

IDE Switcher - Documentation Overview

Available Documentation

1. User Manual ([user-manual.md](#))

For: End users who want to use IDE Switcher **Contains:**

- Quick start guide
- Feature explanations
- Usage instructions
- Keyboard shortcuts
- Best practices
- Troubleshooting guide
- FAQ

When to read: After installation, when you want to learn how to use the tool effectively

2. Implementation Guidelines ([implementation-guidelines.md](#))

For: Developers who want to understand or modify the code **Contains:**

- Architecture overview
- Communication protocol details
- Delphi plugin internals
- VS Code extension internals
- Named pipes implementation
- Performance optimization
- Security considerations
- Testing guidelines
- Debugging techniques

When to read: Before making modifications, when debugging issues, or when extending functionality

3. AI Agent Instructions ([ai-agent-instructions.md](#))

For: Claude Code or other AI coding assistants **Contains:**

- Project structure overview

- Common modification patterns
- Critical code sections with warnings
- Step-by-step modification guides
- Testing checklists
- Code style guidelines
- Quick reference for AI agents
- Troubleshooting patterns

When to read: When using AI assistance for development, maintenance, or feature additions

4. Installation Guide ([installation-guide.md](#))

For: First-time setup **Contains:**

- Delphi plugin installation steps
- VS Code extension installation steps
- Configuration options
- Testing procedures
- Uninstallation instructions

When to read: During initial setup or when deploying to a new machine



Quick Start Path

1. New User:

... [Installation Guide](#) → [User Manual](#)

2. Developer:

... [Installation Guide](#) → [Implementation Guidelines](#) → [User Manual](#)

3. AI-Assisted Development:

... [AI Agent Instructions](#) → [Implementation Guidelines](#) → [Test using User Manual](#)

4. Troubleshooting:

Documentation Maintenance

When to Update Documentation

Change Type	Update Required In
New feature	User Manual + Implementation Guidelines + AI Instructions
Bug fix	Implementation Guidelines (if architectural)
Hotkey change	User Manual + AI Instructions
Protocol change	Implementation Guidelines + AI Instructions
New IDE version support	Installation Guide + Implementation Guidelines
Performance improvement	Implementation Guidelines
UI/UX change	User Manual
New configuration option	User Manual + Installation Guide

Key Information by Role

For End Users

- **Primary doc:** User Manual
- **Key info:** Ctrl+Shift+D switches between IDEs
- **Main benefit:** Seamless editing in both IDEs

For Developers

- **Primary doc:** Implementation Guidelines
- **Key info:** Named pipes for IPC, OTA for Delphi, Extension API for VS Code
- **Main benefit:** Clean architecture, no external dependencies

For AI Assistants

- **Primary doc:** AI Agent Instructions
- **Key info:** Two components, JSON protocol, thread safety critical
- **Main benefit:** Clear modification patterns and examples

For System Administrators

- **Primary doc:** Installation Guide

- **Key info:** Windows-only, uses named pipes, no network access
 - **Main benefit:** No security risks, completely local operation
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Document Templates

Adding a New Feature

1. Design: Document in Implementation Guidelines
2. Code: Follow patterns in AI Agent Instructions
3. Test: Use checklist from AI Agent Instructions
4. Document: Update User Manual
5. Deploy: Follow Installation Guide

Reporting an Issue

Include information from:

- User Manual: What you were trying to do
- Implementation Guidelines: Error messages, logs
- AI Agent Instructions: Which component failed

Contributing Code

Read in order:

1. AI Agent Instructions (understand structure)
 2. Implementation Guidelines (understand architecture)
 3. User Manual (verify user experience)
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Search Keywords

To find information about:

- **Installation problems** → Installation Guide
- **How to use** → User Manual
- **How it works** → Implementation Guidelines
- **How to modify** → AI Agent Instructions
- **Keyboard shortcuts** → User Manual
- **Error messages** → User Manual (troubleshooting) + Implementation Guidelines (debugging)
- **Performance** → Implementation Guidelines

- **Security** → Implementation Guidelines
- **Testing** → Implementation Guidelines + AI Agent Instructions
- **Protocol/Communication** → Implementation Guidelines
- **Thread safety** → AI Agent Instructions
- **File handling** → All documents have relevant sections

Documentation Statistics

Document	Target Audience	Length	Technical Level	Update Frequency
User Manual	End Users	~1500 words	Low	Per feature
Implementation Guidelines	Developers	~3000 words	High	Per architecture change
AI Agent Instructions	AI Assistants	~2500 words	Medium-High	Per common issue
Installation Guide	All	~1000 words	Medium	Per major version

Documentation Completeness

Each document covers:

- ☒ **Purpose:** Clear statement of what the tool does
- ☒ **Installation:** How to set it up
- ☒ **Usage:** How to use it effectively
- ☒ **Architecture:** How it works internally
- ☒ **Troubleshooting:** How to fix common problems
- ☒ **Modification:** How to extend or customize
- ☒ **Testing:** How to verify it works
- ☒ **Future:** What's planned next

External Resources

While the documentation is comprehensive, these external resources may help:

- **Delphi Open Tools API:** [Embarcadero DocWiki](#)
 - **VS Code Extension API:** code.visualstudio.com/api
 - **Windows Named Pipes:** [Microsoft Docs](#)
 - **JSON Protocol Design:** Standard REST API principles apply
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Feedback

To improve documentation:

1. Note which document was unclear
 2. Identify the specific section
 3. Suggest improvement using examples from AI Agent Instructions
 4. Test the improvement using Implementation Guidelines
 5. Verify user experience with User Manual
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Learning Path

Beginner (Just use it)

Day 1: Installation Guide (30 min)
Day 1: User Manual - Quick Start (10 min)
Day 2-7: User Manual - Features (as needed)

Intermediate (Customize it)

Week 1: All Beginner content
Week 2: Implementation Guidelines - Architecture (1 hour)
Week 2: AI Agent Instructions - Common Modifications (1 hour)

Advanced (Extend it)

Week 1-2: All Intermediate content
Week 3: Implementation Guidelines - Complete (2 hours)
Week 3: AI Agent Instructions - Complete (2 hours)
Week 4: Implement a new feature following the patterns

This overview document serves as your map to all IDE Switcher documentation. Each document has a specific purpose and audience. Together, they provide complete coverage for users, developers, and AI assistants working with IDE Switcher.