Who Uses CAD Software?

by Aurelio Locsin

Computer-aided design -- using software and hardware to create blueprints and plans -- is popular with people who work in manufacturing and construction because they can use these drawings to create goods and buildings. The technology allows easy modifications, converts quickly between two and three dimensions and generates automatic supply lists. CAD software is used in several occupations.

Drafters

Drafters are sometimes called CAD operators because they rely on the design software to perform their jobs. They transform the specifications and sketches of architects, engineers and other planning professionals into technical drawings and plans. They often specialize in a particular architectural or engineering discipline. The job requires post-secondary training in drafting, up to an associate degree. As of May 2011, according to the Bureau of Labor Statistics, the yearly compensation for drafters was $50,160 for architecture and civil, $57,240 for electrical and electronics, $52,150 for mechanical drafters and $48,370 for all other drafters.

Architects

Architects design structures such as homes, skyscrapers, shopping malls and government offices. They first consult with clients to determine their needs and prepare plans to meet those needs. Although they often give their ideas for drafters to flesh out, architects can also use CAD to create more finished presentations and virtual models. The job mandates a professional degree in architecture. Landscape architects design outdoor spaces and typically require a bachelor's degree in landscape architecture. Both types usually need a license that mandates the education, an internship and passing all parts of

the Architect Registration Exam. Architects specializing in structures made a mean $79,300 per year, while those handling landscapes averaged an annual $66,520.

Engineers

Engineers use scientific principles to design machines and manufacturing methods, and they specialize in such subjects as aerospace, electricity, mechanics or computer hardware. They use CAD to create preliminary designs or to visualize their concepts for managers and clients. They typically need a bachelor's degree. Those offering services directly to the public also need a professional engineer's license, which mandates an accredited education, four years of work experience and passing a two-stage exam. Average annual pay for engineers varied by specialty. Some examples were $83,550 for mechanical engineering, $94,670 for electronics, $89,200 for electrical, $101,360 for computer hardware and $138,980 for petroleum.

Marine Engineers and Naval Architects

Marine engineers and naval architects perform the same functions as their land-based counterparts, but for vehicles and equipment that function on water. They use CAD to design the hulls of freighters, visualize offshore rigs or create lobby interiors for cruise ships. A bachelor's degree is the minimum requirement. However, many also obtain a mariner's license from the coast guard, which requires passing an exam. Marine engineers and naval architects received a mean $91,730 per year.

About the Author

Aurelio Locsin has been writing professionally since 1982. He published his first book in 1996 and is a frequent contributor to many online publications, specializing in consumer, business and technical topics. Locsin holds a Bachelor of Arts in scientific and technical communications from the University of Washington.