

Enhanced File Manager API Documentation

Base URL

`http://localhost:8000/api`

Authentication

The API does not currently require authentication.

Common Response Format

All endpoints return a standardized JSON response:

```
json
{
  "success": true,
  "message": "Operation message",
  "data": { /* Response data */ }
}
```

For errors:

```
json
{
  "success": false,
  "message": "Error description",
  "data": null
}
```

API Endpoints

Browsing

Get Drives

Lists available drives or mounted filesystems.

Endpoint: `GET /drives`

Response Example:

json

```
{
  "success": true,
  "message": "Drive information retrieved successfully",
  "data": {
    "drive_info": "Available Drives:\n C: [238.47 GB total, 161.31 GB free, 32.4% used] - Syst
  }
}
```

Get Home Directory

Retrieves information about the home directory.

Endpoint: `GET /home`

Response Example:

json

```
{
  "success": true,
  "message": "Home directory information retrieved successfully",
  "data": {
    "details": {
      "name": "user",
      "path": "/home/user",
      "type": "directory",
      "created": "2023-05-15T09:32:11",
      "modified": "2024-01-17T14:20:33",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 16877,
      "contains_files": true,
      "contains_dirs": true,
      "item_count": 12
    },
    "tree": "user/\n|— Documents/\n|   |— work/\n|   |— personal/\n|   |— Downloads/\n|   |— f
  }
}
```

Get File Details

Retrieves detailed information about a file or directory.

Endpoint: `POST /files/details`

Request Body:

```
json

{
  "path": "/path/to/file.txt"
}
```

Response Example:

```
json

{
  "success": true,
  "message": "File details retrieved successfully",
  "data": {
    "details": {
      "name": "file.txt",
      "path": "/path/to/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-03-21T14:20:33",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    },
    "tree": null
  }
}
```

List Directory

Lists the contents of a directory.

Endpoint: `POST /files/list`

Request Body:

```
json

{
  "path": "/path/to/directory",
  "include_hidden": false
}
```

Response Example:

json

```
{
  "success": true,
  "message": "Directory listing retrieved successfully",
  "data": {
    "directory": "/path/to/directory",
    "items": [
      {
        "name": "work",
        "path": "/path/to/directory/work",
        "type": "directory",
        "size": null,
        "created": "2023-05-15T09:32:11",
        "modified": "2024-01-17T14:20:33",
        "accessed": "2024-04-27T10:15:22",
        "is_hidden": false,
        "permissions": 16877,
        "contains_files": true,
        "contains_dirs": false,
        "item_count": 5
      },
      {
        "name": "report.pdf",
        "path": "/path/to/directory/report.pdf",
        "type": "file",
        "size": 2568192,
        "created": "2024-02-15T09:32:11",
        "modified": "2024-03-21T14:20:33",
        "accessed": "2024-04-27T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".pdf"
      }
    ],
    "tree": "/path/to/directory/\n|— work/\n|   |— .../\n|       |— report.pdf"
  }
}
```

Read File

Reads the content of a file.

Endpoint: POST /files/read

Request Body:

```
json

{
  "path": "/path/to/file.txt"
}
```

Response Example:

```
json

{
  "success": true,
  "message": "File content retrieved successfully",
  "data": {
    "details": {
      "name": "file.txt",
      "path": "/path/to/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-03-21T14:20:33",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    },
    "content": "This is the content of the file.\nMultiple lines are preserved.",
    "is_binary": false
  }
}
```

File Operations

Create Directory

Creates a new directory.

Endpoint: `POST /files/create-directory`

Request Body:

json

```
{
  "path": "/path/to/new/directory"
}
```

Response Example:

json

```
{
  "success": true,
  "message": "Directory created successfully",
  "data": {
    "details": {
      "name": "directory",
      "path": "/path/to/new/directory",
      "type": "directory",
      "size": null,
      "created": "2024-04-27T10:15:22",
      "modified": "2024-04-27T10:15:22",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 16877,
      "contains_files": false,
      "contains_dirs": false,
      "item_count": 0
    }
  }
}
```

Delete Item

Deletes a file or directory.

Endpoint: `POST /files/delete`

Request Body:

json

```
{
  "path": "/path/to/file.txt",
  "recursive": false
}
```

Response Example:

json

```
{
  "success": true,
  "message": "File deleted successfully",
  "data": {
    "deleted_item": {
      "name": "file.txt",
      "path": "/path/to/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-03-21T14:20:33",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    }
  }
}
```

Rename Item

Renames a file or directory.

Endpoint: `POST /files/rename`

Request Body:

json

```
{
  "path": "/path/to/file.txt",
  "new_name": "renamed.txt"
}
```

Response Example:

json

```
{
  "success": true,
  "message": "File renamed successfully",
  "data": {
    "original": {
      "name": "file.txt",
      "path": "/path/to/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-03-21T14:20:33",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    },
    "renamed": {
      "name": "renamed.txt",
      "path": "/path/to/renamed.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-04-27T10:15:22",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    }
  }
}
```

Move Item

Moves a file or directory to a new location.

Endpoint: `POST /files/move`

Request Body:

json

```
{
  "path": "/path/to/file.txt",
  "destination": "/new/path/"
}
```


Response Example:

json

```
{
  "success": true,
  "message": "File moved successfully",
  "data": {
    "original": {
      "name": "file.txt",
      "path": "/path/to/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-03-21T14:20:33",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    },
    "moved": {
      "name": "file.txt",
      "path": "/new/path/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-04-27T10:15:22",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    }
  }
}
```

Copy Item

Copies a file or directory to a new location.

Endpoint: `POST /files/copy`

Request Body:

json

```
{
  "path": "/path/to/file.txt",
  "destination": "/new/path/"
}
```

Response Example:

json

```
{
  "success": true,
  "message": "File copied successfully",
  "data": {
    "source": {
      "name": "file.txt",
      "path": "/path/to/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-02-15T09:32:11",
      "modified": "2024-03-21T14:20:33",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    },
    "destination": {
      "name": "file.txt",
      "path": "/new/path/file.txt",
      "type": "file",
      "size": 12580,
      "created": "2024-04-27T10:15:22",
      "modified": "2024-04-27T10:15:22",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    }
  }
}
```

Write File

Writes content to a file.

Endpoint: POST /files/write

Request Body:

```
json

{
  "path": "/path/to/file.txt",
  "content": "This is the new content of the file."
}
```

Response Example:

```
json

{
  "success": true,
  "message": "File written successfully (36 characters)",
  "data": {
    "details": {
      "name": "file.txt",
      "path": "/path/to/file.txt",
      "type": "file",
      "size": 36,
      "created": "2024-04-27T10:15:22",
      "modified": "2024-04-27T10:15:22",
      "accessed": "2024-04-27T10:15:22",
      "is_hidden": false,
      "permissions": 33188,
      "extension": ".txt"
    }
  }
}
```

Search Operations

Search By Name

Searches for files and directories by name pattern.

Endpoint: `POST /search/by-name`

Request Body:

json

```
{  
  "start_dir": "/path/to/search",  
  "pattern": "*.txt",  
  "case_sensitive": false,  
  "max_depth": null,  
  "max_results": 100  
}
```

Response Example:


```
{
  "success": true,
  "message": "Found 3 results matching '*.txt'",
  "data": {
    "query": {
      "type": "name",
      "pattern": "*.txt",
      "start_dir": "/path/to/search",
      "case_sensitive": false,
      "max_depth": null,
      "max_results": 100
    },
    "result_count": 3,
    "results": [
      {
        "name": "notes.txt",
        "path": "/path/to/search/notes.txt",
        "type": "file",
        "size": 12580,
        "created": "2024-02-15T09:32:11",
        "modified": "2024-03-21T14:20:33",
        "accessed": "2024-04-27T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".txt"
      },
      {
        "name": "report.txt",
        "path": "/path/to/search/work/report.txt",
        "type": "file",
        "size": 45320,
        "created": "2024-01-10T15:32:11",
        "modified": "2024-03-20T16:45:22",
        "accessed": "2024-04-10T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".txt"
      },
      {
        "name": "todo.txt",
        "path": "/path/to/search/personal/todo.txt",
        "type": "file",
        "size": 2150,
        "created": "2024-03-15T09:32:11",
        "modified": "2024-03-15T09:32:11",
        "accessed": "2024-04-15T10:15:22",
```

```
        "is_hidden": false,  
        "permissions": 33188,  
        "extension": ".txt"  
    }  
]  
}  
}
```

Search By Content

Searches for files containing specific text content.

Endpoint: `POST /search/by-content`

Request Body:

```
json  
  
{  
  "start_dir": "/path/to/search",  
  "text": "important data",  
  "file_pattern": "*.txt",  
  "case_sensitive": false,  
  "max_size": 10485760,  
  "max_results": 100  
}
```

Response Example:

json

```
{
  "success": true,
  "message": "Found 2 results containing text 'important data'",
  "data": {
    "query": {
      "type": "content",
      "text": "important data",
      "start_dir": "/path/to/search",
      "file_pattern": "*.txt",
      "case_sensitive": false,
      "max_results": 100
    },
    "result_count": 2,
    "results": [
      {
        "name": "notes.txt",
        "path": "/path/to/search/notes.txt",
        "type": "file",
        "size": 12580,
        "created": "2024-02-15T09:32:11",
        "modified": "2024-03-21T14:20:33",
        "accessed": "2024-04-27T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".txt",
        "match_context": "This is important data that needs to be reviewed before the meeting."
      },
      {
        "name": "report.txt",
        "path": "/path/to/search/work/report.txt",
        "type": "file",
        "size": 45320,
        "created": "2024-01-10T15:32:11",
        "modified": "2024-03-20T16:45:22",
        "accessed": "2024-04-10T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".txt",
        "match_context": "The important data from last quarter shows significant improvement."
      }
    ]
  }
}
```


Search By Size

Searches for files by size.

Endpoint: POST /search/by-size

Request Body:

json

```
{  
  "start_dir": "/path/to/search",  
  "min_size": 1048576,  
  "max_size": 10485760,  
  "extensions": [".pdf", ".docx"],  
  "max_results": 100  
}
```

Response Example:

json

```
{
  "success": true,
  "message": "Found 2 files matching size criteria",
  "data": {
    "query": {
      "type": "size",
      "start_dir": "/path/to/search",
      "min_size": 1048576,
      "max_size": 10485760,
      "extensions": [".pdf", ".docx"],
      "max_results": 100
    },
    "result_count": 2,
    "results": [
      {
        "name": "report.pdf",
        "path": "/path/to/search/report.pdf",
        "type": "file",
        "size": 2568192,
        "created": "2024-02-15T09:32:11",
        "modified": "2024-03-21T14:20:33",
        "accessed": "2024-04-27T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".pdf"
      },
      {
        "name": "presentation.pdf",
        "path": "/path/to/search/work/presentation.pdf",
        "type": "file",
        "size": 1835008,
        "created": "2024-01-10T15:32:11",
        "modified": "2024-03-20T16:45:22",
        "accessed": "2024-04-10T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".pdf"
      }
    ]
  }
}
```

Find Recent Files

Finds recently modified files.

Endpoint: `POST /search/recent`

Request Body:

json

```
{  
  "start_dir": "/path/to/search",  
  "days": 7,  
  "file_pattern": "*",  
  "max_results": 100  
}
```

Response Example:

json

```
{
  "success": true,
  "message": "Found 2 files modified in the last 7 days",
  "data": {
    "query": {
      "type": "recent",
      "start_dir": "/path/to/search",
      "days": 7,
      "file_pattern": "*",
      "max_results": 100
    },
    "result_count": 2,
    "results": [
      {
        "name": "notes.txt",
        "path": "/path/to/search/notes.txt",
        "type": "file",
        "size": 12580,
        "created": "2024-02-15T09:32:11",
        "modified": "2024-04-27T10:15:22",
        "accessed": "2024-04-27T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".txt"
      },
      {
        "name": "report.pdf",
        "path": "/path/to/search/report.pdf",
        "type": "file",
        "size": 2568192,
        "created": "2024-02-15T09:32:11",
        "modified": "2024-04-25T14:20:33",
        "accessed": "2024-04-27T10:15:22",
        "is_hidden": false,
        "permissions": 33188,
        "extension": ".pdf"
      }
    ]
  }
}
```

Find Duplicate Files

Finds duplicate files based on name and size.

Endpoint: `POST /search/duplicates`

Request Body:

```
json

{
  "start_dir": "/path/to/search",
  "max_results": 100
}
```

Response Example:

```
json

{
  "success": true,
  "message": "Found 2 groups of duplicate files",
  "data": {
    "query": {
      "type": "duplicates",
      "start_dir": "/path/to/search",
      "max_results": 100
    },
    "group_count": 2,
    "duplicate_groups": [
      {
        "name": "data.csv",
        "size": 353878,
        "count": 2,
        "paths": [
          "/path/to/search/data.csv",
          "/path/to/search/work/data.csv"
        ]
      },
      {
        "name": "report.txt",
        "size": 45320,
        "count": 2,
        "paths": [
          "/path/to/search/work/report.txt",
          "/path/to/search/backup/report.txt"
        ]
      }
    ]
  }
}
```

Other Operations

Download Directory Structure

Downloads the folder structure as a text file.

Endpoint: `POST /download/structure`

Request Body:

```
json
{
  "path": "/path/to/directory"
}
```

Response:

A plain text file with the directory structure will be returned with `Content-Disposition: attachment` header.

```
Folder Structure: /path/to/directory
=====

directory/
├─ work/
│   ├── data.csv
│   └─ report.txt
├─ report.pdf
├─ notes.txt
└─ data.csv
```

Error Status Codes

- `400` - Bad Request (invalid input)
- `404` - Not Found (path not found)
- `500` - Internal Server Error

Running the API

Default port (8000)

```
python src/server.py
```

With hot reload for development

```
python src/server.py --reload
```

Custom port

```
PORT=8080 python src/server.py
```