



AUTODESK UNIVERSITY 2015

SD9843

AutoCAD APIs: Meet the Experts

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Albert Szilvasy
George Varghese
Lee Ambrosius
John Beltran

Learning Objectives

Get to know some of the people who write the APIs you use.
Meet your fellow AutoCAD programmers.
Find the answers to questions you never knew you had.
Feed your inner geek.

Description

This is the #1 geek-out event for AutoCAD API programmers. Our panel of hardcore ObjectARX and AutoCAD .NET experts from the AutoCAD Development Team is ready to answer your programming questions. If you're writing plug-ins for AutoCAD software, this is the perfect forum to get to know the people who create the APIs you work with, as well as your fellow programmers who use those APIs. Come and ask questions, add your expertise to the discussion, or just listen and learn.

Introduction

It always feels strange to write a handout for this class, because it's an informal panel session. I don't know which way the conversation will go, so I can't give you a summary of, or additional information about, what will be covered. However, I can give first-timers an idea of how this works, and explain a few planned changes to the old hands; and I can introduce you to the panel I've assembled.

So here goes ...

The agenda

AutoCAD APIs: Meet the Experts is a 60 minute panel session. I made sure it was scheduled for Tuesday evening, because one of the goals of this class is to give you a chance to meet your fellow AutoCAD API experts - so you can spot a kindred soul as you trudge down endless hotel corridors and as you're queuing up in the Exhibit Hall for one more slice of pizza. Then you can say hello and maybe make a friend for life.

And when I say 'expert', I don't just mean the panelists. You're one of those experts too! This session typically attracts an audience with more than a millennium of combined AutoCAD programming experience; and many of you are doing incredible things with the AutoCAD APIs – things that the engineers who created them could never have imagined. That is the power of AutoCAD – and the power of the AutoCAD developer community.

So, the first thing we'll do when the session starts is to spend a couple of minutes saying 'hi' to each other. (I know that sounds a little 'new agey', but trust me – it's only a couple of minutes – and it's fun!)

Then we'll ask the five panelists to introduce themselves. To mix things up a little this year, I've asked each of them to do this by talking (for 5 minutes or less) about an AutoCAD API or developer feature that they think is really cool or that they think is a 'well-kept secret'.

That should take us to about the 30 minute mark, when it's time for you to ask your questions. So think ahead about something you want to know about the AutoCAD APIs. You're welcome to ask anything you like about the past, present or future of AutoCAD (although the panelists may choose to be a little vague about the future).

Question protocol

We want to have an open – and productive – conversation, and we'll do our best to answer all the questions posed. However, we've found from experience that there are a few types of question that we can't answer. Here are the main categories:

- Questions about how product features work – Surprising as it may seem, many of the people who know the most about AutoCAD APIs aren't that fluent in using AutoCAD for day-to-day drafting work. Besides, this is a panel about APIs and we want to stay on track.
- Questions about very specific bugs or coding issues you're experiencing – If your code is crashing or throwing an exception, then it's unlikely that the panel can debug your code just from hearing your question. However, if you have very detailed problems that you'd like to discuss,



then we're happy to talk to you after the session has ended – or to arrange to talk to you at some other time during AU.

- Questions about AutoCAD 'verticals' – Sorry, but the AutoCAD 'vertical' (AutoCAD Architecture, AutoCAD Map, etc.) APIs are written by different teams. This panel is from the AutoCAD engineering team, so they won't be able to answer questions about those products.

Other than those few problem areas, its anything goes – you're welcome to ask general questions about which APIs to use to solve a particular problem, to talk about developer features you'd like to see, whatever you like You're also welcome to contribute your own expertise to the discussion.

The panel

Finally, I'd like you to this year's panel in their own words (and in no particular order):

Albert Szilvasy

Albert Szilvasy has been with the AutoCAD Team since 1999, and he has worked on many areas of the product, including the AutoCAD .NET API, AutoCAD OEM, and most recently, AutoCAD I/O.

Albert's classes at AU are:

- SD9731 – "Autodesk's Cloud and Mobile API/Technologies—Meet the Experts", Wednesday, Dec 2, 3:00 PM - 4:00 PM (Panelist).
- SD11515 – "Introducing AutoCAD.IO V2", Tuesday, Dec 1, 3:00 PM - 4:00 PM.

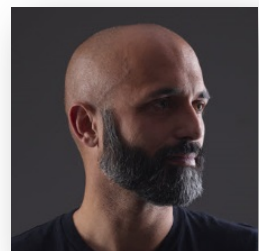


Kean Walmsley

Kean Walmsley is a software architect for AutoCAD software products. He writes regular posts for his popular development-oriented blog, [Through the Interface](#).

Kean's classes at AU are:

- SD9731 – "Autodesk's Cloud and Mobile API/Technologies—Meet the Experts", Wednesday, Dec 2, 3:00 PM - 4:00 PM (Panelist).
- SD9942 – "Virtual Reality Viewing of 3D Models Using Autodesk's View and Data API", Tuesday, Dec 1, 8:00 AM - 9:30 AM.
- SD9945 – "Integrating .NET Code with AutoCAD I/O to Add Design Intelligence to Your Website", Wednesday, Dec 2, 10:00 AM - 11:30 AM.



George Varghese

George Varghese has been with Autodesk for over 15 years, working in the AutoCAD Group, and primarily in the AutoCAD Software Development Group. He worked on AutoCAD software features such as Tool Palette, Table, Ribbon, and others. Lately, he has started working on AutoCAD security features, such as dealing with digital signatures, including the ability to digitally sign LISP files. (LISP files are the primary threat vectors used by attackers to target AutoCAD users). He also worked on the “Trusted Publisher” feature that aids the user in discerning the plug-ins that come from a trusted source.

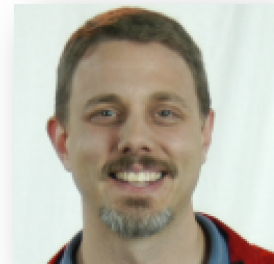


George’s AU class is:

- GEN11518 – “Introducing Secure Development Methods and Concepts for AutoCAD Plug-ins”, Wednesday, Dec 2, 8:00 AM - 9:30 AM.

Lee Ambrosius

Lee Ambrosius is a Principal Learning Content Developer at Autodesk for the AutoCAD software and AutoCAD LT software products. He works primarily on the CAD administration, customization, and developer documentation. Lee has also worked on the user documentation for AutoCAD on Windows and Mac. He has presented on a wide range of topics at Autodesk University over the past 10 years, from general AutoCAD customization to ObjectARX technology. Lee has authored a number of AutoCAD-related books, with his most recent projects being AutoCAD Platform Customization: User Interface, AutoLISP, VBA, and Beyond and AutoCAD 2015 and AutoCAD LT 2015 Bible. When he’s not writing, you can find him roaming various community forums, posting articles on his blog, or tweeting AutoCAD-related information.



Lee’s AU classes are:

- IT10474-L – “AutoCAD Customization Boot Camp—Basic (No Experience Required)”, Wednesday, Dec 2, 8:00 AM - 9:30 AM.
- IT10485-L – “AutoCAD Customization Boot Camp—Beyond the Basics”, Wednesday, Dec 2, 10:00 AM - 11:30 AM.
- IT10489 – “Harnessing the Power of the AutoCAD COM APIs”, Thursday, Dec 3, 10:00 AM - 11:30 AM.



John Beltran

John Beltran is a Senior Software Architect in the AutoCAD Platform Group. He has been a contributor to every AutoCAD release since R12, including the dynamic block, annotation scaling, and geometric constraint features. He has been a speaker at Autodesk University since 2005.



Stephen Preston

Stephen Preston is Worldwide Manager for the Autodesk Developer Network's DevTech team. He and his team have two jobs: to help you use Autodesk's APIs to build applications and add-ins that incorporate Autodesk technology; and to tell the Autodesk Product Development Teams what APIs you need to build those applications. Stephen lives in California with his wife, a dog, 2 cats, and 4 chickens.



Stephen's classes at AU are:

- SD9731 – "Autodesk's Cloud and Mobile API/Technologies—Meet the Experts", Wednesday, Dec 2, 3:00 PM - 4:00 PM (Panelist)
- GEN9885 – "The Top 10 Under-\$100 AutoCAD Apps from the Autodesk App Store", Thursday, Dec 3, 3:00 PM - 4:00 PM (Co-speaker)

