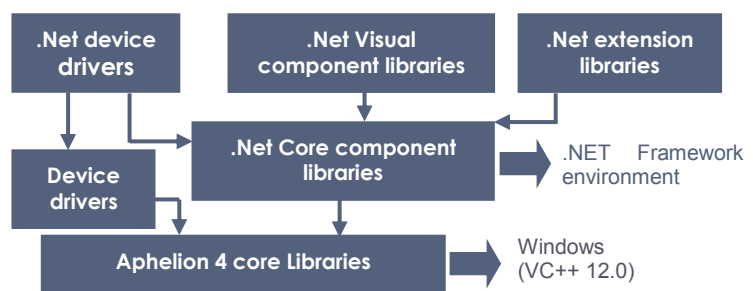# Aphelion™ SDK

BUILD IMAGING SOLUTIONS
WITH APHELION SOFTWARE DEVELOPMENT KIT

Aphelion™ Image Processing and Analysis Software is a comprehensive toolset for developing imaging applications and is fully compatible with Windows™ environments. Its most recent version, Aphelion 4.x, is built on the Microsoft® .NET Framework. The latest version of Aphelion is based on this comprehensive set of elementary components: Aphelion SDK.

The Aphelion .NET components are based on the new Aphelion 4.x native libraries, executable under Windows® environments. The left panel below lists additional, major improvements added to Aphelion 4.x. The right panel shows the Aphelion components structure.

- **Larger Images** – Support for 64-bit environments enables processing images requiring more than 32-bit memory addressing.

- **Faster Performance** – Optimized data addressing improves processing speed.

- **Higher Productivity** – Improved design of classes, compared to ActiveX® components, are easier to use.

Aphelion SDK is organized as components that includes:

- **Imaging Toolkit Classes:** Arithmetic, EdgeDetection, Filtering, Frequency, Geometry, Logic, Measurements, Morphology (.Distance, .Enhancement, .Geodesy, .Segmentation, etc.), Objectset conversion and processing, Segmentation, Utility.

- **Component Classes:** Attribute, Data, DrawingTool, Image, Kernel, Measurements, ObjectSet, Resolution, Shapeset, Structuring-Element, ZoomingTool, etc.

- **Visual Control Classes:** ImageView, ChartView, ObjectSetView (grid), Multi-ImageView, DeviceControlView (acquisition device).

Using Aphelion SDK, development of powerful imaging applications can now be quickly and efficiently performed in Visual C++®, Visual Basic®, Visual C#®, or any other software development environments supporting the Microsoft .NET framework.

Main benefits of Aphelion SDK:
- Full-compatibility with 3rd party Microsoft® .NET components enables development of powerful applications that require more than image processing functionality
- High quality design for easy integration
- Capability to process very large 2D and 3D images (exceeding 32-bit memory addressing, and up to the computer's RAM)
- High performance imaging libraries for higher performance applications
- Ability to address applications requiring high performance CPUs (e.g., high-throughput microscopy)

Rev: 2.0