



Career Advice: Creating Your Demo

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These days, to get a job in the game industry, you must have a demo no matter which career track you choose as a focus. Writers create portfolios to show off their best work, so do photographers. Obviously a game artist won't get a job without one. Neither will a game designer, a programmer, marketing professional nor a producer. What you put in your demo depends heavily on what sort of job you're after.

Regardless whether you create your demo in the form of a personal Web site, a CD, a videotape, or an Acrobat Reader file, you need to put your best foot forward. The biggest demo turnoff is a collection of big ideas done poorly. So what's the right path to success? Follow our advice...

Game Designer, Level Designer, Or World Builder?

The trick is to clearly show and communicate your abilities in the area you intend to focus your career. For example, if you strive to be a full game designer, what most game companies expect you to demonstrate -- outside of good communication skills -- is your ability to generate clearly understandable design documents, diagrams, and AI designs. And you should be able to pace out the gameplay throughout the entire game, keeping the player engaged, excited, and not frustrated.

Similarly, if you desire is to be a level designer or world builder, you should be able to not only show levels you created in the area you are seeking employment, but also an ability to walk your prospective employer through each of your levels, explaining why you designed it the way you did. Don't be afraid to talk about how you altered your designs to fit a game engine or game hardware restrictions. That information is very impressive. Show and share it!

The best format for your demo is a Web site or CD containing completed 3D level designs for *Quake*, *Half-Life*, etc. Design map layouts, script AI behaviors, build and modify characters, create and modify triggers, demonstrate your ability to do level layouts using 3D Studio Max or Maya.

Your samples should show an understanding of gameplay and strong design principals. You'll want to include a text file with your levels to give instructions on how to load the levels, and provide a brief summary of your design thought process for each level. Include in your demo samples of design documents, grid paper designs, game pitches, and game systems (i.e. resource economies, combat models, etc.).

There may be some areas of experience that are more important to your specific target game company, so it's best to do as much research as possible before submitting your demo. If you're target company uses a licensed technology, like the Unreal Engine, then you should use the same technology to create levels in your demo. Find out how your target company prefers to see 2D or 3D levels and make sure your demo is customized to this. Don't forget to add as many notes as possible describing your play mechanics and how they work. Sometimes you will find several designers working on the same world or level. Therefore it is very important that, in your demo, you clearly distinguish your specific contribution.



Game Programmer?

To get a game-programming job, a great way to stand out is to present a portfolio of code samples and games you have developed. If you're just starting out, create a game of your own or clone an existing game, yet be sure to add an original idea. Create your own software tools for game development. In short, design an application that showcases your coding ability and strengths.

Your demo need not be too complex; what you want to do is demonstrate your grasp of current game programming techniques and technologies. Do this by creating a few small, self-contained games. The more robust and complete the game (multiple levels, beginning and ending sequences, etc.) or tools, the more attention you will get. Your aim is to demonstrate that you understand how a video game works and how it is designed. You'll want to include a text file that gives any instructions on how to load the game, and provide a brief summary of your design thought process or what you learned technically.

Example tools that you can create for working on a game include image loaders for bitmap or GIF files, audio loaders for WAV files and MP3s, tile map editors, preview utilities for audio and image files, or wrapper classes that will make it easier to use a popular API like DirectX.

For each game or tool you have coded, show screenshots. Consider creating small AVIs that quickly walk a prospective employer through a level of your game or that demonstrate functionality. That way, when someone hops onto your Web site, they can quickly get a feel for your abilities without having to take the time to download and then run your game or tool.

On your Web site, make available an accurate sample of your production code with a large enough scope to demonstrate some interaction among various sections of the code. This is a great way to show off your coding prowess. Remember that the code needs to be clean and well-documented. Technical hiring managers want to see how you organize code and go about solving problems.

Another way to generate assets for your programmer demo is to join an open source project. Head over to [SourceForge](#), which is a repository of applications currently in development. All the source code there is available for free. You can learn from looking at other people's code as well as modifying it to your purposes. One of the cool things about the open source movement is that you get to learn from others and extend their work in your own way.

If your target game company creates console games and you don't have this experience yet, get creative. Figure out what you can code that might assist your target game company more efficiently create games. I promise you will be considered first for a job if you can provide your prospective new boss with a solution to a problem they face.

Yes, it is tough to obtain console experience without having access to a development station. However, the Net has tons of technical information available on almost any game platform. Do research and obtain the specific information you need to familiarize yourself with a console and some of the issues around it.

Game Artist?

Although some game careers don't necessarily require a demo, you simply can't become an artist without presenting a mind-blowing demo reel. The best format is a Web site or CD containing clips from games on which you previously worked. Of course, if you're trying to break into the industry, you won't have professional game clips to show off, so you'll need to get creative.



Game companies receive literally hundreds of demo reels each month from aspiring artists and, as you might imagine, very few make the cut. Unfortunately, in most cases, it's the submitted material -- not the individual's skills -- that gets in the way of scoring a job. So how does one stand out from the crowd?

Don't try to be a jack-of-all trades. Use your demo to highlight and emphasize your strengths.

Are you an animator? If not, don't put animation in your reel. If you're a great animator but can't model, use someone else's models. Are you a texture artist, are you good at color composition, at lighting? Abstract or cartoon characters in your demo instead of realistic human or other carbon life forms is an immediate warning to an art director. If you can't really build characters, don't claim you can. Spend your time refining the few elements you're exceptional at, rather than trying to be good at everything.

Here is a list of suggestions for designing your demo:

Exercise #1: Generate a series of concept drawings, color comps, and construction layouts based on an original game concept, or take an existing game, book, comic, or film franchise and visualize elements from it, as if you were preparing initial images for a game project. Include conceptual images of characters, objects, environments, and possible story/game scenes.

Exercise #2: Based upon these concepts -- and using one of the noted 3D software packages (preferably one that a prospective employer is using in production) -- generate several models. Choose examples from each asset type that you have conceived: characters, objects, creatures, vehicles, and structures.

Exercise #3: Now that you have several models, it would be a good exercise to create and apply appropriate textures to fully realize your aesthetic vision. Using Photoshop -- and possibly DeepPaint3D or another UV mapper -- apply these textures to your models.

Exercise #4: Taking your textured models, set them up for animating, if necessary, in your 3D software package. If you are not a proficient animator, apply mo-cap or pre-animated files to your armature. If you are an animator, create several short move animations of 30 to 60 frames, including a walk/run cycle, several periodic personality idles which reveal your ability to "act" through your character model, and a couple of dynamic action moves to stress test your model.

Exercise #5: Finally, either using a standard 3D software package or a commercially available level/world editor, create an acceptable example showing your abilities at building an exciting, compelling environment. Keep it limited in scope so that you can use your limited resources of time and materials to make the most professional quality portfolio piece of a world.

Concentrate on those exercises that represent your best work for your targeted career goal (whether that's a concept artist, modeler, texturer, level builder, animator, or interface designer).

The results of these exercises should yield quite a portfolio of game art assets that, if consistently polished to a higher production value through honest self-critiques and re-edits (and using successful marketed products as the paradigm), they will no doubt fuel a very appropriate demo presentation to prospective employers.



Putting It All Together

Once you have your demo's assets organized and refined, put them on a Web site, CD, or videotape. You never should be caught with an outdated resume nor an outdated Web site, even if you're not actively job hunting. You will need your Web site for networking.

And never make apologies for your demo. It needs to be up-to-date, fresh, and exciting. If you feel the need to apologize for the lack of quality or the lack of substance, we suggest that you've got some work to do!