



Adjusting a DOE to Unpredictable Circumstances

Oliver Thunich, STATCON GmbH

As part of a R&D Project, we were tasked with setting up an experimental design for our customer. The quite complex DoE is used to investigate the influence of 12 factors (continuous and categorical) with a budget of 100 runs.

After the set up of the initial DoE and first preparations of the probes, the customer experienced a supply shortage, which limited the capabilities to change 2 of the 12 factors substantially. We used Design Expert and a two-step optimal DoE build, with custom candidate sets, to adapt our design to the new circumstances. The resulting design enables the customer to still gather as much information as possible regarding all 12 factors while also making use of the probes already prepared.

By making full use of the capabilities regarding the optimal DoE build in Design Expert, we avoided having to delete Factors from our DoE, enabling our customer to still acquire all the information desired in spite of unforeseen supply issues.