

IDE Switcher Installation Guide

Overview

IDE Switcher allows seamless switching between Delphi IDE and VS Code/WindSurf with a single hotkey (Ctrl+Shift+D), preserving file context and cursor position.

How It Works

When you press **Ctrl+Shift+D**:

From Delphi → VS Code:

1. Delphi plugin automatically **saves** the current file
2. Gets the file path and exact cursor position
3. Sends this info to VS Code via named pipe
4. VS Code **opens** the file (or switches to it if already open)
5. Moves cursor to the exact position
6. VS Code window becomes active

From VS Code → Delphi:

1. VS Code extension automatically **saves** the current file
2. Gets the file path and cursor position
3. Sends this info to Delphi via named pipe
4. Delphi **opens** the file (or switches to it if already open)
5. Moves cursor to the exact position
6. Delphi window becomes active

Part 1: Installing the Delphi IDE Plugin

Method A: As a Package (Recommended)

1. Create a new Package in Delphi:

- File → New → Other → Delphi Projects → Package
- Save as **IDESwitcher.dpk**

2. Add the plugin unit:

- Add **DelphiIDESwitcherPlugin.pas** to the package
- Make sure "Designtime only" is checked in Project Options

3. Compile and Install:

- Right-click the package in Project Manager
- Click "Install"
- You should see "IDE Switcher Plugin Loaded" message

Method B: As a DLL Expert

1. Create a new DLL project:

- File → New → Other → Delphi Projects → Dynamic-Link Library

2. Add the plugin code and export function:

```
pascal

library IDESwitcherExpert;

uses
  .. DelphiIDESwitcherPlugin;

exports
  .. InitWizard name WizardEntryPoint;

begin
end.
```

3. Build the DLL

4. Register with Delphi:

- Add to registry at: `HKEY_CURRENT_USER\Software\Embarcadero\BDS\[version]\Experts`
- Add string value: `IDESwitcher` = `C:\Path\To\IDESwitcherExpert.dll`

Part 2: Installing the VS Code Extension

Method A: From VSIX (Production)

1. Build the extension:

```
bash

# In the extension directory
npm install
npm run compile
vsce package
```

2. Install in VS Code:

- Open VS Code/WindSurf
- Press Ctrl+Shift+P

- Run "Extensions: Install from VSIX..."
- Select the generated `.vsix` file

Method B: Development Mode

1. Set up the extension:

```
bash

# Create extension directory
mkdir ide-switcher-vscode
cd ide-switcher-vscode

# Initialize
npm init -y
npm install --save-dev @types/vscode @types/node typescript

# Create folder structure
mkdir src
mkdir out
```

2. Add the files:

- Copy `extension.ts` to `src/extension.ts`
- Copy `package.json` (from the comments in the artifact)
- Copy `tsconfig.json` (from the comments in the artifact)

3. Compile:

```
bash

npm run compile
```

4. Run in development:

- Open the extension folder in VS Code
- Press F5 to run a new VS Code instance with the extension

Part 3: Configuration

Delphi Side

No additional configuration needed - the plugin uses Delphi's Open Tools API to access everything.

VS Code Side

Optional settings in VS Code (File → Preferences → Settings):

- `ideSwitcher.autoSave`: Enable/disable auto-save (default: true)
- `ideSwitcher.delphiExecutable`: Path to Delphi if not in default location

Testing

1. Open the same project/files in both IDEs
2. In Delphi, open a `.pas` file and place cursor anywhere
3. Press **Ctrl+Shift+D**
4. VS Code should activate with the same file and cursor position
5. Make some changes, press **Ctrl+Shift+D** again
6. Delphi should activate with your changes and cursor position

Troubleshooting

"Could not connect" errors

- Ensure both the Delphi plugin and VS Code extension are installed and running
- Check Windows Defender/Antivirus isn't blocking named pipes
- Try running both IDEs as Administrator (once, to establish pipe permissions)

Hotkey conflicts

- If **Ctrl+Shift+D** is already used, you can change it:
 - **Delphi:** Modify `TextToShortCut('Ctrl+Shift+D')` in the plugin
 - **VS Code:** Modify keybinding in `package.json` or use Keyboard Shortcuts settings

File not opening correctly

- Ensure the file paths are accessible from both IDEs
- Use absolute paths for files outside the project directory
- Check that both IDEs have the same working directory or project root

Cursor position is wrong

- This usually happens with different tab settings
- Ensure both IDEs use the same tab size (spaces vs tabs)

Architecture Notes

- **No global hotkey needed** - each IDE handles its own hotkey
- **No external process needed** - plugins communicate directly via named pipes
- **Automatic file handling** - files are saved/opened automatically

- **Fast switching** - typically < 200ms to switch
- **Reliable position tracking** - uses IDE APIs for exact positions

Advanced: Customization

Change the pipe names

In both Delphi plugin and VS Code extension:

pascal

```
// Delphi
PIPE_NAME_TO_VSCODE = '\\.\pipe\YourCustomPipe_ToVSCode';
PIPE_NAME_FROM_VSCODE = '\\.\pipe\YourCustomPipe_ToDelphi';
```

typescript

```
// VS Code
const PIPE_TO_DELPHI = '\\.\pipe\YourCustomPipe_ToDelphi';
const PIPE_FROM_DELPHI = '\\.\pipe\YourCustomPipe_ToVSCode';
```

Add more context

Modify the JSON structure to include:

- Selected text
- Bookmarks
- Breakpoints
- Folded regions
- Multiple cursor positions

Uninstalling

Delphi Plugin

- If installed as package: Component → Install Packages → Remove
- If installed as DLL: Remove registry entry and delete DLL

VS Code Extension

- Extensions panel → IDE Switcher → Uninstall