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.NET Core technology in scientific tasks

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Today we have an established stack of tools to develop applications, systems and services for scientific purposes. However, not so long ago a new technology, called .NET Core appeared. It's supervised by Microsoft, but its open-source and developed by a wide community of programmers and engineers.

That technology has a lot of advantages like high performance, simple and productive parallel programming abilities, support of high-level programming languages (C# 7.0, F#) and so on.

But the main advantage in comparison with its predecessors is cross-platform abilities. Once written code can be natively compiled on a large number of platforms and hardware systems. It can be used on Windows, Linux, Mac and all Unix-based operation systems. It supports different hardware components and processors, for example, it can be used on ARM processors.

The technology supports containerization and can be used with Docker or Kubernetes. It gives an ability to develop applications with micro-service architecture from the box and provides convenient deployment tools. Now, in a set of tasks .NET Core surpasses currently used tools in scientific sphere tools like Python, Go, Ruby, Java, Node.JS and others. Also, it can be used to develop native desktop applications with HTML-based GUI for administration and monitoring purposes.

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