



Annalise Enterprise 3.0

Administration Guide

English

Annalise Enterprise Product

Product version: **3.0**

Date of issue: **2022-04-27**



Copyright © ANNALISE-AI PTY LTD, 2022



ANNALISE-AI PTY LTD
ACN 635 645 260
Level 21, 60 Margaret Street,
Sydney NSW 2000
AUSTRALIA
www.annalise.ai



QualRep Services B.V.
Utrechtseweg 310 - Bldg B42,
NL-6812 AR Arnhem,
THE NETHERLANDS
globalreg@qservegroup.com

New Zealand Sponsor

AA-Med NZ Ltd.
Level 7, 54 Gill Street,
New Plymouth, 4310
NEW ZEALAND
Tel: 0800-440-238

Malaysia Authorised Representative

ARQon Medtech Sdn Bhd
No. 20, Jalan Sasa 4, Taman Gaya, 81800,
Johor
MALAYSIA
info@arqon.com
Registration Number: GA5216421-60402

UK Responsible Person

Qserve Group UK, Ltd. 49 Greek Street
Soho, London W1D 4EG
UNITED KINGDOM
globalreg@qservegroup.com

Indian Voluntary Registration Number

Annali-AUS/I/MD/003060

OVERVIEW	5
<i>Introduction</i>	<i>5</i>
<i>Who</i>	<i>5</i>
ANNALISE ENTERPRISE OVERVIEW	6
<i>Annalise Enterprise</i>	<i>6</i>
<i>Annalise Integration Adapter</i>	<i>6</i>
<i>Workflow Engine (optional)</i>	<i>7</i>
<i>Annalise Backend</i>	<i>7</i>
<i>Annalise Viewer</i>	<i>7</i>
<i>Annalise product compatibility</i>	<i>7</i>
<i>Supported capabilities</i>	<i>8</i>
<i>Available customisations</i>	<i>9</i>
<i>Configuration backup/restoration</i>	<i>10</i>
<i>Security and confidentiality</i>	<i>10</i>
INSTALLATION PROCESS OVERVIEW	11
<i>Overview</i>	<i>11</i>
<i>Who</i>	<i>11</i>
<i>Process summary</i>	<i>11</i>
ANNALISE INTEGRATION ADAPTER REQUIREMENTS	12
<i>Overview</i>	<i>12</i>
<i>System requirements</i>	<i>12</i>
<i>Installation and configuration</i>	<i>12</i>
<i>Maintenance and troubleshooting</i>	<i>12</i>
ANNALISE BACKEND REQUIREMENTS	13
<i>Overview</i>	<i>13</i>
<i>System requirements (on premises)</i>	<i>13</i>
<i>Installation and configuration</i>	<i>13</i>
ANNALISE VIEWER REQUIREMENTS	14
<i>Overview</i>	<i>14</i>
<i>System requirements</i>	<i>14</i>
<i>Installation and configuration</i>	<i>14</i>
<i>Maintenance and troubleshooting</i>	<i>14</i>

INSTALL AND CONFIGURE ANNALISE VIEWER	15
<i>Overview</i>	<i>15</i>
<i>Install Annalise Viewer</i>	<i>15</i>
<i>Install PDF reader</i>	<i>16</i>
<i>Configure and test organisation credentials</i>	<i>16</i>
CONFIGURE PACS	18
<i>Overview</i>	<i>18</i>
<i>Configure PACS interface with Annalise Viewer</i>	<i>18</i>
<i>Configure PACS interface with Annalise Integration Adapter</i>	<i>19</i>
CONFIGURE WORKFLOW ENGINE	21
<i>Overview</i>	<i>21</i>
<i>Configure Annalise Integration Adapter with Workflow Engine</i>	<i>21</i>
VERIFY INSTALLATION AND CONFIGURATION	23
<i>Overview</i>	<i>23</i>
<i>Tests</i>	<i>23</i>
TROUBLESHOOTING	26
<i>Problems and solutions</i>	<i>26</i>
<i>Support and feedback</i>	<i>30</i>
APPENDIX: RUN ANNALISE VIEWER ON WINDOWS 7	31

Overview

Introduction

This document shows you how to install and configure the Annalise Enterprise product on your computer network and set up the relevant interfaces with your worklist system.

Who

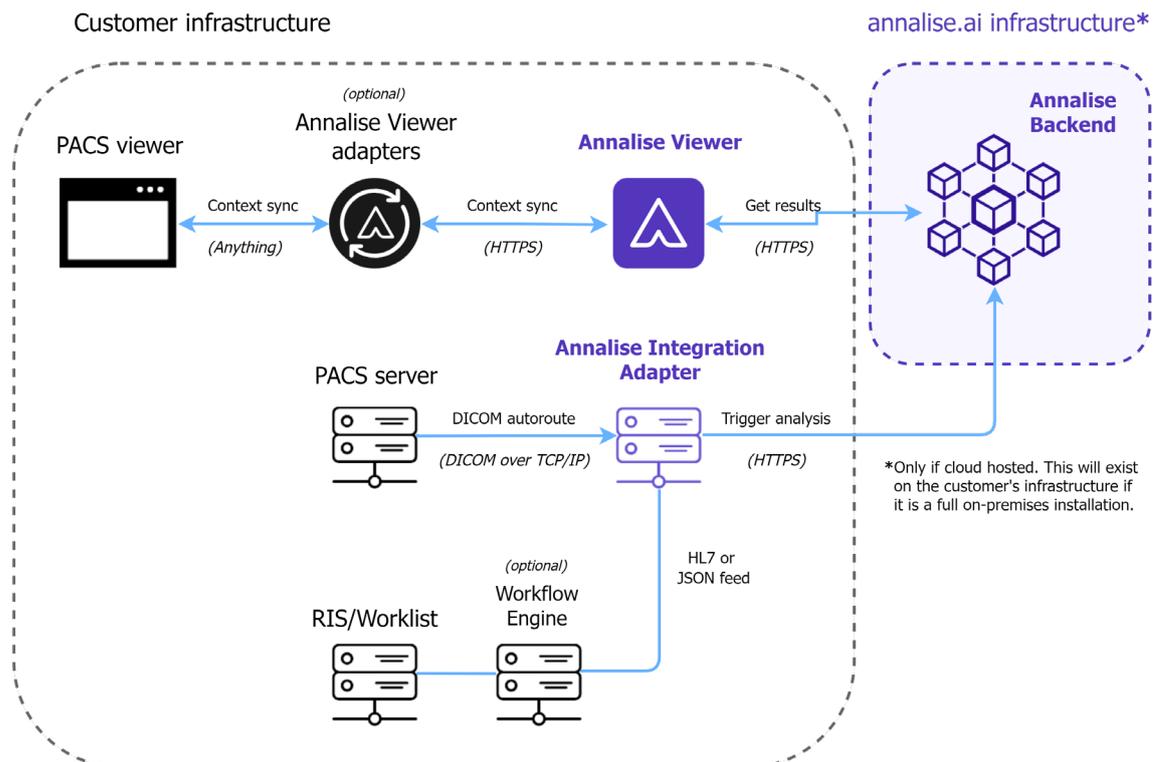
This document is for IT administrators and support staff only. It is not intended to be used by clinical users.

For the clinical use of this product, please refer to the *Annalise Enterprise User Guide*.

Annalise Enterprise overview

Annalise Enterprise Annalise Enterprise contains the following three sub-systems:

- Annalise Integration Adapter
- Annalise Backend
- Annalise Viewer



Annalise Integration Adapter

The Annalise Integration Adapter receives images from the PACS server and converts the images and metadata into the appropriate format. It then sends a trigger to the Backend API services to request AI processing.

The Annalise Integration Adapter can be configured to send information to an HL7 server (such as a RIS) to request a change in the study's priority in the worklist.

The Annalise Integration Adapter also:

- provides a stable interface between the PACS and RIS within the customer's network
- encrypts all data moving between the Annalise Integration Adapter and the Annalise Backend
- acts as a buffer with the Annalise Backend in the event of network outages

Workflow Engine (optional)

The Workflow Engine is an optional component.

If implemented into the customer's infrastructure, a message containing both the results and associated priority information will be sent from the Annalise Integration Adapter to the Workflow Engine once the study has been analysed.

Annalise Backend

The Annalise Backend filters images, performs AI processing and stores results. It includes both Backend API services and the AI model.

The Backend API is responsible for performing the business logic of Annalise Enterprise. It manages:

- security for incoming requests from the Annalise Integration Adapter and the Annalise Viewer
- the storage of images and results (including periodic deletion of data as required by the customer)
- requests and responses from the AI Model, Annalise Viewer, and Annalise Integration Adapter

The AI model includes AI algorithms (convolutional neural networks) and image pre-processing and post-processing modules. It processes a study's X-ray or CT images and generates suspected radiological findings and localisation information for that study.

Annalise Viewer

The Annalise Viewer is a desktop application that receives details about a patient's study from the PACS viewer then retrieves the study's results from the Annalise Backend.

The Annalise Viewer displays the AI results in its own window, enabling the user to review study's suspected findings and localisation alongside the study's original images.

The Annalise Viewer application is installed on each workstation on the customer's network.

Annalise product compatibility

Annalise Enterprise 3.0 is compatible with:

- Annalise Integration Adapter **2.1** and **2.2**
- Annalise Viewer **2.0** and **2.1**

Supported capabilities

The following table outlines the Annalise product’s capabilities.

Supported items	Details
Supported Body Part Imaging	<ul style="list-style-type: none"> • CXR: Chest X-ray • CTB: Non-contrast brain CT scan
Supported DICOM SOP Class	<p>CXR:</p> <ul style="list-style-type: none"> • Computed Radiography (CR) - 1.2.840.10008.5.1.4.1.1.1 • Digital Radiography (DX) - 1.2.840.10008.5.14.1.1.1.1 <p>CTB:</p> <ul style="list-style-type: none"> • CT Image Storage – 1.2.840.10008.5.1.4.1.1.2 • Enhanced CT Image Storage - 1.2.840.10008.5.1.4.1.1.2.1 • Legacy Converted Enhanced CT Image Storage - 1.2.840.10008.5.1.4.1.1.2.2
Supported DICOM Transfer Syntaxes	<p>CXR and CTB:</p> <ul style="list-style-type: none"> • JPEG 2000 image (lossless) (16-bit only) 1.2.840.10008.1.2.4.90 • Raw uncompressed image (Implicit VR Endian) (16-bit only) 1.2.840.10008.1.2 • Raw uncompressed image (Explicit VR Little Endian) (16-bit only) 1.2.840.10008.1.2.1 • Raw uncompressed image (Explicit VR Big Endian) (16-bit only) 1.2.840.10008.1.2.2 <p>CXR only:</p> <ul style="list-style-type: none"> • JPEG 2000 image (lossy) (16-bit only) 1.2.840.10008.1.2.4.91* <p>*Not supported for the CT DICOM SOP Classes.</p>
Supported View Types	<p>CXR:</p> <ul style="list-style-type: none"> • minimum one frontal (AP/PA) • up to three images in total <p><u>Note:</u> If a study contains more than three chest X-ray images, the AI model will select a combination of the best three frontal/lateral images.</p> <p>CTB:</p> <ul style="list-style-type: none"> • the supported view type is Axial with slice thickness up to 1.5mm (Coronal and Sagittal views are generated from the Axial view)

Available customisations

Annalise Enterprise supports multiple configurations that enable your organisation to tailor the application to your specific needs.

As part of the deployment and on-boarding process, annalise.ai will manage all product configuration in consultation with your IT/infrastructure team.

The following customisations are available:

Configuration item	Variables/controls
Finding visibility	Enable/disable individual findings.
Finding groups	Enable/disable up to eight finding groups in the Annalise Viewer.
Allocation of findings to groups	Allocate each finding to defined groups.
Finding order	Select the order in which each finding will appear in the Annalise Viewer.
Finding sensitivity/specificity	Adjust the operating point of each finding to increase or decrease the sensitivity/specificity.
Available languages	Currently the only available language is English. However, additional languages are coming soon.
Analytics	Annalise Viewer sends tracking data to our privately hosted server to improve your experience. This feature is optional.
Data retention period	Enable/disable the period for which you want data to be stored in the Annalise Backend.
Worklist Triage	The Worklist Triage feature can be integrated via an API. You can turn off the Worklist Triage for individual findings. If you have a dedicated AI priority column in your RIS/Worklist, you can also: <ul style="list-style-type: none"> • create additional priority levels • customise the name of the priority levels <p><u>Note:</u> Worklist Triage is an additional licensed option and is not available in all regions.</p>

For configuration requests, please contact annalise.ai Technical Support.

Configuration backup/restoration

Configuration backup/restoration is managed as follows:

Installation	Configuration backup
Cloud instance of Annalise Backend	Managed by annalise.ai as part of the product infrastructure.
On-premises	Managed by your IT/infrastructure team.

Security and confidentiality

Annalise Enterprise includes security features which protect against unauthorised access and data modification.

These features ensure the secure authentication and encryption of sensitive data when transmitted between:

- the Annalise Enterprise Annalise Integration Adapter and the Annalise Backend
- the Annalise Viewer and the Annalise Backend
- the PACS Image Viewer and the Annalise Viewer (available only when using the HTTPS interface)

It also includes the encryption of sensitive data stored in the Annalise Backend.

Multi-tenant design

The Annalise product uses a multi-tenant design which separates data from different organisations via different organisational accounts.

Users must therefore have the appropriate credentials to access an organisation's internal data.

Installation process overview

Overview The Annalise product installation process includes the installation and configuration of the following sub-systems:

- Annalise Integration Adapter
- Annalise Backend
- Annalise Viewer

Who The annalise.ai Professional Services Team will install the Annalise Integration Adapter and Annalise Backend for your organisation. They will also work with you to customise the application to suit your requirements.

Your IT/infrastructure team will need to install the Annalise Viewer on the required workstations and work with annalise.ai to configure the required interfaces with the Annalise Integration Adapter.

Process summary The following table outlines a summary of the installation process and those responsible for each task:

Sub-system	Installed by	Details
Annalise Integration Adapter	annalise.ai Professional Services Team	annalise.ai will install the Annalise Integration Adapter. They will also work with you to configure your: <ul style="list-style-type: none"> • PACS interface with the Annalise Integration Adapter • Workflow Engine See: <ul style="list-style-type: none"> • Annalise Integration Adapter Requirements on page 12 • Configure PACS on page 18
Annalise Backend	annalise.ai Professional Services Team	annalise.ai will install the Annalise Backend on either: <ul style="list-style-type: none"> • annalise.ai cloud infrastructure, or • your network ('on-premises'). See Annalise Backend Requirements on page 13.
Annalise Viewer	Customer IT/infrastructure team	You will need to complete the following on each required workstation: <ul style="list-style-type: none"> • install the Annalise Viewer • install a PDF reader • configure and test your organisation's credentials See Install and configure Annalise Viewer on page 15. <p>annalise.ai will help you configure your PACS interface with the Annalise Viewer.</p> <p>Once you have finished, you will need to perform some tests to check that the Annalise product is working correctly.</p> See Verify installation and configuration on page 23.

Annalise Integration Adapter Requirements

Overview This section outlines the requirements for the installation of the Annalise Integration Adapter.
 For further information, see [Annalise Integration Adapter](#) on page 6.

System requirements The following components are required to host the Annalise Integration Adapter on your network:

Component	Requirements
System	Required operating system (provided by annalise.ai): <ul style="list-style-type: none"> Linux (Ubuntu 20.04 LTS) Recommended hardware specification: <ul style="list-style-type: none"> 16 CPU cores at approximately 2.0 GHz, supporting the AVX, FMA and SSE4.2 instruction sets 32 GB RAM 700 GB storage (for CXR and CTB loads)
Internet connection	A 6 Mbps uplink is recommended to support a volume of three CXR studies per minute (for cloud-deployed products). A 25 Mbps uplink is recommended to support a volume of three CTB studies per minute (for cloud-deployed products).
Annalise Backend hosted in the cloud	Requires an outbound internet connection via port 443.

Installation and configuration The annalise.ai Professional Services Team will install the Annalise Integration Adapter in collaboration with your IT/Infrastructure team.
Note: Changes to the Annalise Integration Adapter should only be made under the instruction of the annalise.ai Professional Services Team.

Maintenance and troubleshooting annalise.ai will require access to the host machine for scheduled maintenance, software upgrades and troubleshooting.

Annalise Backend Requirements

Overview

The Annalise Backend is hosted on either:

- your network ('on-premises' installation), or
- annalise.ai's cloud infrastructure.

Note: annalise.ai supports on-premise backend for CXR only.

If you want the Annalise Backend hosted on your network, refer to the system requirements below.

To use the Annalise Backend hosted on annalise.ai's cloud infrastructure, you will need to provide the outbound internet IP ranges for each workstation that uses the Annalise Viewer. The annalise.ai Professional Services Team will add these details to the Annalise Backend IP allow-list.

For further information, see [Annalise Backend](#) on page 7.

System requirements (on-premises)

The following components are required to host the Annalise Backend on your network ('on-premises').

Component	Requirements
System (on-premises)	<p>Required operating system (provided by annalise.ai):</p> <ul style="list-style-type: none"> • Linux (Ubuntu 20.04 LTS) <p>Recommended hardware specifications:</p> <ul style="list-style-type: none"> • 16 CPU cores at ~2.4 GHz, supporting the AVX, FMA and SSE4.2 instruction sets • 32GB RAM • 200GB storage base plus additional 16GB per CXR 1000 studies

Installation and configuration (on-premises)

The annalise.ai Professional Services Team will install and configure the Annalise Backend on your network in collaboration with your IT/infrastructure team.

If you require IP allow-listing to be configured for your installation, contact the annalise.ai Professional Services Team.

Note: Changes to the Annalise Backend should only be made under the instruction of annalise.ai Professional Services Team.

Maintenance and troubleshooting

If the Annalise Backend is installed on your network, annalise.ai will require remote access to the host machine for scheduled maintenance, software upgrades and troubleshooting.

Annalise Viewer Requirements

Overview This section outlines the requirements for the installation of the Annalise Viewer.
For further information, see [Annalise Viewer](#) on page 7.

System requirements The following components are required to install the Annalise Viewer:

Component	Requirements
Workstation	The Annalise Viewer requires the following to be installed and run on your workstation: <ul style="list-style-type: none"> • 1GB RAM • 500MB storage
Supported operating systems	<ul style="list-style-type: none"> • Windows 10 64-bit or 32-bit • Windows 7 64-bit or 32-bit
Windows 7 Aero Theme	Enable the Windows 7 Aero Theme on the computer to fully support the Annalise Viewer's features. See Appendix: Run Annalise Viewer on Windows 7 on page 31. <u>Note:</u> If the Aero Theme is not available, the Annalise Viewer will use a simplified layout.
Other	Check the following: <ul style="list-style-type: none"> • ensure that port 8989 is not in use on the workstation • if the Annalise Backend is hosted in the cloud, allow outbound connection on port 443 • a PDF reader is required to view the supporting documentation (including the <i>User Guide</i>)

Installation and configuration The annalise.ai Professional Services Team will work with your IT/infrastructure team to help you install the Annalise Viewer on your required workstations.

Maintenance and troubleshooting See [Troubleshooting](#) on page 26.

Install and configure Annalise Viewer

Overview

This section shows you how to install and configure the Annalise Viewer.

You will need to complete the following on each workstation:

- install the Annalise Viewer
- install a PDF reader
- configure and test your organisation's credentials

Install Annalise Viewer

Follow these steps to install the Annalise Viewer on each relevant workstation.

You can install the Annalise Viewer via either:

- the user interface, or
- Windows command line or deployment tool.

Before installing, check that you are using the installation file provided by annalise.ai.

Install via user interface

Follow these steps to install the Annalise Viewer via the user interface.

Note: Annalise will provide the installer file.

1. Double-click the installer file and select the installation path required for the PACS/RIS integration.

Use the default path *C:\Program Files\Annalise*.

See [Configure PACS interface with Annalise Viewer](#) on page 18.

2. Click **Next** to progress through the installation options.
3. Once you have finished the installation, check that the Annalise Viewer is working correctly.

See [Verify installation and configuration](#) on page 23.

Install via Windows command line or deployment tool

Follow these steps to install the Annalise Viewer using the Windows command line or a deployment tool.

1. Change the directory to the folder that contains the installer.
2. Check that the filename matches the version provided by annalise.ai.
3. Type the following command then replace the angle brackets (<>) and their contents with the credentials provided by annalise.ai:

`"<Annalise filename 3.x.y.z.exe>" /S /allusers`

Note: The installer version number changes each version.

4. Once you have finished the installation, check that the Annalise Viewer is working correctly.

See [Verify installation and configuration](#) on page 23.

Install PDF reader

To enable users to view supporting documentation (including the *User Guide*):

- install a PDF reader on each relevant workstation
- ensure that the PDF reader is configured as the default application for files with a '.pdf' extension

Configure and test organisation credentials

To ensure system security, Annalise Enterprise uses organisation-level credentials to authenticate both the Annalise Viewer and Annalise Backend.

The annalise.ai Professional Services Team will provide both the credentials and the Annalise Backend Server URL during product installation and configuration.

You can either:

- enter these details manually in the application, or
- add this information remotely via a distribution tool.

Note: Make sure that you store the organisation ID and password securely.

continued

Manual configuration

If the Annalise Viewer has not been configured for the user, the *Server Settings* screen will display automatically, prompting you to enter the relevant details.

1. On the *Server Settings* page, type the following:
 - **Organisation ID**
 - **Organisation Password**
 - **Annalise Server URL**
2. Click **Test** to check the settings.

If 'Connected' displays	The application is ready for testing. See Verify installation and configuration on page 23.
If an error message displays	Check that: <ul style="list-style-type: none"> • you have entered the correct Organisation ID, Organisation Password and Annalise Server URL • the computer can access the URL: <ul style="list-style-type: none"> - check that the computer has network connectivity - check whether firewall permissions allow access

3. Once you have connected successfully, click **Save**.

Remote configuration

If you are using Annalise Enterprise, you can configure the organisation credentials and Annalise Backend Server URL remotely.

1. Use the following distribution tool.

Replace the angle brackets (<>) and their contents with the credentials provided by annalise.ai.

```
cmdkey /generic:"Annalise/Annalise CredentialsV2"
/user:"Annalise CredentialsV2"
/pass:"%7B%22apiUrl%22%3A%22<annalise_endpoint>%22%2C%
22clientId%22%3A%22<client_id>%22%2C%22clientSecret%22%3A%2
2<client_secret>%22%7D"
```

2. After installing, test the Annalise Viewer.
See [Verify installation and configuration](#) on page 23.

Configure PACS

Overview

This section explains how to configure the interface between:

- your PACS and the Annalise Viewer
- your PACS and the Annalise Integration Adapter

The annalise.ai Professional Services Team will give you the information required to liaise with your PACS vendor to integrate the Annalise Viewer and Annalise Integration Adapter.

Note: Annalise Enterprise is compatible with any PACS/RIS that conforms with the *Annalise Enterprise HL7 and DICOM Specification*. Contact the annalise.ai Professional Services Team if you require a copy of this document.

Configure PACS interface with Annalise Viewer

As the Annalise Viewer is intended to be used in conjunction with a PACS viewer, an interface must be established between the Annalise Viewer and either your PACS or RIS.

Depending on the functionality supported by your PACS/RIS, the Annalise Viewer can be configured to:

- automatically launch via the PACS/RIS
- automatically display AI findings after loading a study in the PACS viewer
- display AI findings for a study requested by the PACS viewer (i.e. display a manual synchronise button in the PACS)
- stop showing AI findings after closing a study in the PACS viewer
- quit when requested by the PACS/RIS

The Annalise Viewer supports requests via an HTTPS API or via a command line interface.

Many PACS and RIS support integration with third-party applications via one of these interfaces. The commands and syntax are specified in the *Annalise Viewer Open API Specifications* and are available on request.

Configure PACS interface with Annalise Integration Adapter

The following details must be set up for the Annalise Integration Adapter to interface with your PACS:

- an Application Entity (AE), and
- auto-routing rules.

Set up an Application Entity (AE)

Contact your PACS vendor (and/or refer to your PACS reference guide) to set up the Annalise Integration Adapter as an AE in your PACS.

1. Set up the Annalise Integration Adaptor AE with the following:
 - the IP address or host name of the Annalise Integration Adaptor for your infrastructure
 - a port where the Annalise Integration Adaptor listens for DICOM messages
The default port is '11112'
 - the AE title of the Annalise Integration Adaptor
The default title is 'ANNALISE-AI'
2. Perform a C-ECHO (ping) to the configured Annalise AE title to confirm that the connectivity test has been successful.

Set up auto-routing rules

Refer to your PACS reference guide to set up auto-routing rules to the Annalise Integration Adaptor.

Note: Apply your own conventions to these rules. Any rules provided in this document are to be used as a guide only.

1. Configure the rules to forward all studies from the relevant locations to the configured Annalise AE.

Use the following DICOM tags:

- Modality (0008,0060)
- StudyDescription (0008,1030)
- BodyPart (0018,0015)

continued

For example:

CXR:

- Modality = 'CR' AND StudyDescription contains 'CHEST'
- Modality = 'DX' AND StudyDescription contains 'CHEST'
- Modality = 'CR' AND BodyPart contains 'CHEST'
- Modality = 'DX' AND BodyPart contains 'CHEST'

CTB:

- Modality = 'CT' AND Study Description contains 'STROKE'
- Modality = 'CT' AND Study Description contains 'BRAIN'
- Modality = 'CT' AND Study Description contains 'HEAD'
- Modality = 'CT' AND Body Part Examined contains 'STROKE'
- Modality = 'CT' AND Body Part Examined contains 'BRAIN'
- Modality = 'CT' AND Body Part Examined contains 'HEAD'

Configure Workflow Engine

Overview

This section explains how to configure the Workflow Engine server.

Note: annalise.ai will help you configure your Workflow Engine (if required).

Configure Annalise Integration Adapter with Workflow Engine

If the Annalise Integration Adapter includes Worklist Triage functionality, it can be configured to:

- update a study's priority in your worklist system
- transform the Worklist Triage output into a format that is compatible with your worklist system

Configure worklist priority updates

The following configurations are available:

- HL7 messages can be used to update a study's priority in your worklist system
- worklist priority updates can be communicated via an external API

Note: Worklist Triage is an additional licensed option and is not available in all regions.

Option	Details
HL7 feed	<p>An HL7 feed enables the Worklist Triage feature to support the communication of multiple worklist priority levels.</p> <p>To enable this feature, the Annalise Integration Adapter must send HL7 V2 ORM^001 messages to the RIS server.</p> <p>Contact the annalise.ai Professional Services Team if you would like this configuration.</p>
External API	<p>An external API can be used with an integration engine to transform the Worklist Triage output into a format supported by your worklist system.</p> <p>The external API enables the Worklist Triage feature to support the communication of a single worklist priority level (unless there is a dedicated AI priority column used for triage).</p> <p>This interface requires the RIS or integration engine to host a server and accept HTTPS post requests with a JSON payload.</p> <p>Contact the annalise.ai Professional Services Team if you would like this configuration.</p>

Configure Worklist Triage output

The annalise.ai Professional Services Team can help you implement an integration engine which will transform output from the Workflow Engine into a format compatible with your worklist system.

You must check that the integration engine is configured correctly and can handle the volume of anticipated transactions.

After initial installation and any configurations, check that once processed, the study:

- contains priority AI findings, and
- is updated with the specified priority.

Verify installation and configuration

Overview

To ensure that the product is operating correctly, complete the following tests after:

- each installation
- any change to the Annalise Viewer configuration
- any change to the PACS/RIS integration

Tests

The following tests are used to verify installation and configuration:

- *Test 1: Automatic synchronise – Launch application and load study*
- *Test 2: Manual synchronise – Load study*
- *Test 3: User guide*

Test 1: Automatic synchronise – Launch application and load study

Use this test when the PACS/RIS integration automatically synchronises with the Annalise Viewer.

If the PACS/RIS integration supports manual synchronisation only, go to [Test 2: Manual synchronise – Load study](#) on page 24.

Action	Details								
Test	<p>Follow these steps:</p> <ol style="list-style-type: none"> 1. Quit the Annalise Viewer application (if running). 2. Launch the PACS viewer and open a sample study. 								
Expected result	<p>The following should occur:</p> <ul style="list-style-type: none"> • the Annalise Viewer launches and attempts to load the study • if the study: <ul style="list-style-type: none"> - has been processed by the Annalise Backend, the AI results for the study should display - has <u>not</u> been processed by the Annalise Backend, the '<i>No results found</i>' message will display 								
Troubleshooting	<table border="1"> <thead> <tr> <th>Problem</th> <th>Refer to</th> </tr> </thead> <tbody> <tr> <td>The PACS viewer does not launch</td> <td>Troubleshooting: PACS viewer integration on page 28</td> </tr> <tr> <td>The PACS viewer launches, but a '<i>Missing credentials</i>' message displays</td> <td>Troubleshooting: Miscellaneous on page 29</td> </tr> <tr> <td>The Annalise Viewer displays an error</td> <td>Troubleshooting: Error codes on page 26</td> </tr> </tbody> </table>	Problem	Refer to	The PACS viewer does not launch	Troubleshooting: PACS viewer integration on page 28	The PACS viewer launches, but a ' <i>Missing credentials</i> ' message displays	Troubleshooting: Miscellaneous on page 29	The Annalise Viewer displays an error	Troubleshooting: Error codes on page 26
Problem	Refer to								
The PACS viewer does not launch	Troubleshooting: PACS viewer integration on page 28								
The PACS viewer launches, but a ' <i>Missing credentials</i> ' message displays	Troubleshooting: Miscellaneous on page 29								
The Annalise Viewer displays an error	Troubleshooting: Error codes on page 26								

Test 2: Manual synchronise – Load study

Use this test when the PACS/RIS integration supports manual synchronisation only (i.e. the user clicks the **Annalise** button in the PACS viewer to synchronise with the Annalise viewer)

Action	Details								
Test steps	<p>Follow these steps:</p> <ol style="list-style-type: none"> 1. Launch the PACS viewer and open a sample study. 2. Click the Annalise button to request AI findings. 								
Expected result	<p>The following should occur:</p> <ul style="list-style-type: none"> • the Annalise Viewer launches and attempts to load the study • if the study: <ul style="list-style-type: none"> - has been processed by the Annalise Backend, the AI results for the study should display - has <u>not</u> been processed by the Annalise Backend, the '<i>No results found</i>' message will display 								
Troubleshooting	<table border="1"> <thead> <tr> <th>Problem</th> <th>Refer to</th> </tr> </thead> <tbody> <tr> <td>The Annalise viewer does not launch</td> <td>Troubleshooting: PACS viewer integration on page 28</td> </tr> <tr> <td>The Annalise viewer launches, but a '<i>Missing credentials</i>' message displays</td> <td>Troubleshooting: Miscellaneous on page 29</td> </tr> <tr> <td>The Annalise Viewer displays an error</td> <td>Troubleshooting: Error codes on page 26</td> </tr> </tbody> </table>	Problem	Refer to	The Annalise viewer does not launch	Troubleshooting: PACS viewer integration on page 28	The Annalise viewer launches, but a ' <i>Missing credentials</i> ' message displays	Troubleshooting: Miscellaneous on page 29	The Annalise Viewer displays an error	Troubleshooting: Error codes on page 26
Problem	Refer to								
The Annalise viewer does not launch	Troubleshooting: PACS viewer integration on page 28								
The Annalise viewer launches, but a ' <i>Missing credentials</i> ' message displays	Troubleshooting: Miscellaneous on page 29								
The Annalise Viewer displays an error	Troubleshooting: Error codes on page 26								

Test 3: User guide

Use this test to ensure that the *User Guide* can be accessed and opened in a PDF reader.

Action	Details								
Test steps	Follow these steps: <ol style="list-style-type: none"> 1. Open the Annalise Viewer application. 2. Click Help (the '?' button) to open the <i>About</i> page. 3. Click the User Guide hyperlink. 								
Expected result	The following should occur: <ul style="list-style-type: none"> • <i>the About page contains a hyperlink to the User Guide</i> • <i>when you click the User Guide hyperlink, the User Guide opens in a PDF reader</i> • <i>the User Guide version matches the Annalise Viewer version displayed on the About page</i> 								
Troubleshooting	<table border="1"> <thead> <tr> <th colspan="2" data-bbox="715 882 1442 927">Problem</th> </tr> </thead> <tbody> <tr> <td data-bbox="715 927 1043 1077"> The Annalise viewer displays the following message: <i>'Guides are available at annalise.ai/ Guides'</i> </td> <td data-bbox="1043 927 1442 1077"> Troubleshooting: Miscellaneous on page 29 </td> </tr> <tr> <td data-bbox="715 1077 1043 1227"> If the <i>User Guide</i> cannot be opened </td> <td data-bbox="1043 1077 1442 1227"> Ensure that a PDF reader has been installed and configured as the default application for files with a '.pdf' extension </td> </tr> <tr> <td data-bbox="715 1227 1043 1431"> If the User Guide version does not match the Annalise Viewer version </td> <td data-bbox="1043 1227 1442 1431"> Check that the correct version of the Annalise Viewer is installed. Contact the annalise.ai Professional Services Team for assistance if you are unsure. </td> </tr> </tbody> </table>	Problem		The Annalise viewer displays the following message: <i>'Guides are available at annalise.ai/ Guides'</i>	Troubleshooting: Miscellaneous on page 29	If the <i>User Guide</i> cannot be opened	Ensure that a PDF reader has been installed and configured as the default application for files with a '.pdf' extension	If the User Guide version does not match the Annalise Viewer version	Check that the correct version of the Annalise Viewer is installed. Contact the annalise.ai Professional Services Team for assistance if you are unsure.
Problem									
The Annalise viewer displays the following message: <i>'Guides are available at annalise.ai/ Guides'</i>	Troubleshooting: Miscellaneous on page 29								
If the <i>User Guide</i> cannot be opened	Ensure that a PDF reader has been installed and configured as the default application for files with a '.pdf' extension								
If the User Guide version does not match the Annalise Viewer version	Check that the correct version of the Annalise Viewer is installed. Contact the annalise.ai Professional Services Team for assistance if you are unsure.								

Troubleshooting

Problems and solutions

If you have issues with the Annalise Enterprise application, refer to the following tables.

If you are unable to resolve the issue, contact the annalise.ai Professional Services Team.

Troubleshooting: Error codes

Code and description	Possible resolution
001 Authentication error: 002 <i>'Cannot authenticate user'</i>	Check the Organisation ID and Password. If the problem persists, contact the annalise.ai Professional Support Team.
004 Connection error: <i>'Cannot reach annalise.ai servers'</i>	Check internet/network connectivity. If there is a connection but the problem persists, contact the annalise.ai Professional Support Team.
003 Annalise service error 009 010 011 012 014 021 022 023	If the problem persists, contact the annalise.ai Professional Support Team.
015 Error communicating with the 026 PACS/RIS	Follow these steps: <ol style="list-style-type: none"> 1. Restart both the PACS/RIS and the Annalise Viewer. 2. Confirm configuration of the communication interface within the PACS/ RIS is correct. 3. Contact your PACS provider for support.
016 Annalise Viewer local server 099 error	Restart the Annalise Viewer. If the problem persists, contact the annalise.ai Professional Support Team.
027 Annalise Viewer port is unavailable: <i>'Port 8989 already in use'</i>	Port 8989 is currently being used by another application. Ensure that the port is available for the Annalise Viewer.

continued

Troubleshooting: Viewing AI findings

Symptom	Root cause	Steps to resolve
<p>The following message displays when synchronising: <i>'No results available'</i></p>	<p>The study has not been routed to the Annalise Integration Adapter.</p>	<ol style="list-style-type: none"> 1. Go to your PACS administration page. 2. Check that the auto routing criteria has been met for the relevant study. 3. Check that the image has been sent to the Annalise Integration Adapter through your PACS routing tools.
	<p>The Annalise Integration Adapter has no connectivity to the Annalise Backend.</p>	<p>If you have confirmed that the study has been routed to the Annalise Integration Adapter and the <i>'No results available'</i> message still displays, check that there is connectivity between the Annalise Integration Adapter and the Annalise Backend.</p>
<p>Patient details are missing or a hyphen ('-') displays in place of the details. (Includes patient name, gender, age and date of birth).</p>	<p>The Annalise Viewer receives patient details from the PACS or RIS. If the interface is not configured to send all patient details to the Annalise Viewer (and the information is not available in the Annalise Backend) a hyphen ('-') displays in place of the details.</p>	<p>Ensure that the PACS/RIS integration has been configured and enabled according to the vendor's instructions. <u>Note:</u> Some PACS/RIS do not display all patient details on the interface.</p>

Troubleshooting: PACS viewer integration

Symptom	Root cause	Steps to resolve
Can't see the Annalise button or Annalise features in the PACS viewer	The Annalise feature is not enabled for the user currently logged into the PACS/RIS.	Contact the PACS/RIS Admin and request that Annalise be enabled for the user.
Annalise Viewer does not automatically launch when PACS viewer launches	The Annalise Viewer has not been installed on the path required by the PACS/RIS configuration.	Ensure that the install location matches the location configured in the PACS/RIS. annalise.ai recommends: <i>C:/Program Files/ Annalise/ Annalise.exe</i>
Annalise Viewer does not respond when the user clicks the Annalise button in the PACS viewer	The Annalise configuration in the PACS/RIS is incorrect.	Ensure that the PACS/RIS integration has been configured and enabled according to the vendor's instructions. Check that the commands are implemented as specified in <i>OPT-SW-021 Annalise Viewer Open API Specification</i> .
	This feature may not be supported by the PACS/RIS.	Ensure that the PACS/RIS is configured as per the vendor's instructions.
AI findings still display after a study has been closed in the PACS viewer.	The Annalise configuration within the PACS/RIS is incorrect.	Ensure that the PACS/RIS integration has been configured and enabled according to the vendor's instructions. Check that the commands are implemented as specified in <i>OPT-SW-021 Annalise Viewer Open API Specification</i> .
AI findings still display after the PACS viewer has been closed or locked	This feature may not be supported by the PACS/RIS.	Ensure that the PACS/RIS is configured as per the vendor's instructions. The Annalise Viewer includes a timeout function which stops showing AI findings after a period of inactivity.
AI findings change unexpectedly	PACS viewer shortcut key is mapped incorrectly.	Ensure that any shortcut keys are configured correctly and not shared across multiple applications.
AI findings cease to display	Viewing multiple studies in different windows.	When moving between studies in multiple windows, the PACS viewer may send a request to the Annalise Viewer to display the current in-focus window.
	Annalise Viewer timeout is too short.	Increase the timeout period in the Annalise Viewer.

Troubleshooting: Miscellaneous

Symptom	Root cause	Steps to resolve
When the Annalise Viewer launches, the following message displays: <i>'Missing Credentials'</i>	The Organisation ID , Organisation Password and Annalise Server URL have not been configured for the user.	See Configure and test organisation credentials on page 16.
When the user tests the server settings, the following message displays: <i>'Error – failed to reach server'</i>	Incorrect server URL.	Check that you have used the URL provided by the annalise.ai Professional Services Team during the deployment and configuration process.
	Unable to access network.	Check that the computer is connected to the network and has permissions to access the server URL.
	Maintenance in progress.	The application is currently undergoing maintenance. Once maintenance is complete, you will be able to use the application as normal.
When the user tests the server settings, the following message displays: <i>'Error – invalid credentials'</i>	The Organisation ID or Organisation Password is incorrect.	Ensure that the Organisation ID and Organisation Password match those provided by the annalise.ai Professional Services Team during the deployment and configuration process.
When the user attempts to open the <i>User Guide</i> , the following message displays: <i>'Guides are available at annalise.ai/Guides'</i>	The Annalise Viewer is unable to reach the Annalise Backend.	<ol style="list-style-type: none"> 1. Ensure that the computer is connected to the network. 2. Open the Settings page then click Server Settings. 3. Click Test to check whether the application can reach the Annalise Backend. <p>If the application is connected to the Backend, an error may be present in the Backend. If so, contact the annalise.ai Professional Services Team.</p>

Support and feedback

Refer to the following table for support and feedback details:

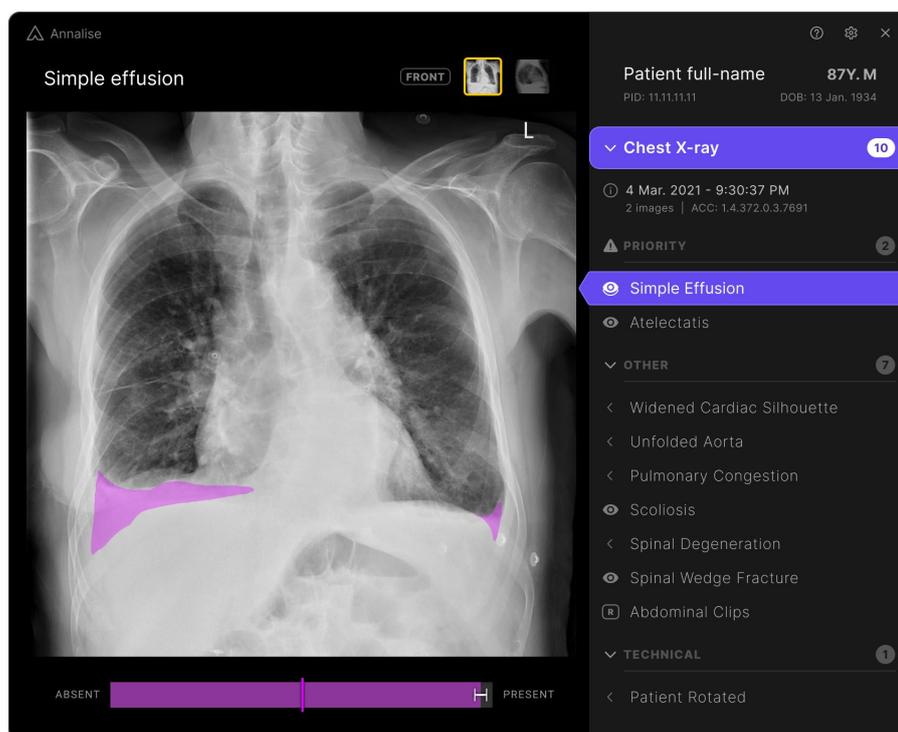
Support type	Details
Technical support and feedback	Email support@annalise.ai
Product feedback and complaints	<p>Report any product feedback and complaints related to Annalise Enterprise to the Annalise Quality team at email QA@annalise.ai.</p> <p>Any serious incidents related to Annalise Enterprise should be reported to annalise.ai and the competent authority or regulatory authority in which the user and/or patient is established:</p> <ul style="list-style-type: none">• Australia: www.tga.gov.au• New Zealand: www.medsafe.govt.nz• Member States of the European Union: ec.europa.eu/health/medical-devices-sector/new-regulations/contacts_en
Product user, performance and administration guides	Check our website: annalise.ai/guides

Appendix: Run Annalise Viewer on Windows 7

Overview

If the user has Windows 7 installed on their computer, Windows Aero must be enabled for optimum functionality of the Annalise Viewer.

If the user's computer does not support Aero themes, the Annalise Viewer will use a simplified user interface design.



Check whether Windows Aero is enabled

Follow these steps to check whether Windows Aero is enabled on the user's computer.

Check using File Explorer

1. Open File Explorer.
2. Move the File Explorer window over another window or object on the screen.

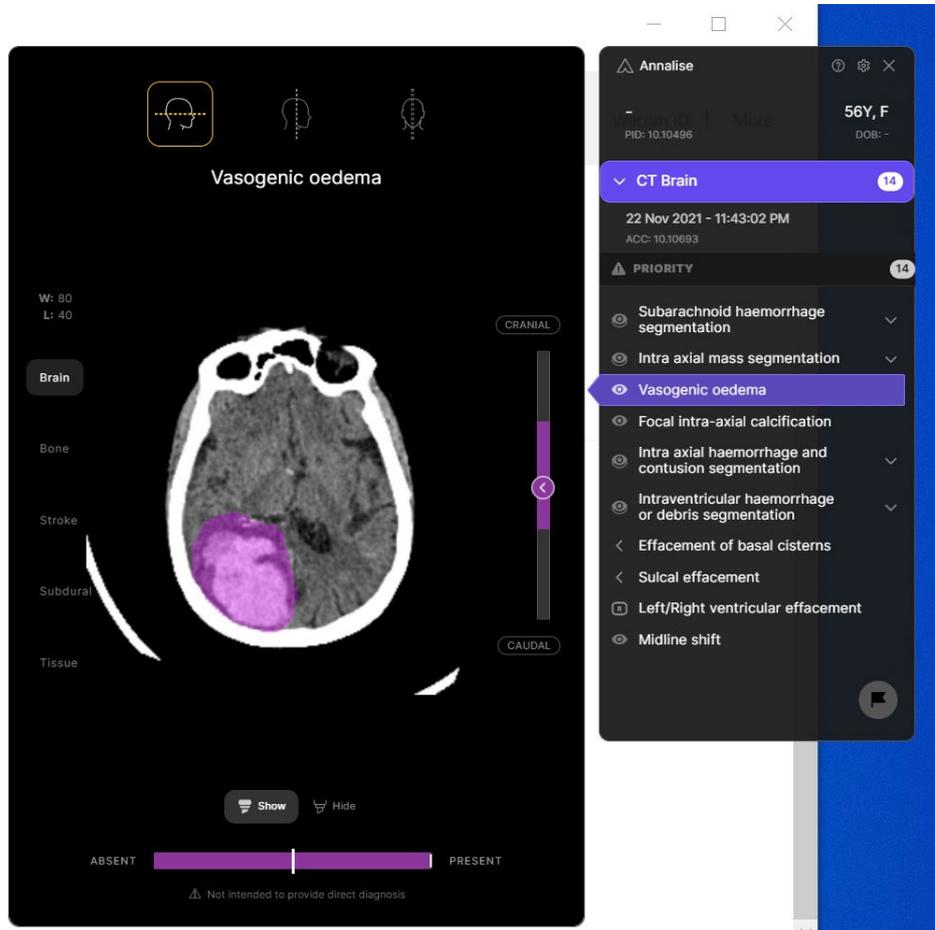
If Windows Aero is enabled, the top section of the File Explorer window will be transparent:



continued

Check Annalise Viewer

The Annalise Viewer should display in front of any other windows or items open on the screen:



Enable Windows Aero

Follow these steps if Windows Aero is not enabled or operational on the user's computer.

Once you have completed each of the following sections, check whether the issue has been resolved.

Select an Aero theme

1. Right-click on the desktop, then select **Personalise**.
2. Select one of the Aero Themes, then click **Window Colour**.
The *Window Colour and Appearance* screen displays.
3. Click to select **Enable transparency**.

Ensure correct visual effects are enabled

1. Go to the Start menu and type 'Performance'.
The Performance Options menu displays.
2. Select **Adjust the appearance and performance of Windows**.
3. Check that the following minimum settings are enabled:
 - 'Enable desktop composition'
 - 'Enable transparent glass'
 - 'Use visual styles on windows and buttons'

Recalculate Windows Experience Index

1. Open a command prompt and right-click to run as an administrator (or run as another user with administrator privileges).
2. In the command prompt type 'winsat formal'.
Note: This may take up to 10 minutes to execute.
3. Open the Control Panel and click **Performance Information and Tools**.
4. Check that the **Base score** is above 4.0.



ANNALISE-AI PTY LTD,
Level 21, 60 Margaret Street,
Sydney, NSW 2000
AUSTRALIA

ABN: 92 635 645 260

Annalise-AI UK Ltd, 100 New Bridge Street,
London, EC4V 6JA
ENGLAND

Company no: 12804340

support@annalise.ai

www.annalise.ai



OPT-PRM-028 Ver.0