



GLOBAL COORDINATION  
OF MACHINE VISION  
STANDARDIZATION

## **G3 - the Global Coordination of Machine Vision Standardization**

- ▶ 16 Machine Vision Standards
- ▶ 25 years of cooperation
- ▶ 5 associations
- ▶ Over 600 member companies worldwide
- ▶ 1000+ technical experts
- ▶ 2 annual global meetings

Join in shaping the future of Machine Vision Standards



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## HISTORY

In 2009, the associations A3, EMVA, and JIIA initiated the G3 cooperation to unify and coordinate global machine vision standards development, joined later by VDMA Machine Vision and CMVU. The goal of the G3 is to prevent redundancy and ensure global adoption of machine vision standards. Technical experts meet face-to-face twice a year at International Vision Standards Meetings (IVSMs) to work on these industry standards, in addition to regular working group meetings for each standard. IVSMs are held alternately in Asia, America, and Europe, organized by G3 associations and its members.

Existing G3 standards cover many critical aspects of machine vision solutions, including interfaces and data protocols, camera and image sensor performance, lens mounts, lens control, lighting, and system integration.

### THE 16 EXISTING G3 STANDARDS:

#### Hosted by A3:

- ▶ Camera Link
- ▶ Camera Link HS
- ▶ GigE Vision
- ▶ USB3 Vision

#### Hosted by EMVA:

- ▶ GenICam
- ▶ EMVA 1288
- ▶ OOCI

#### Hosted by JIIA:

- ▶ IIDC2
- ▶ CoaXPress
- ▶ JIIA Cable & Connector Certification
- ▶ JIIA Lens Mount Standards
- ▶ JIIA Lighting Standards
- ▶ Optical Transmission Media
- ▶ SLVS-EC

#### Hosted by VDMA Machine Vision:

- ▶ OPC Machine Vision
- ▶ VDI/VDE/VDMA 2632

## G3 COOPERATION RULES

G3 is a cooperation agreement between trade associations united by a desire to support the machine vision industry. The cooperation agreement stipulates a code of conduct for each association and its members focused on cooperation, consensus, and transparency.

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### ▶ **Openness of standardization working groups**

The working groups that develop the standards are generally open for the members of the other associations, granting equal rights and duties for all participants.

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### ▶ **Global dissemination and endorsement of standards**

Each association endorses all G3 standards, no matter which association hosts the standard. All associations and their members could collaborate on, or review, any G3 standard before it is accepted, completed and published. Once it is completed the other associations endorse this standard thereby making it a global standard.

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### ▶ **New standardization projects**

G3 associations inform all other cooperation parties before initiating new standardization activities. All associations check if a proposed new standardization project could overlap with existing G3 standards, inform and encourage their membership to actively contribute to the standardization work.

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### ▶ **Dissemination duties during the development phase of a standard**

G3 associations inform members about (new) standardization initiatives and opportunities for participation at regular intervals and through multiple communication channels (websites, trade fairs, conferences and events, e-mail communication, newsletters, etc.).

Each hosting association also provides regular status reports and all necessary information in English to enable the other associations to inform their members and ensure effective coordination of global machine vision standards.

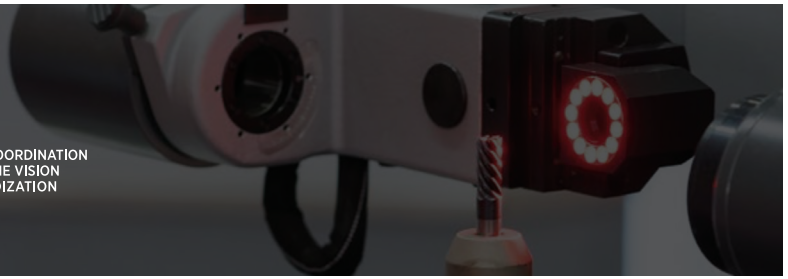
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### ▶ **Intellectual Property**

The intellectual property of a standard is held by the association that developed it.



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## INTERESTED TO LEARN MORE?



Get further information about the G3 standards in the G3 publication  
“**Guide to Understanding Machine Vision Standards**”

## INTERESTED TO CONTRIBUTE?

The G3 standards thrive when they are developed, improved and applied by as many as possible. Hence, your interest and contribution is very welcome.  
Please, contact your regional Machine Vision Association.

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## CONTACTS:



**A3 (Association for Advancing Automation)**  
Regional Scope: North America  
**Bob McCurrach** (bmccurrach@automate.org |  
+1 (734) 929-3267 | <https://automate.org/vision>)



**CMVU (China Machine Vision Industry Union)**  
Regional Scope: China  
**Yun HUO** (hy@china-image.cn | +86 10 62650592 |  
<https://china-vision.org>)



**EMVA (European Machine Vision Association)**  
Regional Scope: Europe  
**Standards Office** (standards@emva.org |  
+34 93 220 7201 | <https://emva.org>)



**JIIA (Japan Industrial Imaging Association)**  
Regional Scope: Japan  
**Tsuneo Sakuma** (sakuma@leimac.jp | +81 3 6403 1440 |  
<https://jiiia.org/en>)



**VDMA Machine Vision**  
Regional Scope: Europe  
**Dr. Suprateek Banerjee** (suprateek.banerjee@vdma.org |  
+49 69 6603 1977 | <https://vdma.org/machine-vision>)

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