
Eaglesoft, a Patterson Technology

What's New in Eaglesoft 24.00





What's New Guide

Welcome to Eaglesoft version 24.00. The following guide will introduce a breakdown of the enhancements, features and corrections included in this new version.

Contents

What's New Guide	2
Pearl AI Second Opinion Integration.....	3
Release Notes.....	11

Pearl AI Second Opinion Integration

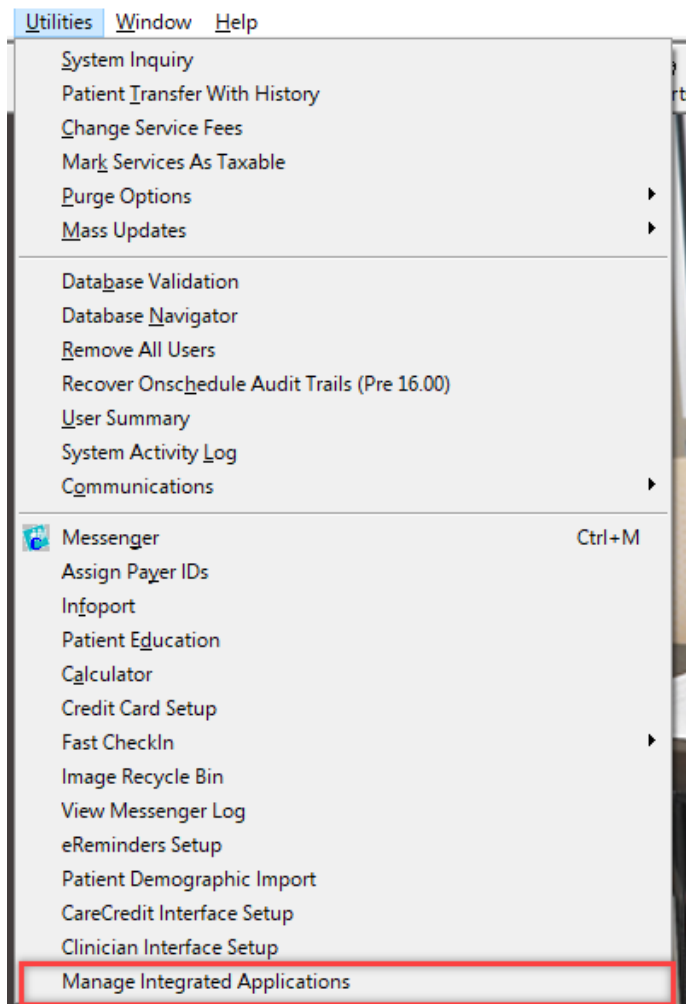
An integration with Pearl AI Second Opinion is available for customers subscribing to Pearl AI in Eaglesoft 24.00.

This enhancement eliminates the need to switch platforms for analyzing radiographs. Eaglesoft now automatically sends both new and historical images to PearlAI for analysis, displaying the results directly within Advanced Imaging. This guide will explore how this integration enhances your diagnostic capabilities effortlessly. Let's get started!

Setting Up the Integration with PearlAI Second Opinion

Obtain credentials from PearlAI. These credentials are necessary to authenticate your account and enable access to PearlAI Second Opinion functionality within Eaglesoft.

Navigate to the MIA menu item within Eaglesoft. Here, you'll find a dedicated Pearl tab.



Pearl

Enable

Client ID:

Client Secret:

Organization ID:

Office ID:

Last Modified By: GGY
Last Modified Date: 1/26/2024 2:41:53 PM

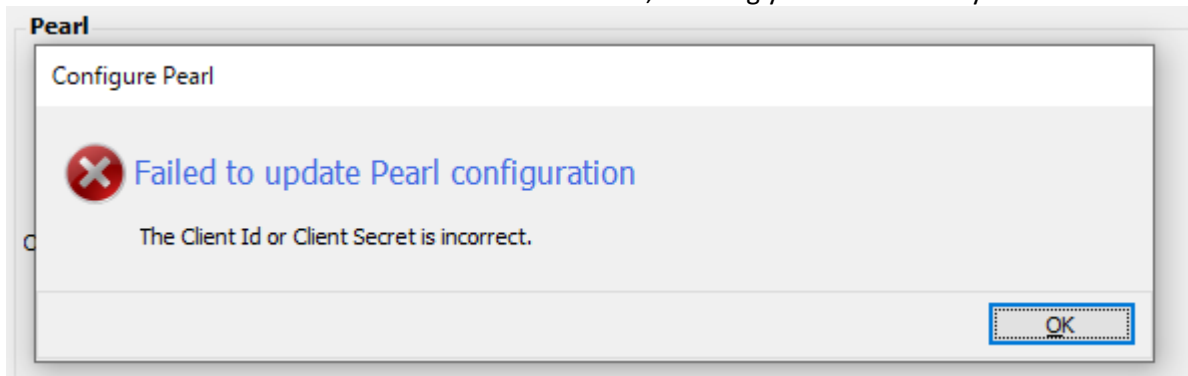
Save Cancel

In the Pearl MIA window, click the enabled box, this allows the credentials to be entered. Proceed to fill in the following information:

- Client ID
- Client Secret
- Organization ID
- Office ID

Once all the necessary information is filled out, check the save button. This action activates the integration, granting you access to PearlAI Second Opinion functionality directly within Eaglesoft.

If the information is not entered correctly, a pop-up window will notify you that the system failed to update the Pearl Configuration. It will indicate where the information is incorrect, allowing you to correct any mistakes.

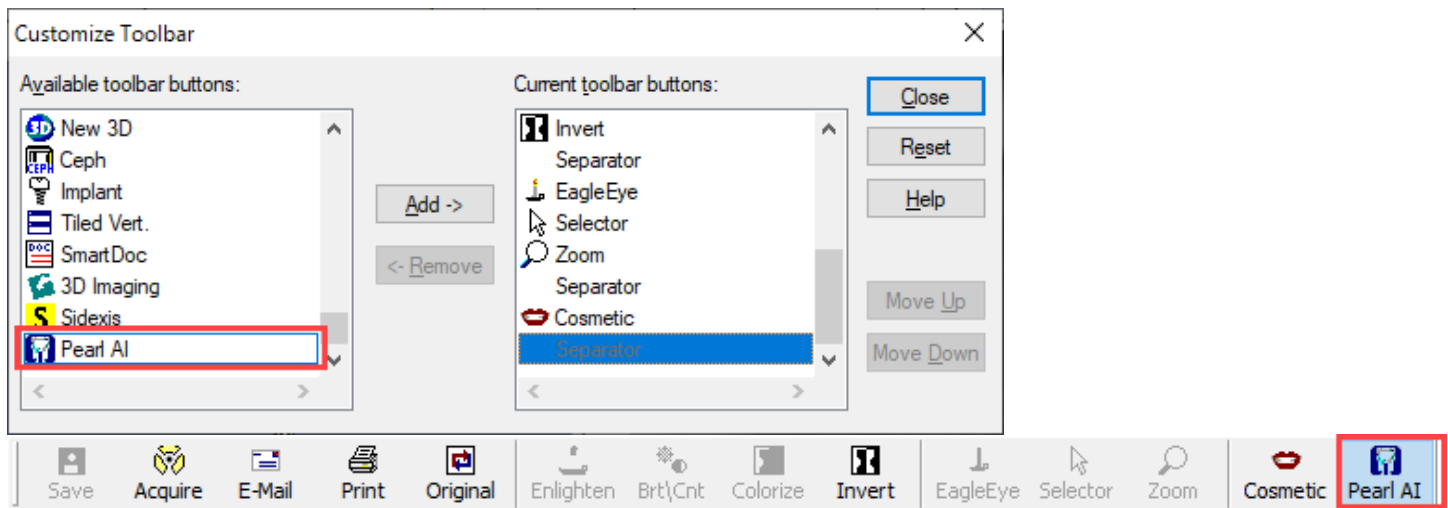


PearlAI Second Opinion in Advanced Imaging

In Advanced Imaging, users can harness the power of artificial intelligence to enhance their diagnostic process. This section delves into the various facets of this integration, including the PearlAI Button and View, Thumbnail Indicators, and Analysis Results.

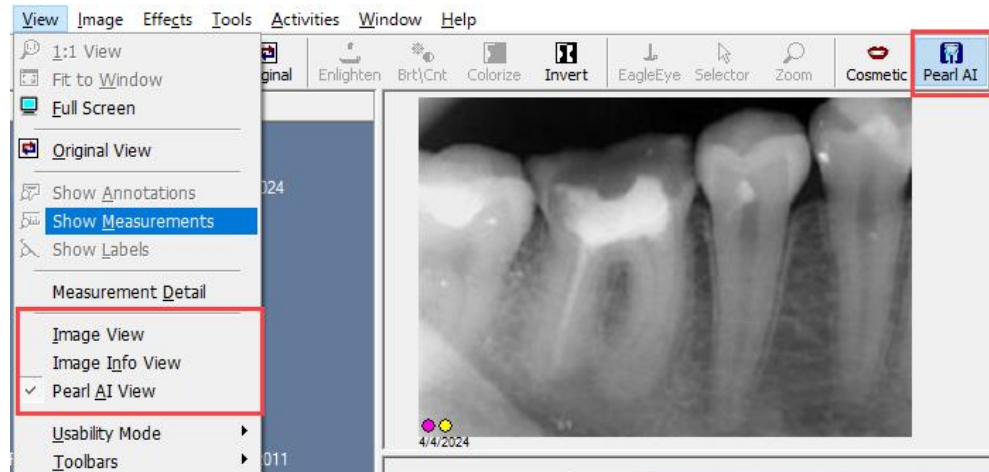
1. The PearlAI Button and View:

A dedicated button on the toolbar enables users to toggle PearlAI results on and off swiftly. When selecting different radiographs with the view and button enabled, results will be displayed on all analyzed images, without toggling between views. Add the toolbar button through the customize toolbar options. For Pearl AI View menu option to be available the PearlAI button must be enabled.



Users can choose between the viewing modes when button enabled:

- **Normal View:** Displays the radiograph without any analysis overlay, shows thumbnail indicators.
- **PearlAI View:** Shows analysis results overlaying the radiograph.



2. Thumbnail Indicators:

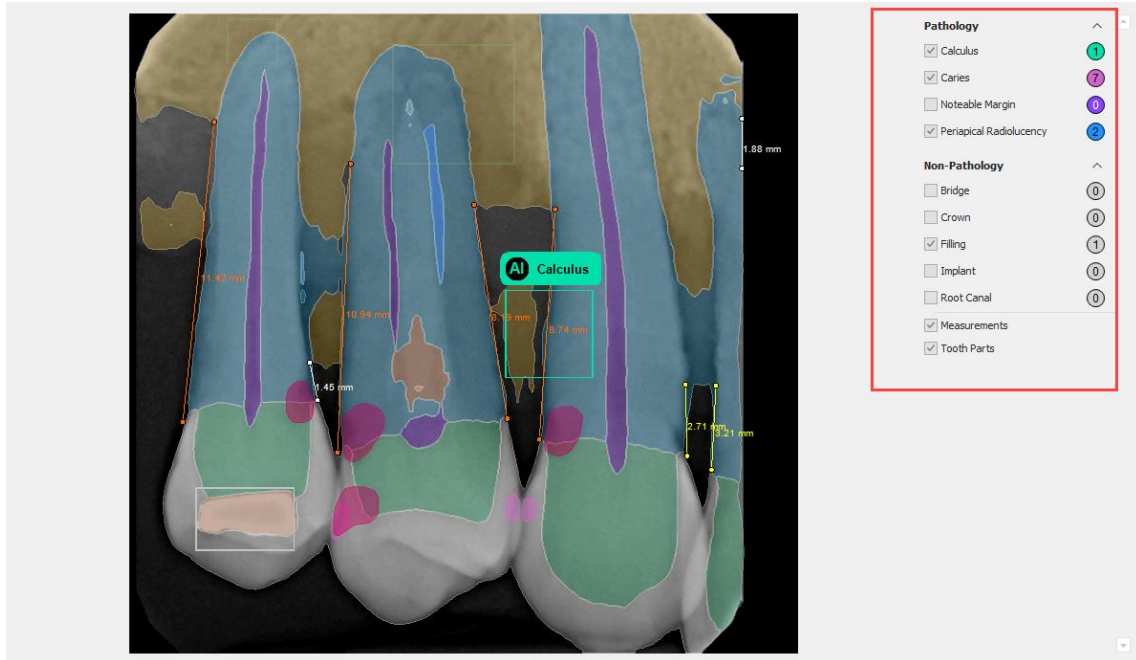
At the bottom of radiographs, indicators notify users of the PearlAI analysis for that image. These indicators are color-coded to signify the analysis findings. A yellow indicator signifies that the image has undergone analysis. If there are numerous indicators where they do not all fit on the image thumbnail, only the yellow indicator will be displayed.



3. **Analysis Results:** Upon selecting an image analyzed by PearlAI, users are presented with comprehensive analysis results. These include both pathologic and non-pathologic features detected in the image. Additionally, every image contains:

- **Measurements Tool:** Facilitates identifying regions of interest.
- **Tooth Parts Tool:** Offers a color-coded visual representation to identify tooth anatomy within the radiograph. The designated color coding for pathologic detections apply to the thumbnail indicators.

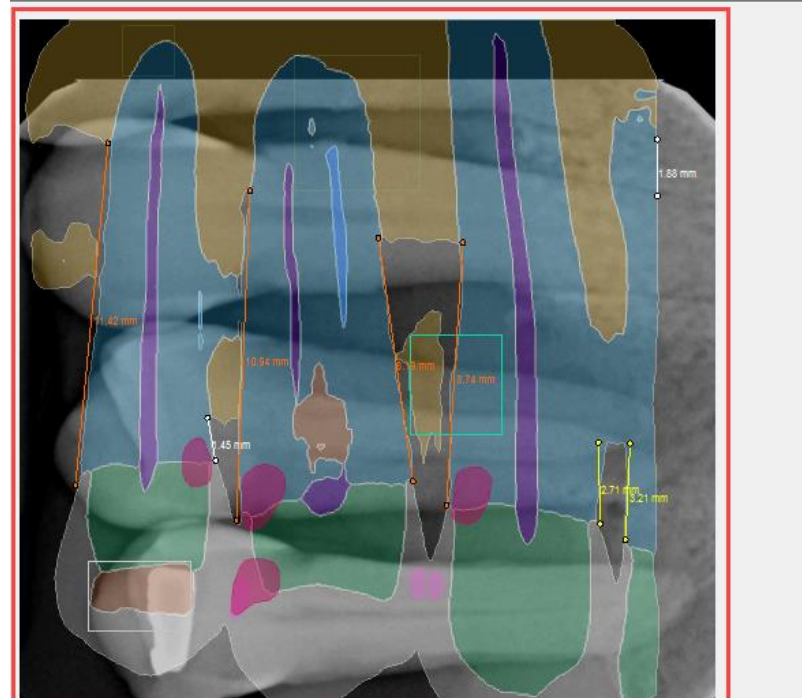
Pathologic and non-pathologic features are highlighted in the menu, indicating the analysis findings with bounding areas. Hovering over these regions provides specific feature names for clarity.



By default, Pearl control will show detections and measurements. Tooth parts is user activated.

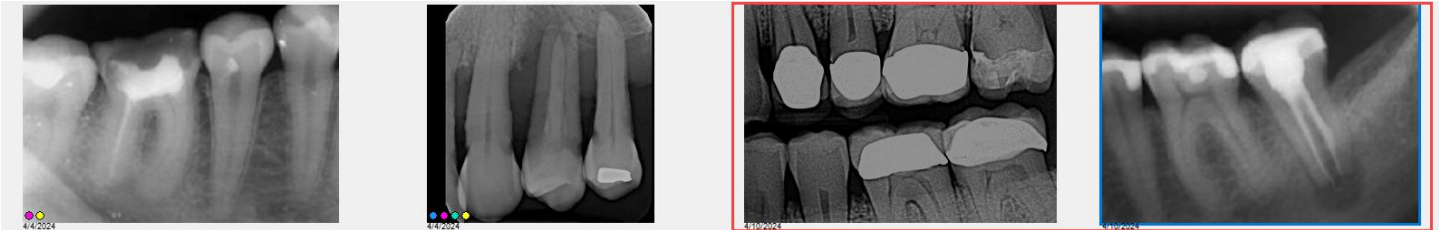
4. Advanced Imaging notes

- **Image Transformations:** If users make image transformations (flipping, rotating, etc) to an image that has Pearl analysis, the image is not re-sent to Pearl for analysis again. Therefore, if an image is edited in this way after undergoing Pearl analysis, the detection analysis will be incorrect over the transformed image. This only applies to images after Eaglesoft has received the AI analysis from Pearl and does not apply to existing templates that are automatically applied to radiographs.

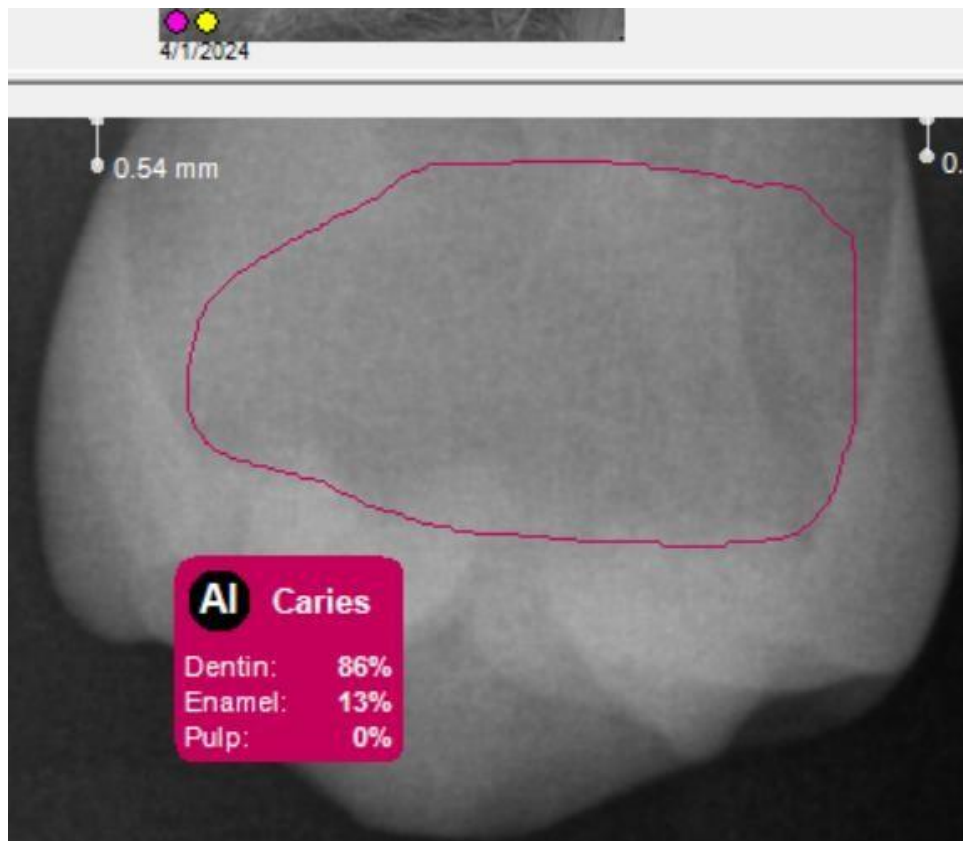


- **Display of Analysis**

Results for New Images in Exam: When a new image is transmitted to PearlAI for analysis, the analysis results will not automatically update in the exam the user is in. Users must exit the exam and re-enter for the images to show in that exam. Or close and reopen Advanced Imaging to view the analysis. This only applies to when a user actively has open the exam that is receiving new analysis, where the images will not refresh on their own.



- **Caries Area Percentage Breakdown:** Hovering over a caries area will display a percentage breakdown. Please note that this breakdown is rounded and may not always add up to 100%.



- **Primary Tooth Check:** For primary tooth checks, it's crucial to select the tooth from the tooth picker before saving the image. Once the image is saved, it will be sent to PearlAI for analysis. This functionality is supported only in exam templates and file import methods, where the tooth is selected before saving. If acquiring directly from a device and immediately importing, the file is saved first, and tooth selection can only be done afterward.

New Image Transmission

- **Initialization of PearlAI Integration:** Upon enabling PearlAI for the first time, the transmission of new images is immediately functional. This integration streamlines the process of sending and receiving analysis results seamlessly within Eaglesoft.
- **Catch-All Timer:** A catch-all timer operates continuously, triggering a check every 10 minutes. It scans the image_pearl_ai table for rows with statuses indicating that results are pending from PearlAI (status 2 or 7). Once ready, the timer saves the data and updates the status to 3.
- **Transmit-New Timer:** When a new image is sent for analysis, the transmit-new timer is activated. Unlike the catch-all timer, this one operates every 30 seconds with a maximum search time of 30 minutes. It specifically targets rows with a status of 2, prioritizing the retrieval of results for new images over historical ones.
- **Accidental Importing of Images with Future Study Date:** In the event that a user inadvertently imports images with a future study date, the image will still be submitted for analysis, and results should be returned as usual. However, it's important to note that the image may not immediately appear in Pearl's web portal due to the future study date discrepancy.

Historical Image Transmission

- **Initialization of Historical Image Transmission:** Sending historical images for the first time requires stopping and starting the database. Offices should be aware of this process as it necessitates accessing the server machine and having all users exit the software. If immediate transmission of historical images is desired, this action should be taken. However, offices should consider any nightly backups that may interrupt database operation.
- **Subsequent Transmission of Historical Images:** After the initial setup, historical image transmission will commence automatically on database startup. A send historical timer is initiated on startup and runs continuously. It performs the following tasks:
 - Checks for rows in the image_pearl_ai table with statuses 1 or 6 and verifies that their sent time was at least 30 minutes ago. If conditions are met, it deletes these rows, allowing for potential re-sending.
 - Searches for images in the images table taken within the last 12 months but excluding those already present in the image_pearl_ai table. It then sends these images for analysis.

Release Notes

The following items were corrected in this release to provide more seamless functionality.

- Upgrade to PowerBuilder 2022
- Deprecated the Measurement tool in Advanced Imaging
- Vyne insurance plug-in for claims submission
- Hyperlinks will now open without error
- Addressed issue with emailing Image note
- Addressed error when clicking on FAQ hyperlink in Reports