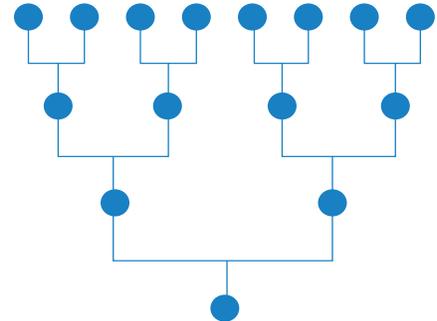


The New Essentials for Your Analytics Toolkit: Tree-Based Methods

According to Minitab research, engineers and analysts can spend **80% of their time** trying to identify the important drivers of process issues when performing a root cause analysis.

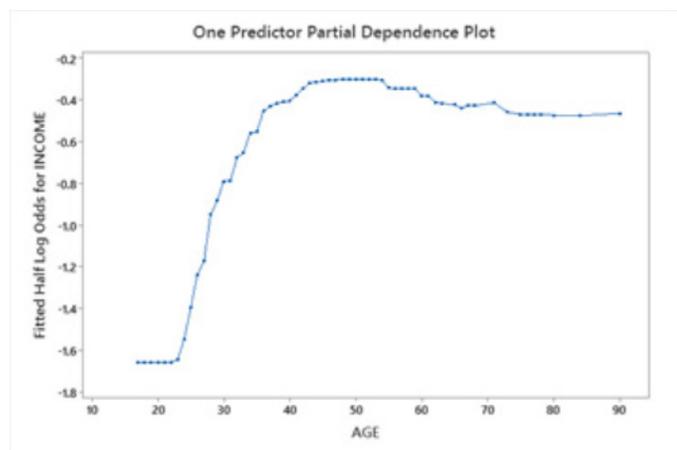


What are Tree-Based Methods?

Tree-based algorithms utilize a series of if-then rules to create predictions from one or more decision trees. Compared to linear models like regression, tree-based methods map nonlinear relationships quite well and can overcome the messiness in data that other methods simply cannot. Do you really want to spend your valuable time cleaning data and building models? It is no wonder these methods are routinely ranked as some of the top tools for data scientists!



Tree-based methods empower predictive analytics with not only speed to answer, but also remarkable accuracy and ease of interpretation. You can quickly understand the key drivers of a process, so you will know exactly where to go to solve your problem.



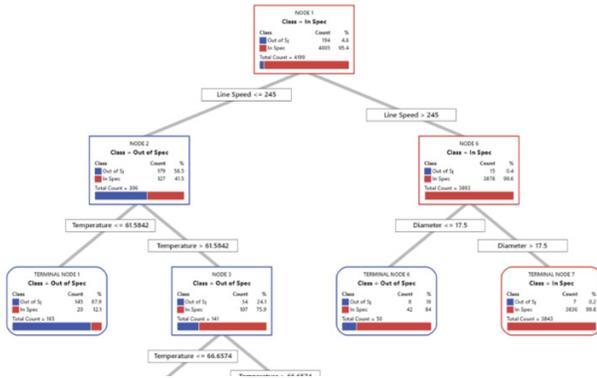
Partial dependency plots make it easy to explain relationships to business stakeholders.

“I usually stick to the methods that have always worked for me— regression helps identify the x’s that drive the y’s. But the TreeNet partial dependency plots have given me deeper insight and have helped me solve some of my company’s most vexing problems”

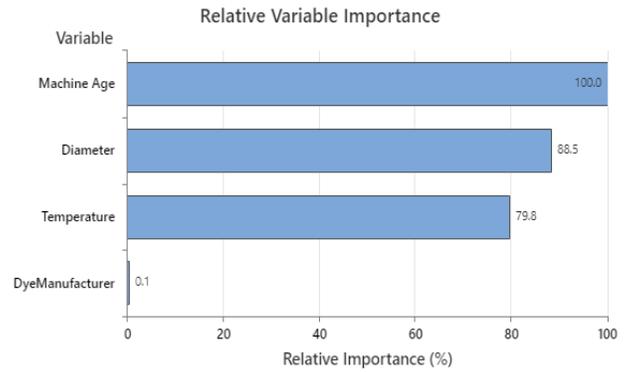
- Process Engineer, Consumer Packaged Goods

Intuitive. Time Saving. Straightforward. Explainable.

Tree-based methods are the short cut you may have never heard of. Fortunately, they are now available in Minitab Statistical Software’s Predictive Analytics module. Simply add this module to your Minitab Statistical Software to easily access these methods in an intuitive interface and reap all the benefits without having to learn a new solution.



CART results include an illustrated decision tree that is intuitive to interpret.



Variable importance measures model improvement when splits are made on a predictor. Relative importance is defined as % improvement with respect to the top predictor.

Variability importance plots distill complex models into easy-to-understand visualizations.

“The Continuous Improvement teams are making great progress with Minitab’s Predictive Analytics. The integration of data science and continuous improvement has resulted in more predictable KPI’s. With the increased focus on data, analytics, and business performance management - Minitab Solutions help us put that all together!”

- Data Science Leader, Food Manufacturer

[Talk to Minitab](#) to see how you can get started on cutting your root cause analysis time in half with our Predictive Analytics module.

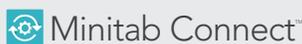
Tackle Challenges with Minitab’s Solutions Analytics

Data Analysis



Powerful statistical software everyone can use

Data Transformation



Data access, automation, and governance for comprehensive insights

Predictive Modeling



Machine learning and Predictive analytics software

Online Stat Training



Master statistics and Minitab anywhere with online training

Visual Business Tools



Visual tools to ensure process and product excellence

Project Ideation & Execution



Start, track, manage, and execute innovation and improvement initiatives