

## The Design Visionaries Training Advantage

### *True Design Experience*

**“Engineers at GM or Mario Andretti? – Who would you choose? “**

At Design Visionaries, our Unigraphics training services can be summarized by the question above. Engineers at GM may know more about automotive design, but Mario Andretti, winner of the Indianapolis 500, will better teach you to drive to excellence. Every UG training class that we offer is taught by a degreed engineer who uses the tool for production work, not a software designer. Therefore, we teach students far more than just an academic knowledge of UG, we relate the experience necessary to make students far more productive.

### *Always Custom*

Another huge benefit of Design Visionaries’ training is there is no such thing as a standard course. In over a decade of UG training experience, we’ve learned that training is best using production work from the customer, in addition to standard materials. We are the proud authors of definitive texts, including Advanced Unigraphics NX2 Modeling and Assemblies; Practical Unigraphics NX3 Modeling, Drafting and Assemblies; Basic and Intermediate NX4 Modleing, Drafting and Assemblies; and Teamcenter Engineering and Product Lifecycle Management Basics, that are representations of our investment in high-end CAD and our students. Before we train, we interview your user community, conduct competency evaluations and collect samples of your work that we use to make the class incredibly relevant and valuable. The exercises we create are documented and delivered to you along with our standard materials for you to refer to after class. In short, our training is the custom-made suit tailored to your every contour, rather than the off the rack counterpart.

### *Perspective*

We’ve learned that emotions are a big part of training, especially in those situations where users are asked to learn a new and different CAD system than they already know. Design Visionaries trainers are uniquely qualified to excel with our clients for the following reasons:

- We are patient empathic communicators with vast design experience, whose motto is “there is no such thing as a bad student, just bad teachers”.
- We are not a target. Since we don’t make the software, we are never seen as the enemy. We are able to be extremely candid with students, pointing out not only how great UG is, but some of the weaknesses of UG, and workarounds that are also necessary to be a great UG user.

- Learning is best done when there's excitement and enthusiasm. Students are excited when they see our instructors effortlessly performing exercises closely resembling their own production work. It helps them look forward to the time when their jobs will be easier and they can get more done in a shorter time period. It takes far more than a good trainer to do that. We fill the order with UG trainers who are also excellent design engineers.
- In a Design Visionaries training class, there is no such thing as a bored student. In every class there's a student or two faster than everyone else. In many cases, these are the gurus that others look up to. We have innovated a way to keep these very important users interested and challenged the entire time they attend class. When they finish an exercise before other students, they are given extra exercises that go a little further than the rest of the class has time for. This means that every person in class is receiving as much as they possibly can the entire time that they attend class. This also means that we don't have to teach at the rate of the slowest student. This makes a Design Visionaries training class far more effective than what's available elsewhere.

### *The Design Visionaries Challenge*

Every group of students that we have ever taught has been given the "Design Visionaries Challenge". Each and every student is urged to bring their toughest production work to class. Once there, we show the students the easiest way the work can be done using UG. In many cases, we are able to innovate a creative solution that can be applied enterprise-wide. We'll document that solution for other engineers, yet to take the course. The more difficult the work is, the more impressive our demonstration will be.

### *A Comprehensive Approach*

A comprehensive approach to training is most useful. The trainer that is assigned to you knows the latest version of UG, and is adept at using all the other components that go along with it, such as the seed files, the patterns, macros, grip programs, etc. This means our trainer is qualified to tell users more than just how to create good models. The promise of high-end CAD programs, like UG, is that they allow the streamlining of the entire workflow. This is only accomplished with complete knowledge of UG and all the other products that go along with it.

### *Spreading the Word*

Design managers are under constant pressure to justify the purchase of high-end software. This can be difficult because the benefits are of a complex and detailed nature – not easily enunciated. Design Visionaries is uniquely qualified to help because we are not a software sales organization. We are an objective third-party source. This lends us more credibility. One of the many helpful services that we can offer is a brief manager training. It is aimed at upper level managers who will never be continuous users, but benefit greatly from a first-hand experience. When

those managers are able to open a file, look at a drawing, take some simple measurements and make simple modifications, they are far more comfortable with the entire design process. The managers are more able to gauge how long a task will take, how well a job has been done, and far more. They will understand how important it is to have the right tool and what that tool offers over others. They will have an understanding of key terms like master modeling, parametric, expressions based design, Parasolid files, etc.

### *Leverage*

"Give me a place to stand, and I can move the earth", Archimedes said of his discovery of the property of levers, roughly 200 years B.C. At Design Visionaries, our experience is our lever, or fulcrum, and our place to stand. We are adept at more than one CAD system, which affords us great leverage. For engineers who know Inventor, Pro/E and SolidWorks and have a lot invested in their expertise, we will be able to teach them more quickly than other trainers using what they know as leverage. Since we also use Pro/E, SolidWorks and others, we are able to access what they know from the other packages. For example, when we teach "instance" arrays in UG we can express the subject in terms of Pro/E "patterns". This makes students far more comfortable and streamlines the learning. It also lends our trainers far greater credibility.

### *Flexibility*

Design Visionaries training is flexible and, in general, we will do whatever it takes. Most customers request a standard 40-hour week, eight hours per day, but that doesn't always fit into the busy schedule of our customer. We are willing to break classes up in other ways, such as four days of ten hours each, ten days of 4 hours each, etc. We have had customers that wanted us to teach on second shift, while others wanted class to begin at 6:00 AM.

### *Coordination of Training and Work*

The best way to teach Unigraphics to engineers is to emulate the natural flow of production work. Engineers learn best by doing. This means you give students enough in their first encounter with Unigraphics to enable them to perform production work. Also, you teach the classes using samples of their production work. Once the students are somewhat comfortable, although not proficient, you may then build onto the knowledge base they have, showing increasingly improved ways of working as you go. In their very first class, they will learn basic modeling, assemblies, and drafting which will enable them to get the job done. Between their first and second classes, they are able to practice what they've learned and get work done at the same time. As they practice, they will have pressing questions that relate to their work. In their next class, they will learn a

host of far more advanced modeling tools, more powerful assembly tools, more drafting, and the answers to their questions.

Other users will need or want the advanced class. Some users will become very proficient. They will have a far better feel for what is important to learn and the learning rate for it. Some others will become more advanced on their own by experimenting with the software and attending the user group meetings.

### *Less is More*

The best way to teach high-end CAD to engineers is to focus on what is very important and/or difficult, while neglecting the things that either won't be used or that students will easily find out on their own. This is a great departure from the academic approach where you try to cover everything. There are a number of ways that UG helps you how to use it as you go, such as the cue line, and icon graphics. Engineers by nature are creative and inquisitive, and if you teach them how to find commands that they've never seen before, they will benefit long after the class is over. In essence, the old adage "give a man a fish and he'll eat for a day; teach a man to fish and he'll eat for a lifetime", applies to UG training. As we focus on the use of UG for production work, we are building solid basics faster than is possible any other way. Once students have gained strong basic skills, the intermediate and advanced material is more easily learned.

### *Measurement*

The training provided by Design Visionaries is measured by the pre-test given to students before the class begins and the exit test after class ends. The two tests reflect their progress learning material as close to their production work as possible. Each class is concluded by a report, which outlines the overall increase in user ability for the entire class. This provides decision makers the following benefits:

- General validation of the training.
- Knowledge of the training needs and knowledge levels of individual users.
- Validation of the effectiveness of the instructor.