

# GAEB & AVA .Net Library

The easy solution for tendering, invoicing and calculation - complete GAEB support and immediately usable in your application. Supports Web, Mobile and Desktop, Linux, Mac and Windows. Full .Net & .Net Core compatibility.

The GAEB data exchange format is used in construction and commerce industry to exchange product data and bills of quantity. All requirements for tendering, calculation and invoicing (AVA in German) are supported by the format.

Since 2013, the combination of the .NET Standard libraries Dangl.GAEB and Dangl.AVA have been a simple solution for fast and cost effective support of GAEB in .Net applications. No matter your product, whether .Net on Windows Desktop, Xamarin for mobile apps, headless in the cloud or on your Linux webserver - the libraries are ready.

## Key Features

Extensive test coverage: over 175.000 unit tests, across multiple frameworks, are run on every code commit. Early detection of defects, avoidance of errors and a high level of quality is the result.

Cross-Platform due to classic .Net as well as .NET Standard. Wherever you need it. Dangl.GAEB & Dangl.AVA is ready.

Unified data model & API: all GAEB files can be bi-directionally converted to and from the Dangl.AVA format - with a single line of code! Nearly everything in the GAEB standard is supported this way and allows you to work with one single interface.

Complete implementation of INotifyPropertyChanged makes the library usable as you drop it in your project - you can use it right away in your UI project.

Dangl.AVA.Converter offers a Plugin System to take full control of the complete conversion process and allows to inject custom logic.

## Services

The library is delivered as NuGet package as well as regular DLL file. The documentation is available for customers. For an additional charge you can also get:

- Access to the C# source code via an always up-to-date Git repository.
- A NuGet feed with the latest stable and beta releases.

We provide the official documentation for all previous versions of the GAEB format that are no longer publicly available.

## Example Application

There is an example console application that demonstrates [basic usage of the .Net GAEB library on GitHub](#). The app shows the conversion between any GAEB formats and Excel as well as a simple iteration over all items from an imported GAEB file. Further examples are available at [www.dangl-it.com](http://www.dangl-it.com).

## Module Structure

The package consists of five libraries:

- **Dangl.AVA**  
Includes a unified data model with all features to evaluate, create, calculate (with support for formulas) and all-time data integrity.
- **Dangl.GAEB**  
Offers native access to all GAEB formats - GAEB 90, GAEB 2000 and all GAEB XML versions.
- **Dangl.AVA.Converter**  
Glue between Dangl.AVA and Dangl.GAEB. Additionally, projects can be serialized to and from JSON.
- **Dangl.AVA.Converter.Excel**  
Supports import and export to and from Microsoft Excel.
- **Dangl.AVA.IO**  
For fast & reliable data exchange of Dangl.AVA objects - complete or partial. Ideal for web services and mobile apps.

