Today, there are many technologies that are available to help companies of all types come up with new products and innovate—faster! How can they deal with these mounting daily challenges?

Innovation is key for businesses; however, with fierce global competition, it is increasingly difficult to stay on top. Engineers and designers are faced with an immense pressure to come up with new ideas, working on projects from concept to real part. Engineers and designers have to make sure they are meeting the needs for which their products were designed. 3D printing and 3D scanning are excellent examples of these technologies.

Just as we are today, from the early prehistoric discovery of how to control fire to the printing press to the telephone to the Internet, it is our ability to think and innovate that drove us to where we are today.

Welcome to product development 3.0.

**PRODUCT DEVELOPMENT 3.0**

**WHAT IS PRODUCT LIFECYCLE MANAGEMENT?**

Product lifecycle management (PLM) is the process of managing the entire life cycle of a product, from inception, through development, to manufacturing, to service and disposal. PLM helps manage the information flow and decision-making process throughout the product lifecycle, ensuring that all stakeholders are aligned and working towards the same goals.

**WHY DESIGNERS AND ENGINEERS WILL USE 3D SCAN AND 3D PRINT**

- **Complete RE Software**
  - History tree transferred to CAD software.
  - Complete set of tools for more complex, large-scale projects.
  - Ideal when frequently working on complex setups.
- **Scan-to-CAD Bridge Software**
  - Optional feature for more complex projects.
- **Leverage documentation and analyses**
  - Reduce warehousing costs thanks to inspections.
  - Shorten product development cycles.
  - Improve quality.
  - Ensure faster time to market.

**3D SCAN AND 3D PRINT**

- **Mesh**
  - Extracts valuable data (circle, planes, holes, surfaces...)
  - Import to CAD to perform reverse engineering.
- **Geometry**
  - Create a complete solid model using the 3D scan data and then transfer to CAD to create a model.
- **Alignment**
  - Bring back even the slightest modification to your prototype into CAD to get the perfect design.
- **Feature**
  - There's nothing like having the product in your hands to feel it, try it out—Creation.
  - Getting custom tooling and setups faster is critical in starting the manufacturing process sooner.
- **Control**
  - I'll test in order to optimize—Simulation.
  - Servicing—Making sure everything fits.
- **Production**
  - You need to build from the ground up.
- **Dismantle**
  - Time to plan the end of this product or assembly.
  - Complex setups require special planning to take apart.
- **Maintain**
  - Is your tooling still optimal or must it be replaced?
  - Having the exact shape of an object is highly practical to prepare service manuals or other documentation.
- **Monitor tooling quality**
  - Repair or replace it when required.

**IT'S ALL ABOUT TIME**

Time is money. CAD. This ensures maximum quality and efficiency of the entire product design process.

- **3D Scan**
  - Faster.
  - Direct to CAD—No need to store parts. Store files instead.
  - Better understand product performance.
- **3D Print**
  - Faster.
  - More affordable.
  - Sometimes involve hopping between different software and analyses.
  - More affordable.
  - More time to design.
  - +

**THE WAY TO CAD**

- **Scan-to-CAD Bridge Software**
  - A software module acting as a bridge between 3D scan and CAD; it allows extracting valuable data (circle, planes, holes, surfaces...).
  - Takes the Scan-to-CAD process sooner.
  - +
  - -
- **Complete RE Software**
  - History tree transferred to CAD software.
  - Complete set of tools for more complex, large-scale projects.
  - Ideal when frequently working on complex setups.
  - +
  - -

**CONTACT US**

If you are looking to speed up your time-to-market and gain a competitive edge, if you want to see the real part, if you want to transfer your model to the actual product, if you are looking to generate a complete CAD model out of 3D data, if you are looking for a manufacturing enhancement, contact Creaform today for more information.