Oracle® Fusion Middleware

Oracle WebCenter Forms Recognition Technical
Specifications Guide

12c (12.2.1.4.0)

F16564-02

September 2020

Documentation for the WebCenter Forms Recognition
Technical Specifications.

ORACLE®

Oracle Fusion Middleware Oracle WebCenter Forms Recognition Technical Specifications, 12c (12.2.1.4.0)

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1 About the WebCenter Forms Recognition Technical Specifications

WebCenter Forms Recognition is an Oracle product suite that automates the processing of incoming documents. WebCenter Forms Recognition automatically classifies these documents, extracts meaningful information, and exports that data for other systems' use. WebCenter Forms Recognition works with any document that is electronically available, including scanned images, e-mails, files, and faxes.

This document provides the technical specifications for WebCenter Forms Recognition. Use the requirements provided in this document as a guideline. The actual hardware and software configuration depends on your specific requirements.

2 About WebCenter Forms Recognition Server Requirements

The primary WebCenter Forms Recognition server powers the WebCenter Forms Recognition processes such as licensing, OCR, classification, and extraction. All WebCenter Forms Recognition servers require a server-class system to run in a production environment.

The requirements do not include any amount of memory or disk space you require for the operating system, environment, or other software that runs on the same machine. In addition to the recommended disk space, we recommend hot swappable hard drives and the use of RAID controllers.

Minimum hardware recommendations vary based on the number of daily processed documents. If your daily volume exceeds 10,000 pages, contact your Oracle representative for recommendations.

For all software and operating systems listed, we recommend using the latest patch version.

The recommendations in this guide are based on a standard accounts payable project with the following properties:

- 1-3 page TIFF documents
- Document resolution of 300 dpi
- Average TIFF file size of approximately 80 KB
- Average WorkDoc size of approximately 21 KB
- A project size of less than 5 MB and less than 10 document classes
- Cleanup of exported batches within 1-3 days

2.1 Servers Processing up to 500 Pages Per Day

The following table lists the minimum requirements for WebCenter Forms Recognition servers processing up to 500 pages per day.

Specification	Description
Hardware	As a minimum requirement, use a dual core processor running at 3 GHz.
Memory	Minimum 4 GB, 2 GB per core
Disk space	20 – 40 GB

2.2 Servers Processing up to 5,000 Pages Per Day

The following table lists the minimum requirements for WebCenter Forms Recognition servers processing up to 5,000 pages per day.

Specification	Description
Hardware	As a minimum requirement, use a quad core processor running at 3 GHz.
Memory	Minimum 8 GB, 2 GB per core
Disk space	100 – 200 GB

2.3 Servers Processing up to 10,000 Pages Per Day

The following table lists the minimum requirements for WebCenter Forms Recognition servers processing up to 10,000 pages per day.

Specification	Description
Hardware	As a minimum requirement, use a 8 core processor running at 3 GHz
Memory	Minimum 16 GB, 2 GB per core
Disk space	Minimum 200 GB

2.4 Additional Server Requirements

The following table lists the additional requirements for WebCenter Forms Recognition servers.

Specification	Description
Operating Systems	▪ Microsoft Windows Server 2012 R2 ▪ Microsoft Windows Server 2016
Memory	Microsoft .NET Framework 4.6
Network	A 100 MB/s network, configured at full duplex or auto-negotiate. We recommend a 1 GB/s network to provide optimal performance.

2.5 WebCenter Forms Recognition Database Server

The WebCenter Forms Recognition database stores the data and processed documents. We do not recommend the use of network attached storage (NAS) devices.

The following table lists the minimum technical specifications required for WebCenter Forms Recognition database servers.

Specification	Description
Hardware	As a minimum requirement, use a quad-core processor running at 3 GHz. Hardware requirements specified by respective DBMS vendors are necessary in addition to WebCenter Forms Recognition specific requirements. We recommend installing the database on a separate server.
Memory	Minimum 8 GB
Disk Space	Minimum 100 GB
Operating Systems	▪ Microsoft Windows Server 2012 R2 ▪ Microsoft Windows Server 2016 We provide support for ODBC and web services as they relate to Microsoft Windows Server OS. However, you can use any server OS that allows database connectivity through ODBC and web services, such as REHL, AIX, and Solaris. A non-Windows server OS must provide the same level of functionality for ODBC and web services.
Software	Microsoft .NET Framework 4.6
DBMS	▪ Oracle 12c ▪ Oracle 12c R2 ▪ Microsoft SQL Server 2014 SP2 l Microsoft SQL Server 2016 SP1 l Oracle 11g R2 (32-bit)

	If you use Oracle as a database, you must install a 32-bit Oracle client on any workstation or server where WebCenter Forms Recognition communicates with the database, such as when using Designer or Verifier.
Network	A 100 MB/s network, configured at full duplex or auto-negotiate. We recommend a 1 GB/s network to provide optimal performance.

2.6   Web Verifier Server

The following table lists the minimum technical specifications required for Web Verifier servers.

Specification	Description
Hardware	We recommend installing Web Verifier server on a dedicated server. Minimum hardware recommendations vary based on the number of concurrent supported users. As a minimum requirement, for 2-4 users, use a quad-core processor running at 3 GHz, plus 1 additional core for every 2 additional concurrent users.
Memory	Minimum 4 GB for 2-4 users plus 500 MB for each additional user.
Disk Space	Minimum 50 GB Minimum 30 GB for the operating system
Operating Systems	▪ Microsoft Windows Server 2012 R2 ▪ Microsoft Windows Server 2016
Software	▪ Microsoft .NET Framework 4.6 ▪ Internet Information Services (IIS)

2.7   About OCR Performance

OCR is a processor-intensive task. To maximize performance, we recommend only one active Runtime Server OCR instance per CPU.

2.8   About Virtual Machines

Oracle supports running WebCenter Forms Recognition products on the named operating systems, regardless of whether the system runs in a virtual environment, such as VMWare, Microsoft Hyper-V or Amazon EC2. Unless otherwise noted in this document, we support specific operating systems, web server configurations, and web browsers – not hardware configurations. Virtual platforms operate on, and interact with, the hardware abstraction layer provided by the virtual platform vendor.

The virtual platform vendor supports a set of certified operating systems and hardware. Oracle is not responsible for any interactions or issues that arise at the hardware or operating system level because of the virtual platform vendor.

In virtual environments, WebCenter Forms Recognition supports virtualization but not paravirtualization.

3 About WebCenter Forms Recognition Client Requirements

A WebCenter Forms Recognition system includes several clients and a WebCenter Forms Recognition server. The following sections provide the technical specifications for each client application.

3.1 Designer

The Designer client creates and maintains WebCenter Forms Recognition projects and applications. Designer does not require a separate desktop system, and typically runs on the same machine as the WebCenter Forms Recognition server.

The following table lists the minimum technical specifications required for this client.

Specification	Description
Hardware	As a minimum requirement, use a one-core processor running at 2.4 GHz. The required minimum screen resolution is 1024 x 768. We recommend 1280 x 1024 SVGA.
Memory	Minimum 1 GB in addition to the memory recommended for the operating system.
Disk Space	Minimum 40 GB
Operating Systems	▪ Microsoft Windows 7 ▪ Microsoft Windows 10
Software	Microsoft .NET Framework 4.6
DBMS	When using Oracle for the WebCenter Forms Recognition DBMS, you must install a 32-bit Oracle client on every desktop that runs a Designer client.
Network	A 100 MB/s network, configured at full duplex or auto-negotiate. We recommend a 1 GB/s network to provide optimal performance.

3.2 Verifier

The Verifier client is the quality assurance component of the WebCenter Forms Recognition system. Verifier allows users to perform data verification, Advanced Verifier operations, and learn set management.

The following table lists the minimum technical specifications required for Verifier.

Specification	Description
Hardware	As a minimum requirement, use a single core processor running at 2.4 GHz. The required minimum screen resolution is 1024 x 768. We recommend 1280 x 1024 SVGA.
Memory	Minimum 1 GB in addition to the memory recommended for the operating system.
Disk Space	Minimum 40 GB
Operating Systems	▪ Microsoft Windows 7 ▪ Microsoft Windows 10
Software	Microsoft .NET Framework 4.6
DBMS	When using Oracle for the WebCenter Forms Recognition DBMS, you must install a 32-bit Oracle client on every desktop that runs a Verifier client.

Network	A 100 MB/s network, configured at full duplex or auto-negotiate. We recommend a 1 GB/s network to provide optimal performance.

3.3 About Verifier Clients using Citrix or Terminal Services

The WebCenter Forms Recognition core applications are not designed to work with any specific desktop presentation platform. You can use third party products like Citrix and Microsoft Terminal Services. However, you are responsible for providing, configuring, and supporting the environment.

3.4 Web Verifier Client

Web Verifier is the web-based version of the Verifier client and does not require a separate workstation.

The following table lists the minimum technical specifications required for this client.

Specification	Description
Hardware	As a minimum requirement, use a dual-core processor running at 2.0 GHz. The required minimum screen resolution is 1024 x 768. We recommend 1280 x 1024 SVGA.
Memory	Minimum 2 GB in addition to the memory recommended for the operating system.
Disk Space	Minimum 40 GB
Operating Systems	▪ Microsoft Windows 7 ▪ Microsoft Windows 10
Network	A 100 MB/s network, configured at full duplex or auto-negotiate. We recommend a 1 GB/s network to provide optimal performance.
Browsers	▪ Internet Explorer 11 ▪ Google Chrome

3.5 RTS Remote Admin Client

The Remote Admin client manages the Runtime Server (RTS). This client does not require a separate workstation. It typically runs on a WebCenter Forms Recognition server or any network-accessible system where the Microsoft Management Console is available for the RTS Remote Admin snap-in.

The following table lists the minimum technical specifications required for this client.

Specification	Description
Hardware	As a minimum requirement, use a one-core processor running at 2.4 GHz.
Memory	Minimum 1 GB in addition to the memory recommended for the operating system.
Disk Space	Minimum 40 GB
Operating Systems	▪ Microsoft Windows 7 ▪ Microsoft Windows 10
Software	▪ Microsoft .NET Framework 4.6 ▪ WebCenter Forms Recognition RTS Remote Admin MMC Snap-in

Network	A 100 MB/s network, configured at full duplex or auto-negotiate. We recommend a 1 GB/s network to provide optimal performance.
Browsers	▪ Internet Explorer 11 ▪ Google Chrome

4   Scripting Component

WebCenter Forms Recognition supports WinWrap version 9.0.0.56.

4.1   WebCenter Forms Recognition Development and Test Environments

In addition to the production server environment, we recommend a development and test environment. A typical development or test environment consists of a single server capable of processing up to 500 pages per day.

The following table lists the minimum technical specifications for a system that houses WebCenter Forms Recognition server, Web Verifier server, and WebCenter Forms Recognition database server.

Specification	Description
Hardware	As a minimum requirement, use a quad-core processor running at 3 GHz.
Memory	Minimum 8 GB
Disk Space	Minimum 100 GB
Operating Systems	- Microsoft Windows Server 2012 R2 - Microsoft Windows Server 2016
Software	- Microsoft .NET Framework 4.6 - WebCenter Forms Recognition RTS Remote Admin MMC snap-in - Internet Information Services (IIS)
DBMS	- Oracle 12c - Oracle 12c R2 - Microsoft SQL Server 2014 SP2 l Microsoft SQL Server 2016 SP1 l Oracle 11g R2 (32-bit) When using Oracle as a database, you must install a 32-bit Oracle client on any workstation and server where WebCenter Forms Recognition communicates with the database, for example, when using Designer or Verifier.

5 ABBYY FineReader

WebCenter Forms Recognition is compatible with the following versions of ABBYY FineReader.

- ABBYY FineReader 11
- ABBYY FineReader 10

6   User Interface Languages

The following table lists the available User Interface languages for each WebCenter Forms Recognition application. This does not pertain to the Verifier form itself. Localization support of the Verifier form in other languages requires custom services.

Language	Designer	Verifier	Web Verifier
Chinese			Yes
Chinese (Simplified)			Yes
Chinese (Traditional)			Yes
Danish			Yes
Dutch (Dansk)			Yes
English	Yes	Yes	Yes
Finnish (Suomi)			Yes
French		Yes	Yes
German (Deutsch)	Yes	Yes	Yes
Italian			Yes
Japanese			Yes
Korean			Yes
Norwegian			Yes
Polish			Yes
Portuguese (Brazilian)			Yes
Romanian			Yes
Russian			Yes
Spanish			Yes
Swedish			Yes
Turkish			Yes

6.1   AP Project Version

Review the following topics if your installation includes AP Project.

6.2   Supported Languages

Language	1006*	1007*	2.X
Bulgarian	Yes	Yes	2.1+
Chinese (Simplified)		1007D+	2.1+
Czech	Yes	Yes	2.1+
Danish	Yes	Yes	2.1+

Dutch	Yes	Yes	2.1+
English	Yes	Yes	2.1+
Estonian	Yes	Yes	2.1+
Finnish	Yes	Yes	2.1+
French	Yes	Yes	2.1+
German	Yes	Yes	2.1+
Greek	Yes	Yes	2.1+
Hungarian	Yes	Yes	2.1+
Italian	Yes	Yes	2.1+
Japanese		1007D+	2.1+
Korean		1007E+	2.1+
Latvian	Yes	Yes	2.1+
Lithuanian	Yes	Yes	2.1+
Norwegian	Yes	Yes	2.1+
Polish	Yes	Yes	2.1+
Portuguese	Yes	Yes	2.1+
Portuguese (Brazilian)	Yes	Yes	2.1+
Romanian	Yes	Yes	2.1+
Russian	Yes	Yes	2.1+
Slovak	Yes	Yes	2.1+
Slovenian	Yes	Yes	2.1+
Spanish	Yes	Yes	2.1+
Swedish	Yes	Yes	2.1+
Thai		1007F+	2.3+
Turkish	Yes	Yes	2.1+

6.3 Compatibility

The following table lists the WebCenter Forms Recognition versions compatible with AP Project.

AP Project Version	5.5	5.5.1	5.5.2	5.5.3	5.7	5.7.1	5.8	5.9
1006D	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1007CA	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
1007D			Yes	Yes	Yes	Yes	Yes	Yes
1007 G				Yes	Yes	Yes	Yes	Yes
2.8 or 2803				Yes	Yes	Yes	Yes	Yes

7   Network Port Usage

WebCenter Forms Recognition and its related products use specific network ports as part of the default implementation. If needed, you can modify port assignments. The following table lists the Internet Assigned Number Authority (IANA) for networking protocols. It is possible that your networking group has changed ports for LDAP, SMTP, POP3, or for database traffic to meet your organization's security requirements.

Note: For integrations with ERP solutions, consult with your Oracle representative for information on the ports that WebCenter Forms Recognition requires and uses.

Port	Usage
50607	RTS - instances
3000	ABBYY FineReader 10 Network License Manager
3011	ABBYY FineReader 11 Network License Manager
1433	Microsoft SQL Server database
1521	Oracle database

8   About Firewalls

WebCenter Forms Recognition requires a non-encapsulated LAN environment without firewalls or other traffic-filtering devices.

9 Considerations for WebCenter Forms Recognition

When sizing the hardware for a production environment, consider the following factors.

- **Input volume**: The number of documents and pages to process on a daily basis.
- **Completion time**: The time required from scanning the document to exporting them out of the system.
- **Complexity of input documents**: Includes single or multi-page TIFF, scanning resolution, document size, number of OCR pages per document.
- **Output requirements**: Includes data extraction, validation, export, and number of documents processed per day.
- **Complexity of workflow customization**: This includes, but is not limited to scripting.
- **Third-party software integration requirements**: Includes third-party software such as Oracle, Oracle Financials, JD Edwards, Microsoft Dynamics, Lawson, and ECM and CRM systems.
- **Disaster recovery**: Includes backup, fault tolerance and up time.
- **Room for growth**: Includes increasing input and output and other system requirements.
- **Number of concurrent users**: Includes the number of users for Verifier and Web Verifier.
- **Batch retention time**: Retention time for a batch of documents in the system after export.
- **Number of projects**: Number of WebCenter Forms Recognition projects per country and per solution.
- **Installed components**: Other components such as Reporting or databases. For a production environment, we recommend to install these software products on separate servers.
- **Network**: Network operating system platform and network environment.