



FirstSpirit™

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Technical Datasheet

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1 Technical requirements and recommendations

Explanation of terms used

Recommended / reference: For the recommended reference system configurations, e-Spirit AG:

- carries out regular tests (with every release) so that problems are generally discovered before delivery.
- takes steps to eliminate errors based on error messages.

Compatible: Compatible system configurations are / have been checked by e-Spirit and deemed functional. For these system configurations, e-Spirit AG:

- carries out regular tests (depending on the market relevance of the configuration)
- takes steps to eliminate errors based on error messages.

Not supported: List of system configurations that are known to cause problems or are highly likely to cause problems.

For non-supported system configurations, e-Spirit AG:

- will NOT take any measures to eliminate any problems that may arise.

Note: If a system configuration is not listed in this area, this does not mean that it is supported. It only means that no specific information is currently available.

! Unless otherwise specified, FirstSpirit always works with the current version of a third-party component (operating system, JDK, servlet engine, application server, databases).

Term	Information about troubleshooting
Recommended / reference	Yes*
Compatible	Yes*
Not supported	No
* Problems which arise when using these components in conjunction with FirstSpirit can be reported via FirstSpirit product support. Please address queries to	



Term	Information about troubleshooting
Technical Support	(for partners) or to your project manager (for customers). For more information, see also Information about troubleshooting (Chapter 1.1, page 12).

SaaS or on-premises?

! All of the information and recommendations below relate to on-premises FirstSpirit installations.

Alternatively, FirstSpirit is also increasingly hosted as a SaaS model. In this case, the costs and responsibility for providing and updating the infrastructure are borne by an external service provider.

More information on this subject can be found in the blog post [FirstSpirit as a cloud solution](#).

FirstSpirit Server

Operating system

Recommended operating systems (reference):

- Microsoft Windows Server (in the current version)
- Common Linux distributions, e.g., Debian GNU/Linux (in the current version), indicating the file systems:
 - ext (Extended File System) for a regular FirstSpirit Server
 - If applicable, NFS (Network File System) for FirstSpirit cluster environments

Compatible operating systems: FirstSpirit is also operated successfully with other operating systems and operating system versions, e.g.:

- IBM AIX
- Microsoft Windows Server
- Red Hat Enterprise Linux
- Solaris



- Suse Linux Enterprise Server
- Ubuntu

A detailed list of **compatible operating systems** can be found [here](#) (Chapter 1.1, page 12).

Not supported:

- Operating systems in the 32-bit version

! The server only supports operating systems in the 64-bit version!

Hardware / Sizing

Due to the many (project-dependent) factors that influence the requirements regarding hardware dimensioning, architects or consultants from e-Spirit AG should always be consulted for a detailed assessment of the requirements and the necessary configurations.

Relevant scaling factors include:

- Number of editors working at the same time
- Number of projects on a server (main memory, preview)
- Number of pages in all projects (generation, backup)
- Size and number of media required (generation, backup)

Size	Number of editors	Number of projects	Number of pages (all projects)	Media size
S	< 50	< 5	< 50,000	< 5 GB
M	< 300	< 10	< 1,000,000	< 50 GB
L	< 1,000	> 10	> 1,000,000	> 50 GB



For current recommendations with regard to calculating the CPU, hard disk space, or RAM requirements (especially for size “L” projects), please contact [us](#) or your project manager directly.

Java

Recommended JDKs:

- OpenJDK 11 (in the current version) **

Compatible JDKs: FirstSpirit is also operated successfully with other JDKs:

- Oracle Java 11 (in the current version)
- Oracle Java 8 (in the current version) *
- OpenJDK 12 (in the current version) **
- OpenJDK 11 (in the current version) **
- OpenJDK 8 (in the current version) */**

More information about compatible JDKs can be found [here](#) (Chapter 1.1, page 13).

Not supported:

- Oracle JDK < 8
- OpenJDK < 8
- Java implementations from other manufacturers (e.g., IBM JDK on Linux or Windows, Apple JDK on macOS for FirstSpirit Server, Azul VM), JDK under IA64

* The Java 8 support will be discontinued in the future.

** Recommended: Use of the OpenJDK distribution AdoptOpenJDK (HotSpot JVM): AdoptOpenJDK provides up-to-date OpenJDK binaries for different platforms (e.g. macOS, Linux, Windows) for download. For information about AdoptOpenJDK see <https://adoptopenjdk.net>



! Note regarding the switch from Java 8 to Java 11: Before operating Java 11 on a production system, the compatibility of all used modules and implementations with Java 11 must be checked on a test system !

! The server only supports JDKs in the 64-bit version!

FirstSpirit desktop apps

Operating system

Recommended operating systems (reference):

- Microsoft Windows 10 (in the current version)
- macOS High Sierra (10.13) (in the current version)

Compatible operating systems: FirstSpirit is also operated successfully with other operating systems and operating system versions, e.g.:

- Microsoft Windows
- Ubuntu
- macOS

A detailed list of known **compatible operating systems** can be found [here](#) (Chapter 1.1, page 12).

Not supported:

- Microsoft XP and older
- macOS Leopard (10.5) and older
- Operating systems in the 32-bit version

! Only operating systems in the 64-bit version are supported on the client side!



Hardware / Sizing

Installing and operating the FirstSpirit desktop applications **does not result in any special requirements** with regard to hardware dimensioning. If you need information about sizing in the case of special requirements, please contact [us](#) or your project manager directly.

Java

Recommended: Start via FirstSpirit Launcher (reference): The FirstSpirit desktop apps (SiteArchitect, ServerManager) are started via the FirstSpirit Launcher. The FirstSpirit Launcher provides a continuously updated, extensively tested, and license-free Java Runtime Environment which is rolled out when the Launcher is installed. This allows SiteArchitect and ServerManager to be operated in a preconfigured environment which is independent of the Java version on the client computer – even if there is no Java version installed at all.

FirstSpirit web apps

Browser

Recommended browsers (reference):

- Microsoft Internet Explorer 10
- Mozilla Firefox
- Google Chrome *
- Microsoft Edge *

* Reference only for FragmentCreator

Compatible browsers: The FirstSpirit web apps are also operated successfully with other browsers:

- Microsoft Internet Explorer *
- Microsoft Edge
- Mozilla Firefox
- Google Chrome



- Apple Safari

* for FragmentCreator: only in version 11

A detailed list of known **compatible browsers** can be found [here](#) (Chapter 1.1, page 12).

Not supported:

- Microsoft Internet Explorer # 7
- Other web browsers, e.g., Opera

Hardware

Operating the FirstSpirit web apps **does not result in any special requirements** with regard to hardware dimensioning.

Servlet engine / Application server

The following application servers are supported for live use of FirstSpirit:

Recommended application servers (reference):

- Apache HTTP Server 2.4
- Apache Tomcat 9

Compatible application servers: FirstSpirit is also operated successfully by customers and partners with other application servers in different versions:

- Apache HTTP Server
- Apache Tomcat
- Microsoft Internet Information Server
- WebSphere Application Server *

* The support of WebSphere Application Server will be discontinued in the future.

A detailed list of known **compatible application servers** can be found [here](#) (Chapter 1.1, page 16).



! A servlet engine integrating version 3.0 of the servlet API is required in order to use the FirstSpirit web applications.

Not supported:

- Apache Tomcat < 8.5
- WebSphere Application Server < 8.5
- JBoss Application Server 5

! The open-source product “Eclipse Jetty” which is provided with FirstSpirit is not suitable for live operation and should only be used for test purposes.

Databases

External database systems can be connected with FirstSpirit via JDBC (see Database connection).

The following database systems are supported for live use of FirstSpirit:

Recommended database systems:

- IBM DB2 10.5
- MariaDB 10.1.23
- MySQL 5.5.23
- Microsoft SQL Server 2016 | 2014 (only for Windows Server)
- Oracle 11.2.0.1
- PostgreSQL 9.3 (reference)

! The integrated Apache Derby database is not suitable for live operation and should only be used for tests.

Compatible database systems: FirstSpirit is also operated successfully with other databases in different versions, e.g.:



- IBM DB2
- MariaDB
- MySQL
- Microsoft SQL Server
- Oracle
- PostgreSQL

A detailed list of known **compatible database systems** can be found [here](#) (Chapter 1.1, page 17).

Not supported:

- IBM DB2 <= 9.4



1.1 Compatible components

FirstSpirit is operated successfully by customers and partners with a wide range of different third-party components (operating systems, JDKs, servlet engines, application servers, databases).

The system configurations listed here are / have been **checked by e-Spirit and deemed functional**.

Information about the test interval: Compatible system configurations are tested by e-Spirit on a regular basis (depending on the market relevance of the configuration). We maintain the necessary infrastructure for common components for this purpose.

Information about troubleshooting: External components that are used in conjunction with FirstSpirit are not part of the FirstSpirit product. The relevant manufacturer (not e-Spirit) is responsible for the functionality provided by these external components.

Problems which arise when using these components in conjunction with FirstSpirit can, however, **be reported via FirstSpirit product support at any time**. After a detailed error analysis, e-Spirit AG will take the necessary steps to eliminate the error (or will attempt to find a workaround for the problem).

If, in individual cases, the error cannot be eliminated within FirstSpirit and a workaround cannot be found for the problem, the system configuration will be defined as "Not supported" in future.

The following factors will always help to ensure rapid troubleshooting:

- The reproducibility of the problem and
- An ongoing software maintenance contract with a system configuration option (if necessary including remote maintenance access to production and test systems as well as the licensing of third-party products)


FirstSpirit Server

Compatible operating systems

- Debian GNU/Linux 9
- Debian GNU/Linux 8
- IBM AIX 7.1



- IBM AIX 6.1
- Microsoft Windows Server 2012 R2
- Microsoft Windows Server 2012
- Microsoft Windows Server 2008 R2
- Microsoft Windows Server 2008
- Red Hat Enterprise Linux 7
- Red Hat Enterprise Linux 6
- Solaris 11
- Solaris 10
- Suse Linux Enterprise Server 11
- Suse Linux Enterprise Server 10
- Ubuntu 16.04 LTS
- Ubuntu 12.04 LTS

 The server only supports operating systems in the 64-bit version!

Compatible JDKs

- Oracle Java 11 (in the current version)
- Oracle Java 8 (in the current version) *
- OpenJDK 12 (in the current version)
- OpenJDK 11 (in the current version)
- OpenJDK 8 (in the current version) *



* The Java 8 support will be discontinued in the future.

- ! For FirstSpirit, e-Spirit supports:
- for OpenJDK: the current Java version as well as the latest LTS (Long-Term-Support) variant.
 - for OracleJava: only the latest LTS (Long-Term-Support) variant.

This applies to both the FirstSpirit Server and the FirstSpirit desktop applications.

Oracle vs. OpenJDK: To reduce dependency on Oracle's Java development and also so that longer-term plans can be made for the benefit of our customers, e-Spirit will increase its focus on the use of OpenJDK. We plan to test the latest OpenJDK versions regularly for use with FirstSpirit, release them and also designate them as reference versions.

Recommended: Use of the OpenJDK distribution AdoptOpenJDK (HotSpot JVM): AdoptOpenJDK provides up-to-date OpenJDK binaries for different platforms (e.g. macOS, Linux, Windows) for download. For information about AdoptOpenJDK see <https://adoptopenjdk.net>

Incompatibilities with specific Java versions: FirstSpirit is always released for a main version of a JDK. JDK updates are regularly issued as part of JDK bug fixes. These updates are checked for compatibility with FirstSpirit as part of quality assurance. In very rare cases, bugs in the JDK that cannot be bypassed by programming may cause incompatibilities. These bugs are not related to FirstSpirit. In this case, we recommend switching back to an older JDK version or using a newer JDK version if available. Please contact e-Spirit Technical Support in the event of known problems.

FirstSpirit desktop apps

Compatible operating systems

- macOS High Sierra (10.13) **
- macOS Sierra (10.12) **
- macOS El Capitan (10.11) **
- macOS Yosemite (10.10) **
- macOS Mavericks (10.9) **



- Microsoft Windows 10
- Microsoft Windows 8
- Microsoft Windows 7 *
- Ubuntu 16.04 LTS **
- Ubuntu 12.04 LTS with Unity **

* Notes on using Microsoft Windows 7: If Microsoft Windows 7 is used, the NTLM login module which is used for NTLM authentication on the FirstSpirit Server can only be used if the Windows 7 security settings are relaxed. It is possible to log in via Kerberos ticket (integrated Windows login) in combination with Mozilla Firefox, Microsoft Internet Explorer, and Google Chrome and this is the preferred option in this context.

** Notes on using macOS and Linux: macOS and Linux are supported but with restrictions: With these two operating systems, only the basic FirstSpirit functions are tested regularly as part of quality assurance – quality assurance continues to focus on Microsoft Windows. Linux in particular has a wide range of interfaces (window managers) which makes it very complicated to perform a full function test. Working regularly with macOS and Linux can therefore lead to more operating-system-related problems than with Microsoft Windows, but these problems are dealt with as far as is technically possible in the context of software maintenance. Due to major differences compared to Windows-based systems (particularly with regard to interface libraries), there are also restrictions in relation to drag-and-drop functions and regarding the integration of native applications, e.g., in the integrated preview.



Only operating systems in the 64-bit version are supported on the client side!

FirstSpirit web apps

Compatible browsers

- Apple Safari
- Google Chrome
- Microsoft Edge
- Mozilla Firefox



- Microsoft Internet Explorer 11
- Microsoft Internet Explorer 10 *

* not compatible with FragmentCreator

Compatible application servers

- Apache HTTP Server 2.4
- Apache HTTP Server 2.2
- Apache Tomcat 9
- Apache Tomcat 8.5 *
- Microsoft Internet Information Server (IIS) 8.5
- Microsoft Internet Information Server (IIS) 8.0
- Microsoft Internet Information Server (IIS) 7.5
- Microsoft Internet Information Server (IIS) 7.0
- WebSphere Application Server 8.5.5
- WebSphere Application Server 8.5

* We recommend using Apache Tomcat version 8.5.14 or higher. This is because errors in earlier versions of Apache Tomcat could impair the operation of FirstSpirit.

! Servlet API: A servlet engine integrating version 3.0 of the servlet API is required in order to use the FirstSpirit web applications. (Although the web applications of the FirstSpirit modules are essentially based on version 3.0, certain module features may deviate from this.)


! The open-source product “Eclipse Jetty” which is provided with FirstSpirit is not suitable for live operation and should only be used for test purposes.



Databases

Compatible database systems

- IBM DB2 10.5
- IBM DB2 9.5+
- MariaDB 10.1
- MySQL 5.6 (Linux and Windows)
- MySQL 5.5 (Linux and Windows)
- Microsoft SQL Server 2016 (only for Windows Server)
- Microsoft SQL Server 2014 (only for Windows Server)
- Microsoft SQL Server 2012 (only for Windows Server)
- Microsoft SQL Server 2008 (only for Windows Server)
- Oracle 12c (Linux and Windows)
- Oracle 11g R2 (Linux and Windows)
- PostgreSQL 9.x (Linux and Windows)
- PostgreSQL 8.4 (Linux and Windows)

 The integrated Apache Derby database is not suitable for live operation and should only be used for tests.

