

# Software dependencies

Tue, Jan 14, 2020 [Hardware and software](#)

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## Software dependencies

The model layer of the AI-Framework is based on C# and is completely abstract. Building the model in the AI-Framework can be done with editors widely available. Apart from editors, the AI-Framework is dependent on other software, for example for reporting and database connections.

The following paragraphs explain these dependencies.

### Dependencies

For the developer, the model can be completely developed with just a C# editor and the AI-Framework. As functionality increases, more dependencies may be needed, like databases and reporting.

Running the application has dependencies that are different per application.

## Dependencies model

To **model** your functional design, AI-Framework provides a large number of model classes. These too are light-weight, since they are only needed to record business logic.

The **code generators** in the AI-Framework are also written in C#. So again, the dependencies are only Microsoft C# and the AI-Framework.



## Dependencies application

The number of extra components in generated applications (dependencies) is significantly larger than in the model. This is because the model is a static document. For a working application, we need to depend on other software to print or make forms or store data.

The actual application itself is part of the AI-Framework with as basis again: Microsoft C#. The AI-Framework makes for databases, reporting et cetera use of worldwide industrial standards. Below we name them by category,

## Dependencies database

For all applications we already support a number of databases. It is possible to switch, without having to change the model. Example: An application is built and uses Firebird as a database. When you want to switch to for example Informix, the model does not need to be modified. The AI-Framework itself will 'talk with the

database' and does all the work, that has been specified in the model.

The databases listed below are fully supported. Others then these can be added to this list, without having to make changes in the model.



Microsoft SQL  
Server



IBM Informix



SAP SQL  
Anywhere



Firebird

## Dependencies Windows Desktop

For Windows Desktop we use DevExpress for most of the User Interface (UI) elements. The AI-Framework also use Stimulsoft for building reports in the Windows environment.



DevExpress

Stimulsoft

For licenses, see [Licensing](#)

## Dependencies web and mobile

For webshops, websites, tablet and mobile apps, the AI-Framework generates code for both server side and client side. Besides C#, DevExpress and Stimulsoft we make use of ASP.Net, JavaScript, HTML5 and CSS3.

When running a web application or mobile web based application, a computer with Windows IIS is needed for on premise hosting, or a cloud service may be used, like Azure.



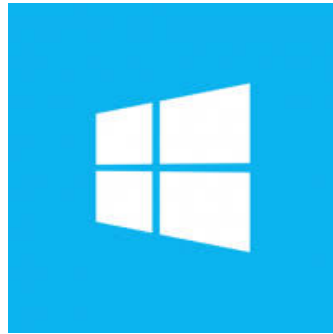
## Integrations and automations

We make use of integration with Microsoft WCF and Windows Services (for automated processes on the server). The dependencies are limited to these two mentioned.

WCF is an API (Application Programming Interface). Windows Services is used for example for Email services and Print services. They run in the background.



WCF



Windows Services

## Customer side

The customer needs the following **additional** software to run an application, that was built with AI-Framework.

### Desktop

- Windows version 8 or higher.
- When working with Apple, Linux or e.g. Ubuntu, the software can be installed on a Windows server or Windows client, and accessed through RDP (Remote Desktop Protocol).

There may be additional costs for the use of desktop operating systems.

### Server

- Windows server, any recent version.

There may be additional costs for the use of server operating systems.

### Web application: A webbrowser

- Edge: latest two versions.
- Chrome: latest two versions.
- Firefox: latest two versions.
- Safari: latest two versions (Safari for Windows is not supported).

## Mobile application web based

- iOS version 12 or higher.
- Android version 4.4 or higher.

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See also our article on [Hardware requirements](#) .

Online URL:

<https://wiki-ai-framework.abstract-it.nl/article/software-dependencies-17.html>