## When Leaders Meet Ramcar X Moldex3D

Turn the Complexity to Your Own Advantage

**Profitability & Knowledge Management** 



Topnotch Professional Software with Constant Technical Innovation and Genuine Devotion to Comprehensive Services — the Ultimate Choice and the Best Partner of Plastic Industry.



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It is not easy to find someone in the same camp, especially if we are talking about developing a long-term client-vendor relationship in a B2B environment. Though everybody wants to "accomplish desired goals and objectives efficiently and effectively," the real world is always more complicated. Ramcar Technology Incorporated (RTI) reached an unprecedented success for profitability and knowledge management after implementing CAE (Computer-Aided Engineering) software and support from Moldex3D team — now the simulation-driven production not only enhances the profitability via saving unnecessary costs from traditional trial-and-errors, but also builds strong customer recognition with the real craftsmanship justified by the state-of-the-art CAE technology.

Over the decades, RTI has specialized in designing and building a wide range of plastic injection molds, and the team has an average of 15-20 years experience for the industry. Foreseeing more and more challenging demands from the customers like lead time, quality, cost and etc, RTI started their evaluation for CAE analysis tool for plastic injection molding very early to secure the leadership.

However, it is not easy to find someone in the same camp — who has the similar insistence in delivering high customer satisfaction and developing long-term partnership. This is a comparatively tough mission for CAE vendors: Customers are not looking for license providers; they expect a team that can sustainably create and communicate values via listening and customized services and support — a partner who can move forward and fight together. Without caring and upgrading with what RTI really needs, the previous system failed.

To address RTI's concerns, CoreTech implemented Moldex3D for turning those complicated -- the annoying discrepancy and accountability problem happened during the production, into the critical factors (also the spirit of CAE) — profitability and knowledge management.

The value/contribution of CAE should not be judged only when the difference of several digits behind the decimal point is presented; therefore how to correctly, or properly position Moldex3D in the product development becomes a matter which would decide if we can outperform or not. Here is a straight-forward sample from RTI we would like to share as the first post for this column, When Leaders Meet.

RAMCAR Group of Companies engages in battery manufacturing, lead processing, plastic injection, tire re-treading, real estate development, and fast food chain operations in Philippines.



All of us want to ensure high product quality and shorten the product development cycle, but how can we avoid the chaos of "it is not my problem" when the production has problems? And how can we "manage" the cost and resources without countless trial-and-errors? This sample case witnesses one of the most wonderful concepts from Peter F. Drucker, the Father of Modern Management — "Efficiency is doing things right; Effectiveness is doing the right things."

Moldex3D

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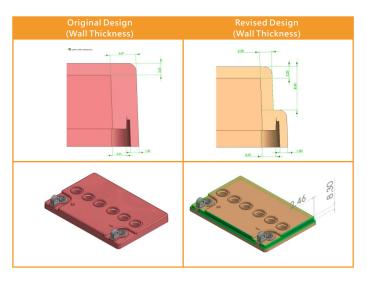
It is an upper cover of automotive battery with deformation problem. Some people might feel this part looks simple. But it is really complicated if we deeply look into the entire development cycle — we would be surprised with how time and cost consuming it would be if we go with the traditional trial-and-error way.

Generally speaking, deformation means headache. Many advices might come from different departments: part design, tool design, material, molding…etc. However, if effectiveness is the goal, what are the right priorities we should pick?

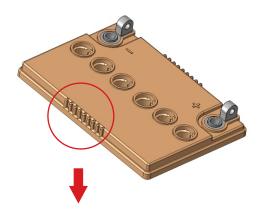
"Customer's specification is 0.5mm for concave warp while 2.0mm for convex warp. The actual warp is 2.3mm concave warp. We suggested to revise the wall thickness to make it uniform but the customer doesn't believe that the warp problem will be corrected." -- Mr. Noel D. Jarical, Design and Engineering Manager of RTI.

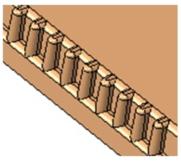
From past experiences, RTI team knows clearly that modifying the thickness design would be the right thing to reach customer's high expectation. However, RTI also knows the way they selected —revising the part design is the most difficult way. At least the answers below three questions need to be well prepared:

- How to convince the customer this is the right thing to do?
- Where and how to modify?
- What is the interaction of different design parameters and how to handle it?

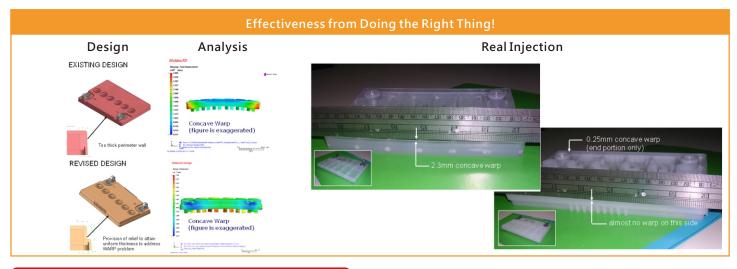


Within limited time, RTI proved their technical competency, which combines its experiences with Moldex3D strengths — not only understand what revisions would work, but also justify how practical their simulation-driven design [Hamstring-Cutting Method] is to the customer.



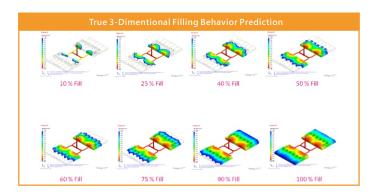


Hamstring-Cutting Method



"By that time, Moldex3D is being applied for its capabilities – especially the accuracy and extra high computation performance. We run this product with modified wall thickness. Simulation results gave a minimal warp and we had shown this to our customer and convinced them to pursue with the revision."

One of the most obvious differences between traditional trial-and-error and using CAE is we can always accumulate not only know-how, but also know-why in a more systematic and cost-effective manner. With the traditional way to verify with real mold trials, we can foresee a huge investment for time and money would be necessary to find out where and how much should be modified.



Time is another concern which RTI shows their insight in the beginning. With the properly-arranged hardware and Moldex3D's unique parallel computing, several true 3D design iterations could be verified overnight after the design team leaves the office. Moldex3D Parallel computing and Remote Computing are two benefits for customers to maximize their hardware performance — and again our time can be saved for creating more values!

CAE is proved to be an essential technology for improving product quality by many industrial leaders along the years. But besides the more well-known role it plays for improving quality and profitability, domain-knowledge management is becoming more and more critical for the entire supply chain.

Accuracy and computation performance are what we commit to our customers via Moldex3D — these promises may not romantic, but they are born with real responsibility and the respect for what our customers are fighting to achieve. From this Moldex3D successful story, here is the lesson we learned from working with RTI, the leader of automotive battery industry:Turn the Complexity to Your Own Advantage

"Actual product gave almost the same results as with the simulation result. We believe that huge time and cost are saved, and what more important is, we further strengthened and proved our core competency. For our customer, RTI stands for the true Reliability -- we can effectively ensure the high-standard quality (even outperform) because of our knowledge management, not only know-how, but also know-why. This is the win-win RTI created with Moldex3D and CoreTech team."

## About CoreTech System Co., Ltd. (Moldex3D)

CoreTech System Co., Ltd. (Moldex3D) has been providing the professional CAE analysis solution "Moldex" series for the plastic injection molding industry since 1995, and the current product "Moldex3D" is marketed worldwide. Committed to provide the advanced technologies and solutions for industrial demands, CoreTech has extended the worldwide sales and service network to provide local, immediate and professional service. Nowadays, CoreTech presents the innovation technology, which helps customers troubleshoot from product design to development, optimize design patterns, shorten time-to-market, and maximize product ROI.