Logicon Caries Detector Software is a unique and clinically proven tool for RVG imaging systems and CS Imaging Software. As an optional add-on module for the RVG 6100 and RVG 6200, Logicon is designed to help you detect and treat interproximal caries at an early stage and promote minimally invasive treatment options. In fact, it is the only commercially available software approved by the FDA for computer-aided radiographic caries diagnoses.

With Logicon version 5.2, it only takes a few clicks to obtain a clear preview of a patient’s proximal caries. The software scans all of the proximal surfaces in a bitewing radiograph automatically so that you can then easily plan treatment by selecting PreScan results and making manual calculations on the same screen. You can even share the results with your patients to improve communication and increase treatment acceptance.
SPOT HARD-TO-FIND CARIES

Improve patient care
As an optional component of our RVG digital radiography systems, Logicon is a computer-aided detection tool built for dental professionals. The software is designed to help you make better decisions about patient care by helping you detect and identify caries. By analyzing tooth density and demineralization patterns for interproximal caries, Logicon helps you search for caries and determine whether they exist in the enamel or dentin. The program also features powerful graphics and visual aids to engage patients and promote better communication—which in turn increases the likelihood of them accepting your treatment recommendations.

Maximum diagnostic confidence
Logicon works by analyzing shades of gray (far more than the human eye can perceive) and extracting caries-related image features to compare them with known caries problems. Through this process, the software automatically highlights any potential abnormalities on the patient’s digital radiograph and allows you to take a closer look at an area that may have otherwise been missed.

“The most impressive feature is Logicon software. You can scan suspicious lesions with it, and it will blow you away with how it finds decay and how, upon preparation of the tooth it is confirmed every single time.”
JONATHAN GOLAB, DDS, PA

With just a few clicks, Logicon automatically scans all proximal surfaces in a bitewing radiograph.
THE SCIENCE BEHIND LOGICON

Improve patient care

Logicon relies on advanced algorithms based on laboratory data produced from a leading school of dentistry to detect and monitor interproximal caries. The software’s latest enhancements ensure more efficient exams with features like the Doctor’s Diagnosis, an option that allows users to manually examine multiple potential carious sites and surfaces on a single radiographic image. Simply use the v-tool with ROI adjustment and the manual mode (pencil tool) to zoom in and focus on a particular area of interest. You can even review and save multiple surface results on a single radiography and retrieve detailed information about changes in tooth density and lesion probability.

Use Logicon’s PreScan feature to scan a radiographic image and apply algorithms any time during an exam to generate a view of potential caries and verify any manual findings that require further investigation. PreScan generates a complete list of all saved results for an eligible surface and provides a correlating number of each scanned surface.

After reviewing your PreScan calculations, the results can be easily saved and shared with your patients. Easily create a list of high-risk surfaces and make adjustments on one screen.

90% success rate

In addition, a retrospective clinical study found the ability to detect early caries in dentin more than doubled when using Logicon software over traditional visual methods.

How Logicon compares to the competition

Logicon uses physics-based technology to calculate measurements and provide reliable results that are backed by science. From measuring the depth of the caries to outlining its location on an image, Logicon relies on historically proven data to determine whether dentinal decay is likely to be present. To do this, the software compares each patient’s results with data stored in a comprehensive database of known caries problems.

Unlike other caries detection products on the market, Logicon not only helps you identify caries by calculating the probability of decay, but also recommends the most appropriate action for its findings. It even quantifies the decay as well so you can make more informed treatment recommendations. Best of all, since Logicon integrates seamlessly with RVG sensors and CS Imaging Software, it is easy to implement it into your current workflow— no additional changes required.

Close up of decay pattern

Probability of decay present with decision threshold

Density changes across decay site
Key features and benefits

- Only software approved by FDA for computer-aided radiographic caries diagnosis
- Save multiple calculations for select surfaces and display on one screen
- Region of Interest (ROI) Adjustment Tool automatically finds the maximum caries depth
- Automatically scan all proximal surfaces in bitewing to preview patient’s complete caries state with PreScan
- Algorithms reduce need for manual tracing of tooth edges and DEJs
- Zoom Tool allows users to focus in and out on a tooth surface at any time
- Automatic sharpening and full screen filters
- Save PreScan results along with the radiograph
- Transfer Logicon results to third parties and allow Site Keys via email
- Start using right away Interactive Training Wizard and Easy Steps files
- Take advantage of comprehensive training files, audio tracks and slideshows

“Logicon caries detection software is truly amazing. Diagnosing interproximal caries is both an art and a science, and Logicon adds a lot more science to this diagnostic mix. I can predictably diagnose caries at an earlier stage and treat with minimal loss of tooth structure. More importantly, it keeps me from cutting into teeth where the decay is not yet into the dentin.”

BRADLEY A. DYKSTRA, DDS

2Clinically measured true positive rate of 90% and true negative rate of 88%