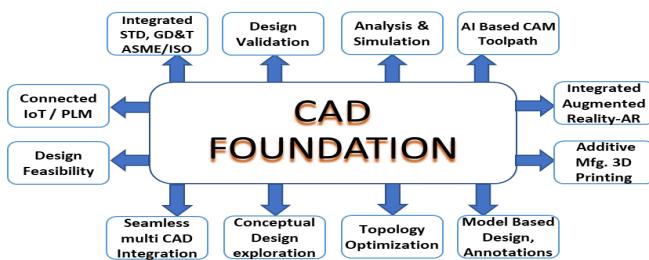




## The CAD World and its latest innovations

Today, the world of CAD is revolving around the convergence of the Physical and Digital worlds. The integration of 3D CAD with Internet of Things technology makes it easier than ever before to collect the data from the physical world to validate its digital twin. 3D CAD was one of the first industrial evolutions toward digitalization and is still the backbone of how companies traverse from the physical to the digital world.

Manufacturing Companies are increasingly demanding CAD software to have more integrated functionality in order for them to reduce the time to market by accelerating the product innovation process as previous newsletters have discussed. This has led to today's competitive and integrated CAD packaging, which is now being assessed for not only its CAD functionality but what else it has to offer that will enable and enhance the product development process. Today, all CAD packages are easily connected to any Product Lifecycle Management (PLM) System where the product's change management and lifecycle are managed.



As you can see from the diagram, 3D CAD is the foundation upon which new technology and offerings are built from. Though all of them are important for various manufacturing and product development companies, we will highlight the 2 key technologies which are revolutionizing the Product Development Process, which are:

- Integrated Augmented Reality (AR) in CAD
- Additive Manufacturing / 3D Printing

### Integrated Augmented Reality (AR) in CAD:



Augmented Reality (AR) is one of the fastest growing segments of the technology market and provides some of the most exciting and game-changing possibilities in software today. AR has come a long way. Reusing existing CAD geometry to create, publish and share an AR visualization experience via the cloud, AR has gone from being a futuristic technology to a reality. This has bridged the gap of providing 3D digital renderings to audiences that typically have not been able to utilize the company's data. Departments like Manufacturing, Sales, Marketing and Service can employ these assets and create AR experiences that now can even be seen using mobile devices. Being able to interact with the design at scale in the real world in three dimensions is game changing. We believe companies can utilize AR as part of their process, whether it's for training new workers in a classroom setting or knowledge transfer from seasoned experts to young professionals in on-the-job settings, AR has a clear role to play.

### Additive Manufacturing (AM) / 3D Printing:

We all have heard of 3D printing, this technology called Rapid Prototyping (RP) existed decades ago. Stereolithography (SLA) started the rapid prototyping revolution, as functional parts can be manufactured within a day but RP/SLA needed 3D CAD geometry to be exported, and could only print with ABS/polymers. Today customers can directly connect their 3D CAD systems to 3D Printers, (whether it is in-house or connected through the cloud), choose the material they want to print and understand the build time and material usage. Additive Manufacturing helps in the rapid creation of "Proof of Concept" or "Prototypes" and helps manufacturers to quickly get from the digital product to the physical product. Increasingly, it is used for small batch production and complicated tooling parts. With today's competitive product development world, we race against time and connected 3D printings is one technology that helps manufacturers win the race against time. It accelerates product development and the NPI process. It is a crucial when it comes to incorporating last minute design change.

We at DRIVEN-4, believe that these additional integrated CAD offerings are crucial to accelerating the innovation process and speed to market and we have the experience and expertise to help your company to reach that goal. Give us a call!

## Next Month: PLM on the Cloud - What's the Real Value?

