

## IBM PowerAI Vision

Create AI solutions with images and videos without deep learning expertise

Organizations use deep learning to unlock insights yet many organizations currently have a skill and resource gap impeding adoption of deep learning and data science. Designed to lower the barrier of entry required to create AI applications, PowerAI Vision delivers an intuitive toolset that empowers business users to create vision models without coding or deep learning expertise. Organizations without data scientists can create highly accurate models to classify images and detect objects in images and videos and tap into new business insights.

IBM PowerAI Vision includes the most popular open source deep learning frameworks, tools, and is built for easy and rapid deployment. It provides complete end-to-end workflow support for computer vision deep learning models that includes complete lifecycle management from installation and configuration, data labeling, model training, to inference and moving models into production.

By combining PowerAI Vision with accelerated IBM Power Systems servers, organizations can rapidly deploy a fully optimized and supported AI platform with blazing performance.

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### Highlights

- Unlock AI for SMEs to train vision models without deep learning skills
  - Streamline processes to quickly label, train, monitor and deploy AI models
  - Deploy trained models on-premises or on edge devices
  - Extend AI solutions with advanced tools and support for custom models
  - Enterprise-grade reliability and support
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### What's new in PowerAI Vision

- Support for custom models. Now, data scientists can import their own TensorFlow models into PowerAI Vision to be trained and deployed.
- Expanded support for inferencing trained models. Inference on nonaccelerated Power Systems as well as on accelerated and nonaccelerated x86-based systems.
- Improved statistics for Data Scientists. An elaborated set of metrics for data scientists to gauge accuracies of trained models.
- Inference on FPGAs (Xilinx Alveo U200 FPGA on Power)

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# PowerAI Vision

### [PowerAI Vision Logo](#)

#### Designed for Subject Matter Experts

Typically, AI platforms are designed for data scientists and ML/DL experts, but often it's the Subject Matter Expert or Domain Expert who really knows and understands the problems organization's face in the field. Designed for SMEs, PowerAI Vision enables SMEs to solve business problems with deep learning vision models. The simple graphical user interface (GUI) guides SMEs to create point-and-click vision models. Without the dependence on data scientists, PowerAI Vision lowers organizations' entry into deep learning.

#### Streamline AI processes

Deep learning is a team sport where data officers, data scientists and application developers play a very dependent role. PowerAI Vision streamlines the processes, minimizing inter dependencies and accelerating the lifecycle of managing models.

#### Accelerate data labeling

PowerAI Vision includes features like auto-labeling and data augmentation to accelerate time to label datasets. Challenges like training models with limited datasets are addressed by a variety of augmentation capabilities that increase the dataset by several folds. The trained model can be used to enhance data sets and auto-label a new, larger data set. Instead of manually labelling, the SMEs becomes the supervisor and auditor of the results of data labeling, saving time and

resources.

#### **Advanced Tools**

While designed for the SMEs, PowerAI Vision offers data scientists tools, improved statistics, and the ability to fine tune hyperparameters if required. Additionally, Data scientists can extend AI solutions and bring in custom TensorFlow models to train and inference.

#### **Complete Ecosystem**

PowerAI Vision provides differentiated value with a solution encompassing all steps of deep learning for image and video processing. Data sets can be labeled, trained and deployed easily within the GUI. With the ability to inference on nonaccelerated Power Systems and x86-based systems as well as on the Edge on FPGAs, PowerAI Vision offers an array of options to brings models close to the source of data.

#### **Hardware platform description and ordering information**

PowerAI Vision is optimized for use with the following hardware configurations:

IBM Power System AC922 (Model 8335-GTG) with NVIDIA Tesla V100 GPUs

IBM Power System S822LC for High Performance Computing (Model 8335-GTB) with NVIDIA Tesla P100 GPUs

<https://www.ibm.com/us-en/marketplace/power-systems-ac922>

Inference Only: Accelerated & nonaccelerated Power Systems and x86-based serves, FPGAs (Xilinx Alveo U200 FPGA on Power)

## Why IBM?

IBM understands that applications and business processes have differing demands and that one size does not fit all. To ensure that technology aligns to business rather than the other way around, IBM offers a full portfolio of Power Systems and Software.

Businesses that rely on IBM Power Systems servers don't just value leading technology and applications. They value the exceptional client experience that IBM provides throughout the business solution lifecycle that helps them drive rapid and lasting business value.

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## Next steps

→ [Visit the website](#)

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## For more information

To learn more about the IBM PowerAI Vision, please contact your IBM representative or IBM Business Partner, or visit the following website: [ibm.com/us-en/marketplace/ibm-powerai-vision](https://ibm.com/us-en/marketplace/ibm-powerai-vision)

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