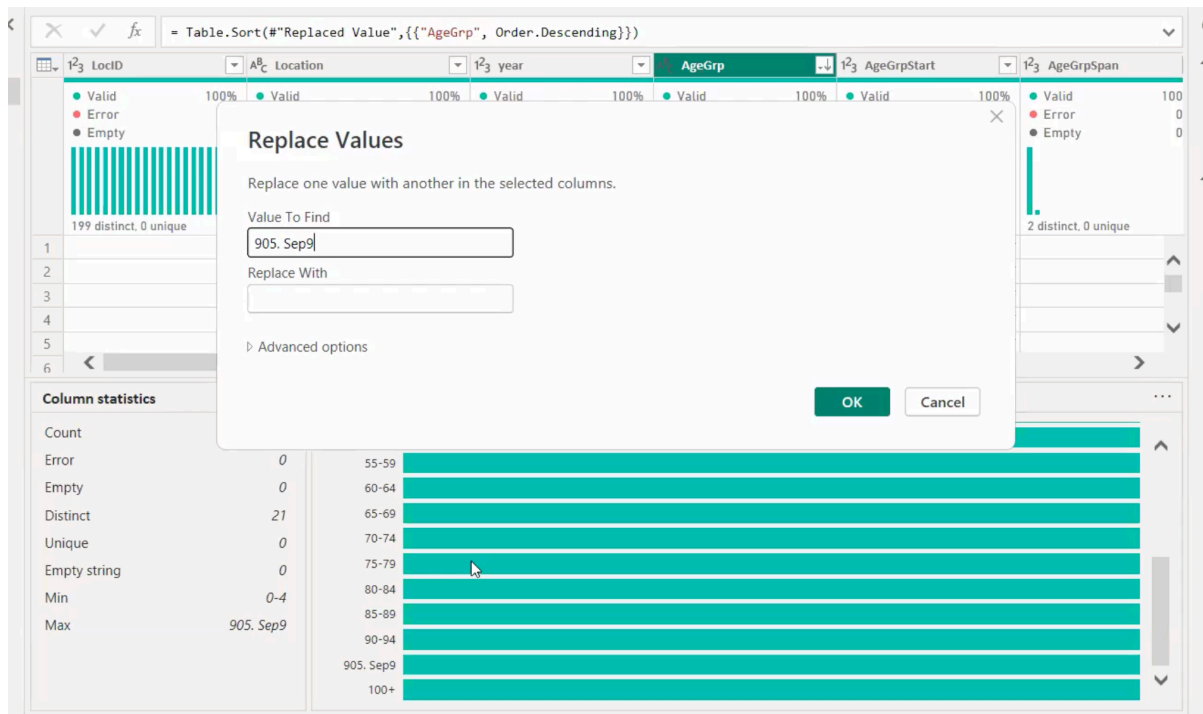
- Remove unwanted leading/trailing spaces that may cause matching or filtering issues.
- In Power Query, use the Transform → Format → Trim option.
- This is especially useful for text-based columns like names, categories, or codes.

The screenshot displays the Power Query Editor interface. The 'Transform' tab is active, and the 'Format' menu is open, showing options like lowercase, UPPERCASE, Capitalize Each Word, Trim, Clean, Add Prefix, and Add Suffix. The 'Trim' option is highlighted. In the background, a data table is visible with columns: LocID, Location, Time, AgeGrpStart, and AgeGrpSpan. Each column has a 'Column Quality' bar showing 100% Valid, 0% Error, and 0% Empty. The table data includes rows for various countries and their corresponding age group spans.

LocID	Location	Time	AgeGrpStart	AgeGrpSpan
1	Afghanistan	2020	0-4	5
2	Albania	2020	0-4	5
3	Algeria	2020	0-4	5
4	Angola	2020	0-4	5
5	Antigua and Barbuda	2020	0-4	5
6	Argentina	2020	0-4	5

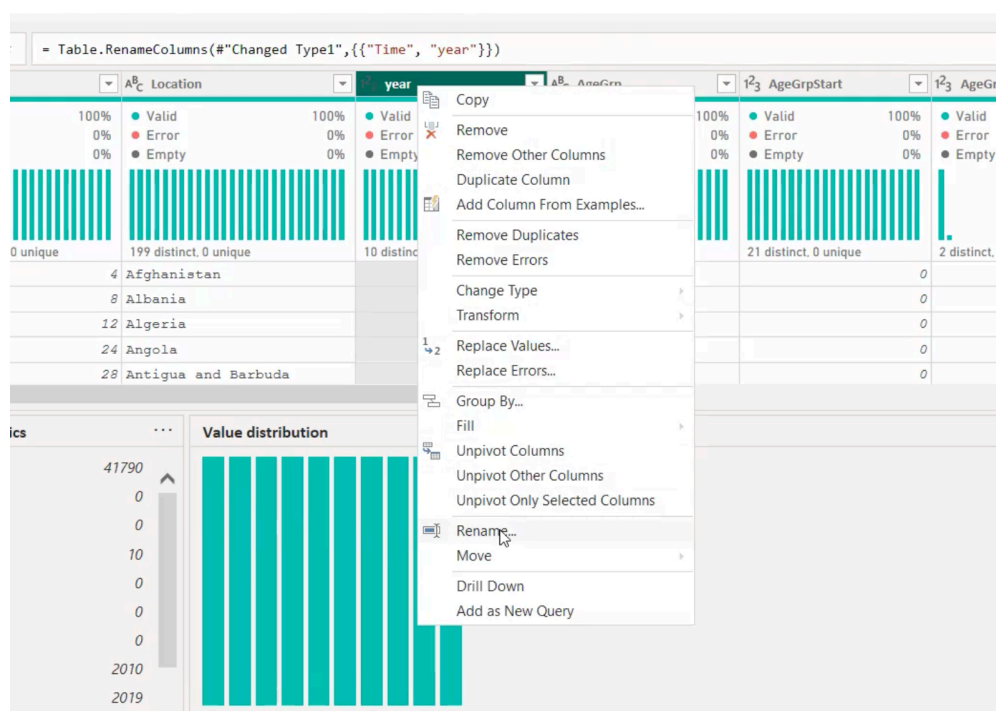
3. Replacing Values

- Highlight the column → Transform → Replace Values.
- Example: Replace "N/A" or "NULL" with a valid default value.
- Supports bulk corrections for typos or incorrect codes.



4. Changing the Column Name

- Select the column header → Right-click → Rename.
- Use clear, descriptive names that match the report's purpose.
- Avoid spaces if you plan to use DAX extensively.

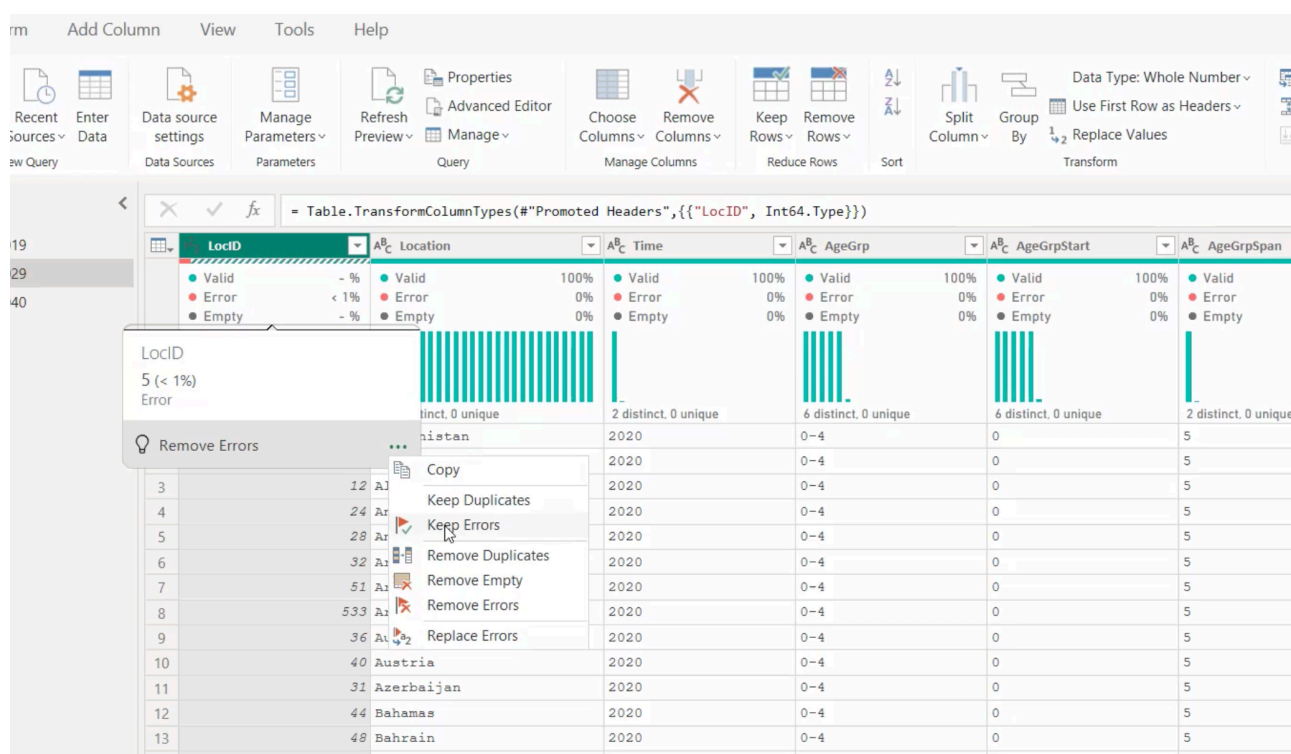


5. Filtering Rows

- Apply filters to remove unnecessary or invalid rows.
- Examples:
- Exclude negative sales values.
- Filter out test or dummy data.
- In Power Query: Home → Remove Rows (or use filter drop-downs).

6. Removing Errors

- After reviewing, right-click column → Remove Errors.
- This removes entire rows containing errors in the selected column.
- Use cautiously — you may lose important data if not checked first.



7. Changing Data Type


- Correct data types ensure accurate calculations and sorting.
- In the column header, select the Data Type icon and choose:
- Text
- Whole Number
- Decimal Number
- Date/Time
- Boolean
- Always perform this after cleaning to avoid type conversion errors.

8. Validation of Columns

- Cross-check cleaned data with the source system or expected rules.
- Sample checks:
- No blank IDs in a primary key column.
- Date ranges fall within logical limits.
- Numeric columns don't contain unexpected symbols.

Documentation Best Practices

- Keep a Data Cleaning Log:
- Record each change (date, reason, and transformation applied).
- Maintain before/after screenshots for traceability.
- If working in a team, add notes inside the Power Query Steps Pane for clarity.

 **Final Tip:** Always apply transformations in a logical sequence — detect → clean → transform → validate — so your dataset stays accurate and audit-friendly.