Tutorials

# Inspector

In-depth guide to using the MCP Inspector for testing and debugging Model Context Protocol servers

The **MCP Inspector** is an interactive developer tool for testing and debugging MCP servers. While the **Debugging Guide** covers the Inspector as part of the overall debugging toolkit, this document provides a detailed exploration of the Inspector's features and capabilities.

## Getting started

### Installation and basic usage

The Inspector runs directly through `npx` without requiring installation:

```
npx @modelcontextprotocol/inspector <command>
```

```
npx @modelcontextprotocol/inspector <command> <arg1> <arg2>
```

### Inspecting servers from NPM or PyPi

A common way to start server packages from **NPM** or **PyPi**.

NPM package | PyPi package

```
npx -y @modelcontextprotocol/inspector npx <package-name> <args>
# For example
npx -y @modelcontextprotocol/inspector npx server-postgres postgres://127.0.0.1/t
```

### Inspecting locally developed servers

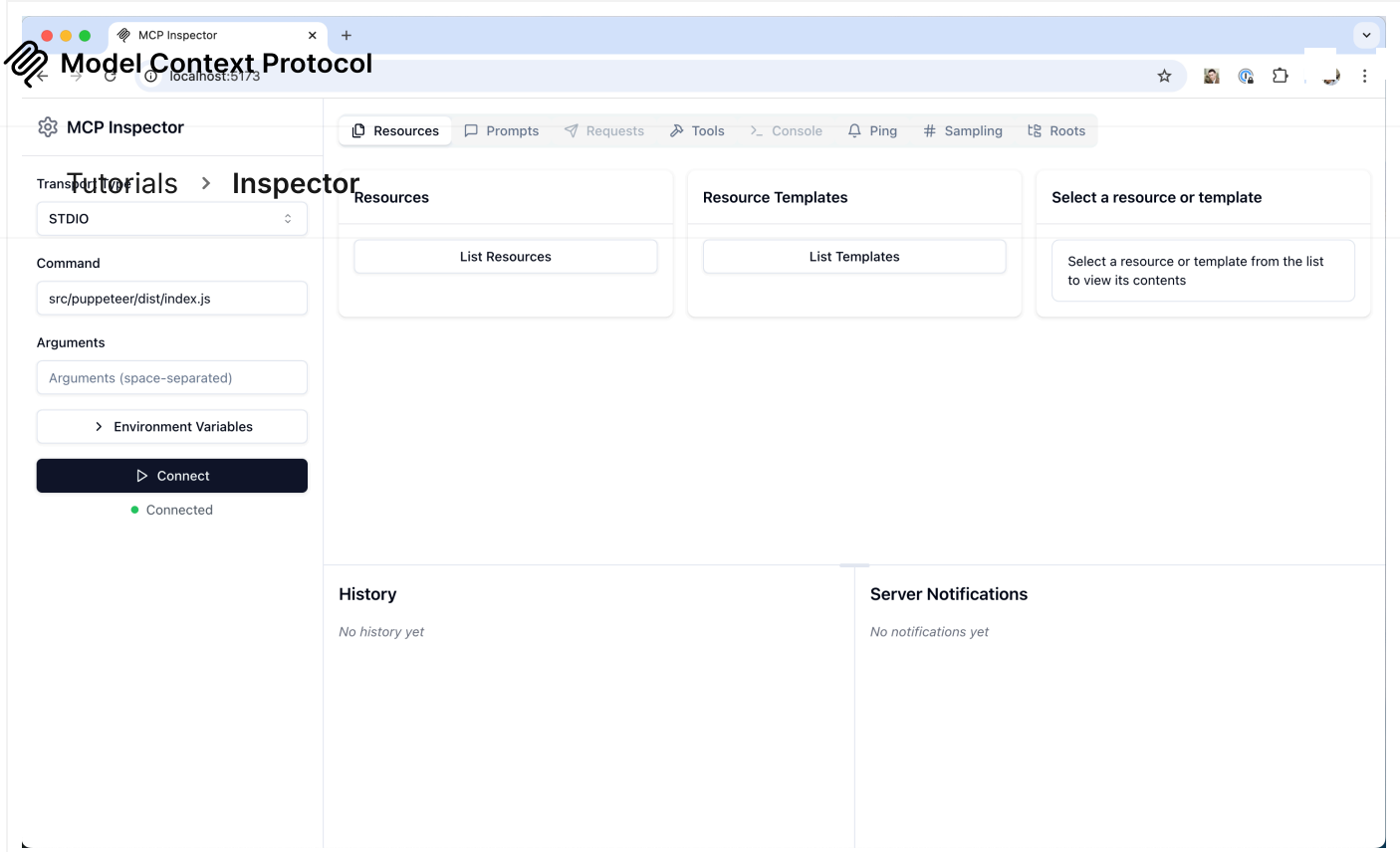
To inspect servers locally developed or downloaded as a repository, the most common way is:

TypeScript Python

```
npx @modelcontextprotocol/inspector node path/to/server/index.js args...
```

Please carefully read any attached README for the most accurate instructions.

## Feature overview




The MCP Inspector interface

The Inspector provides several features for interacting with your MCP server:

## Server connection pane

Allows selecting the **transport** for connecting to the server

For local servers, supports customizing the command-line arguments and environment

## Resources tab

Lists all available resources

Shows resource metadata (MIME types, descriptions)

Allows resource content inspection

Supports subscription testing

## Prompts tab

Displays available prompt templates



Shows prompt arguments and descriptions



Enables prompt testing with custom arguments

Previews generated messages

### Tools tab

Lists available tools

Shows tool schemas and descriptions

Enables tool testing with custom inputs

Displays tool execution results

### Notifications pane

Presents all logs recorded from the server

Shows notifications received from the server

## Best practices

### Development workflow

1. Start Development

   Launch Inspector with your server

   Verify basic connectivity

   Check capability negotiation

2. Iterative testing

   Make server changes

   Rebuild the server

   Reconnect the Inspector

Test affected features

Monitor messages

3. Test edge cases

Invalid inputs

Missing prompt arguments

Concurrent operations

Verify error handling and error responses

## Next steps

**Inspector Repository**
Check out the MCP Inspector source code

**Debugging Guide**
Learn about broader debugging strategies