Process Bus Insight
IEC 61850 Process Bus Analyzer

Quick Start

First-run checklist for installing and launching Process Bus Insight during IEC 61850 Process Bus observation work.

Quick Start	Windows 10/11	Receive-only	Apache-2.0

1. Prepare the Windows machine

- Use Windows 10 or Windows 11 x64.
- Install Npcap when raw Ethernet capture is required.
- Use a physical Ethernet adapter connected to a TAP, mirror port, or isolated engineering test switch.
- Avoid Wi-Fi, VPN, virtual adapters, and unverified USB Ethernet adapters for serious timing interpretation.

2. Download and extract

- Open the GitHub Releases page.
- Download ProcessBusInsight-vX.Y.Z-win-x64-portable.zip.
- Extract the ZIP to a local folder, for example:

```
C:\Tools\ProcessBusInsight
```

3. Run the app

Open the extracted folder and run the application directly:

```
ProcessBusInsight.exe
```

No batch launcher is required. The release package contains a clean self-contained Windows EXE, Quick Start PDF, User Manual PDF, license file, and notices.

4. Start a safe capture workflow

- Select the physical Ethernet adapter connected to the Process Bus traffic.
- Start capture and confirm traffic appears in the event log.
- Review SV stream discovery, GOOSE publishers, and PTP timing context when available.
- Load SCL when available and compare expected-vs-observed objects.

- Copy evidence only after confirming adapter and capture-path confidence.

5. Evidence checklist

- Selected adapter raw device name and capture path.
- SV APPID, svID, VLAN, source MAC, and stream status.
- GOOSE publisher, control block, stNum, and sqNum when relevant.
- PTP transport, domain, and grandmaster context when relevant.
- Expected SCL fields and observed fields when SCL is loaded.

6. Timing caution

Arrival timing shown by the app is based on host/Npcap software timestamps. Treat it as screening evidence. Do not use it as certification-grade jitter proof unless the capture path is validated with hardware timestamping, TAP, or trusted timing equipment.