

Agent Instructions: MAPO-IOB-WIN

Project Overview

A collection of .NET (C#/VB) projects for industrial communication with NC controls (Fanuc, Siemens, Mitsubishi, etc.) via the Mapo Protocol.

Build & Release

- **Toolchain:** MSBuild.
- **Config:** Always use **Release** configuration.
- **Command Example:**

```
& "$env:MSBUILD_PATH" "ProjectName\ProjectName.csproj" -target:Build  
/p:Configuration=Release /p:OutputPath=bin/ /nodeReuse:false  
/verbosity:minimal /m
```

- **NuGet:** Requires Steamware Nexus Proxy sources. Use `dotnet nuget restore` on the specific `.sln` before building.
- **Versioning:** Automated via `VersGen\VersGen.cs` and `.nuspec` updates during CI. Manual updates to `VersGen.cs` might be needed if mimicking CI.
- **Release Artifacts:** Zipped using `7z.exe`; MD5/SHA1 hashes are generated.

Key Directories & Files

- **IOB-WIN-***: Protocol-specific implementations (e.g., `FANUC`, `SIEMENS`, `SHELLY`).
- **VersGen**: Handles automated assembly versioning.
- **UtilityScripts**: Contains `alarmFormatter.py`. Requires `python3` and `pip install inquirer`.
- **EgwCApp**: Core application logic and testing projects.

Environment & Setup

- **Siemens PLC:** Must enable "PUT/GET" permission in TIA Portal.
- **Dependencies:** Uses `saltminion` and specific Windows accounts (`steamware/IOB`).
- **Documentation:** Generated via `docfx`.

Important Workflow Notes

- **CI Logic:** The `.gitlab-ci.yml` contains critical automation logic for NuGet sources, versioning, and deployment. Refer to it for exact operational steps.
- **NuGet Fixes:** The CI uses a `.nuget-fix` helper to manage Steamware Nexus Proxy sources. If encountering NuGet errors, check source configuration.
- **Versioning Flow:** Versioning involves updating `VersGen.cs` (replacing `0.0.0.0`) and updating `.nuspec` files.