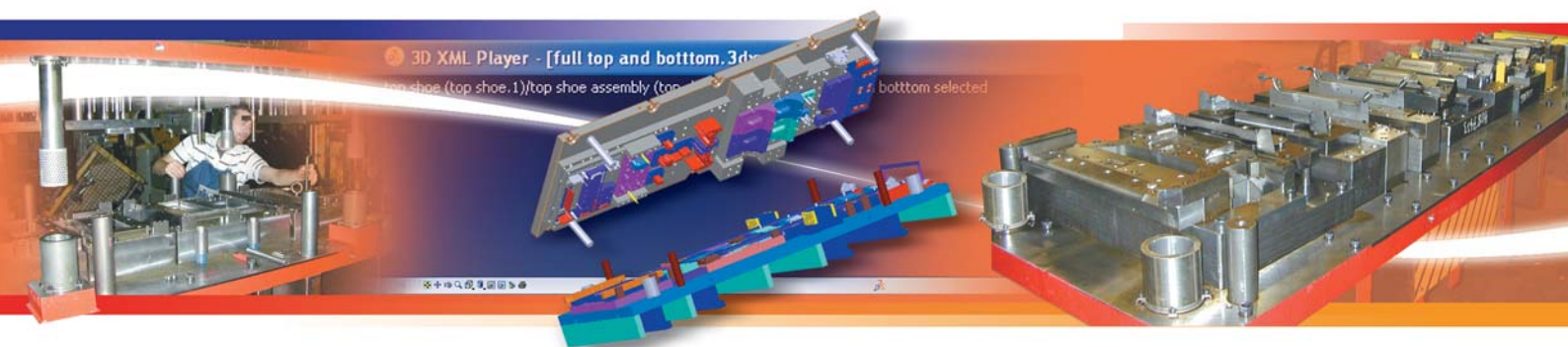


T.A.P.E. Inc.

Revolutionizing die design with CATIA V5



Overview



■ Challenge

T.A.P.E. needed to transition from paper-based and 2D design to efficiently tackle the complex die designs its clients were unable to outsource overseas.

■ Solution

T.A.P.E. chose CATIA V5 for 3D design for its capabilities to handle highly complex projects and its compatibility with its clients' CATIA software.

■ Benefits

With CATIA V5, T.A.P.E. can successfully tackle large projects, create replacement sections for clients' existing dies, streamline new design review and approval and win new business.



"CATIA V5 has created its own demand for new tooling. Now that we have it up and running, our customers choose T.A.P.E. every time."

Bud Mohrman, President, T.A.P.E. Inc.

Transitioning to 3D design

Since 1967, T.A.P.E. Inc. has been providing high-quality progressive dies and precision tools to the automotive, electronics, safety and mining industries. The family owned and operated company in Wellington, Ohio, designs, builds, runs and assembles complex parts made from stainless steel, ferrous, non-ferrous and other alloys.

Prior to 1992, T.A.P.E. used tracer mills to obtain the 3D shapes it needed for its dies, but as CNC became commonplace, the company began drawing 3D wire frames in 2D format for each level in a stair-step fashion. Then, T.A.P.E. acquired a CNC machining center, which prompted the company to pursue 3D CAM software.

Still, it drew its designs on 12-foot drafting boards and relied on the CAM software to help it modify 3D models into die format. As the 3D models T.A.P.E. was working with became more and more complex, it turned to a vendor in England for third-party software translation of step files to IGES or DXL,

so that it could use its CAM software to either quote or build a die.

Faced with the expense and inconvenience of translation, T.A.P.E. quickly realized that it needed 3D design software to streamline and simplify die development.

CATIA V5 transforms die design and development at T.A.P.E.

A demonstration by NASA on its use of CATIA in designing the space shuttle had stuck with Bud Mohrman, T.A.P.E.'s president, for years.

"I remember how powerful that software was, and it had always been in the back of my mind that if we could afford it, it was the software to use," he recalls. "We found that just buying the module for design was rather affordable, so we decided to jump into CATIA V5."

Mohrman says he prefers to "jump into the future," rather than the present. After purchasing CATIA V5 in 2004, T.A.P.E.'s lead designer attended training, since CATIA was so different



from other design software the company's engineers had used before. The training gave his designer the foundation necessary to put the software to practical use.

The first project T.A.P.E. tackled with CATIA was a \$500,000 design that Mohrman admits taxed the limits of the company's equipment and its ability to use the new software. But the project was a resounding success that was completed "almost flawlessly."

Money well spent

After just two years, T.A.P.E. has given up nearly all long-hand design. Now, 98% of its die work is completed using CATIA V5.

"Without CATIA, we would definitely be out of business," Mohrman says. "A lot of tool and die shops in this area don't have any work because of competition from China. The work left behind is super complex and, without CATIA, we wouldn't be able to do it."

Mohrman says CATIA has even created additional demand among his

clients for new tooling. "Now that we have it up and running, our customers choose T.A.P.E. every time because they know they won't get a 2D drawing or a hand sketch that's going to give them bogus data."

CATIA also allows T.A.P.E. to provide replacement sections for its clients' existing dies, he says. The competition can't match that service, which brings customers back to T.A.P.E.

"Engineering is full of mistakes that cost time," Mohrman says. "We're selling time here, and with CATIA we find ways to take time out of a job. That's important in today's world."

Mohrman praises the flexibility of CATIA V5 and the ability to add additional modules in the future.

"CATIA V5 is the best investment T.A.P.E. ever made," he says. "In two years, it has more than paid for itself, and it's going to last way into the future."

"Without CATIA V5, we would definitely be out of business. It is the best investment we've ever made."

Bud Mohrman, President, T.A.P.E. Inc.



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