

# SUCCESS STORY

## Efficient Volume Measurement with Cind AB and Basler ace U Cameras

### Customer

- Cind AB
- Location: Jönköping, Sweden
- Industry: Forestry and Logistics
- Implementation: 2017

### Application

Cind AB is a newly-established company which has developed a range of equipment for volume scaling in industrial applications. Cind AB's customers exist primarily within the timber and logistics industries.

Manual measurement of large volumes of goods is not only difficult, it is also very expensive in terms of labor cost. Cind AB's customers were looking for alternatives to manual measurement and are making significant cost savings when introducing Cind AB's products in their workflows.

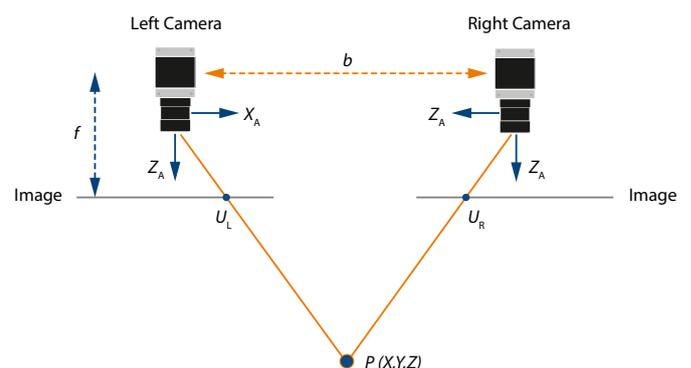
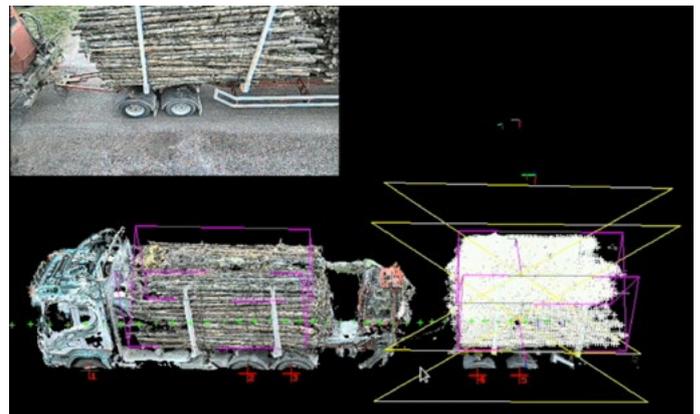
For roundwood measurement, Cind's product Timspect is the right choice. It automatically measures the volume of a truckload in less than one minute. Cind's solution is a camera-based machine vision system, so obviously selecting the right camera for the task was very important.



Volume truck load measurement

### Solution and Benefits

How does Timspect work? In Cind's solution, a number of sensors are mounted to a gantry large enough for trucks to pass through. As a truck drives through the gantry the sensors scan the truck, including its load. The data from the sensors are evaluated and processed by use of a software, which dynamically identifies the load on the truck via a set of unique algorithms. To this end, a point cloud is generated which is used to quantitatively calculate the volume of the stack. Everything is processed in less than one minute. All data are transferred to external systems via the REST API, which is part of Timspect.



Several calibrated cameras are used to determine the exact coordinate of each point of the observed object. These points are used to reconstruct a complete software model of the object. Each point can be used for exact measurements in X, Y and Z-positions. The complete 3D model allows higher robustness of analysis and image processing than traditional 2D image processing. The system uses Basler ace U cameras.

The company utilizes image processing technology from Saab which is based on decades of development work originating in missile technology development. The equipment employs stereo camera technology licensed from Saab to measure – with considerable accuracy – the volume and condition of, for example, timber stacks, individual logs or goods. Saab is undoubtedly a world leader when it comes to this technology.

The cameras used in the system are industrial cameras. In Timspect, 11 Basler acA2440-20gm cameras are used. “A good price-performance ratio is important to us. That is why we decided to use Basler ace cameras, plus the cameras also deliver a very good image quality. Basler is a leading supplier for industrial cameras and we appreciate the support that Basler offers. Another highlight of the cameras is that they support the GigE 2.0 standard. This standard expands the possibilities for the GigE interface, especially for multi-camera systems, which can now be synchronized with much greater precision under GigE Vision 2.0.”, states Anders Nyberg, CTO from Cind AB.

## Technologies Used

- Basler ace U acA2440-20gm

## More Information

<http://www.cind.se/>

<https://www.youtube.com/watch?v=s-v4jtb9mss>  
(link that shows Cind's technology)

[https://www.youtube.com/watch?v=QHTORlb\\_BUO](https://www.youtube.com/watch?v=QHTORlb_BUO)  
(link from one of Cind's customers showing their installation)



*Basler ace area scan camera - acA2440-20gm*

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