



TRANSFORM YOUR EXPERIENCE

STEP INTO THE FUTURE WITH THE
NGENUITY[®] 3D VISUALIZATION SYSTEM

THE NGENUITY[®] DIFFERENCE

ENJOY A SURGICAL EXPERIENCE
UNLIKE ANY YOU'VE HAD BEFORE.

It is time to go beyond the limits of an analog microscope and add NGENUITY[®] to your current O.R. set up so you can:

VISUALIZE with magnified, digitally optimized clarity that's personalized to your preferences to help achieve the best possible results.

INTEGRATE your Alcon surgical systems to access all information in one place.

UNIFY your team and expand collaboration through a shared heads-up surgical view.

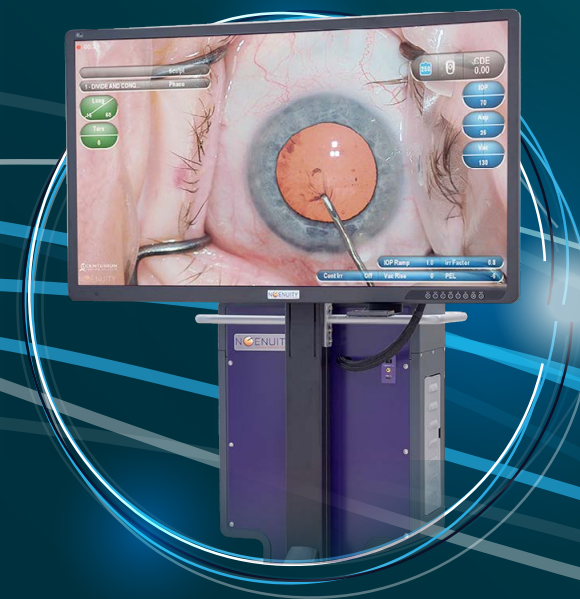
THE NGENUITY[®] DIFFERENCE



+ Versatile HDR Surgical Camera



+ Optimized High-Speed Image Processor



+ Enhanced OLED Surgical Display

THE NOENUITY DIFFERENCE



Versatile 3D HDR Camera

- Delivers High Dynamic Range imaging by merging an underexposed image with an overexposed image for greater detail and contrast
- Provides an adjustable aperture for surgeon-preferred Depth of Field and image optimization
- Adapts to all surgical microscopes for an enhanced stereoscopic 3D visualization experience

FEATURES

- True stereoscopic 3D imaging
- Two full HD Sensors (1920x1080)
- 60 fps per eye



Versatile
Surgical

OLED
Display



Optimized High-Speed Image Processor

- Delivers real-time image optimization for improved surgical viewing
- Provides personalized color and light temperature adjustments through easily accessible image thumbnails
- Enables 3D/2D recordings to allow for detailed surgical case review and impactful presentations

FEATURES

- Stream 3D/2D to multiple displays simultaneously
- 100+ hours of built-in video recording
- Picture in picture or split-screen processing



Versatile
Surgical

OLED
Display



Enhanced OLED Surgical Display

- Improved image quality with better contrast, higher brightness and a wider color range*
- Reinforced medical-grade design to improve durability and meet requirements of today's operating theaters
- Enables 3D viewing with passive polarized 3D glasses for the entire O.R. team

FEATURES

- 4K OLED resolution (3840×2160p)
- 55-inch screen size
- 60 fps for each eye

*compared to LCD display

+ Versatile
Surgical

OLED
Display

Long

0

Tors

38

IOP

45

Asp

34

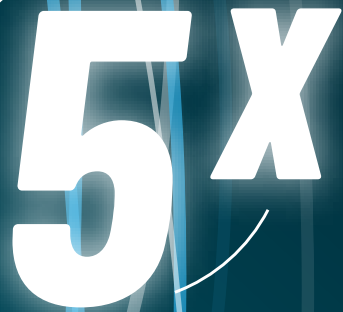
Vac

584

VISUALIZE LIKE NEVER BEFORE

NGENUITY[®] gives you the power to improve your visualization experience with expanded and personalized views of the anterior segment.¹

VIEW WITH EXPANDED CLARITY

A large white '5x' is centered on the left side of the slide. It is enclosed within a white circular arc that starts above the '5' and ends below the 'x'. The background behind the text consists of several vertical, slightly curved lines in shades of blue and white, creating a sense of depth and focus.

5x

Up to 5x extended depth of field delivers a crisp focus across an expanded surgical space allowing you to see a deeper range of details^{1,*†}

- Allows for greater awareness of your surgical field which can optimize precision and accuracy^{2,3}
- Minimizes the need to manually refocus during the procedure to promote efficiency^{2,3}

IMMERSE IN A MAGNIFIED VIEW

48%

Up to 48% increased magnification provides an expansive view and can help improve the ability to perform intricate surgical tasks ^{1,*†}

- Allows for extensive depth of field when performing surgery at high magnification
- Accentuate details beyond the capabilities of an analog microscope for delicate procedures

DISTINGUISH EVERY DETAIL

42%

Up to 42% increased depth resolution enables your ability to help resolve fine details when managing challenging pathologies^{1,*†}

- Allows for greater ability to distinguish between various layers of the anterior anatomy for refined tissue manipulation¹

VISUALIZATION DESIGNED FOR YOU

NGENUITY[®] delivers a surgical experience that can be personalized to meet your surgical viewing preferences.



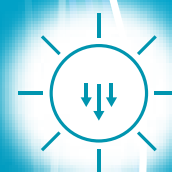
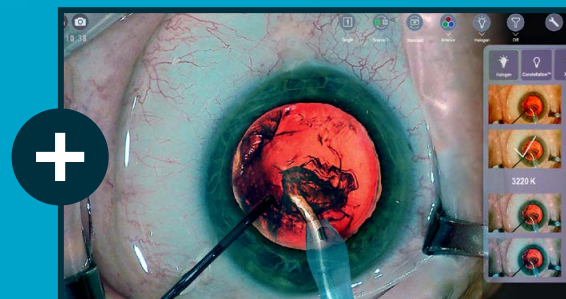
COLOR PROFILE

Personalized color profiles provide more flexibility to customize your approach for each patient.¹



LIGHT TEMPERATURE PROFILES

Easy-to-use thumbnails allow you to easily customize the image during the surgical procedure.⁴

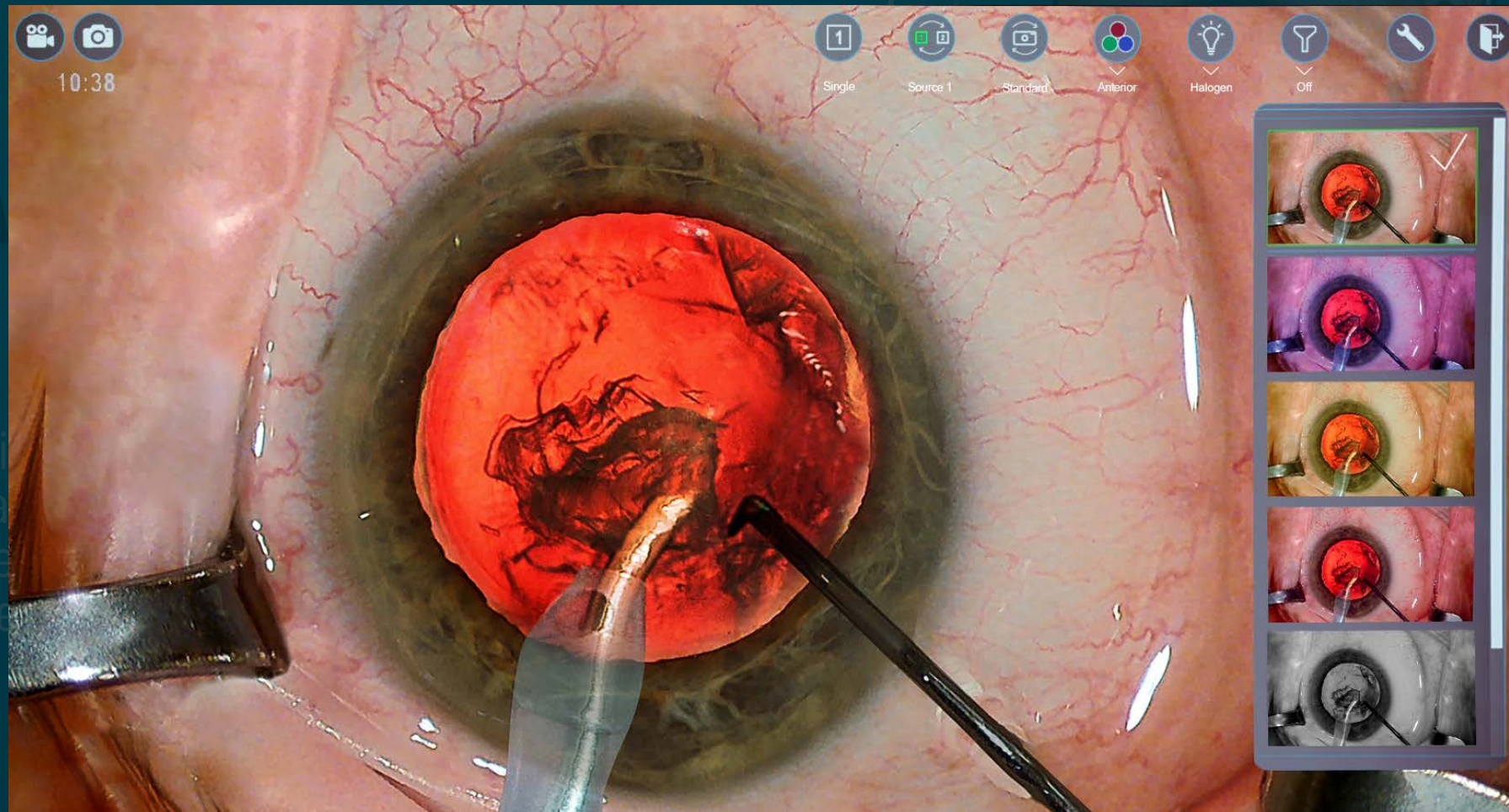


LESS MICROSCOPE LIGHT

Digital image processing provides you with the ability to operate under low lighting conditions, potentially reducing phototoxicity.⁵

COLOR PROFILE

PERSONALIZED COLOR PROFILES
Customizable color profiles and thumbnails provide you with more control when treating individual cases.¹



VISUAL
DESIGN

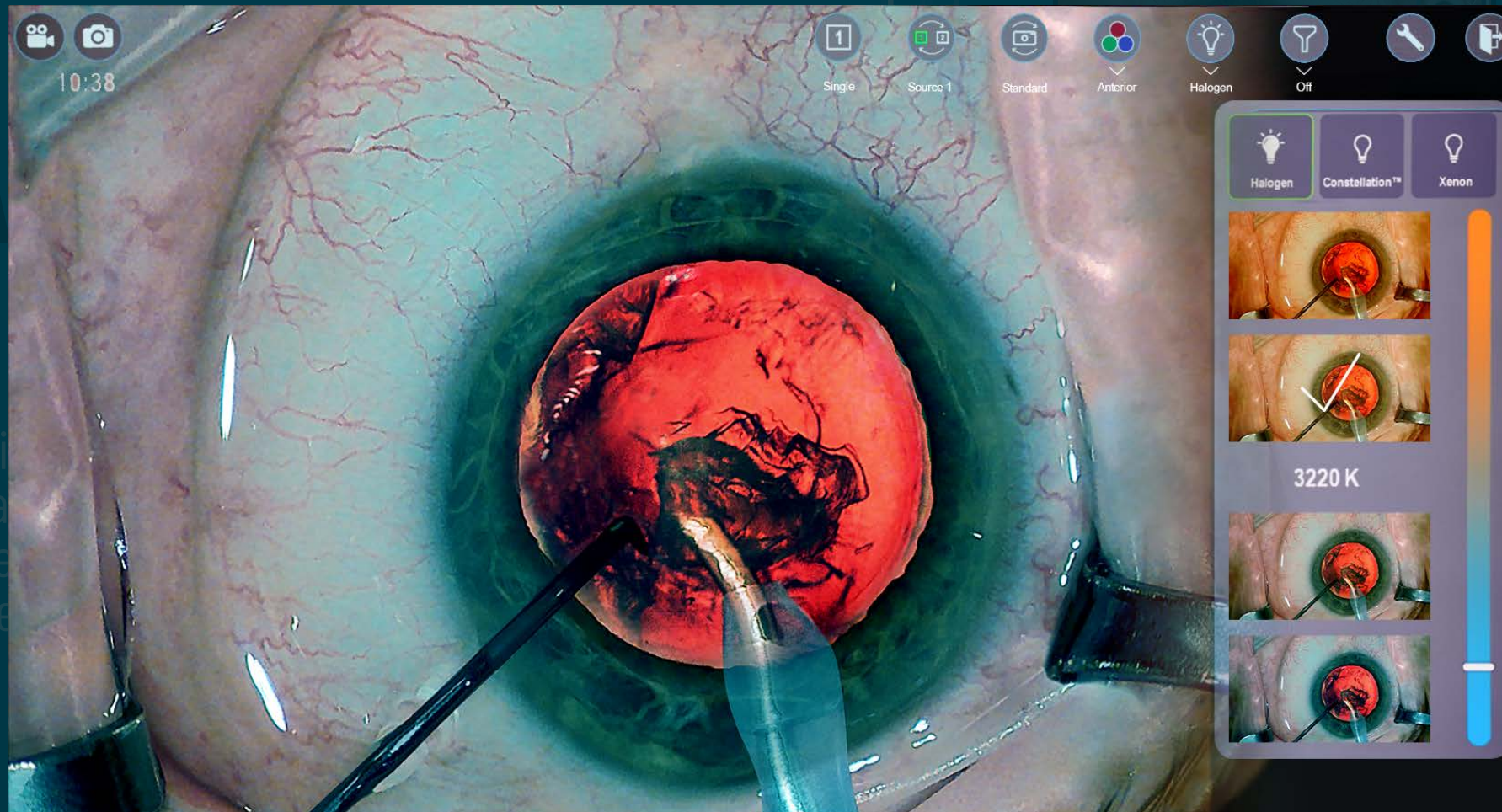
NGENUITY[®] delivers
digital visualization
provides a superior
an enhanced patient

FILES
to start the day
ra and, if needed,
al procedure.⁴

LESS MICROSCOPE LIGHT

Digital image processing provides you with the ability to operate under low lighting conditions for your patient's safety and comfort.⁵

LIGHT TEMPERATURE PROFILES



VISUAL
DESIGN

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PROFILES
thumbnails provide
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FILES
to start the day
ra and, if needed,
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LESS MICROSCOPE LIGHT
NGENUITY's[®] 3D digital image processing provides
you with the ability to operate under low lighting
conditions for your patient's safety and comfort.³

ALL YOU NEED IN ONE PLACE

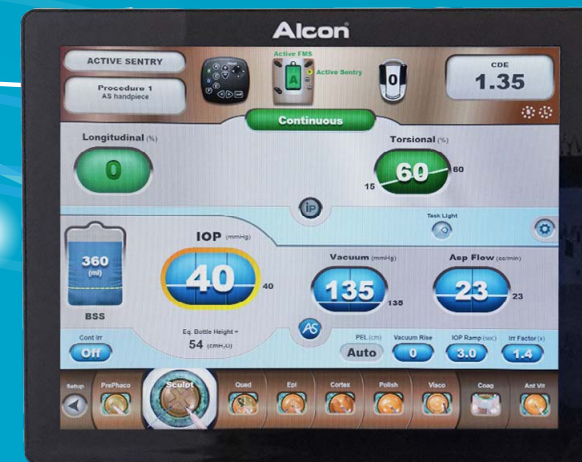
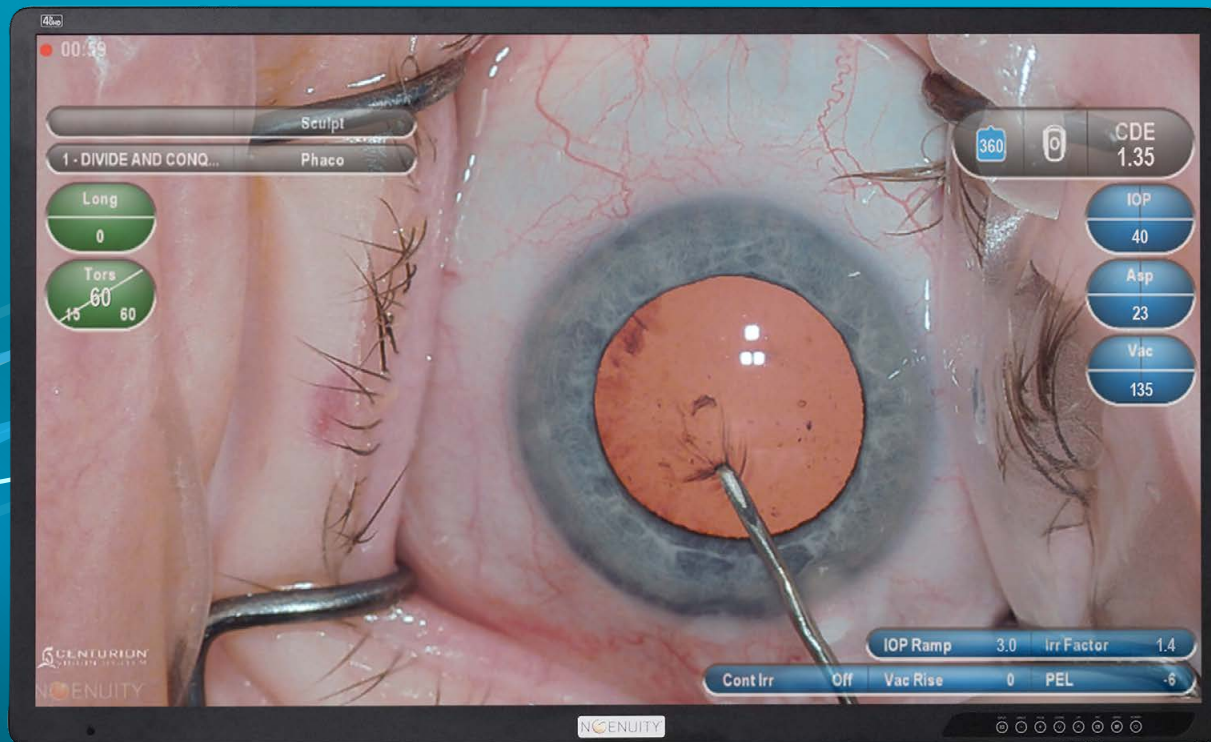
Achieve an integrated surgical suite through DATAFUSION for more informed decision making.

NGENUITY[®] with DATAFUSION integrates with all analog microscopes and your existing Alcon equipment for more informed decision making courtesy of the most commonly used phaco and intraoperative aberrometer surgical systems.



CENTURION® DATAFUSION

A Centralized View, Tailored to You
CENTURION® DATAFUSION delivers a real-time view of surgical parameters and system performance for more information during critical surgical steps.

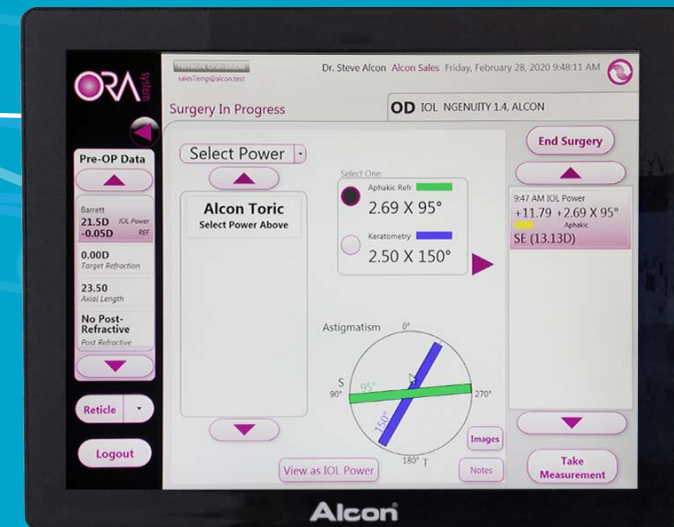
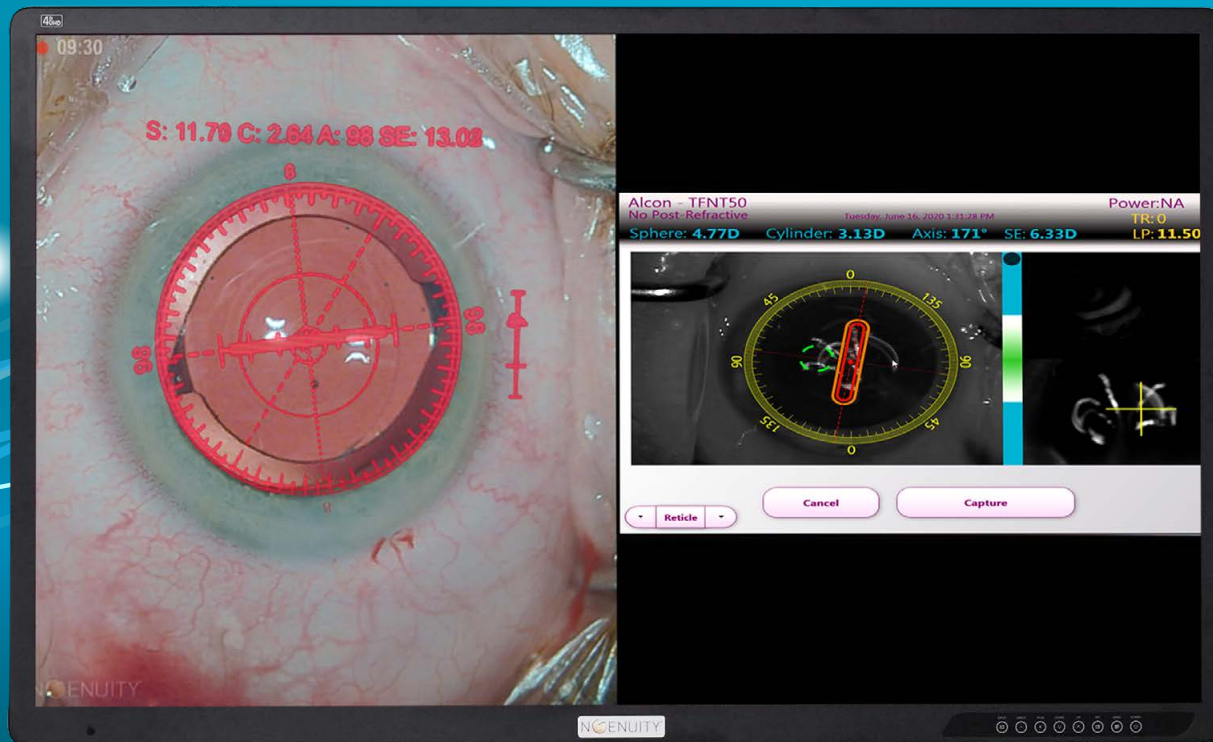


ORA VERIFEYE+™ DATAFUSION

Seamless Access to Diagnostic Data

Expand your intraoperative diagnostic usage and decision-making with ORA™ VerifEye+™ cart and aberrometer data displayed directly on the NGENUITY® screen via split screen or picture in picture.

EXPERIENCE AN IMPROVED PATIENT IMAGE with better reticle representation on the live camera image, compared to oculars.



 **ORA™ System**
WITH VERIFEYE+™

A UNIFIED O.R.

Through heads-up surgery, transform cooperation into a unified O.R. experience by allowing staff and residents to see with the same depth, focus and clarity as the surgeon.



FREEDOM FROM OCULARS

The benefit of heads-up surgery provides improved ergonomics along with a unified shared view of the surgical case.⁶



POWERS COLLABORATION

Heads-up surgery immerses all in a comprehensive view of the procedure allowing the surgical team to anticipate your next steps.⁷



A BETTER TEACHING TOOL

NGENUITY[®] accelerates knowledge transfer through a shared view, improving the collective learning experience in the O.R.⁸



REAL-TIME VIDEO CAPTURE

Share your spectacular surgical cases outside the O.R. with impressive 3D recordings that will give the audience a true representation of your experience.¹

IT'S TIME TO TRANSFORM

With NGENUITY[®], transform your analog microscope into a 3D digital visualization system today.

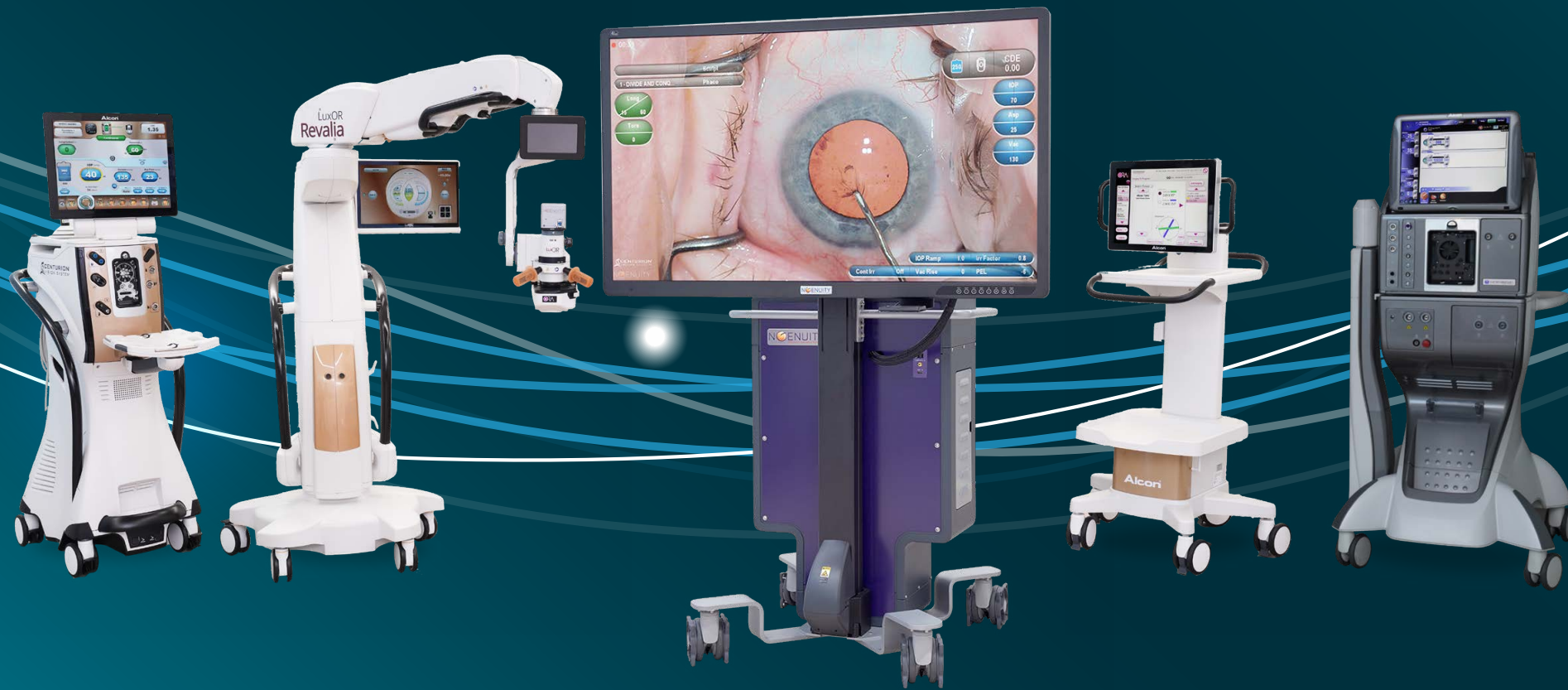
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NGENUITY[®] YOUR EXPERIENCE TRANSFORMED.



Alcon

REFERENCES

1. Alcon data on file.
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6. Eckardt, C., & Paulo, E. B. (2016). HEADS-UP SURGERY FOR VITREORETINAL PROCEDURES: An Experimental and Clinical Study. In *RETINA* (Vol. 36).
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IMPORTANT PRODUCT INFORMATION

Caution: Federal (USA) law restricts this device to sale by, or on the order of, a physician.

Indication: The NGENUITY[®] 3D Visualization System consists of a 3D stereoscopic, high-definition digital video camera and workstation to provide magnified stereoscopic images of objects during micro-surgery. It acts as an adjunct to the surgical microscope during surgery displaying real-time images or images from recordings.

Warnings: The system is not suitable for use in the presence of flammable anesthetics mixture with air or oxygen. There are no known contraindications for use of this device.

Precautions: Do not touch any system component and the patient at the same time during a procedure to prevent electric shock. When operating in 3D, to ensure optimal image quality, use only approved passive-polarized glasses. Use of polarized prescription glasses will cause the 3D effect to be distorted. In case of emergency, keep the microscope oculars and mounting accessories in the cart top drawer. If there are any concerns regarding the continued safe use of the NGENUITY[®] 3D Visualization System, consider returning to using the microscope oculars.

Attention: Refer to the user manual for a complete list of appropriate uses, warnings and precautions.