CALLISTO eye from ZEISS
The assistant for an integrated workplace in the OR
The moment your skills and expertise are supported by your equipment. 

This is the moment we work for.
ZEISS CALLISTO eye
Intelligent assistance in the OR

CALLISTO eye® works seamlessly with OPMI LUMERA® 700 from ZEISS as an auxiliary user interface for controlling the surgical microscope, HD documentation tool and surgical assistance solution for cataract surgery. ZEISS CALLISTO eye is an integral part of the ZEISS Cataract Suite. ZEISS CALLISTO eye is available in two versions and can be upgraded at any time.

1 As a CSV file.
**DOCUMENTATION**
- Display of HD and SD video signals onscreen and in full screen
- Record HD and SD video signals
- Import patient lists via USB
- View patient data and video recordings on the ZEISS CALLISTO eye screen

**WORKFLOW SUPPORT**
- Control the surgical microscope more efficiently[^2]
- View microscope parameters in the eyepiece[^3]
- Video frame display in eyepiece helps define video recording field of view

**ASSISTANCE FUNCTIONS**
- Superimposes visual aids onto the video image and, when used in combination with IDIS, into the microscope eyepiece
- Z ALIGN® – assistant for alignment of toric intraocular lenses
- Incision/LRI – assistant for positioning of incisions and LRIs
- Rhexis – assistant that helps you achieve the proper size and shape of capsulorhexis
- K TRACK® – tool for visualization of corneal curvature when used together with the keratoscope
- Eye tracking – ensures the position of superimposed visual aids always stays the same in relation to the eye

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[^2]: Only in combination with ZEISS OPMI LUMERA 700.
[^3]: Only in combination with ZEISS OPMI LUMERA 700 and the IDIS Integrated Data Injection System.
[^5]: Clinical data of Prof. Findl/Dr. Hirnschall presented at ESCRS 2013 – technically verified pre-/intraoperative matching precision ± 1.0° in mean
ZEISS CALLISTO eye BASIC
For greater efficiency

ZEISS CALLISTO eye BASIC ensures efficient workflows and simplified patient management in the OR. Import patient lists via USB, easily access this information in the OR. Select a patient, and the integrated documentation system automatically starts recording, displaying the live video in full screen SD or HD.

The large touchscreen interface makes operating ZEISS CALLISTO eye simple and intuitive. Your OR team can also use it as an alternative interface for controlling the ZEISS OPMI LUMERA 700 surgical microscope. ZEISS CALLISTO eye BASIC allows you to save your user preferences for the microscope and recalls them the next time you use the system. This feature is particularly useful in ORs used by different teams to perform a range of surgeries. You can even save specific settings for each step in the surgery, in the language of your choice.6

With ZEISS CALLISTO eye BASIC, you – the surgeon – can view the microscope settings in the ZEISS OPMI LUMERA 700 eyepiece. Also visible in the eyepiece: a frame that shows you which part of the operating field is currently being displayed on the video screen. This allows visibility of the field of interest in the recorded file.

Featuring built-in upgradability, ZEISS CALLISTO eye BASIC is ready for the future. You can choose to upgrade to ZEISS CALLISTO eye ASSISTANCE at any time.

6 Japanese, Portuguese, English, Suomi, German, Italian, French, Dutch, Spanish, Swedish and Russian
DOCUMENTATION

A better view of the surgery
- Live video is shown on screen during recording, the operating team can easily follow the course of the surgery.

High-quality video recording
- Integrated HD video chain for recording high-resolution videos that meet even the most demanding requirements in quality management and teaching.
- Capture still images from video recordings to use as documentation.

More information
- View patient lists in the OR to prepare for upcoming operations, and to review patient-specific video documentation.

SURGERY

ZEISS OPMI LUMERA 700
ZEISS CALLISTO eye

WORKFLOW SUPPORT
More convenience
- Greater convenience and simplified control of the surgical microscope through the use of the graphical user interface on the big touchscreen.

Real-time information where you need it
- View microscope settings in the eyepiece, allowing you to give specific instructions if changes are needed
- A video frame overlay in the microscope eyepiece shows which part of the operating field is being recorded. This makes video recording easier to control and integrates it seamlessly into surgical workflows.
Your patients have high expectations, especially when it comes to implanting toric intraocular lenses during cataract surgery. After all, the patient’s post-operative quality of vision depends on every step you make, especially the positioning and alignment of the lens. Even in non-toric lens cases, precision during the procedure determines whether patients in the future need further surgery or treatment. ZEISS CALLISTO eye ASSISTANCE helps you achieve the results you want and patients expect. Graphical overlays on the video image visually guide you during the LRI and incision, capsulorhexis and lens alignment portions of the cataract surgery. When used in combination with the IDIS integrated data injection system, these same overlays appear superimposed in the eyepieces of the ZEISS OPMI LUMERA 700 surgical microscope; helping you achieve maximal precision and performance during surgery without having to look away from the surgical field.
INCIDENTAL ASSISTANCE FUNCTIONS

**Incision/LRI assistant**
- Superimpose the exact position and size of the incisions to ensure precise surgery.

**Rhesis assistant**
- Superimpose the exact shape and size of the capsulorhexis and align the IOL along the patient’s optical axis.

**Eye tracking**
- Track eye movements with ZEISS CALLISTO eye. This ensures the position of the superimposed assistance functions are adjusted in real-time to take eye movement into account.

**Z ALIGN – toric assistant**
- Use the reference axis from the ZEISS IOLMaster 500 and target axis in your microscope eyepiece to ensure precise toric IOL alignment.

**K TRACK**
- Visualize corneal curvature in combination with a keratoscope.

**View data in the eyepiece**
- View superimposed assistance functions in the eyepieces of the surgical microscope so you gain the clinical benefits of the graphical overlays without needing to look away from the surgical field.

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4 Clinical data of Prof. Findl/Dr. Hirnschall presented at ESCRS 2013 – technically verified pre-/intraoperative matching precision ± 1.0° in mean
Integration
Increase efficiency

The ZEISS CALLISTO eye touchscreen can be mounted on its own or directly on the microscope stand. It integrates seamlessly into your OR, regardless of how your space is set up or of your work preferences. ZEISS CALLISTO eye works as one with the ZEISS OPMI LUMERA 700 surgical microscope and will have the capability to communicate with other devices in the future. This makes ZEISS CALLISTO eye the first step in creating an integrated OR workplace, one that’s more efficient and convenient for your OR team.

In the future, ZEISS CALLISTO eye will have the potential to connect to other devices.
Support arm connected to floor stand of ZEISS OPMI LUMERA 700
Mount ZEISS CALLISTO eye directly on the ZEISS OPMI LUMERA 700 floor stand, merging both devices together into a single unit.

Table stand
To position ZEISS CALLISTO eye independently of the surgical microscope, use the table stand. This lets you place ZEISS CALLISTO eye on a separate table or trolley.

Wheeled stand
The wheeled stand makes ZEISS CALLISTO eye mobile, so it can be freely positioned anywhere in the room independently of the surgical microscope.

Support arm connected to ceiling mount of ZEISS OPMI LUMERA 700
ZEISS CALLISTO eye can be fixed directly to the ceiling mount of ZEISS OPMI LUMERA 700 using a special arm so that it takes up no extra space and is always where you need it.
A worthwhile investment
Make a choice for the future

Connecting ZEISS CALLISTO eye and ZEISS OPMI LUMERA 700 is the first step in creating an integrated OR. It offers a central control interface and on-demand access to assistance functions that enhance the precision, performance and efficiency of ophthalmic surgery. When additional functionality becomes available for ZEISS CALLISTO eye, those enhancements will be available through upgrades, providing a clear path to the latest technology. An investment in ZEISS CALLISTO eye is an investment in the future of your OR:

**Customized solution**
Every practice and hospital has its own needs with respect to workflows. So ZEISS CALLISTO eye is available in a range of versions, offering different sets of features. This means you can integrate it into your OR in exactly the way you want.

**Inform patients**
Information creates understanding. With ZEISS CALLISTO eye, you can automatically assign videos to individual patients and save them in standard formats. This makes it easy to export videos to a USB drive and make them available to the patients.

**Built-in upgradability**
ZEISS CALLISTO eye is scalable by design. You can convert BASIC to ASSISTANT by purchasing additional licenses.

**Tangible clinical benefits**
ZEISS CALLISTO eye is an innovative assistance system that meets your needs for cataract surgery. At ZEISS, we never stop working to improve our products and make sure they meet the highest technological standards; both now and in the future.
The moment innovation and passion lead to the best vision for your patient.

This is the moment we work for.
**The perfect team**

Which product works with which ZEISS CALLISTO eye functions

<table>
<thead>
<tr>
<th>Feature</th>
<th>ZEISS OPMI LUMERA 700</th>
<th>ZEISS OPMI LUMERA 700 with IDIS</th>
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</thead>
<tbody>
<tr>
<td>HD video recording/video documentation</td>
<td>■</td>
<td>■</td>
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<tr>
<td>SD video recording/video documentation</td>
<td>■</td>
<td>■</td>
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<tr>
<td>Photographic documentation</td>
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<td>■</td>
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<tr>
<td>Fullscreen mode</td>
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<td>■</td>
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<tr>
<td>Remote control</td>
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<td>■</td>
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<tr>
<td>Display and import patient lists via USB</td>
<td>■</td>
<td>■</td>
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<tr>
<td>Superimpose OPMI settings on video screen</td>
<td>■</td>
<td>■</td>
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<tr>
<td>Superimpose OPMI settings in the eyepiece</td>
<td>■</td>
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<tr>
<td>Show video frame as a guide in the eyepiece</td>
<td>■</td>
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<td>Rhexis assistant</td>
<td>■</td>
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<td>K TRACK for visualization of corneal curvature</td>
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1 Keratoscope of OPMI LUMERA 700 required.
# Technical Data
## CALLISTO eye from ZEISS

<table>
<thead>
<tr>
<th><strong>CALLISTO eye touchscreen monitor</strong></th>
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</table>
| **Touchscreen** | Projected Capacitive Touch (PCT) with externed transparency  
Temperature range +10 °C to +35 °C/ +50 °F to +95 °F  
Scratch-proof |
| **Processor** | Intel® Core i7 620M 2.66GHz |
| **Hard drive** | SATA, 500 GB |
| **Display** | Integrated 22” color flat-screen with high luminosity and wide viewing angle |
| **Video signals** | PAL 576i50; NTSC 480i60; 1080i50; 1080i60  
Full functionality and usability in conjunction with ZEISS CALLISTO eye is only possible with camera models from Carl Zeiss Meditec AG |
| **Ports** | 1x CAN-Bus, 1x RS232, 2x 1Gigabit Ethernet, 5x USB2.0, 1x potential equalization |
| **Video input** | 1x Y/C, 1x HD-SDI |
| **Video output** | 1x VGA, 2x HDMI |
| **Connectivity** | Integrated RJ45 10/100Base-T Ethernet port for connection to ZEISS OPMI LUMERA 700 |
| **Power supply** | Integrated fanless 150 W medical power supply |
| **Weight** | 15 kg |
| **Supported languages** | German, English, French, Italian, Spanish, Japanese, Finnish, Danish, Norwegian, Swedish, Portuguese/Brazilian, Russian, Dutch |