

ifm System Solutions

## Quick Guide

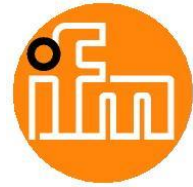
Article number:	AP3032
Article name:	App AC14 O3D camera
Version:	1.0.0
AC14 firmware version:	>= V3.1.2
URL (main page):	http://<IP-Address*>:8080/o3d.htm
URL (additional pages):	-
Languages:	English
Restrictions in demo mode:	The communication between AC14 and the cameras will be interrupted after one hour.
Additional required software:	O3D operating software: <ul style="list-style-type: none"><li>• efector pmd3d version 1.1</li><li>• configuring process interface V1.0</li></ul> Both programmes belong to the shipment of this App. Additionally they are available free of charge in the download section on ifm.com

\* IP address of the AC14 configuration interface

### Short description

Key functions of ifm System Solutions App O3D200 (AP3032):

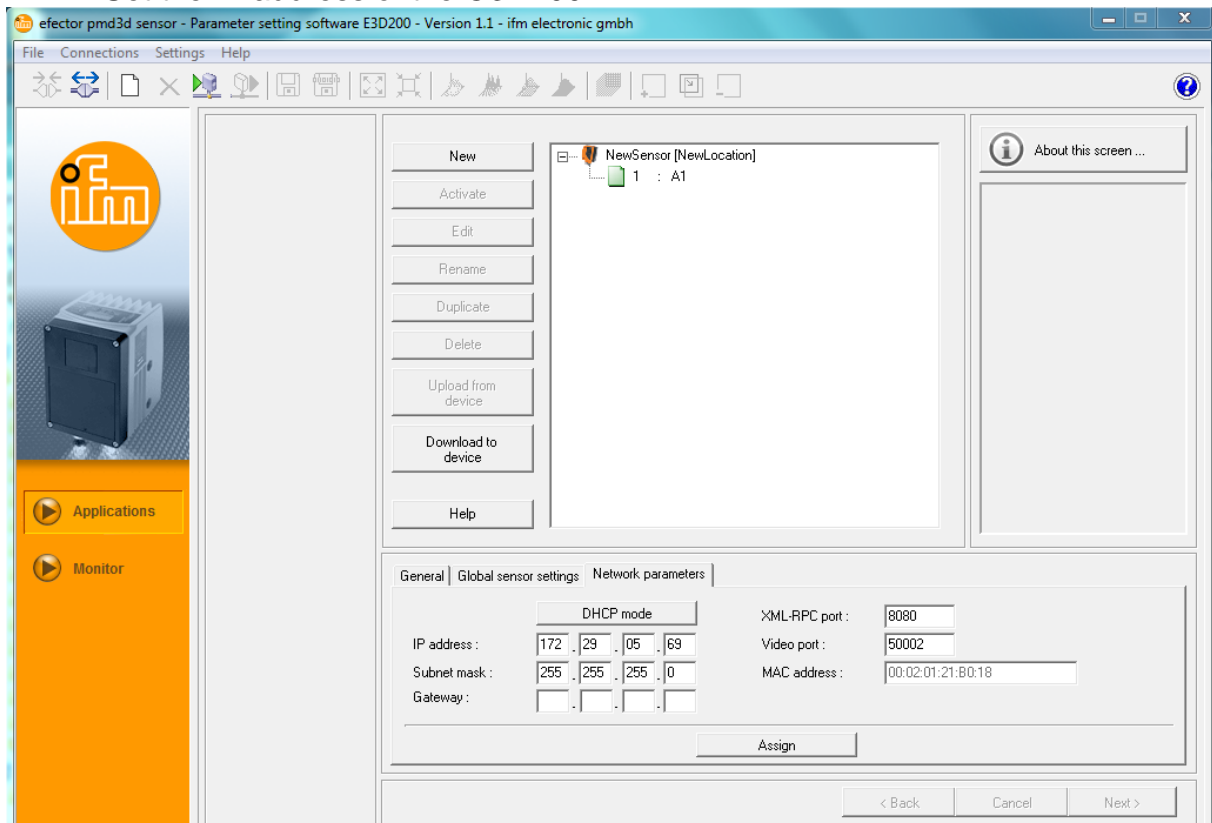
- Connection setup for up to 3 cameras O3D200.
- Monitoring of the Ethernet connection to the cameras. The connection status is transferred via the fieldbus to the upper level PLC.
- Gateway function between the ethernet based O3D-Camera-Data and the fieldbus of the AC14:
  - AC1401/02: Profinet
  - AC1411/12: Profibus
  - AC1421/22: EtherNet/IP
- Displaying of O3D-Measuring values.
- Camera picture can be displayed on the web pages to offer an easy camera adjustment tool without a need of a special software.



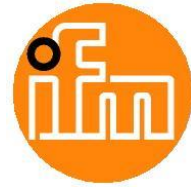
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## Groundworks for using the ifm System Solutions App

1. Important camera settings within the Software “efector pmd3d sensor”
  - Set the IP address of the O3D200:



- Do all the required settings in “Image quality”
- Do all the required settings in “Image zone”. Here you can define up to 32 measuring zones which will be read by the AC14nn.
- Store your settings and close the connection between the software and the O3D200.



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### 2. Important settings within the Software “configuring process interface V1.0”:

- Connect to the sensor and enter the settings below. The port number can be freely selected (Default 50010 recommended).

Network connection | Process Interface | EtherNet/IP | Output format

Settings

Protocol variant  
TCP/IP

Protocoll version  
V2 <ticket><content>CR LF

TCP/IP port:  
50010

Activate the process interface

- Select the right output format like shown below.

Network connection | Process Interface | EtherNet/IP | Output format

Settings

Start String star Intensity Image Windows Bitmap (BMP)

Stop String stop DistanceImage Deactivated

Separator ;

Object details

Overall Processvalue

Overall minimum process value of all regions of interests

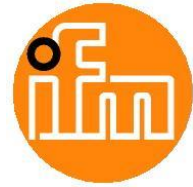
Overall maximum process value of all regions of interests

Active application

Number of regions of interests

Results per region of interest

- Process value of the region of interest
- Coordinates of the region of interest (ID)



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## The user interface

Main page: [http://<IP-Address\\*>:8080/o3d.htm](http://<IP-Address*>:8080/o3d.htm)

Here: Connection Setup

On this screen the cameras IP-Addresses and Port numbers can be entered. As soon as the option field „Activate connection to camera“ is activated, the AC14 tries to establish a connection to the camera. The connection status is shown for each camera.

Selection process data of camera 1, 2 or 3                      Connection settings

System solution O3D

Process data O3D camera 1 | Process data O3D camera 2 | Process data O3D camera 3 | Connections

O3D camera 1

IP address: 172 . 29 . 5 . 69

Port number: 50010

Activate connection to camera

Data exchange running

O3D camera 2

IP address: 0 . 0 . 0 . 0

Port number: 0

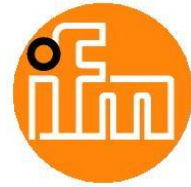
Activate connection to camera

O3D camera 3

IP address: 0 . 0 . 0 . 0

Port number: 0

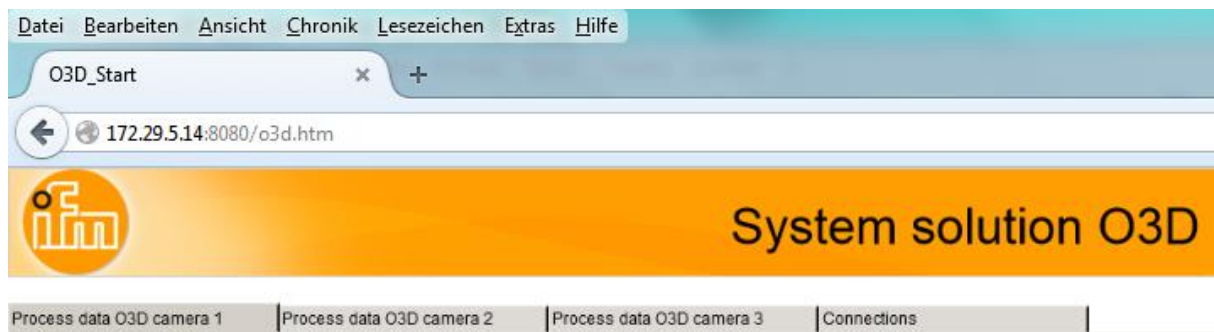
Activate connection to camera



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Main page: [http://<IP-Address\\*>:8080/o3d.htm](http://<IP-Address*>:8080/o3d.htm)  
Here: Process data camera 1

The configured measuring fields of the camera are displayed inside the camera picture frame and the measurement values are displayed in the table. By clicking the Button „Trigger new picture“ a new camera picture is stored. To see this picture the browser needs to be refreshed (F5).



	Value [mm]	Word in fieldbus area
1	330	1
2	382	2
3	374	3
4	74	4
5	348	5
6	415	6
7	486	7
8	96	8
9	370	9
10	441	10
11	541	11
12	204	12
13	404	13
14	483	14

Camera picture with overlaid measuring fields.

Button to trigger a new camera picture.

Table with measuring values of the camera (left column) and the position of the measuring value within fieldbus slot (right column).

In word 0 of the fieldbus slot the camera connection status is transmitted:

- Bit 0: camera 1
  - Bit 1: camera 2
  - Bit 2: camera 3
- True = connection to camera is ok  
False = no connection to camera