Slb2Vdma – Converting SISTEMA (.slb) Libraries to VDMA 66413

Slb2Vdma is a standalone Windows tool that reads a SISTEMA safety-component library (a **.slb** file, which is a Firebird database) and exports its ISO 13849 reliability data to the standard **VDMA 66413** XML exchange format, so the library can be consumed by any VDMA-compatible calculation tool. It runs independently of RASWin/SARWin and bundles its own Firebird runtimes, so nothing else needs to be installed.

At a glance: drag one or more **.slb** files onto the window, confirm the language and (if the library has several manufacturers) choose how to group them, then press **Convert**. One VDMA 66413 XML file is produced per manufacturer.

Part 1 – Requirements

- Windows 10 or 11, **64-bit**.
- **No** Firebird or SISTEMA installation required – the tool bundles both the Firebird 2.5 and Firebird 5.0 clients it needs.
- About 60 MB of disk space. On older/clean machines the Microsoft VC++ 2005 SP1 runtime may be required (see Limitations).

Part 2 – Installation

1. Download **SLB2VDMA_installer.msi** from the link below and run it.
2. The installer copies the program and its Firebird runtimes to Program Files and creates Start-menu and desktop shortcuts (“SLB to VDMA 66413”).

Download: https://www.raswin.eu/raswinupdates/SLB2VDMA_installer.msi

Part 3 – Using the tool (graphical interface)

1. Start **SLB to VDMA 66413** from the Start menu or desktop shortcut.
2. **Drag & drop** one or more **.slb** files onto the list (or use **Add…**).
3. Optionally choose an output folder with **Folder…** (default: the XML is written next to each source **.slb**).
4. Press **Convert to VDMA 66413**.
5. For each library you are asked to confirm the **language** (auto-detected, changeable). If the library contains **more than one manufacturer**, you can merge them all under one chosen name (one file) or keep one file per manufacturer.
6. The resulting **.xml** file(s) appear in the output folder; the log panel shows a summary (devices, files, detected language, and whether the library has images).

Part 4 – Command line (optional)

A console version is included for batch/automated use:

```
slb2vdma_cli <input.slb> [output_folder]
```

It converts non-interactively, using the auto-detected language and keeping one file per manufacturer.

Part 5 – What it produces

One VDMA 66413 XML file per manufacturer. Each device is mapped to a **DeviceType 1–4** following VDMA 66413 (Table 1) and SISTEMA Cookbook 5:

- **Subsystem** with PL/SIL and PFH_d → DeviceType 1 (or DeviceType 4 when $PFH_d = 0$).
- **Block/Element** characterised by $MTTF_d$ → DeviceType 2.
- **Block/Element** subject to wear ($B10_d$) → DeviceType 3.

PL, SILCL, category, function type and mission time are taken from the library. The content language is written as the VDMA *LanguageKey*.

Part 6 – Limitations and notes

- **Supported sources:** SISTEMA libraries for SISTEMA V2 (Firebird 2.5 / ODS 11) and SISTEMA V3 (Firebird 4.0/5.0 / ODS 13). Any other on-disk structure is rejected with a clear message.
- **Images:** SISTEMA never stores device images inside the **.slb**; icon references are exported when present, but most libraries contain none (the log states so).
- **Reference field:** the VDMA *Reference* is the device *PartNumber*. If the source library has no part numbers (e.g. some OMRON libraries), the Reference is left empty.
- **Language:** auto-detected from the text (German / Spanish / English). Confirm or change it in the dialog before converting.
- **VC++ 2005 runtime:** the bundled Firebird 2.5 client (fbembed.dll) is a VC80 binary. If it fails to load on a clean machine, install the Microsoft Visual C++ 2005 SP1 redistributable (x64).

Quick reference

Item	Detail
Purpose	Convert SISTEMA .slb libraries to VDMA 66413 XML
Input	.slb (Firebird DB) – SISTEMA V2 (ODS 11) and V3 (ODS 13)
Output	One VDMA 66413 .xml file per manufacturer
Interface	Drag & drop GUI (language + manufacturer pickers)
Command line	slb2vdma_cli <input.slb> [output_folder]
Operating system	Windows 10 / 11, 64-bit
Installer	SLB2VDMA_installer.msi
Download	raswin.eu/raswinupdates/SLB2VDMA_installer.msi