

Intraoral Sensor Software 3.2 Release Notes

This document describes the technical changes made in IOSS 3.2 (3.2.4024.52346).

Overview

The IOSS 3.2 is a minor update to IOSS 3.1 software and associated firmware. It is intended to provide fixes for several issues discovered in previous releases.

This update addresses the following issues:

1. [S4SP-1041](#): IOSS 3.1 cannot be installed on systems which do not allow execution of unsigned PowerShell scripts (customer-specific issue clinical account in Europe)
2. [S4SP-1040](#): Driver for USB 2.0 interface delivered with IOSS 3.1 cannot be installed due to invalid root certificate (customer-specific issue, DSO in US)
3. [S4SP-951](#): During automated (internal) testing, image was not captured or transferred to software.
4. [S4SP-984](#): Pilot sites for the IOSS3.0 release report that they were unable to acquire images intermittently.
5. [S4SP-1016](#): During automated (internal) testing, the Intraoral Sensor Software did not respond after acquiring images successfully.
6. [Y3839-118](#): FPGA access during image acquisition.
7. [S4SP-1049](#): Dose Estimation feature should be disabled.

Change Description

Change 1: PowerShell Scripts

To address the issue with execution of PowerShell scripts, we signed the scripts and extended the installer to register our code signing certificate as trusted publisher on the target system. Errors during the script execution will also no longer roll back the whole installation. This allows to address potential issues manually afterwards.

Change 2: USB 2.0 Driver

To address the issue with the USB 2.0 driver installation at Pacific Dental Services we replaced the driver with a version that is only compatible with Windows 10 or higher. The signature of this driver no longer relies on the Microsoft Root CA which is revoked by the Pacific Dental Services IT.

Change 3: USB 2 Exposure Readiness

Jira S4SP-951 was traced to a communication issue in which the Schick 33/Elite USB interface was not responding to a change in system status, indicating exposure readiness. The solution, implemented by this release, simplifies the communication with the Schick 33/Elite USB interface.

Change 4: Acquisition Initialization

Jira S4SP-984 was traced to a problem that occurred when image acquisition was attempted without a sensor connection. The solution, implemented by this release, ensures that the user interface provides a clear and conspicuous message if no sensor is attached prior to image acquisition.

Change 5: Status Messages

Jira S4SP-1016 was traced to the status messages sent and received during image acquisition. The solution, implemented by this release, ensures that the communication occurs without the message conflicts that were identified previously.

Change 5: AE Firmware 1.5.1.40

Jira Y3839-118 (and related S4SP-1043) was traced to an issue in the firmware. The issue is difficult to reproduce, however, static code inspection found that the previous fix for S4SP-845 left a small unpatched flaw that could result in users experiencing corrupted images, albeit at significantly reduced frequency. The solution implemented in this release was to eliminate this flaw so that the proposed solution for S4SP-845 is complete.

Change 6: Dose Estimation

Jira S4SP-1049 was addressed by modifying the default value for enabling the dose estimation feature. Additionally, the German localized text describing the feature was modified.

Impact

The first two changes only have impact on the installer of IOSS. As shown in the git diff for setup changes only files in the installer folder (Software/SidexisPlugin/Installation) and the build configuration (Software/SidexisPlugin/Installation) are modified. No features of IOSS 3.1 are modified or affected by these changes.

The new driver files only differ in how they are signed by Microsoft for compatibility with different operating systems. The driver itself remains unchanged and provides the same functionality as shown in the driver diff.

The additional bugfixes generally affect the acquisition workflow while change 3 is specific to the USB 2 remote. The fix for S4SP-1016 introduced new issues S4SP-1029 and S4SP-1022 which also affect the acquisition workflow with templates in the UI.

The AE Firmware change impact the AE USB Remote. No software was modified for this fix. Only embedded firmware was modified. A new version of the AE firmware is included in this release.

The change to the dose estimation feature only impacts the status of whether or not the feature is implemented.

Requirements

Intraoral Sensor Software requires Sidexis 4.4 and higher. Customers with older versions of Sidexis 4 should upgrade their systems before installing the software.

There are no changes to supported operating systems. IOSS v3.2 will support the following operating systems:

- Windows 10 Pro 64-bit
- Windows 10 Enterprise 64-bit
- Windows 11 Pro 64-bit
- Windows 11 Enterprise 64-bit

Deliverables

IOSS v3.2 File download

IOSS v3.2 is deployed by download only. IOSS v3.2 shall be provided with an installer image packaged in an ISO file.

AE USB Interface Firmware Upgrade Utility

A standalone upgrade utility is made available for users who do not run IOSS software (SWP-228).