Plugins

Extend Navidrome's functionality with community-developed plugins

Navidrome supports a plugin system that allows you to extend its functionality with community-developed extensions. Plugins run in a secure WebAssembly sandbox, providing isolation from the main application while enabling powerful customizations.

> Plugins are developed by the community. While they run in a secure sandbox, you should always review a plugin's documentation and source code before installation.

What Plugins Can Do

Plugins can extend Navidrome in several ways:

- **Metadata Agents**: Fetch artist biographies, album information, and images from external sources
- **Scrobblers**: Send your listening history to external services beyond the built-in Last.fm and ListenBrainz support
- **Scheduled Tasks**: Run periodic background tasks
- **Event Handlers**: React to events like playback or websocket events

Each plugin declares which capabilities it provides, and you can enable only the plugins you need.

Finding Plugins

Community-developed plugins can be found on GitHub using the `navidrome-plugin` topic.

When evaluating a plugin, consider:

- **Repository activity**: Check when the plugin was last updated
- **Documentation**: Look for clear installation and configuration instructions
- **Issues and discussions**: Review any reported problems or user feedback
- **Source code**: Plugins are open source, so you can review the code before installing

> ### Third-Party Code
>
> Unless otherwise stated, plugins are **not** developed or maintained by the Navidrome team. Install plugins only from sources you trust, and review the plugin's permissions and documentation carefully.

Installing Plugins

1. **Download the plugin**: Go to the plugin's GitHub repository and download the `.ndp` file from the Releases page.
2. **Place in plugins folder**: Copy the `.ndp` file to your plugins directory:
   - Default location: `<DataFolder>/plugins`
   - Custom location: Set `Plugins.Folder` in your configuration
3. **Rescan for plugins**: Click the "Rescan" button in the Plugins section of the web UI, or if you have `Plugins.AutoReload = true` configured, the plugin will be detected automatically.
4. **Enable the plugin**: Go to the Navidrome web UI, navigate to the Plugins section in the admin area, and enable the plugin.
5. **Configure the plugin**: Some plugins require additional configuration. Check the plugin's documentation for required settings.

Server Configuration

The following configuration options control the plugin system:

Config	Plugins.Enabled

Env var	`ND_PLUGINS_ENABLED`

Description

Enable the plugin system

Default

`true`

Config	Plugins.Folder
Env var	`ND_PLUGINS_FOLDER`

Description

Directory where plugin (`.ndp`) files are stored

Default

`"<DataFolder>/plugins"`

Config	Plugins.AutoReload
Env var	`ND_PLUGINS_AUTORELOAD`

Description

Watch plugins folder for changes and reload automatically

Default

`false`

Config	Plugins.LogLevel
Env var	`ND_PLUGINS_LOGLEVEL`

Description

Log level for plugins (`error` , `warn` , `info` , `debug` , `trace`)

Default

Inherit from LogLevel

Config	Plugins.CacheSize
Env var	`ND_PLUGINS_CACHESIZE`
Description	Size of WebAssembly compilation cache
Default	`"200MB"`

Example Configuration

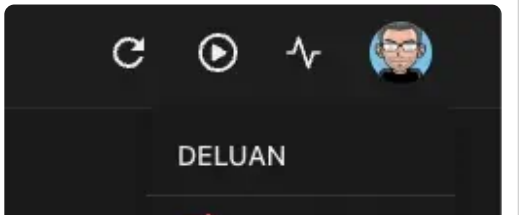
```
[Plugins]
Enabled = true
Folder = "/path/to/plugins"    # Optional: custom plugins folder
AutoReload = true              # Useful during development/testing
LogLevel = "debug"             # Enable detailed plugin logging
CacheSize = "200MB"            # WASM compilation cache size
```

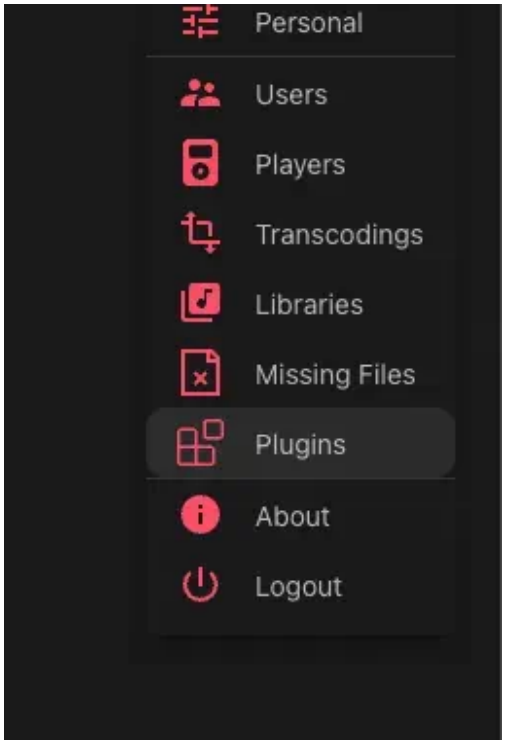
Or using environment variables (useful for Docker):

```
ND_PLUGINS_ENABLED=true
ND_PLUGINS_FOLDER=/data/plugins
ND_PLUGINS_AUTORELOAD=true
ND_PLUGINS_LOGLEVEL=debug
```

Managing Plugins in the Web UI

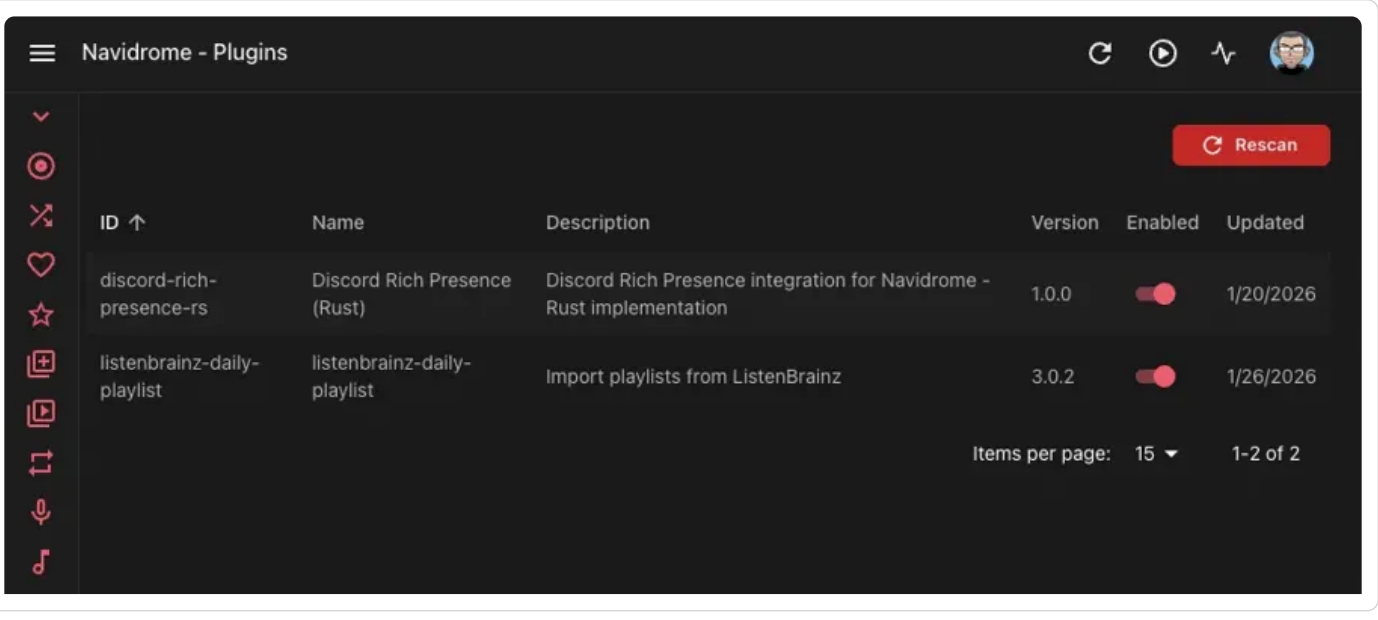
Once plugins are installed, you manage them through the Navidrome web interface:





Viewing Installed Plugins

Navigate to the Plugins section in the admin area to see all installed plugins. Each plugin shows its name, description, version, and current status.

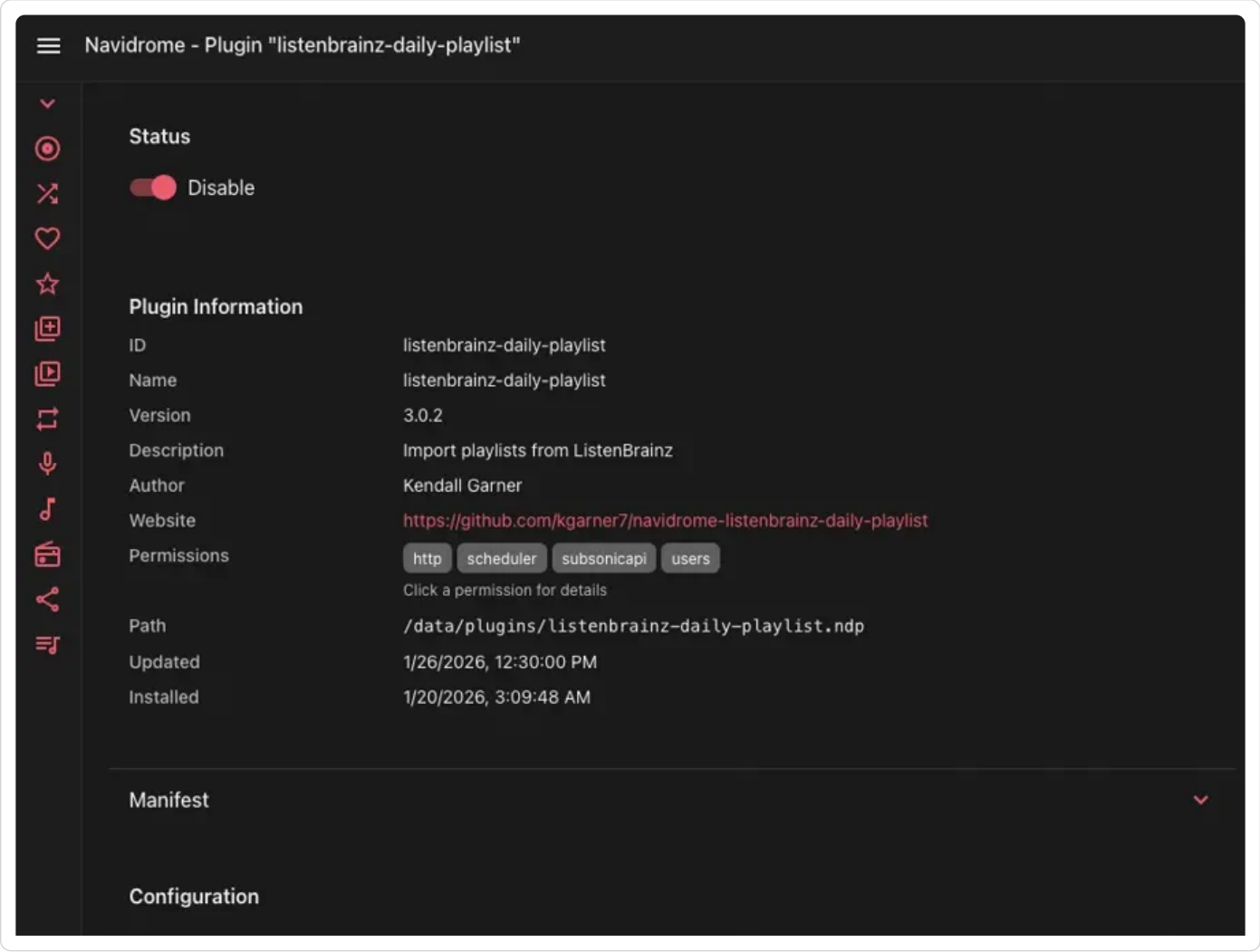


Enabling and Disabling Plugins

Toggle individual plugins on or off. Disabled plugins remain installed but won't run.

Configuring Plugin Settings

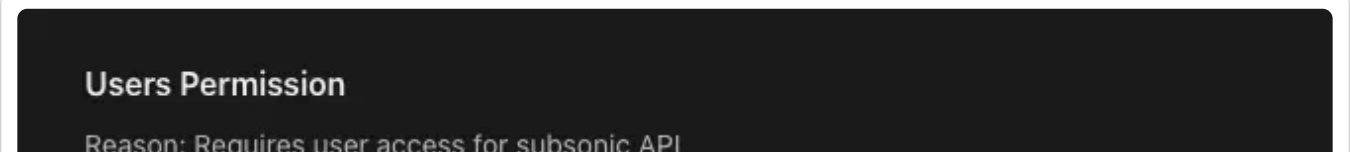
Many plugins have configurable options. Click on a plugin to view and modify its settings. The available options depend on what the plugin supports - check the plugin's documentation for details on each setting.

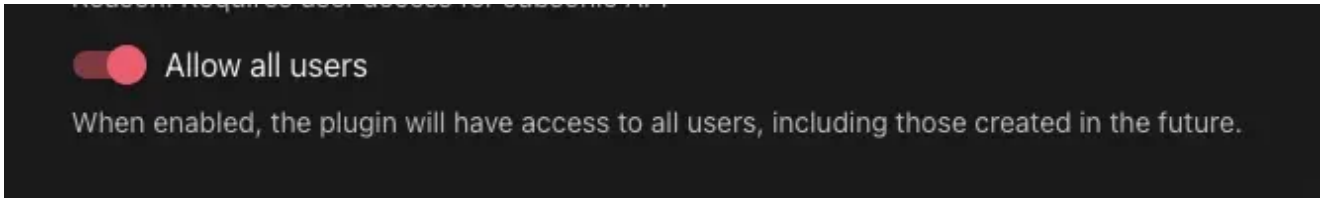


User Access

Some plugins are user-scoped, meaning they operate on a per-user basis (like scrobblers). For these plugins, you need to configure which users have access:

- **All users**: Grant access to every user
- **Specific users**: Select individual users who can use the plugin

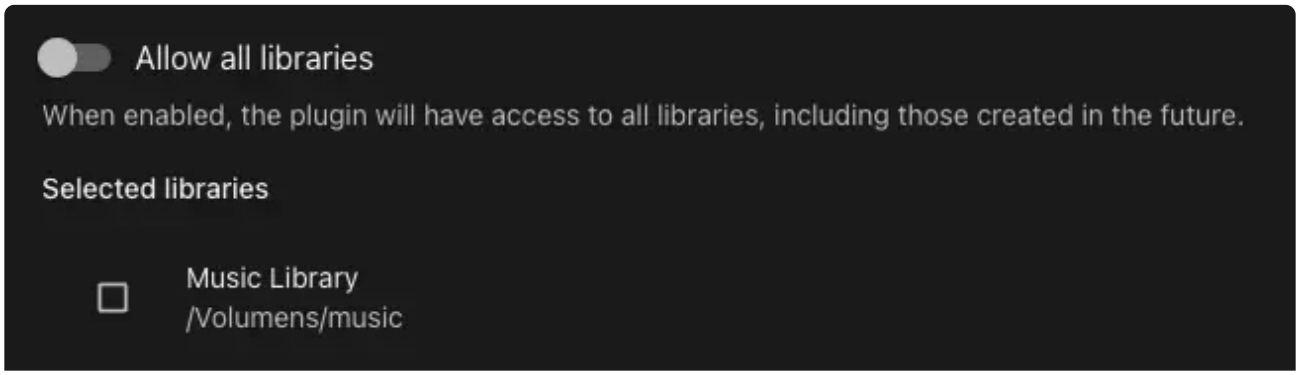




Library Access

Plugins that interact with your music library may need library access configured:

- **All libraries**: Grant access to all libraries
- **Specific libraries**: Select which libraries the plugin can access



Security

WebAssembly Sandbox

All plugins run inside a WebAssembly (WASM) sandbox provided by the Extism runtime. This means:

- Plugins cannot directly access your filesystem (except explicitly granted library paths)
- Network access is restricted to hosts declared in the plugin's manifest
- Plugins are isolated from each other and from Navidrome's internal systems

Permission System

Each plugin declares the permissions it needs in its manifest:

- **HTTP access**: Which external hosts the plugin can contact
- **Storage**: Whether the plugin can store persistent data

- **Library access**: Whether the plugin needs to read your music files
- **User access**: Whether the plugin operates on a per-user basis

Review these permissions before enabling a plugin to understand what it can access.

Best Practices

- Only install plugins from trusted sources
- Review the plugin's source code if you have concerns
- Start with plugins disabled and enable them one at a time
- Monitor your logs after enabling new plugins
- Keep plugins updated to get security fixes

Troubleshooting

Plugin Not Appearing

- Verify the `.ndp` file is in the correct plugins folder
- Check that `Plugins.Enabled = true` in your configuration
- Click the "Rescan" button in the Plugins section to detect new plugins
- Check logs for any errors during plugin discovery

Plugin Won't Enable

- Check the Navidrome logs for error messages
- Verify all required permissions are configured (users, libraries)
- Ensure the plugin's configuration requirements are met
- Try setting `Plugins.LogLevel = "debug"` for more detailed logs

Configuration Issues

- Refer to the plugin's documentation for required settings
- Check that configuration values match the expected format
- Look for validation errors in the logs

Checking Logs

Enable debug logging for plugins to troubleshoot issues:

```
[Plugins]
LogLevel = "debug" # or "trace" for more verbosity
```

Plugin-related log messages will contain `plugin=<plugin-name>` in them, making it easy to filter and identify issues.

Last modified March 9, 2026: Update Event Handlers description in plugins documentation (0c06653)