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SOLIDWORKS 2018 DEBUTS

SOLIDWORKS is back again in the year 2018. The package has some added tools, enhancements and features to give you a complete new experience. Right from the welcome screen, the application has new and improved data management capabilities, integrating CAM feature along with some other innovative functionalities making it again your best design partner.

Pen and Touch Enabled Devices:

The application supports new touch enabled capabilities. This is one of the most significant changes that came with SOLIDWORKS 2018. Now, you can make sketches using touch enabled pen. The application even supports customized mouse gestures making it more user-friendly and interesting to use.

Adding Granular Details:

SOLIDWORKS 2018 has come up with new capabilities to work with assemblies such as Adding Mates Between Hidden Surfaces, Misaligned Mates, and Smart Explode Line Tool. The application has also introduced a new Tab and Slot feature for the sheet metal design. Now you can create the inspection document ation directly from 3D models.

CAM Integration:

The most promising feature that SOLIDWORKS 2018 brought about is the CAM integration. The feature is called SOLIDWORKS CAM and works as a new application. The capability leverages CAM technology which is pretty interesting software in itself. Such integration will automate the entire manufacturing programming.

Enhancing the Complete Cycle:

SOLIDWORKS 2018 comes with an integrated approach that works with your product right from design to manufacturing. This is done by putting the part or the assembly model in the Centre of the action. The concurrent collaboration capabilities of SOLIDWORKS 2018 keeps the data well managed so that you can create a design using manufacturing strategy across the product development workflow.

Ease in CNC Programming:

The application has come up with new part and assembly machining, a 2.5 axis milling, and a two-axis turning features. Such a feature is capable to make CNC (computer numerical control) programming less time consuming and simple.

Automating the Manual Inspection Process:

The revised version of SOLIDWORKS has automated inspection capabilities. This feature helps you to save time skipping the manual inspection process. Dassault now claims that the 2018 version can carry out the article inspection process and generate reports in minutes.

Dealing with the corrupted files:

If your repair attempts fail to resolve a corrupted file, SOLIDWORDS 2018 now prompts you to extract your geometrical details if data about the body is still intact. You can use this extracted data to create a new model.

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What's Cooking: How 3D Design Is Changing the Food Industry

3D printers have marked their presence in most of the industries. Medicine, Aerospace, and the automotive industry have been using 3D printers to develop high quality designs that deliver high performance. On the way forward, another industry has now started to adopt the 3D printing technology - The Food Technology.

Chefs and researchers collectively suggests that the 3D print technology can help to make the food production faster, more sustainable, and easier. The technology can develop food that is specific to our diet.

Here, are some of the benefits that the 3D printers can bring about:

Personalized Nutrition

As these printers follow strict digital instructions for printing, they are also capable to develop food which is specific to a particular diet. These printers can develop food for people who require certain levels of nutrition for a specific lifestyle or those who are undergoing some medical condition.

Enhanced Food Productivity

3D printers are best known for printing objects with precision, effectiveness and within short time. Such a technology is estimated to develop food designs that are most complicated and intricate. Chefs will now be able to perform beautiful food garnishing faster. Also, 3D printers will help to develop multiple food items that look alike, ultimately helping chefs to complete more tasks in limited time.The Space Mouse Enterprise Kit is another addition to this technology. This two-handed workflow is one of the best ways to create the next intricate food design. The kit is a complete package that helps the chefs to create detailed and accurate food design patterns.

How Augmented Reality Works?

Computer graphics have grown to extended levels in the present times. Graphic designers and researchers are now working together to pull graphics out of the screens right to merge with the real-world environments. Commonly known as the Augmented Reality, it is capable enough to blur out the difference that lies between computer-generated graphics and real objects.

Augmented reality aligns with the concepts of virtual reality and generates immersive computer-generated environments similar to the real world. It adds various elements bringing an experience of natural world. Such elements are:

- Graphics
- Sounds
- Haptic feedback, and
- Smell to the natural world

The prominent drivers in development of augmented reality are video games and smart phones. Users and gamers can now visualize themselves walking down a street. Displays in augmented reality looks similar to a normal set of glasses, but these glasses displays informative graphics in your field of view. In addition, augmented reality also lets you experience sound as well as smell. When you move your head, the setup will refresh all these elements to reflect the movement. Some smartphones, such as iPhone already supports this technology and lets you enjoy games and videos with extra sensory information giving you a whole new experience.

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5 Awesome Things Scientists Do With Lasers

Lasers are the cool and amazing light beams that make us excited. You can see them in a meeting room pointing to an object, or you can even play with them in your home. Lasers may seem pretty recent inventions, but they are with us for over half a century. The laser technology is not only cool but also, they are really useful in the field of science and technology. Below are five awesome things that the scientists can do with the lasers.

OPTICAL LEVITATION: Lasers are powerful enough to levitate stuff. Photons that make up the light exert a force which is known as the radiation pressure. This pressure is so powerful that it can overcome the gravitational force to make an object levitate.

OPTICAL TWEEZERS: The radiation pressure, as discussed above can be used to make optical tweezers to manipulate objects. The technology can affect objects as small as an atom.

LASER COOLING: Lasers can work as coolants too. Lasers are capable of cooling things down by reducing the momentum of atoms or molecules.

FUSION: The laser technology can recreate the environmental conditions which is found in the core of the Sun in the laboratory. Lasers can heat materials up to extremely high temperatures - about a million degrees. Atoms at these temperatures break down to form a soup of ions and electrons. Such a phenomenon causes fusion releasing a high amount of energy. This method can lead to clean power generation in huge amounts.

IMAGE BIOLOGICAL REACTIONS: You can make little science movies with an x-ray laser. Having a very short wavelength, they can capture images of stuff as small as an individual atom. Lasers can take snapshot images of even molecular reactions very quickly. Such a method helps researchers learn biological reactions in detail.

Therefore, lasers have different uses and strengths, applicable from industrial purposes to medical profession bringing a broad scope of this technology.

A New Paradigm in Designing Sustainable **Floating Architecture**

Floating architectures are the buildings designed for living or working purposes. These architectural structures float on the surface of the water and can be moored in a permanent location. They are equipped with their independent electricity, water, sewage and gas systems which functions through a connection of permanent supply lines laid between the floating building and land. Sometimes these architectures also have a self-supporting system for themselves.

The floating architecture has emerged as one of the most sustainable building types when sustainable factors are put into place. This building technique is said to resolve many issues regarding the need for additional land for construction purposes in places such as Europe and Asia. Here, are some of the floating architectures that are said as the recent inventions and can be used as the replicable models across the globe.

HOUSEBOATS: Inspired by ships and fishing vessels, livable houseboats were made. These floating houses resembled a lot to a land-based property. These houseboats are as good as the land homes regarding design & construction and are strong & buoyant enough to withstand the forces of water.

AMPHIBIOUS DWELLINGS: These are the dwelling types that stay on the land but are capable of floating. When the water level rises suddenly, the house is lifted by it. Such dwellings have pontoons or hollow basements that keep these buildings dry. This construction mechanism is gaining significance with the rise in public awareness for the development of waterfront areas. The technology opens not only new construction grounds but also brings new opportunities for water as the renewable source of energy.

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