



StatSoft®
Business White Paper

Why is There No Deployment Script for GAM?

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Issue # 1

Why there are no specialized "with deployment" nodes for GAM?

RESPONSE: Indeed, deployment options for Generalized Additive Models are not available (anywhere, as far as I know...); the reason for this is that the procedure doesn't lend itself very well for deployment: Remember that a spline smoother is applied to each predictor variable; to deploy a final model would require to deploy the specific smoother with all coefficients that define it; in other words one would need as many "equations" as there are observations and predictors; and even then the smoother is really only defined over the range of the observed data points in the training data.

The Generalized Additive Models procedure therefore is not well suited for generating "portable" (e.g., C/C++) models for prediction; however, it is a very useful method for identifying basic (nonlinear) relationships in the data. Note that there are many alternatives in *STATISTICA Data Miner* that can fit nonlinear relationships very well (e.g., C&RT, MARSplines), and that can be deployed.

Issue #2

In general, is GAM recommended for modeling, or we should rather suggest other models & methods?

RESPONSE: For building predictive models, as mentioned above, Generalized Additive Models are not well suited; we would recommend all of the other methods, in particular Boosted Trees and (the soon to be released) Support Vector Machines which are also highly "flexible" with regard to the relationships that they can represent (model and predict).

