

Chapter 5: Excel MCP server

Your Spreadsheet Pain Ends Here!

5.1 Introduction

The Excel Model Context Protocol (MCP) enables your AI assistant to create, edit, and analyze Excel spreadsheets through natural language commands. Whether you're building a new budget sheet, generating pivot tables, or formatting data, Excel MCP allows your assistant to handle these tasks seamlessly—**no manual input required**.

In the previous chapter, we explored how Gmail MCP enables your assistant to manage emails efficiently. Now, with Excel MCP, your assistant becomes a proficient spreadsheet manager, capable of handling complex data tasks with ease.

5.1.1 Excel MCP Tools

Excel MCP isn't just about managing spreadsheets—it comes equipped with smart tools that let your assistant take over the tedious parts of Excel work. Here's what it can do:

1. **read_sheet_names** : Quickly lists all the sheet names in an Excel file. Perfect for getting an overview of your workbook's structure.
2. **read_sheet_data**: Reads data from a specified range in an Excel sheet, supporting pagination for large datasets. Ideal for analyzing specific sections without loading the entire sheet.
3. **read_sheet_formula**: Extracts formulas from a specified range in an Excel sheet, also with pagination support. Useful for

auditing calculations or understanding complex formula setups.

4. **read_sheet_image (Windows only):** Captures data as an image from a specified range in an Excel sheet. Handy for visual references or sharing snapshots of your data.
5. **write_sheet_data:** Writes data to a specified range in an Excel sheet. Great for automating data entry or updating reports with new information.
6. **write_sheet_formula:** Inserts formulas into a specified range in an Excel sheet. Perfect for setting up calculations without manual input.

5.1.2 Real-World Applications

Imagine you're working on a time-sensitive report and need to quickly update an Excel file with new data, reorganize the content, and add key calculations. Instead of doing it manually, you open up the Excel MCP server and let your assistant handle the heavy lifting. You start by giving a few simple commands:

- *"List all sheet names in 'Q2_Sales_Report.xlsx'."*
- *"Read the data from the 'SalesData' sheet, cells A1 to D50."*
- *"Write the updated sales numbers to the 'Summary' sheet, starting at A1."*
- *"Add formulas in the 'Summary' sheet to calculate total sales by region."*

The assistant springs into action, pulling the required data, updating the right sections, and inserting the necessary formulas — all in just a few minutes. You quickly review the final output, satisfied with the accuracy and formatting, and head into your meeting feeling prepared and confident.

5.2 Step-by-Step Installation

5.2.1 Steps

1. Node.js 20.x or later installed in your system.
2. Set the following config in your claude config json file.

For Windows platform:

```
{
  "mcpServers": {
    "excel": {
      "command": "cmd",
      "args": ["/c", "npx", "--yes", "@negokaz/excel-mcp-server"],
      "env": {
        "EXCEL_MCP_PAGING_CELLS_LIMIT": "4000"
      }
    }
  }
}
```

Claude_desktop_config.json

For Other platforms:

```
{
  "mcpServers": {
    "excel": {
      "command": "npx",
      "args": ["--yes", "@negokaz/excel-mcp-server"],
      "env": {
        "EXCEL_MCP_PAGING_CELLS_LIMIT": "4000"
      }
    }
  }
}
```

claude_desktop_config.json

**After Gmail, now you should have enabled Excel MCP as well.
Good job !**

M Access this excel sheet given on the path:
"C:\Users\datas\OneDrive\Desktop\excel\file_example_XLSX_100.xlsx" and then mention
which is the most common age present in the group.

I'll help you analyze the Excel file to find the most common age in the dataset. Let me start by
accessing the file and examining its contents.

Running `read_sheet_names` from `excel` (local)

```
{  
  `fileAbsolutePath`: `C:\\Users\\datas\\OneDrive\\Desktop\\excel\\file_example_XLSX_100.xlsx`  
}
```



Definitely give this a try—you'll thank us for this AI trick once you see
how much smoother Excel becomes. We've already automated
Gmail and Excel. What's next? it's **PowerPoint for your
presentations!**

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