



JavaFX eProject

FILE MANA - MODERN TEXT EDITOR

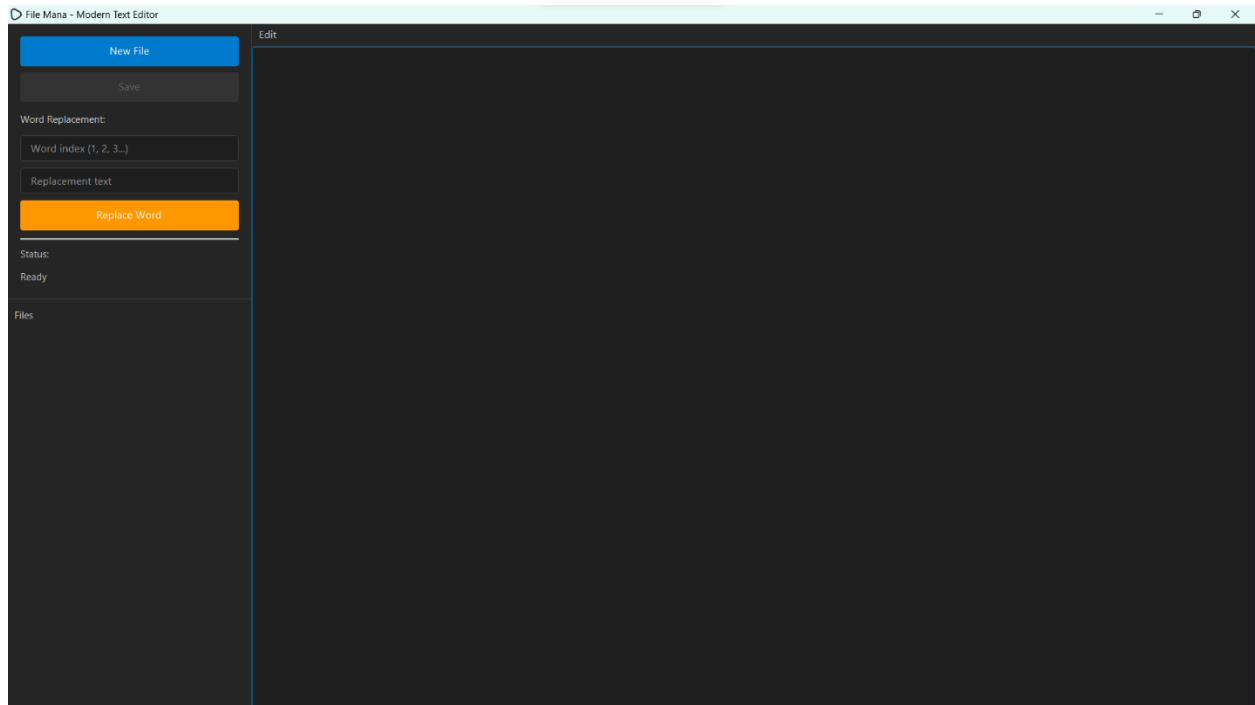
User Guide

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INTRODUCTION

Welcome to File Mana



File Mana is a modern, feature-rich text editor designed to simplify file creation, content manipulation, and text processing tasks. Built with JavaFX, it provides a professional, user-friendly interface similar to popular code editors like Visual Studio Code.

Key Features

- **Smart File Management:** Automatic creation of three synchronized file variants
- **Content Reversal:** Instant text reversal with real-time updates
- **Word Replacement:** Position-based word extraction and replacement
- **Byte Conversion:** UTF-8 text to byte code conversion
- **Auto-Save:** Automatic saving every 30 seconds
- **Modern UI:** Dark theme with responsive design

Who Should Use This Guide?

This user guide is designed for:

- Students learning text processing concepts
- Developers needing quick file manipulation tools
- Anyone requiring automated file creation and content processing
- Users who prefer modern, intuitive interfaces

SYSTEM REQUIREMENTS

Minimum Requirements

Component	Requirement
Operating System	Windows 10, macOS 10.14, or Linux (Ubuntu 18.04+)
Java Version	Java 21 or higher
Memory (RAM)	4 GB minimum, 8 GB recommended
Storage	100 MB free disk space
Display	1024×768 minimum resolution

Recommended Requirements

Component	Recommendation
Operating System	Windows 11, macOS 12+, or Linux (Ubuntu 20.04+)
Java Version	Java 21 (latest update)
Memory (RAM)	8 GB or more
Storage	500 MB free disk space
Display	1920×1080 or higher resolution

Software Dependencies

- **Java Runtime Environment (JRE) 21+** – Required for running the application
- **JavaFX 22** – Included with the application package
- **No additional software required** – All dependencies are bundled

INSTALLATION GUIDE

Pre-Installation Steps

1. **Verify Java Installation**

Open your terminal or command prompt and type the following command:

```
java -version
```

Make sure Java 21 or higher is installed.

2. **Download File Mana**

- Obtain the FileMana.jar file from your instructor or the provided download location.
- Save the file to a convenient location such as the Desktop or Documents folder.

Installation Process

Option 1: Direct Execution (Recommended)

1. Double-click the FileMana.jar file.
2. If prompted, select **"Open with Java Platform SE Binary"**.
3. The application will launch automatically.

Option 2: Command Line Execution

Open **Command Prompt** (Windows) or **Terminal** (macOS/Linux).

1. Navigate to the directory where FileMana.jar is located.
2. Run the following command:

```
java -jar FileMana.jar
```

First Launch

1. **Application Startup**

Once launched, the File Mana window will appear.

2. **Initial Setup**

No configuration is required — the app is ready to use immediately.

3. **File Structure**

Upon first use, the application will create a folder named **"Created files"** in its directory.

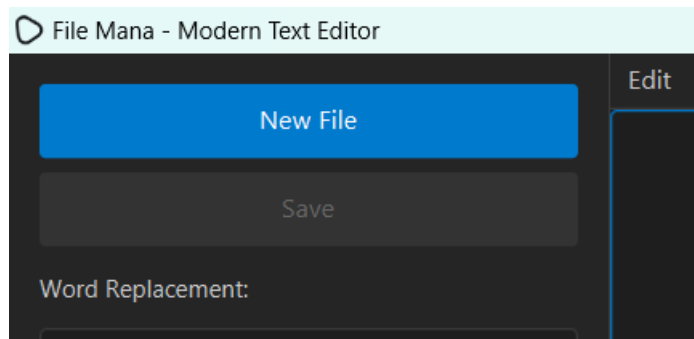
GETTING STARTED

Launching the Application

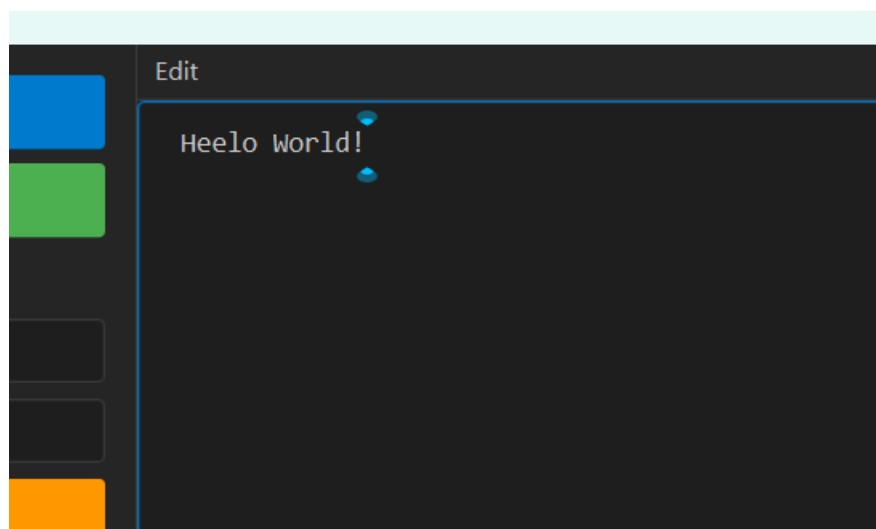
1. **Start File Mana** using one of the installation methods described earlier.
2. **Main Window:** The application opens with a clean, modern interface.
3. **Ready to Use:** No login or setup is required.

First Steps

1. **Familiarize with the Interface**
Explore the layout, including the sidebar and main editor.
2. **Create Your First File**
Use the "New File" button to begin.

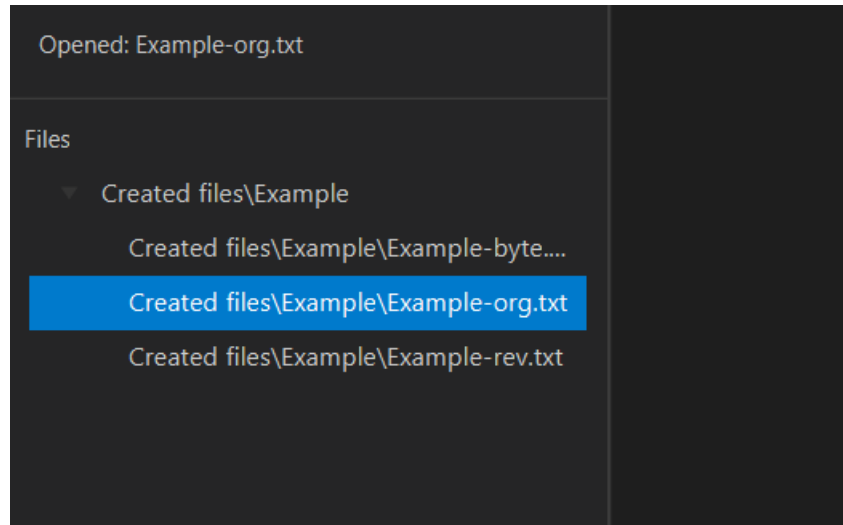


3. **Enter Sample Text**
Type some content in the input area to see the features in action.



4. **Observe Auto-Creation**

The application automatically generates three files for each input.



Basic Workflow

- **Step 1:** Enter a base name for your file set.
- **Step 2:** Type your content in the text area.
- **Step 3:** Click the "**Create Files**" button.
- **Step 4:** The application automatically creates the files.
- **Step 5:** View the files in the file navigator.
- **Step 6:** Edit content in the main editor.
- **Step 7:** Auto-save keeps the files synchronized automatically.

USER INTERFACE OVERVIEW

Main Window Layout

Main Interface (Split Layout):

1. **Sidebar (Left Panel – 30% width)**
 - File Navigator
 - Create Files
 - Replace Words
 - Status Info
2. **Main Editor (Right Panel – 70% width)**
 - Displays your text content
 - Supports syntax highlighting
 - Includes line numbers for easy editing

Bottom Status Bar:

- Status: Ready
- Auto-save: ON
- Files: 3

Sidebar Components

File Navigator (Top Section)

- **Tree View:** Displays created files in a hierarchical structure.
- **Folder Icons:** Represent directories (📁) and files (📄).
- **Context Menu:** Right-click to access additional options such as delete or open.
- **File Types:** Displays three file variants for each set: -org.txt, -rev.txt, and -byte.txt.

Create Files Section (Middle)

- **Base Name Field:** Input the name for your new file set.
- **Content Area:** Enter or paste your text content.
- **Create Files Button:** Generates all three synchronized files instantly.
- **Clear Button:** Clears the input fields to start a new set.

Word Replacement Section (Bottom)

- **Position Field:** Input the word position you want to replace (starting from 1).
- **Replacement Field:** Type in the new word.
- **Replace Button:** Replaces the word at the specified position.
- **Clear Fields Button:** Clears both input fields for a new replacement.

Main Editor Area

Text Editor Features

- **Syntax Highlighting:** Color-coded text for improved readability.
- **Line Numbers:** Displayed for easy reference and navigation.
- **Word Wrap:** Automatically wraps long lines for better visibility.
- **Scroll Bars:** Vertical and horizontal scroll support.
- **Real-time Updates:** All edits are reflected in the synchronized files instantly.

Editor Capabilities

- **Full Text Editing:** Includes cut, copy, paste, and select all.
- **Undo/Redo:** Use Ctrl+Z to undo and Ctrl+Y to redo changes.
- **Find/Replace:** Press Ctrl+F to search and Ctrl+H to replace text.
- **Auto-Save Integration:** Automatically saves changes every 30 seconds.

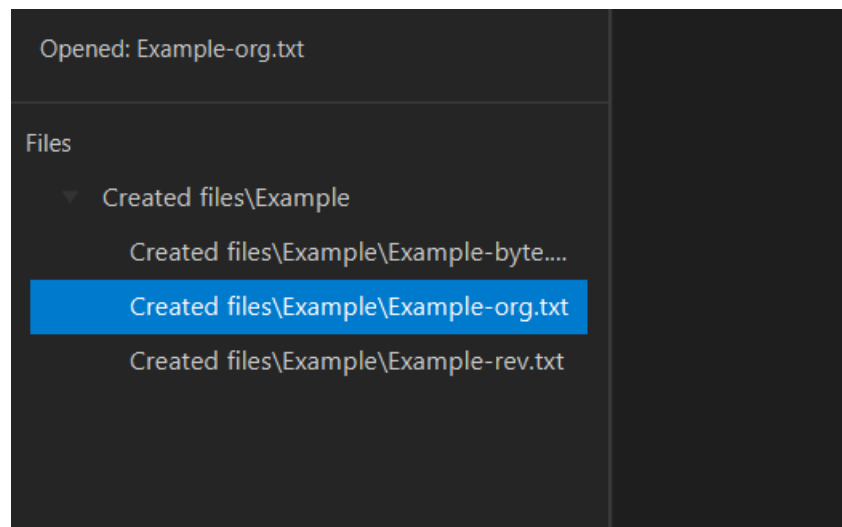
CORE FEATURES

Smart File Creation

How It Works:

File Mana automatically generates three synchronized files for each base name you provide:

1. **Original File** (basename-org.txt)
Contains your original text exactly as entered.
2. **Reversed File** (basename-rev.txt)
Contains the text reversed at the character level.
3. **Byte File** (basename-byte.txt)
Contains the UTF-8 encoded byte values of the text.



Benefits:

- **Automatic Organization:** Files are grouped in clearly named folders.
- **Real-time Synchronization:** All related files update immediately when content changes.
- **Unique Naming:** Automatic suffixes prevent filename conflicts.
- **Easy Management:** Clear and consistent naming conventions simplify file identification.

Content Reversal

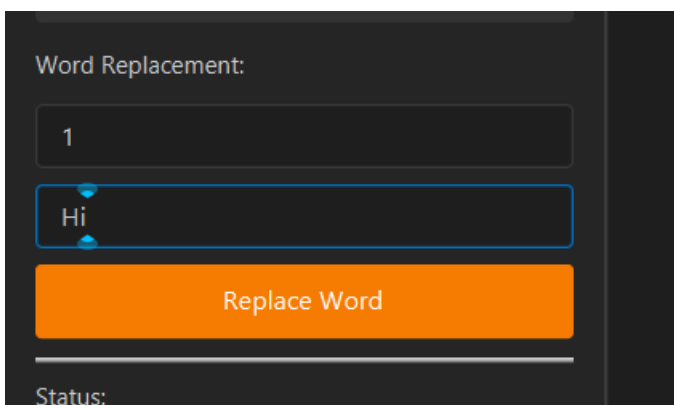
Functionality:

- Reverses text character by character.
- Supports Unicode, handling international characters correctly.
- Updates the reversed file automatically in real-time.
- Preserves original formatting such as spaces and line breaks.

Word Replacement by Position

How to Use:

1. **Identify Position:** Words are numbered starting from 1.
2. **Enter Position:** Type the word number in the Position field.
3. **Enter Replacement:** Type the new word in the Replacement field.
4. **Execute:** Click the "Replace Word" button to perform the operation.



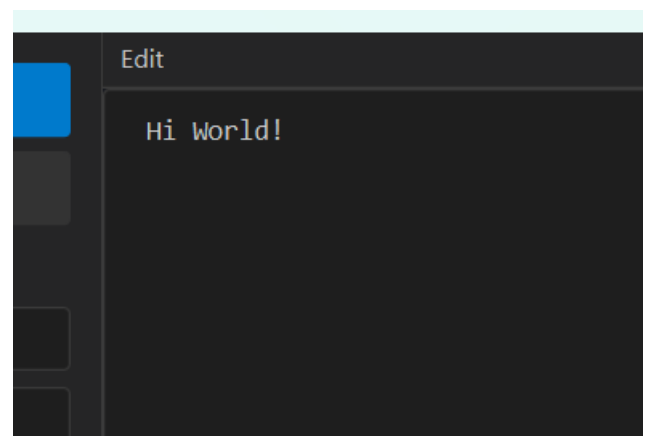
Word Replacement:

1

Hi

Replace Word

Status:



Byte Code Conversion

Technical Details:

- Uses standard **UTF-8** character encoding.
- Byte values are separated by spaces.
- Bytes are displayed as unsigned integers (range 0–255).

- The byte file updates automatically when content changes.

Auto-Save System

Features:

- Saves automatically every **30 seconds**.
- Saves only when content has changed since the last save.
- Runs quietly in the background without interrupting work.
- Shows auto-save status on the status bar.
- Manual save is available anytime with **Ctrl+S**.

STEP-BY-STEP OPERATIONS

Creating Your First File Set

Step 1: Prepare Your Content

1. Think of a base name for your files (e.g., "MyDocument").
2. Prepare the text content you want to process.

Step 2: Enter Information

1. Click in the "Base Name" field in the sidebar.
2. Type your desired base name (without the .txt extension).
3. Click in the large text area below.
4. Type or paste your content.

Step 3: Create Files

1. Click the "Create Files" button.
2. Wait for the success message.
3. Observe the new folder in the file navigator.
4. See your content appear in the main editor.

Step 4: Verify Creation

1. Expand the folder in the file navigator.
2. See three files: -org.txt, -rev.txt, -byte.txt.
3. Click on each file to view its content.
4. Verify the reversed and byte versions.

Editing Existing Content

Step 1: Select File

1. Navigate to the file navigator.
2. Click on any -org.txt file to open it.
3. Content appears in the main editor.

Step 2: Make Changes

1. Click in the main editor area.

2. Edit the text as needed.
3. Use standard editing operations (cut, copy, paste).

Step 3: Save Changes

1. Press **Ctrl+S** for immediate save, or
2. Wait for auto-save (every 30 seconds).
3. Observe the status bar for save confirmation.
4. Check that all three files are updated.

Replacing Words by Position

Step 1: Identify Target Word

1. Look at your content in the main editor.
2. Count the position of the word you want to replace.
3. Remember that counting starts from **1**.

Step 2: Enter Replacement Details

1. In the sidebar, find the **Word Replacement** section.
2. Enter the word position in the **Position** field.
3. Enter the new word in the **Replace** field.

Step 3: Execute Replacement

1. Click the **Replace Word** button.
2. Confirm the operation if prompted.
3. Observe the change in the main editor.
4. Check that all files are updated automatically.

Step 4: Verify Results

1. Review the updated content.
2. Check the reversed file for corresponding changes.
3. Verify the byte file reflects the new content.
4. Use **Ctrl+Z** if you need to undo the change.

KEYBOARD SHORTCUTS

File Operations

Shortcut	Action	Description
Ctrl+N	New File Set	Clears form for new file creation
Ctrl+S	Save	Immediately saves current content
Ctrl+O	Open	Opens file selection dialog
F5	Refresh	Refreshes file navigator

Text Editing

Shortcut	Action	Description
Ctrl+Z	Undo	Reverses last action
Ctrl+Y	Redo	Repeats last undone action
Ctrl+X	Cut	Cuts selected text
Ctrl+C	Copy	Copies selected text
Ctrl+V	Paste	Pastes clipboard content
Ctrl+A	Select All	Selects all text

Search and Replace

Shortcut	Action	Description
Ctrl+F	Find	Opens find dialog
Ctrl+H	Replace	Opens find and replace dialog
F3	Find Next	Finds next occurrence
Shift+F3	Find Previous	Finds previous occurrence

Navigation

Shortcut	Action	Description
Ctrl+Home	Go to Start	Moves cursor to beginning
Ctrl+End	Go to End	Moves cursor to end
Ctrl+G	Go to Line	Opens go to line dialog
Page Up	Page Up	Scrolls up one page
Page Down	Page Down	Scrolls down one page

Application

Shortcut	Action	Description
F1	Help	Opens help documentation
Alt+F4	Exit	Closes the application
F11	Full Screen	Toggles full screen mode
Ctrl+,	Settings	Opens settings dialog

TROUBLESHOOTING

Common Issues and Solutions

Issue: Application Won't Start

Symptoms: Double-clicking the JAR file does nothing, or error messages appear.

Solutions:

1. **Check Java Version:**
java -version. Ensure Java 21 or higher is installed.
2. **Try Command Line:**
java -jar FileMana.jar. This may show error messages not visible otherwise.
3. **Reinstall Java:** Download and install the latest Java from Oracle's website.

Issue: Files Not Creating

Symptoms: Clicking "Create Files" doesn't generate files, or error messages appear.

Solutions:

1. **Check Permissions:** Ensure you have written permissions in the application directory.
2. **Verify Base Name:** Use only alphanumeric characters and avoid special symbols.
3. **Check Disk Space:** Ensure sufficient free disk space is available.
4. **Restart Application:** Close and reopen File Mana.

Issue: Auto-Save Not Working

Symptoms: Changes are lost when switching files or closing the application.

Solutions:

1. **Check Status Bar:** Verify auto-save shows "ON" in the status bar.
2. **Manual Save:** Use Ctrl+S to save manually.
3. **Wait for Timer:** Auto-save occurs every 30 seconds after changes.

4. **Check File Permissions:** Ensure files are not read-only.

Issue: Word Replacement Fails

Symptoms: Word replacement doesn't work or shows error messages.

Solutions:

1. **Verify Position:** Ensure the position number is valid (1 to word count).
2. **Check Content:** Make sure there is text in the editor.
3. **Use Valid Position:** Count words carefully, starting from 1.
4. **Avoid Empty Replacement:** Enter a valid replacement word.

Performance Issues

Issue: Slow Performance

Symptoms: Application responds slowly, especially with large files.

Solutions:

1. **Increase Memory:** Start with more memory:
2. `java -Xmx2G -jar FileMana.jar`
3. **Close Other Applications:** Free up system resources.
4. **Reduce File Size:** Work with smaller text files if possible.
5. **Restart Application:** Close and reopen to clear memory.

Issue: High Memory Usage

Symptoms: System becomes slow, memory usage is high.

Solutions:

1. **Limit File Size:** Avoid extremely large text files.
2. **Close Unused Files:** Work with one file set at a time.
3. **Restart Regularly:** Restart the application periodically.
4. **Check System Resources:** Monitor system memory usage.

File System Issues

Issue: Files Appear Corrupted

Symptoms: File content is garbled or unreadable.

Solutions:

1. **Check Encoding:** Files use UTF-8 encoding by default.
2. **Restore from Backup:** Use auto-save backups if available.
3. **Recreate Files:** Create a new file set with the same content.
4. **Check Disk Health:** Run disk check utilities.

Issue: Cannot Delete Files

Symptoms: Error messages when trying to delete files or folders.

Solutions:

1. **Close Application:** Ensure File Mana is not using the files.
2. **Check Permissions:** Verify you have delete permissions.
3. **Use File Manager:** Try deleting through the system file manager.
4. **Restart System:** Reboot if files are locked by the system.

FREQUENTLY ASKED QUESTIONS

General Questions

Q: What file formats does File Mana support?

A: File Mana works with plain text files (.txt) using UTF-8 encoding. It automatically creates three variants: original, reversed, and byte-encoded versions.

Q: Can I use File Mana with non-English text?

A: Yes, File Mana fully supports Unicode and UTF-8 encoding, making it compatible with text in any language including Arabic, Chinese, Japanese, and others.

Q: Is there a limit to file size?

A: While there's no hard limit, File Mana is optimized for files up to 10MB. Larger files may experience slower performance.

Q: Can I run File Mana on different operating systems?

A: Yes, File Mana runs on Windows, macOS, and Linux systems that have Java 21 or higher installed.

Feature Questions

Q: How does the word replacement feature count words?

A: Words are counted by splitting text on whitespace characters (spaces, tabs, newlines). Punctuation attached to words is included with the word. Counting starts from position 1.

Q: What happens if I enter an invalid word position?

A: File Mana will display an error message indicating the valid range (1 to the total number of words) and will not perform the replacement.

Q: Can I undo word replacements?

A: Yes, use Ctrl+Z to undo the last word replacement, or any other editing operation.

Q: How often does auto-save occur?

A: Auto-save runs every 30 seconds, but only saves if the content has actually changed since the last save.

Technical Questions

Q: Where are my files stored?

A: Files are stored in a "Created files" folder within the same directory as the File Mana application. Each file set gets its own subfolder.

Q: What is the byte conversion format?

A: Text is converted to UTF-8 bytes, with each byte displayed as an unsigned integer (0-255) separated by spaces.

Q: Can I customize the auto-save interval?

A: The current version uses a fixed 30-second interval. Future versions may include customizable intervals.

Q: How do I backup my files?

A: Simply copy the entire "Created files" folder to another location. This preserves all your file sets and their organization.

Troubleshooting Questions

Q: Why won't the application start?

A: The most common cause is not having Java 21 or higher installed. Download and install the latest Java version from Oracle's website.

Q: What should I do if files aren't synchronizing?

A: Try manually saving with Ctrl+S, check file permissions, and ensure the application has write access to its directory.

Q: How do I report bugs or request features?

A: Contact your instructor or the development team with detailed information about the issue, including steps to reproduce it.

Q: Can I recover deleted files?

A: File Mana doesn't include a recycle bin feature. Use your operating system's file recovery tools or restore from backups.

CONCLUSION

File Mana provides a powerful yet user-friendly solution for text processing and file management tasks. This user guide covers all essential operations and troubleshooting scenarios to help you make the most of the application.

Key Takeaways:

1. **Simple Interface:** Modern, intuitive design requires minimal learning
2. **Powerful Features:** Automated file creation, content processing, and synchronization
3. **Reliable Operation:** Auto-save and error handling ensure data safety
4. **Cross-Platform:** Works consistently across different operating systems

Getting Help:

1. **This Guide:** Comprehensive reference for all features
2. **Keyboard Shortcuts:** Quick access to common operations
3. **Troubleshooting:** Solutions for common issues
4. **FAQ:** Answers to frequently asked questions

Next Steps:

1. **Practice:** Try all features with sample content
2. **Explore:** Experiment with different file sets and content types
3. **Customize:** Learn keyboard shortcuts for efficient operation