

System Requirements BIC Process Design & Execution

GBTEC Software AG

System Requirements User Workstations ^(*1)

Hardware Requirements User Workstations

CPU	4 CPU cores
RAM	8 GB ^(*2)

On user workstations with less hardware resources performance of BIC Process Design will degrade. Performance may be sufficient for limited use cases like read-only viewing.

Software Requirements User Workstations

Web Browser	Supported: Google Chrome, Microsoft Edge in the latest Version, Mozilla Firefox (latest ESR), Microsoft Internet Explorer 11 (limited functionality ^{*3}) Recommended: Google Chrome
Web Browser Settings	JavaScript und Cookies activated, at least 50 MB free memory for web databases
Printing	PDF Viewer (e.g. Adobe PDF)

(*1) BIC Process Design and BIC Process Execution are browser-based tools and there is no need of a separate client installation. Nevertheless, there are hardware requirements for the computer which runs the web browser.

(*2) The user workstation must have 64-bit operating system to be able to use all physical RAM.

(*3) Internet Explorer 11 is not supported for graphical modelling of diagram content and not supported for new UI features introduced with/after version 7.0.

System Requirements Server

Hardware Requirements BIC Process Design & Execution Server for On-Premises

Hardware for server is only required for on-premises installations. For Public Cloud and Private Cloud installations hardware is provided by GBTEC.

		Application Scenario ^(*4)		
		Medium	Large	X-Large
Users		max. 15 Authors max. 1500 Readers max. 50 Reviewers	max. 50 Authors max. 5000 Readers max. 150 Reviewers	max. 150 Authors max. 15000 Readers max. 500 Reviewers
	Process Apps	ProcessApp development and small scale projects	ProcessApp development and small scale projects	ProcessApps in daily production use
		Server resources		
CPU ^(*5)		8 CPU cores	8 CPU cores	16 CPU cores
RAM ^(*6)		48 GB	48 GB	64 GB
Storage ^(*7)		250 GB	500 GB	1.000 GB

(*4) Please choose the columns with the scenario that matches your case of application. In the cells you will find the necessary system requirements. In case of divergent system configurations please get in touch with your GBTEC contact to clarify the compliance of the system requirements.

(*5) The recommended number of CPU cores refer to Intel Xeon processors. When using different processors, the recommended cores must be multiplied by 1.5 to 2, due to the performance of the different processor architecture.

(*6) The RAM requirements are prepared to support future enhancements. If scalable hardware virtualization is available, 32 GB will initially be sufficient for a basic BIC Process Design setup.

(*7) We suggest local hard disk systems based on SAS disks with 15.000rpm and 6 Gbps interface. Minimal requirement is SATA or Nearline SAS hard discs with 6 Gbps. When using a Storage Area Network (SAN) 160 MB/s transfer rate and 5ms access time are the minimum requirement. Recommended storage sizes are based on experience with comparable workloads, actual storage requirements may vary.

Software Requirements BIC Process Design & Execution Server

Software for server is only required for on-premises installations. For Public Cloud and Private Cloud installations software is provided by GBTEC.

Operating System (*8), (*9)	Ubuntu 18.04 or 20.04 (LTS) 64-bit version Red Hat Enterprise Linux 7.9 64-bit version SUSE Linux Enterprise 12SP5 or 15SP3 64-bit version	Red Hat Enterprise Linux 8.4+ 64-bit version
Software Packages (*10)	Docker Engine (at least 18.09.2, recommended version 20.10.x) (*10) and Docker Compose (at least 1.29.2, recommended version 2.2.x) (see https://docs.docker.com/engine/installation , https://docs.docker.com/compose/install/)	RHEL Container Tools with Podman (at least 3.3.x, recommended version 4.0.x) Docker Compose (at least 1.29.2, not compatible with 2.x) (see https://access.redhat.com/documentation/en-us/red_hat_enterprise_linux/8/html-single/building_running_and_managing_containers/index , https://docs.docker.com/compose/install/)
Disk Layout	It is recommended to split the disk into a root partition for the operation system and a data partition for the installation of BIC Process Design and Docker/Podman data. All recommended disk space should be allocated to the data partition, except for a fixed amount (approx. 8-16 GB) for the operation system. Please see vendor documentation for instructions on how to persist Docker/Podman data on the data partition. Further, monitor the available disk space of each partition and enlarge it if necessary.	
Internet Connection	For installation, software updates, patches, and transfer of log files for problem diagnosis an internet connection is required. Internet connections through proxy servers are supported. For security reasons, it is possible to restrict internet access to defined servers or allow internet connections only temporarily.	
Backup & Recovery	For rapid restore in case of hardware failure we recommend snapshots of the (virtual) hard disks. For long term data backup BIC Process Design & Execution Server automatically exports data daily to a file system folder. This folder has to be archived daily by your IT department. In case of restore the backup data has to be restored in this file system folder and will be loaded with a special administrative command.	

(*8) In case of requirements to use other OS versions or distributions contact GBTEC for known incompatibilities and limitations.

(*9) Linux is the recommended server operating system for BIC Process Design & Execution. On Windows Servers, Docker Engine may run on a virtual Linux machine using Hyper-V or WSL2. This may require increased processing power in terms of CPU clock speed or number of CPU cores. Using Windows for production systems is not recommended, based on practical experience with development systems running on Windows 10.

(*10) Docker Engine is available as "Community Edition" free of charge or as "Enterprise Edition" subscription with extended features and support. For availability of editions for your preferred operating system and pricing see: <https://docs.docker.com/engine/installation/#supported-platforms>

Single Sign On	<p>Integration of a Private BIC Process Design & Execution with Active Directory and Single Sign On requires Active Directory Federation Services 2.0 or higher with SAML 2.0 activated. On-premises integration is supporting SAML 2.0 or Kerberos/LDAP protocol. Integration will require additional services for implementation, configuration, and coordination with customer's IT department, offered for an annual fee.</p>
Mail / SMTP	<p>SMTP server and credentials are required to notify users about tasks or changes, and to setup credentials for non-SSO accounts.</p>