This is Metrilus

Aiolos
Interact
Touchless

Ikarus
Stay
Flexible

Hydra
Combine
3-D Cameras

coded in bavaria
Metrilus GmbH

Metrilus GmbH
Henkestr. 91
91052 Erlangen
Germany

Vertreten durch:

Dr.-Ing. Christian Schaller
Dr.-Ing. Michael Balda

Kontakt:

Telefon: +49 9131 91 89 771
Telefax: +49 9131 91 89 772
E-Mail: sales@metrilus.de
Web: http://www.metrilus.de
     http://www.metricam.net

Registereintrag:

Registergericht: Amtsgericht Fürth
Registernummer: HRB 12388

Umsatzsteuer-ID:

Ust.-Id: DE270182392

Fotos: WillmyCC/Hans-Martin Issler,
       Graphiken: https://3dwarehouse.sketchup.com/
Metrical at a glance

Metrical is one of the first companies worldwide to provide complete solutions for real-time 3-D imaging applications. Through this outstanding service the company offers its customers cost-effective and direct access to this new technology. Even before establishing Metrical in 2010, the founders gathered broad experience with 3-D cameras during their time at University of Erlangen's Pattern Recognition Lab. Since then, Metrical successfully completed many projects in diverse industries and acquired profound understanding of various range imaging sensors.

Today we are very happy to offer you consulting, development of prototypes, and tailored software for all kinds of real-time 3-D applications. Our core technology, the Metrical Framework is independent of the 3-D sensor type and enables us to realize any real-time 3-D project at a high quality level.

made in germany – coded in bavaria

Dr.-Ing. Christian Schaller
CEO Metrical GmbH
We love technology

Real-time 3-D image processing is our **passion** at Metrilus. We support all major camera-based technologies to acquire 3-D data.

With our well-established hardware manufacturer **network** we have access to the **latest** cameras. And we are not limited to existing hardware, we are also capable of creating customized setups.

With this expertise we are able to identify the best fitting sensor for each task.

Software

Metrilus has established a sophisticated software ecosystem. It seamlessly supports major state-of-the-art range imaging technologies.

We are **experts** in 3-D image processing algorithms, advanced pattern recognition methods, machine learning, and surface matching. All algorithms and software are specifically tuned to deliver **best results** with the characteristics of 3-D range imaging data.
Discover MetriCam

With the free MetriCam SDK you can easily integrate all common 3-D range imaging and 2-D DirectShow cameras into your own C#/.NET application. You save development time and can focus on your main application – MetriCam handles the connection and data acquisition for you. Stay independent of the camera technology and always be able to run your application with up-to-date cameras.

MetriCam Features

- unified interface for all cameras
- configuration of all camera features
- connect and disconnect events
- extension with new/other sensors
- multi-camera management
- object oriented API
- thread-safe
- includes viewer and calibration demo

Code Example

```csharp
class Programm
{
    private static IMetriCamera camera;

    static void Main(string[] args)
    {
        camera = new WebCam();

        camera.Connect();
        camera.Update();
        Bitmap bmp = ((WebCam)camera).CalcBitmap();
        camera.Disconnect();
    }
}
```

Supported vendors

Bluetechnix, Creative (Senz3D), Fotonic, ifm electronic, Mesa Imaging, Microsoft (Kinect One), PMDTechnologies, PrimeSense, SoftKinetic, IDS (μEye and Ensenso) and DirectShowWebCams

Free download

www.metricam.net
Always excellent

The key for excellent imaging solutions is an accurate calibration.

At the heart of our calibration suite is ROCHADE (Robust Checkerboard Advanced Detection), a sophisticated pattern detector designed particularly for high-accuracy calibration tasks. ROCHADE was designed with several challenges in mind:

- low- and high resolution sensors
- extreme lens distortions
- low number of calibration images

Your benefit

Based on ROCHADE our calibration suite covers all possible calibration scenarios:

- intrinsic camera parameters
- absolute depth calibration
- calibration for ToF-errors
- extrinsic calibration of two cameras (color-to-depth, color-to-color, etc.)
- extrinsic calibration of multiple cameras/sensors and other objects (see Hydra on the next page)
Hydra – Multiple Cameras

The **power** of our calibration suite and smart real-time algorithms enables us to create Metrilus Hydra. Based on Hydra we are able to build **flexible** multi 3-D imaging system enabling a variety of applications:

**Dynamic safety**

In human-robot-applications it is mandatory that the robotic system has full knowledge of its environment. **Hydra enables the dynamic observation of complex areas.** Due to flexible setups it can resolve occlusions. With a **smart** extension to Hydra even a fully automatic calibration into the robot’s coordinate system is possible.

**3-D scanning**

Metrilus Hydra technology also enables various 3-D scanning applications, like object or body scanning. Real-time scanning of **moving** 3-D objects can be realized too.
Ikarus – Flexible Vision

Metrilus Ikarus is a combination of essential image normalization techniques to simplify various tasks like object detection, measurements, and tracking applications with maximum of flexibility. Several applications we have developed for our customers are based on Ikarus technology:

People tracking and counting

Our fast and robust people detection and tracking system „Heimdall“ is based on Ikarus. Therefore it is independent of the camera position and gives you maximum flexibility in your setup.

Gamification

With Ikarus we quickly develop new applications in gamification. In combination with e.g. projectors we have developed several applications making people happy.

Enhance your application with Ikarus

Ikarus simplifies many applications. We are confident that Ikarus can also help enhancing your application.
Aiolos – Gestures

Aiolos at a glance

Metrilus offers robust, precise, and fast algorithms for hand and finger detection. Our gesture recognition engine allows to control machines and interfaces touchless.

Core features

Aiolos has been customized for various applications including automotive, medical and consumer. Its lightweight implementation easily integrates it into any application.
We get you started!

For first time customers, we have created a unique package, called \textbf{feasibility pack}. We created this offer based on our expertise and tailored it to get you started working with 3-D cameras immediately.

Have a look at the \textbf{back} of this brochure.
Feasibility Pack

Your Benefits

Save Time
fast realization

Control
fixed price

Stay Ahead
latest technology

Kickstart
reusable results

€ 6.348,-*

*excl. VAT

EN 31.03.2014