

# Perceptive Content

## Technical Specifications

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## Perceptive Content

Perceptive Content is an ECM system comprised of a server, database, and object storage manager, and clients. This system can contain agents and extensions, interact products, and solutions to tailor the system to meet your needs.

This specification provides the most up-to-date information about a release. For information regarding when a specific change was introduced in a patch, see the Release Notes.

Perceptive Content Server and all Perceptive agents now depend on RabbitMQ, a third-party message queuing broker. RabbitMQ is an open-source software that requires Erlang, a programming language.

**Note** Prior to installing RabbitMQ and Erlang, review the Message Queuing specifications under the Perceptive Content Server section of this guide for the supported versions of both products. Download and install the products prior to upgrading to Perceptive Content 7.1.4.x or higher.

For more information on RabbitMQ and Erlang, and to download and install the products, see the individual company websites. For Perceptive installation information, see the Perceptive Content Server and the Perceptive agents' installation and setup guides.

## Perceptive Content Server

The Perceptive Content Server, formerly named ImageNow Server, is the engine that powers the Content system. The minimum technical specifications required for this server, as well as recommendations, appear in the following table.

Specification	Description
Hardware	A server class system is required to run Content in an enterprise environment. The processing power of this physical server directly affects performance. As a minimum requirement, use a dual core processor running at 2 GHz.
Operating Systems	<p>We recommend that you upgrade to the latest operating system patch of the following supported operating system versions.</p> <ul style="list-style-type: none"> <li>• Microsoft Windows Server 2016, 2019, or 2022</li> <li>• RedHat Linux x86_64 version 7*</li> <li>• Oracle Linux version 7*</li> <li>• CentOS x86_64 version 7*</li> <li>• Oracle Linux version 8*</li> <li>• RedHat Linux version 8*</li> <li>• Oracle Linux version 9**</li> <li>• RedHat Linux version 9**</li> </ul> <p>Notes</p> <p>* For Linux installations, you must have 64-bit X11 installed.</p> <p>** Oracle Linux 9 and RedHat Linux 9 currently do not support the native PostgreSQL ODBC drivers distributed with the default package manager.</p> <p>** Oracle Linux 9 and RedHat Linux 9 require the following packages:</p> <ul style="list-style-type: none"> <li>• libX11.x86_64</li> <li>• libnsl.x86_64</li> </ul>

Specification	Description
Accessibility	<p>100 Mb network minimum, configured at full duplex, is required for this server and the database server. In addition, a 1 Gb network is recommended. Ports 6000 and 7200 should be open within firewalls that restrict client access across your WAN or LAN.</p> <p>Certain hardware is prone to networking issues when TCP offloading is enabled. If you experience frequent networking issues or use a Virtual Machine (VM), disable TCP offloading. You must disable this setting at all levels, including the virtual machine's host operating system, virtual machine's operating system, and NIC; and all machines within the Perceptive Content system, which includes the database server and LDAP server. Refer to your vendor's information for instructions on how to disable TCP offloading.</p>
Memory	Minimum 4 GB plus 100 K for each user.
Disk Space	Minimum 20 GB
Virtual Machine	<p>Perceptive Software supports customers running our products on the supported operating systems listed in this document, regardless of whether the system is running in a proven virtual environment, such as VMWare or Microsoft Hyper-V. We support specific operating systems, web server configurations, and web browsers, not hardware configurations unless otherwise noted in this document. Accordingly, virtual platforms operate on and interact with the hardware abstraction layer provided by the virtual platform vendor.</p> <p>The virtual platform vendor supports a set of certified operating systems and hardware. The customer and virtual platform manufacturer are responsible for any interactions or issues that arise at the hardware or operating system layer because of the virtual platform vendor.</p> <p><b>Important</b> In virtual environments, Perceptive Content supports virtualization but does not support paravirtualization.</p>
Message Queuing	<p>Perceptive Content Server requires Erlang and RabbitMQ for message queuing. For more information on RabbitMQ and Erlang, and to download and install the products, see the individual company websites.</p> <p><b>Important</b> Only the following versions of Erlang and RabbitMQ are supported.</p> <ul style="list-style-type: none"> <li>• Erlang – Refer to the RabbitMQ documentation site for Erlang version requirements.</li> <li>• RabbitMQ 3.11.x</li> <li>• RabbitMQ 3.12.x</li> <li>• RabbitMQ 3.13.x</li> <li>• RabbitMQ 4.1.x</li> </ul> <p>The latest patch version of 4.1.x is recommended.</p> <p><b>Note</b> RabbitMQ uses the hard disk as a backing store for some message types. To guarantee adequate throughputs for all messages, we recommend fast storage for the RABBITMQ_MNESIA_DIR location.</p>

## Supported database drivers

The following table lists the database drivers supported by Perceptive Content Server.

Name	Version	Linux	Windows
Oracle Instant Client with ODBC	21.x.x.x	Supported	Supported
Microsoft ODBC Driver 17 for SQL Server	17.x.x.x	Supported	Supported
Microsoft ODBC Driver 18 for SQL Server	18.3.x.x	Supported	Supported
PostgreSQL ODBC Driver	13.02	Supported	Supported

**Note** If issues are encountered, conditional approval can be granted for additional ODBC drivers. Please contact support to discuss available options.

## Supported Database Driver Managers for Linux

On Linux you must install an ODBC database driver manager. The following table lists the database driver managers supported by Perceptive Content Server.

Name	Version	Oracle	PostgreSQL	Microsoft SQLServer
unixODBC	2.3.7	Supported	Supported	Supported

## Perceptive Content Database

The database stores the metadata of each document, not the actual document. A storage location with high performance and high availability is required for the database. Examples of this storage include RAID 10 or RAID 5 with write cache. Network Attached Storage (NAS) devices are not recommended for the database.

Both Standard and Enterprise database editions are supported. However, if you require the system to be used continually (24 hours, 7 days a week), or you have 200 users or more, we recommend the Enterprise edition.

Specification	Description
Hardware	<p>We recommend that you install the database on a separate physical server accessible by Perceptive Content Server.</p> <p>Hardware requirements specified by respective DBMS vendors are required in addition to the Perceptive-specific requirements listed below.</p>

Specification	Description
DBMS	<p>We recommend that you upgrade to the latest DBMS patch of the following supported versions.</p> <ul style="list-style-type: none"> <li>• Microsoft SQL Server 2016, 2017, 2019, and 2022.</li> <li>• PostgreSQL 13.</li> <li>• Oracle 19c and 21c.</li> </ul> <p><b>Note</b> Unicode is supported on SQL Server and PostgreSQL only.</p>
Memory	Database size varies by implementation and use of the product.
Disk Space	Database size varies by implementation and use of the product.

Multilingual support with an Oracle database is not provided in this version.

## Object Storage Manager

All content that is managed by Perceptive Content is stored in the Object Storage Manager (OSM). The OSM stores the content in its original format. The minimum technical specifications required for the OSM appear in the following table:

Specification	Description
Hardware	A storage location with high capacity and high availability is required for the OSM. This storage can be set up as Direct Attached Storage, a SAN, or NAS device.
Accessibility	The OSM must be directly accessible by Perceptive Content Server. Locate the OSM on a local drive SAN or NAS.
Disk Space	The disk space required depends on the amount of content that must be stored. The OSM for scanned images and other documents can grow quite large. As a guide, 1 million black and white scanned pages (scanned at 300 DPI) can consume 70 GB of storage.

## Clients

Perceptive Software offers several clients that run on a variety of environments, operating systems, and devices.

### Perceptive Content Client

Perceptive Content Client is a desktop interface that provides access to all functions including document capture, indexing, viewing, workflow, and document control functionality.

Specification	Description
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Specification	Description
Hardware	<p><b>Processor:</b> Requires a 2.0 GHz or greater processor. A dual core processor is recommended for increased performance.</p> <p><b>Screen Resolution:</b> The required minimum screen resolution is 1024 x 768. A 1280 x 1024 SVGA screen resolution is recommended. Dual monitors are supported.</p> <p><b>Scanning:</b> For scanning, the Client machine must be either USB compatible or able to accept a SCSI expansion card based upon the interface of your scanner. For USB scanners, revision 2.0 is recommended. The scanner may require a faster machine, a specific operating system, or more memory than the Client. For more information about scanner requirements, refer to the manufacturer's documentation.</p>
Operating Systems	<p>Microsoft Windows 10 and 11</p> <p><b>PEDS.</b> If you use Perceptive Enterprise Deployment Suite (PEDS), note that PEDS requires Microsoft .NET Framework 4.5.</p>
Accessibility	<p>A dedicated, "always on" connection is required from the Perceptive Content Client to the Perceptive Content Server.</p> <p>Minimum bandwidth requirements include:</p> <ul style="list-style-type: none"> <li>• A 1.5 Mb connection is required. A 4.5 Mb connection is recommended.</li> <li>• Scanning: For a scan station, a 100 Mb Ethernet connection is required, and a 1 Gb Ethernet connection is recommended for best performance. A high-volume scan station in a WAN is not recommended.</li> </ul>
Memory	<p>2 GB</p> <p>Consult your scanner manufacturer for recommended memory options.</p>
Disk Space	<p>1 GB</p> <p>Scan stations may require more temporary storage space, depending on scanning volume.</p>

## Perceptive Content Client in a virtual desktop environment

A desktop virtualization or application virtualization environment requires third-party products like Citrix or Microsoft Terminal Services. These requirements can vary depending on whether the terminal server environment uses a server farm and how many users are in the farm. The following table shows typical recommendations for the Client in these environments.

Specification	Description
Hardware	CPU: 1 core per every 10 users is required. Note that certain tasks, such as printing and scanning documents increase CPU utilization.
Virtualization Software	Citrix XenApp, version 6.5, 7.6, or 7.8 Microsoft Terminal Services
Operating Systems	Microsoft Server 2016 or 2019



Specification	Description
Accessibility	A dedicated, “always on” connection is required from the Perceptive Content Client to the Perceptive Content Server.
Memory	30 MB of available RAM per user
Disk Space	Requires the same disk space as a Perceptive Content Client installation, plus 5 MB per user in the application data (%APPDATA%) folder.

## Agents and extensions

Agents and extensions expand Perceptive Content capabilities.

**Note** Perceptive Content Server and all Perceptive agents now depend on RabbitMQ, a third-party message queuing broker. RabbitMQ is an open-source software that requires Erlang, a programming language. You must download and install both products prior to upgrading to Perceptive Content 7.1.4.x. For more information, see the Perceptive Content Server message queuing technical specifications, and see the installation and setup guides for Perceptive Content Server and the Perceptive agents.

### AP Invoice eForm

Accounts Payable Invoice eForm is a pre-built eForm that supports invoice processing, including both non-PO and PO-based invoices.

Specification	Description
Compatible Versions	AP Invoice eForm version 12.1 and higher.
Operating Systems	AP Invoice eForm supports the same operating systems as the Perceptive Content Server.
Compatible Software	Internet Explorer, version 11 or higher, on each Perceptive Content Client workstation. iScript eForms
Disk Space	100 MB Additional space depends on the anticipated size of staging data files.

### Business Insight

Business Insight enables you to report on the business intelligence contained in the Perceptive Content database. For specifications about Perceptive Business Insight, refer to the Business Intelligence 11.2.4 Supported Software Environments [specification](#) from Cognos.

Specification	Description
Required Software	Integration Server

Location	Install Business Insight on a different machine than the machine where Forms Server or Perceptive Content Server is located.
Operating Systems	Microsoft Windows Server 2016, 2019, and 2022 <b>Note</b> Business Insight does not support Linux operating systems.
DBMS	For the list of supported databases, refer to the <a href="#">Perceptive Content Database</a> section.

## eForms

eForms allows your organization to collect business or process-specific information through user-friendly HTML-based forms. Users can quickly fill out forms in a familiar environment while the system's built-in logic ensures data consistency and accuracy. eForms can automatically format, calculate, look up, and validate form information while automatically routing forms and documents within specific workflow processes. In addition, data captured within forms can be shared with external business applications to provide a seamless, automated business process solution.

The following requirements are necessary if you are using the Forms Server and are rendering forms through a business portal or application. The Forms Server is not required if you are managing forms inside of a Perceptive Content client.

## Forms Server

The minimum technical specifications required for the Forms Server appear in the following table.

Specification	Description
<b>Hardware</b>	A server class system is required to run Forms Server in an enterprise environment. Installation is supported on physical machines, as well as on VMWare-based machines, and Hyper-V.
<b>Operating Systems</b>	The same operating systems as the Perceptive Content Server.
<b>Web Application Servers</b>	64-bit Apache Tomcat 9.x or 10.1.x.
<b>Software</b>	Supported Java releases: Oracle Java SE 11, OpenJDK 11, Oracle Java SE 17, OpenJDK 17. You may install newer versions of supported Oracle Java SE releases as they become available.
<b>Accessibility</b>	100 Mb network minimum, configured at full duplex, is required and a 1 Gb network is recommended.
<b>Memory</b>	Meet the minimum memory requirements of the selected web application server with an additional 5 MB per user.

Specification	Description
<b>Disk Space</b>	<p>Web server requirements: Meet the minimum disk space requirements of the selected web application server.</p> <p>eForms requirements: An additional 10 MB is required, plus the following:</p> <ul style="list-style-type: none"> <li>• Additional temporary storage is required for documents and worksheets.</li> <li>• The actual amount depends on system use, but plan for approximately 5 MB per user.</li> </ul>
<b>Compatibility</b>	Install Forms Server on a different machine than the Business Insight machine.

## Forms Server eForms Viewing Requirements

Forms Server delivers forms through a browser as part of the eForms product. The technical specifications in the following table are specific to Forms Server version 7.1.x.

Specification	Description
<b>Internet Browsers</b>	<p>Supported Browsers:</p> <ul style="list-style-type: none"> <li>• Mozilla Firefox (Microsoft Windows OS)</li> <li>• Google Chrome (Microsoft Windows OS)</li> <li>• Apple Safari (Mac OS v10.10, iOS 8)</li> </ul> <p>We recommend you upgrade to the latest patch of the supported browsers. Note some browsers release automatic updates and some browsers no longer support version numbers.</p> <p>Browser versions that you update after you install Forms Server are also assumed to work unless otherwise noted. Contact Product Support if you find browser incompatibility.</p>
<b>Forms Server for iOS</b>	<p>For an optimal experience using devices running iOS, confirm the specifications detailed below.</p> <p><b>Operating System:</b> Apple iOS 8</p> <p><b>Devices:</b> Refer to the apple website for a list of devices supported by iOS8.</p> <p><b>Network Connectivity:</b> Supported product with 3G, 4G, or Wi-Fi connectivity.</p>
<b>Forms Server for Android</b>	<p>For an optimal experience using Android devices, confirm the specifications detailed below.</p> <p><b>Operating System:</b> Android 4.4</p> <p><b>Devices:</b> Android devices supported by Android Operating System 4.4.</p> <p><b>Network Connectivity:</b> Supported product with mobile network or Wi-Fi connectivity.</p>

## Fax Agent

Fax Agent is a scalable, inbound, and outbound fax solution that is tightly integrated with workflow. For inbound faxing, Fax Agent is designed to allow customers to capture high volumes of inbound faxes, perform bar code processing, and automatically route them through various workflow processes based on predefined rules. For outbound faxing, Fax Agent's outbound faxing capability is fully integrated into the user interface, giving users with proper permissions the option to fax from the Explorer, Viewer, or iScript.

Specification	Description
Operating Systems	Supports the same Windows operating systems as the Perceptive Content Server. We recommend that you install Fax Agent on a remote server. Connects to Perceptive Content Server via TCP/IP.
Additional Hardware	Fax Agent requires a physical machine for the fax board. The fax board in the physical machine must be a Brooktrout 1034 fax board. For information on supported fax boards, contact your account representative.
Accessibility	100 Mb network minimum, configured at full duplex, is required and 1 Gb network is recommended.
Memory	1 GB
Disk Space	100 MB

## Integration Server

Integration Server provides application integration capabilities using HTTP web services. Based on the HTTP protocol, it gives customers maximum flexibility to incorporate Content services directly into their existing enterprise systems. This includes, but is not limited to, the ability to log on, log off, store, retrieve, move, copy, delete, and search for documents, place documents into workflow, route workflow items, set and get status, and be notified of workflow events from within any third-party application.

Specification	Description
Operating Systems	Supports the same operating systems as Perceptive Content Server.
Web Application Servers	64-bit Apache Tomcat 9.x or 10.1.x <b>Note</b> When using Perceptive Integration Server with Perceptive Experience, you must enable Transport Layer Security (TLS). For more information, see your specific web application server help documentation.
Software	Supported Java releases: Oracle Java SE 11, OpenJDK 11, Oracle Java SE 17, OpenJDK 17. You may install newer versions of supported Oracle Java SE releases as they become available.
Compatible Hardware	Installation is supported on physical machines, as well as on VMWare-based machines, and Hyper-V.

Specification	Description
Accessibility	100 Mb network minimum, configured at full duplex, is required and a 1 Gb network is recommended.
Memory	Minimum 1 GB physical memory.  For higher volume usage, we recommend a minimum of 6 GB physical memory allocated to Tomcat with 8 GB RAM on the host server.
Disk Space	Footprint of the installed product is approximately 100 MB, but we would recommend sufficient disk space to support log file growth and would not recommend installing on a disk smaller than 1GB.
Dependencies	Some calls depend on File Conversion Service (FCS). For more information, refer to the <a href="#">File Conversion Service Technical Specifications</a> .

## Output Agent

Output Agent is a server-side process that provides flexible options for printing or exporting data from Perceptive Content. Output Agent can send documents to a specific printer, convert them to .jpg and export them to a specified directory, or create DICOM formatted or PDF output. Output Agent can be driven by events in workflow, the server-side API, other agents, or even text files containing specific values generated by external applications.

Specification	Description
Operating Systems	Runs on all operating systems that Perceptive Content Server supports.  Connects to Perceptive Content Server via TCP/IP.  When running, Output Agent requires one core.
Accessibility	100 Mb network minimum, configured at full duplex, is required and 1 Gb network is recommended.
Memory	512 MB
Disk Space	1 GB

## Recognition Agent

Recognition Agent enables robust capture technologies to meet enterprise needs. Recognition Agent provides excellent recognition accuracy on a wide variety of documents, including faxes, photocopies, and documents with complex layouts. Recognition Agent extracts data from scanned documents and automatically populates any or all document properties with the extracted data.

Specification	Description
Hardware	As a minimum requirement, use a 2 GHz processor. When running, each Recognition Agent requires an additional core.
Operating Systems	Runs in the same supported Windows environments as Perceptive Content Server.

Accessibility	100 Mb network minimum, configured at full duplex, is required and 1 Gb network is recommended.
Processing Capability	Plan on about 1000 pages per hour per Recognition Agent.
Memory	1 GB
Disk Space	400 MB

## User Replication Agent

User Replication Agent simplifies the management of Content users and groups in LDAP-focused identity environments by allowing Content and your LDAP servers to work together. Going a step beyond the application's standard capability to authenticate users against LDAP servers and import users in bulk from LDAP servers, the User Replication Agent module actively manages the relationship to keep the user list synchronous.

Specification	Description
Operating Systems	Runs on all operating systems that Perceptive Content Server supports. Connects to Perceptive Content Server via TCP/IP.
Accessibility	100 Mb network minimum, configured at full duplex, is required and 1 Gb network is recommended.
Memory	128 MB
Disk Space	100 MB

## Interact Products

Interacts are a suite of products that are designed to allow end users to “interact” with the Perceptive Content repository within the context of their native business and collaboration applications.

### Interact for Microsoft Office

Extend the power of Content by bringing document management to every user of Microsoft Office. Interact for Microsoft Office provides key functions in an interface that allows users to create and manage Office-format Content documents directly from Microsoft Office 2003, 2007, and 2010.

Specification	Description
Operating Systems	This product supports the same operating systems as Perceptive Content Client.
Compatible Software	Microsoft Office 2010 Word, Excel, and PowerPoint Microsoft Office 2013 Word, Excel, and PowerPoint Microsoft Office 2016 Word, Excel, and PowerPoint

Accessibility	100 Mb network minimum, configured at full duplex, is required and 1 Gb network is recommended.
Memory	256 MB and additional storage is required to open documents in their native application.
Disk Space	1 GB

## Interact for Microsoft Outlook

Interact for Microsoft Outlook lets you capture your email and attachments to the Content document management system directly from Microsoft Outlook. You can also view a document contained in a drawer or folder that you have the privileges to view. If you allow public access to the document by other users, those users can then view the document as well.

Interact for Microsoft Outlook embeds controls within the Outlook interface that allow the user to capture emails. The user can view a list of captured documents in the Interact for Outlook pane.

Specification	Description
Operating Systems	Windows 10
Compatible Software	Microsoft Outlook 2010, 2013, or 2016 Integration Server
Disk Space	5 MB

## Connectors

### Connector for ArchiveLink

The Connector for ArchiveLink is an SAP Certified integration to Perceptive Content that creates an interface for linking all your SAP applications to your Perceptive Content enterprise content management system. This option is ideal for customers who run SAP software exclusively across their enterprise or actively use ArchiveLink. The integration supports all ArchiveLink features such as storing and linking native incoming and outgoing documents, print lists and data archiving (ADK), and early and late archiving scenarios including late archiving with barcode.

The following specifications apply to the server for Perceptive Content Connector for ArchiveLink.

Specification	Description
Operating Systems	Microsoft Server 2016 or 2019
Compatible Software	Requires the following software: <ul style="list-style-type: none"> <li>• Java 11</li> <li>• Apache Tomcat 9</li> <li>• SAP R/3 4.6c and later</li> </ul>

Accessibility	100 Mb network minimum, configured at full duplex, is required and a 1 Gb network is recommended.
Memory	No additional requirements beyond the standard memory requirement for Perceptive Content Server.
Disk Space	500 MB required.

You can view documents in ArchiveLink with the following clients:

- Perceptive Content Client. For technical specifications on this client, see the "Perceptive Content Client" section of this document.
- SAP Viewer (SAPGUI). For technical specifications on this client, see your SAP documentation.
- Perceptive Experience Documents App. For more information, see the Perceptive Experience Content Apps Technical Specifications.