

# **CASE 2**

## **Decision Trees**

### **1. Data Partition**

Steps: Sample → Data Partition → Change values for Data Set Allocations in Property panel → Run

- 60% Training data
- 40% Validation data

### **2. Adding Decision Tree Node**

Steps: Model → Decision Tree

### **3. Running Interactive Decision Tree**

Steps: Decision Tree → Click the ellipsis next to Interactive in Property panel

### **4. Creating Split Rule**

Steps: Select a node → Right-Click → Select Split Node

- Select Variable with Highest Logworth
- Select Edit Rule...
- Check rule setting, e.g., number of branches, handling missing values, split point
- Adding more splits: Click a partition. The Split Node dialog is updated

## 5. Creating Maximal Tree

Steps: Select the root node → Right-Click → Select Train Node

- Change View: Right-Click → View → Fit to Page
- Checking Performance: View → Subtree Assessment Plot (Misclassification Rate)

## 6. Accessing Maximal Tree

Steps: Change No to Yes for Use Frozen Tree in Property panel → Run the Decision Tree node → See the Results

- View → Model → Subtree Assessment Plot → Select Misclassification Rate
- Renaming the node: Right-Click → Select Rename → Type “Maximal Tree”

## 7. Creating Optimal Decision Tree

- Add another Decision Tree node
- Select Assessment for Method in Subtree section in Property panel
- Select Misclassification for Assessment Measure
- Run the node and See the results
- View → Model → Subtree Assessment Plot → Select Misclassification Rate
- Check the optimal tree
- Renaming the node: Right-Click → Select Rename → Type “Optimal Tree”