



## Customer Success

# Aleph5's G2-Based Solution Cuts Glass and Waste in the Glass Manufacturing Process

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### Company

Aleph5

### Industry

Management Consulting  
Services

### Featured Product

G2 2011 Enterprise

### Customer Website

[www.aleph5.com/en](http://www.aleph5.com/en)

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Aleph5 creates and implements mathematical solutions for complex and multidimensional problems in many industries. While the company has evaluated and used many solutions over time, they've been big believers in Gensym for over two decades – stating G2's rich modeling environment and ability to handle simulations, rules, neural networks, and heuristics that sets the software apart from even some of the most "revolutionary" newcomers.

Years ago, Aleph5 worked with G2 to create a product that was custom-fit for the types of projects they develop. Aleph5 built Ernest3, which uses resources, demands, logistics and customer information to help model complex problems. G2 is the platform and the heart of Ernest3, and Ernest3 has become the heart of many successful implementations.

### Challenge

When a producer of glass sheets came to Aleph5 for assistance, they were looking to cut waste – in the form of glass but ultimately in the form of budget – from their glass cutting operations. With every cutting of custom glass sizes from their large produced sheets, considerable scrap was being left on the floor.

There were many manufacturing restrictions, not to mention simple understandings – such as, glass that is cut too far in advance from when it will be distributed has a higher likely of breaking before it is needed. Different sizes were requested regularly, so there were no standards to streamline the process.



"We've worked with countless other solutions, but we keep going back to G2 because it continues to make our life easier and our clients' outcomes more successful. The cost savings associated with G2 implementations are simply incomparable versus other options that exist today."

— Ricardo Pacheco, Aleph5  
Technology Director



## Solution

Aleph5 decided to use Ernest3, built on G2, to create an integrated optimization model that would make non-typical business decisions based on variable parameters. Ernest3 would take all of the issues into consideration, and turn order inputs into cutting instructions.

In other words, Aleph5 would input data in a screen like this: And turn it into an optimization plan like this:

The screenshot shows the Ernest3 software interface with several data tables. The 'Glass Demand' table lists various glass types and their quantities. The 'Glass Sheet Inventory On Hand' table shows the current inventory levels. The 'Glass Sheet Work Orders' table displays the optimized cutting instructions, including dimensions and quantities.

The screenshot shows the Ernest3 software interface displaying the optimized optimization plan. It includes a table with columns for 'Id', 'Corte', 'Total', 'Papel', 'Total', 'Medios', and 'Otras'. The plan shows the optimized cutting instructions for different glass types, including dimensions and quantities.

## Results

Aleph5's mass optimization solution did much more than just reduce the amount of scrap glass at this manufacturing plant. In fact, the company reduced spending by more than \$400,000 per year due to more intelligent glass cuts. And while the manufacturer was overjoyed with the solution, Aleph5 was not surprised. This optimization solution is one of several other models used by this customer to improve their planning and operation processes, each one oriented to value generation.

In fact, Aleph5 has found that with G2, cost and resource savings are always the case, much more so than with other decision platforms they have used. While more thinking and analysis is required with G2 upfront, the time savings alone in programming time down the line are practically exponential. As well, the HR costs related to the number of people who must work with a system like G2 are significantly lower than those with other platforms.

## Learn More

To find out more about how Gensym's G2 can help you operate better, contact an account representative today at [success@gensym.com](mailto:success@gensym.com)