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By: Marius Oiaga, Technology News Editor



Microsoft

## [Academic Resource Kit - Free Tools and Resources from Microsoft](#)

### *A Microsoft Romania initiative aimed at fueling technology access and adoption*

Whether you want to build an AJAX-based web application, or a Windows game, the Academic Resource Kit is a great place to start. A Microsoft Romania initiative aimed at driving technology access and adoption, ARK is designed as a comprehensive collection of tools and resources addressing both the development and design aspects of building software solutions. I had the chance to chat with Microsoft Romania's Todi Pruteanu about the ARK initiative, and the interview below will provide you with a great insight into the Academic Resource Kit. **1. Just to get started, please tell our readers who you are and what is your role at Microsoft.** Pruteanu: My name is Todi Pruteanu, my role is Academic Developer Evangelist at Microsoft Romania for more than 4 years now. **2. What is the Academic Resource Kit and how does it benefit students today?** Pruteanu: ARK is a set of powerful development and design tools plus useful educational resources, such as documentation, code samples, curriculum materials, and tutorials that demonstrate the value of the Microsoft platform in technical education. The result is a fully loaded DVD that we've produced in a quantity of 100,000. We have disseminated most of the copies during the summer and in back-to-school campaigns, especially in High Schools and Universities. The product is described on [www.microsoft.ro/ark](http://www.microsoft.ro/ark) (in Romanian). **3. Please tell us a little about the background of the initiative. In what manner has it evolved since its introduction?** Pruteanu: It all started with a couple of facts we have in mind. On one side, we need more and better equipped professionals in the IT industry. We hope that ARK, with the technology included and usage scenarios we've described, will create enthusiasm amongst the young audience. For instance, it has never been easier to program games for Windows or Xbox 360 consoles or Web applications or data-intensive applications, to describe only a couple of usage scenarios of ARK - we now hope that the young developers will realize even more the magic of the software and will follow a career in information technology. For the more experienced students, ARK should play the role of free tool set always available for school or personal projects. To summarize, we hope that ARK will influence the number and the quality of the professionals in the IT industry in the years to come. On the other side, technology access and adoption has been a priority for many years now at Microsoft, for the STEM students. Speaking now for just Romania, MSDN Academic Alliance is a very popular program that enables free technology access for students, with some tens of thousands of product downloads each year. MSDN AA is essentially a program for STEM departments and most of such departments in the country are members of this program. Going forward, our product teams in Redmond produce quality educational programs that, on top of our technology access programs, help students and professors better experience our products. Let's take Windows Academic Program: students in Computer Science have access to Windows NT kernel source code, professors have access to curriculum materials we've built over the past years to encourage Faculty teaching Windows as a platform at Operating Systems classes. This is something relatively new from Microsoft and students and professors appreciate a lot this content. But wait, there are many other similar programs, in areas such as Web design and development or database development. We've put all this content in Academic Resource Kit. So, to summarize, ARK is a good exercise we did to include free tools and educational resources from Microsoft in one disk, impacting technology access and adoption. So, to summarize, ARK is a good exercise we did to include free tools and educational resources from Microsoft in one disk, impacting technology access and adoption. We have seen positive reactions from students and professors who received Academic Resource Kit, online on

forums and blogs but also in-class, where we know many professors will use it in teaching technology.

**4. What tools and resources does Microsoft offer with the Academic Resource Kit?** Pruteanu: As mentioned, the product is described in [www.microsoft.ro/ark](http://www.microsoft.ro/ark) (in Romanian). It includes tools such as the Express editions of [Visual Studio](#) and [SQL Server](#), [ASP.NET AJAX](#), [IronPython](#), [Windows PowerShell](#), [Virtual PC](#) and [Virtual Server](#). On the resources side, it contains curriculum materials for Windows and SQL Server, security teaching materials, documentation and code samples for Visual Studio and SQL Server or episodes from our Behind the Code show on Channel 9. We described on [www.microsoft.com/romania/educatie/ark/navigare.htm](http://www.microsoft.com/romania/educatie/ark/navigare.htm) each product included, with more relevant links on the Microsoft website.

**5. Are the components of the Kit available as separate offerings from Microsoft? Can these components be upgraded to their latest versions as they become available?**

Pruteanu: Absolutely. ARK is not a product per se, it's a collection of freely available tools and resources from Microsoft. For instance, we included on Academic Resource Kit the 2005 version of Visual Studio (the Express editions) - and the recipients generally upgrade now to the 2008 version, already available on <http://msdn.microsoft.com/express>.

**6. What are the use-case scenarios for the Kit?**

Pruteanu: There are many usage scenarios for Academic Resource Kit :o) Let me pick only 3 here. First of all, we took advantage of the broad dissemination and described some of the most important starting points, i.e., what is MSDN, what is TechNet, the Beginner Developer Learning Center, the Coding4Fun community, Port25, Codeplex etc. We recommend this lecture to anyone interested about Microsoft programs and communities we support:

[www.microsoft.com/romania/educatie/ark/puncte\\_pornire.htm](http://www.microsoft.com/romania/educatie/ark/puncte_pornire.htm). We've already described Windows Academic Program (WAP) before - we wanted to describe this scenario, using Windows at Operating Systems classes with full details regarding the components of WAP (i.e.e, Curriculum Resource Kit, Windows Research Kernel, and ProjectOz), how to get access to source code, or how to use the curriculum materials. The result is on

[www.microsoft.com/romania/educatie/ark/sisteme\\_operare.htm](http://www.microsoft.com/romania/educatie/ark/sisteme_operare.htm). Next, we paid attention to our application platform and underlined the importance of learning .NET Framework, Visual Studio, Expression Studio and SQL Server while in school. There are today many new areas where the .NET Framework model is needed, such as embedded and mobile development, game development using XNA - and these new areas are generally very popular amongst students. The disk includes a vast set of resources for Web design and development and data-intensive applications. Take a look at

[www.microsoft.com/romania/educatie/ark/platforma\\_aplicatii.htm](http://www.microsoft.com/romania/educatie/ark/platforma_aplicatii.htm).

**7. Can you give some examples of the kinds of solutions that developers can build with the Kit?**

Pruteanu: Some of the preferred examples: Modern Web applications written in Visual Web Developer Express Edition, including AJAX support in the front-end and SQL Server support in the back-end; Games developed using XNA in Visual C# Express Edition for both Windows and Xbox 360; Research projects using Windows Research Kernel (i.e., WRK part of WAP) and Shared-Ource Common Language Infrastructure or Rotor (an implementation of the Common Language Infrastructure and C# standards). Examples: personal Windows NT kernel or a customized C# compiler, etc.

**8. How does this initiative promote education? What is the overall goal of the Academic Resource Kit?**

Pruteanu: As mentioned already, this is a tool set specifically designed for students and Faculty and therefore the academic relevance was a priority for us. We think Academic Resource Kit will improve education in technical areas simply because it brings the technology and the guidelines closer to students and professors. And, again, we hope that later ARK will influence the number and the quality of the professionals in the IT industry in the years to come.

**9. Is the Academic Resource Kit part of a Microsoft product roadmap? Where do you see this initiative go in the future?**

Pruteanu: No, Academic Resource Kit is not part of the Microsoft roadmap. It's a Microsoft Romania initiative, in a moment when this is required by both the economic climate and the education system. In the same time, the Microsoft products included in Academic Resource Kit have

their own roadmap and, if interested, one should visit the product homepage for details. We will do our best to build useful educational resources for these products. Academic Resource Kit does not even have a precise recurrence. When we launched .NET Framework 1.0 in 2002, we had a similar project started in Microsoft Corporation, bringing evidence and case studies from Universities regarding various ways .NET Framework can be used in teaching. Five years later we've decided to implement another kit but this time with a greater product span and more usage scenarios. Some other colleagues from other subsidiaries did the same thing in other countries in time. We will continue with such initiatives - the next steps is building more specialized content (e.g. mapped on "Software Engineering", "Databases, BI and Data Mining", "Embedded and Robotics Development") for professors bringing content already available on Faculty Connection ([www.microsoft.com/faculty](http://www.microsoft.com/faculty)) and more. Stay tuned!

**10. Where should the readers that are interested in the Academic Resource Kit go to find additional information?** Pruteanu: The website is [www.microsoft.ro/ark](http://www.microsoft.ro/ark) and I would recommend it especially to the Romanian readers. Students and hobbyists should get acquainted with the academic offerings from Microsoft and a easy way to do this is visiting [www.microsoft.com/romania/educatie/ark/puncte\\_pornire.htm](http://www.microsoft.com/romania/educatie/ark/puncte_pornire.htm). For professors, we strongly recommend Faculty Connection ([www.microsoft.com/faculty](http://www.microsoft.com/faculty)) as the most efficient way to stay in contact with news, curriculum, software and opportunities from Microsoft.