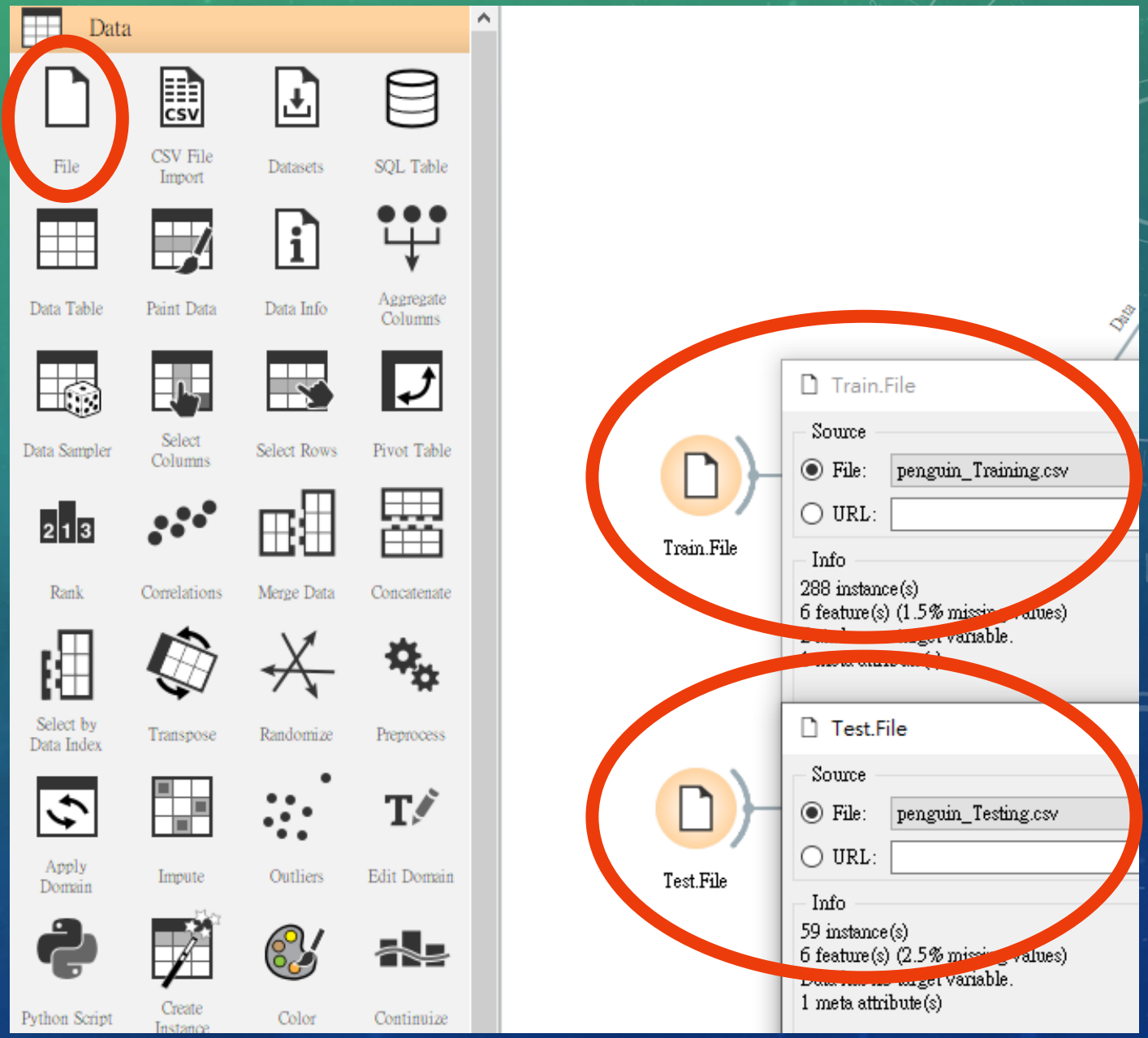
ORANGE 3 預測
SVM/ KNN/ K-MEANS

導入資料

選擇Data分類，File屬性

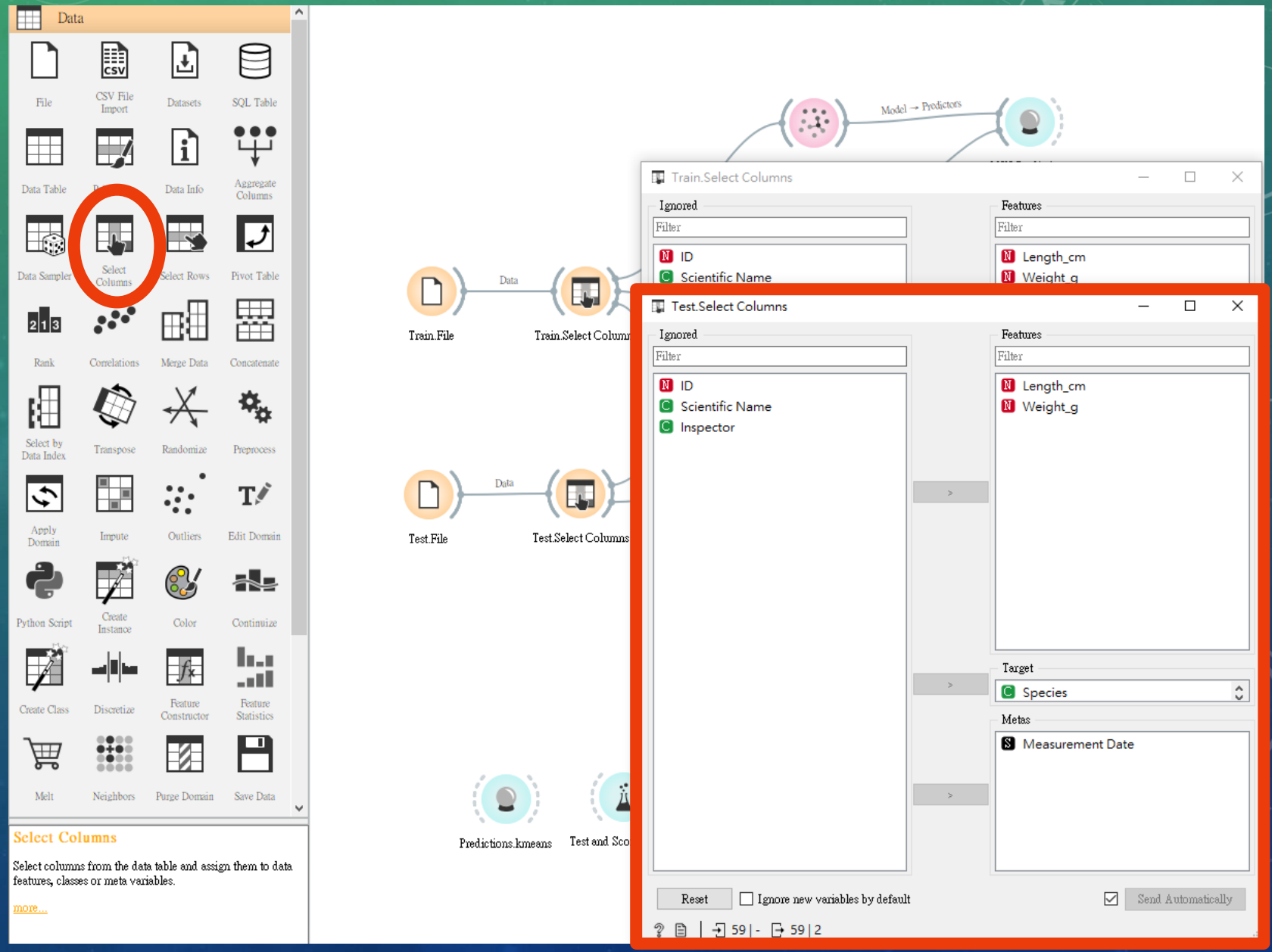


設定篩選

設定Train與Test資料庫資料篩選

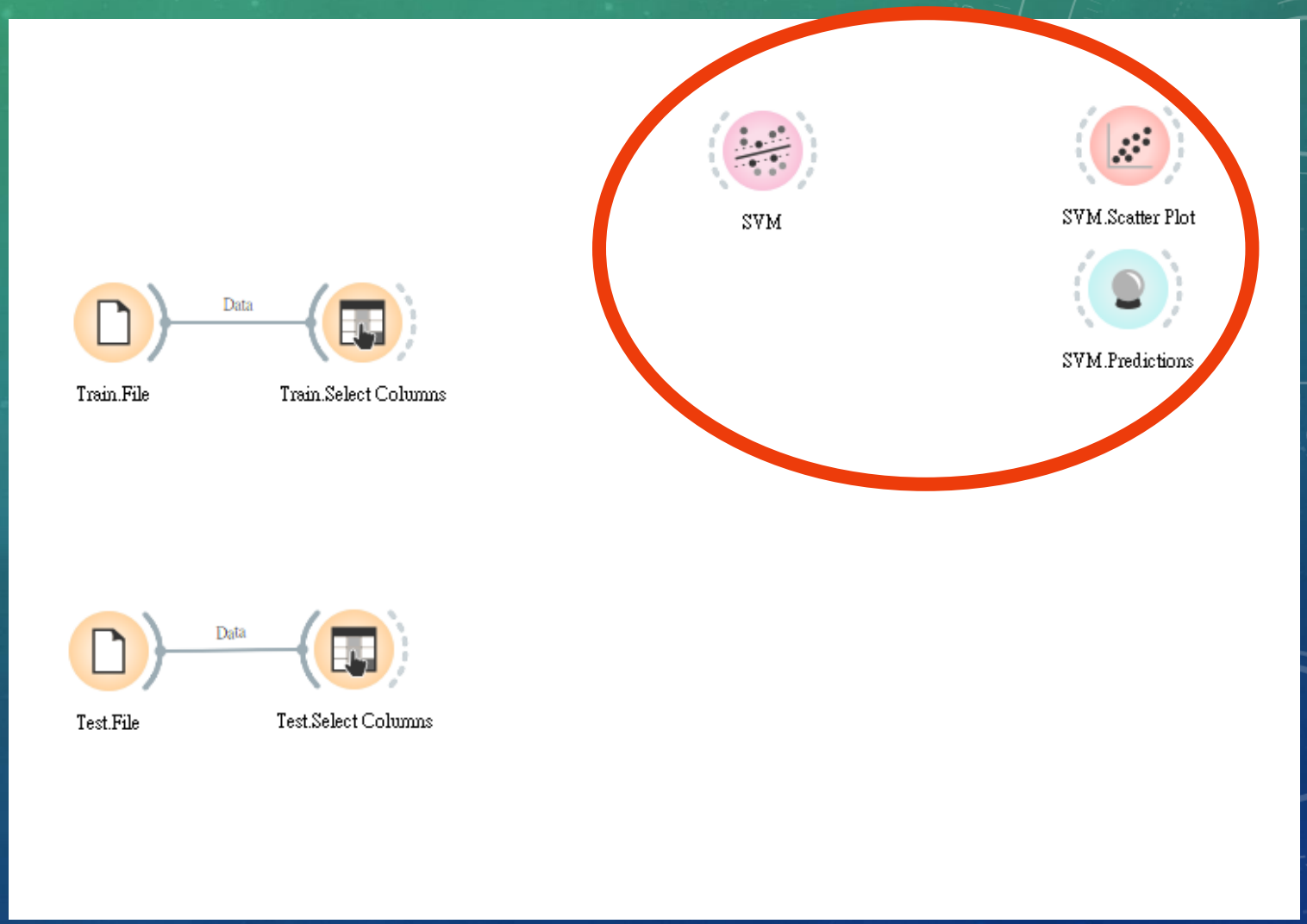
將”Species”設定為目標(Target)

將”ID”、”Scientific Name”、”Inspector“設定為忽略數值。



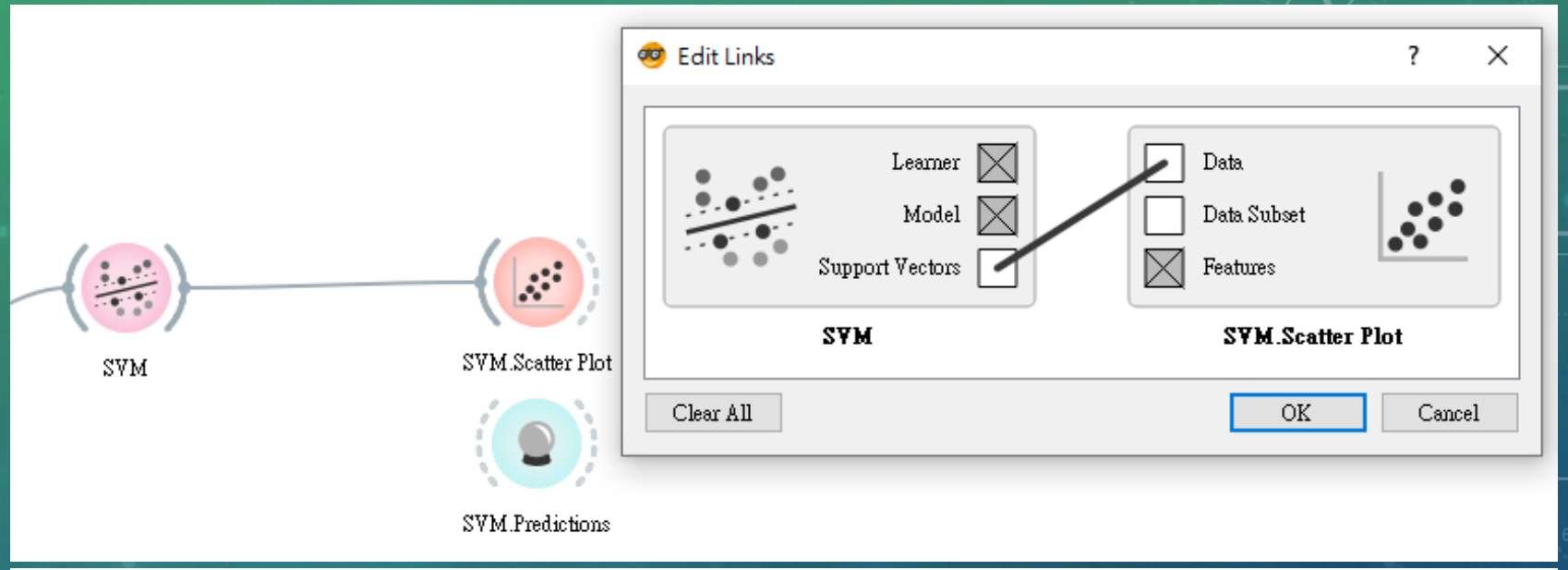
建立SVM

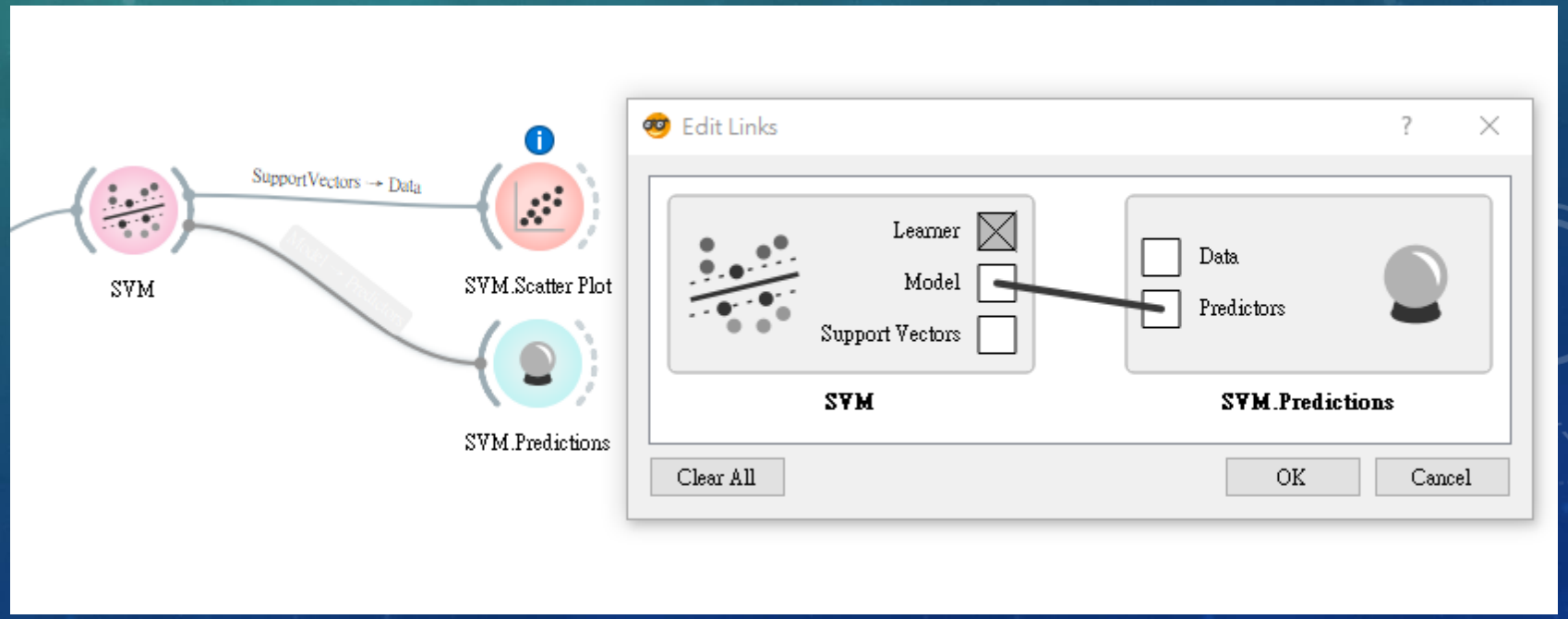
至左側抓取
”SVM”、”Scatter Plot”、
”Predictions”模組



連結SVM

將SVM預測模型串接

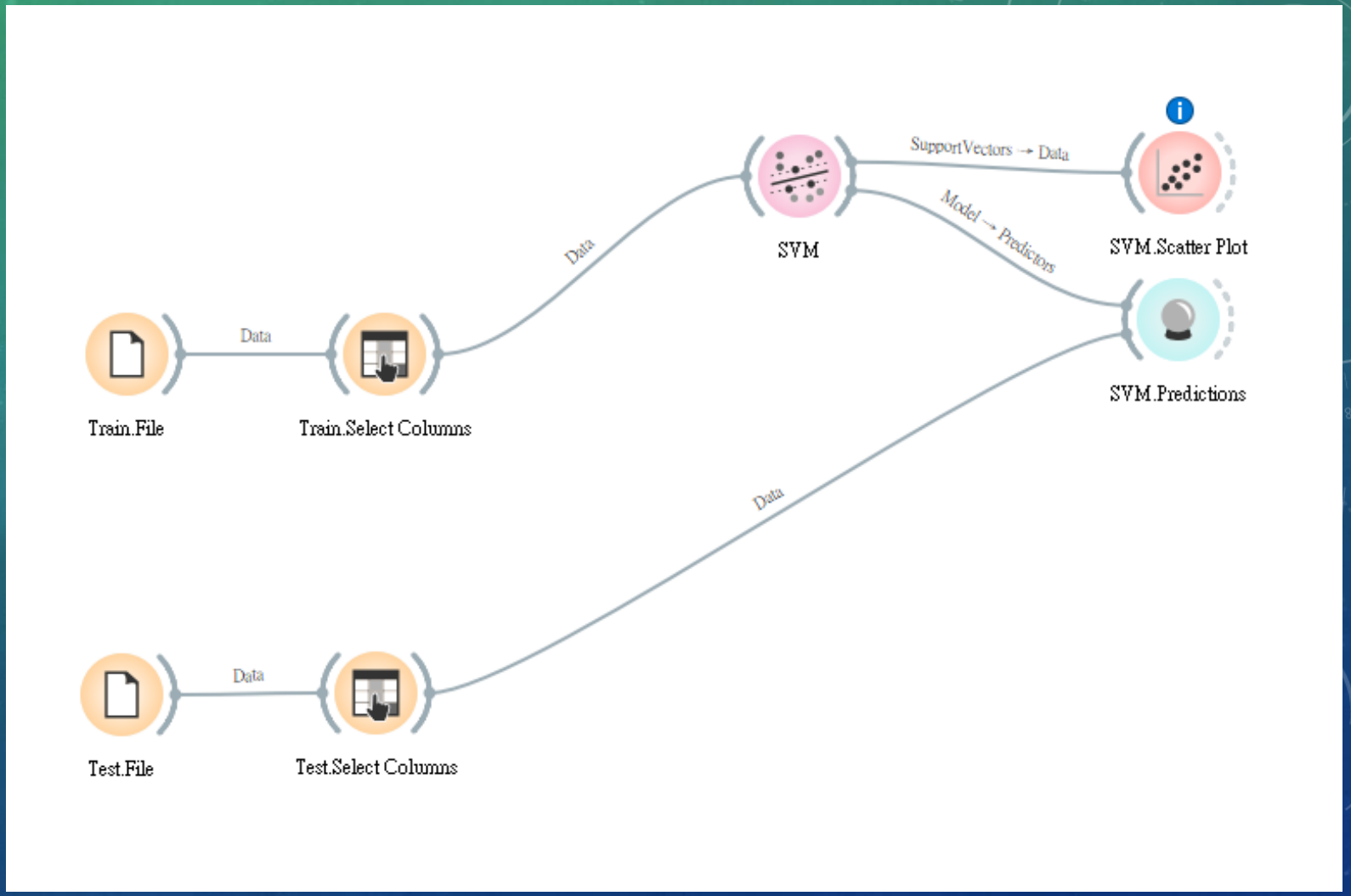




連結SVM

將訓練資料庫連結到SVM
將測試資料庫連結到預測

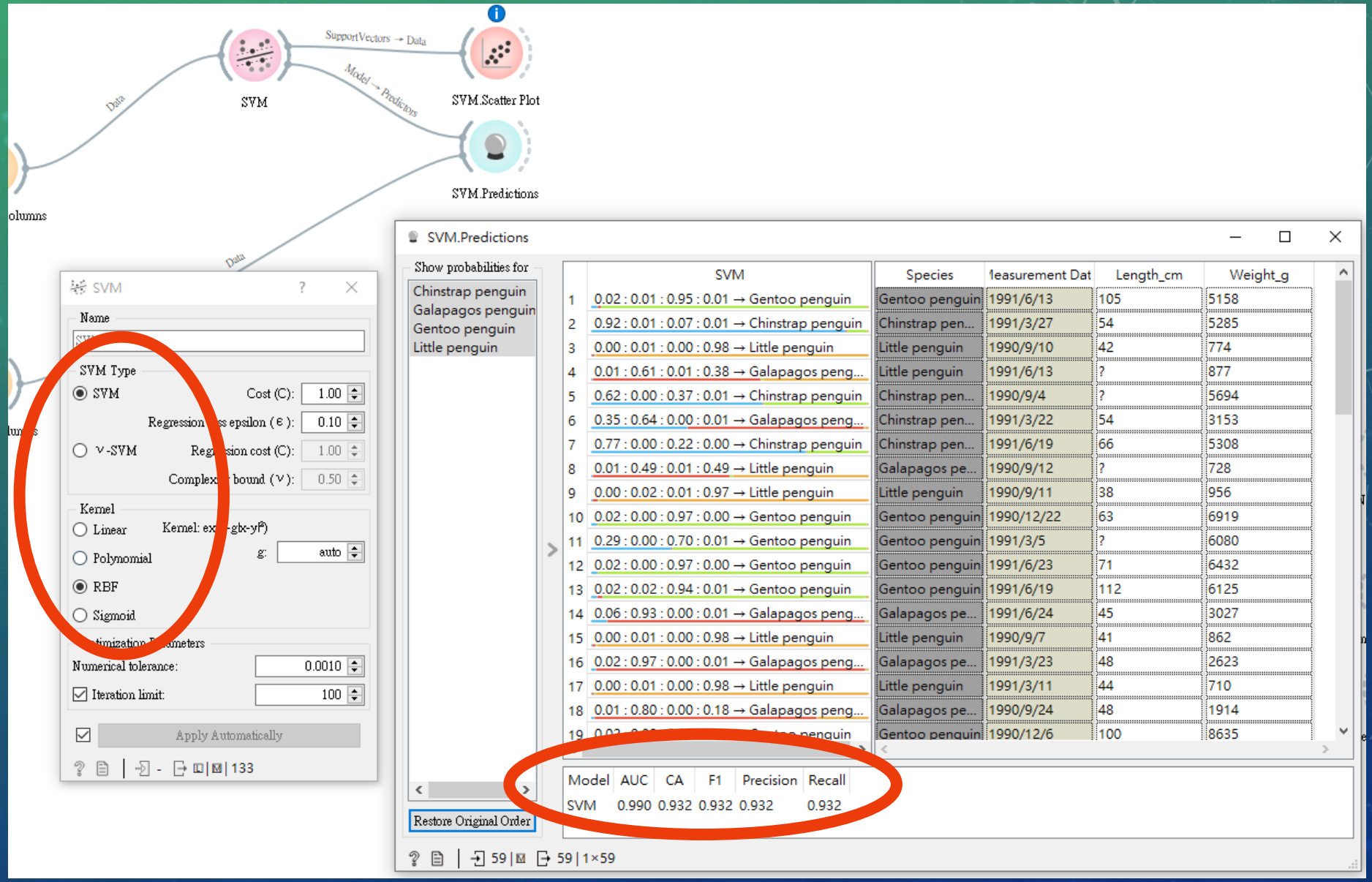
完成圖如右



調整SVM

連點”SVM”與”Predictions”來開啟右圖視窗

調整SVM模型細部設定，並觀察AUC等準確度指標變化來調整最佳設定值

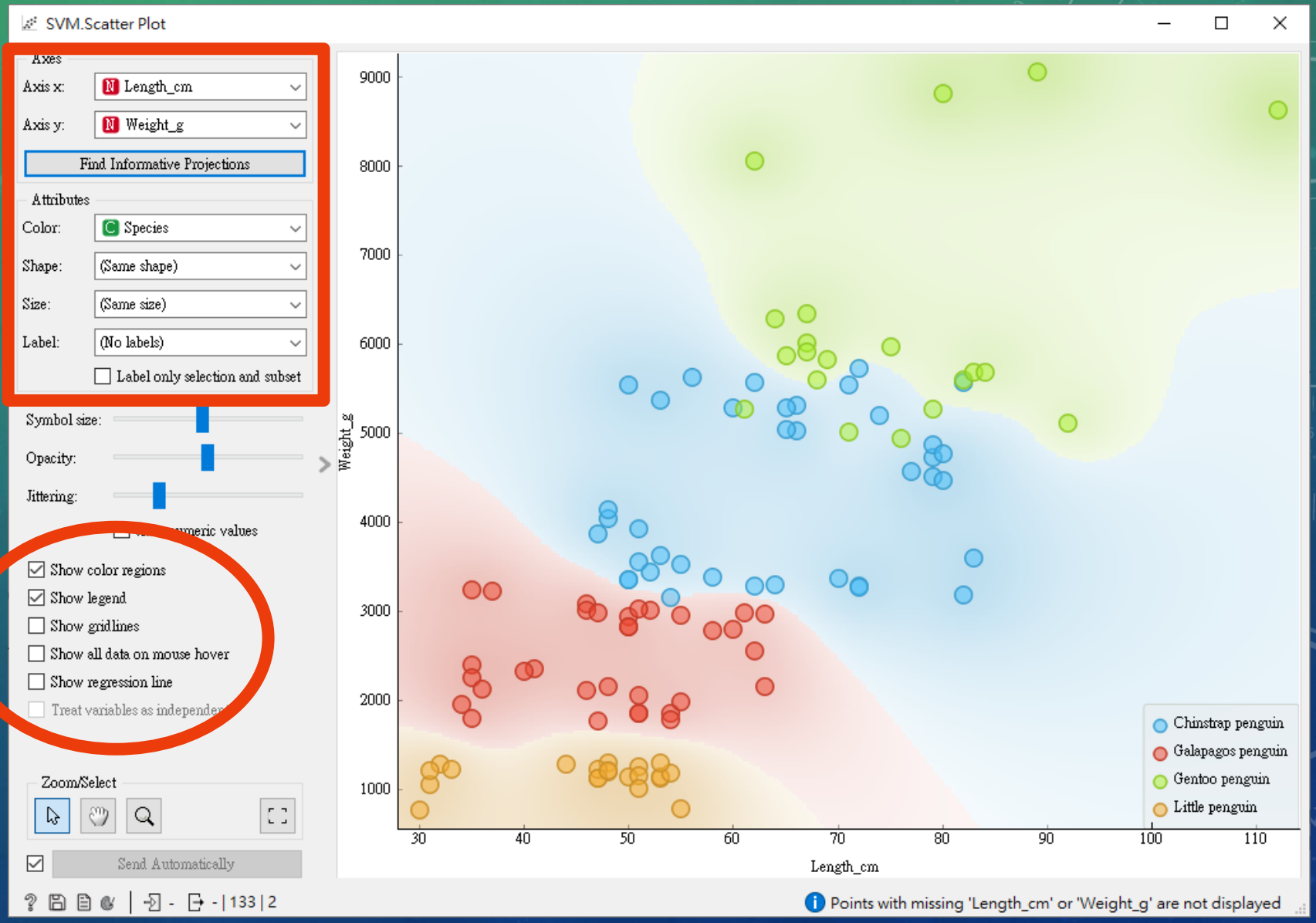


圖形檢視

連點”Scatter Plot”可查看調整後的模型分布

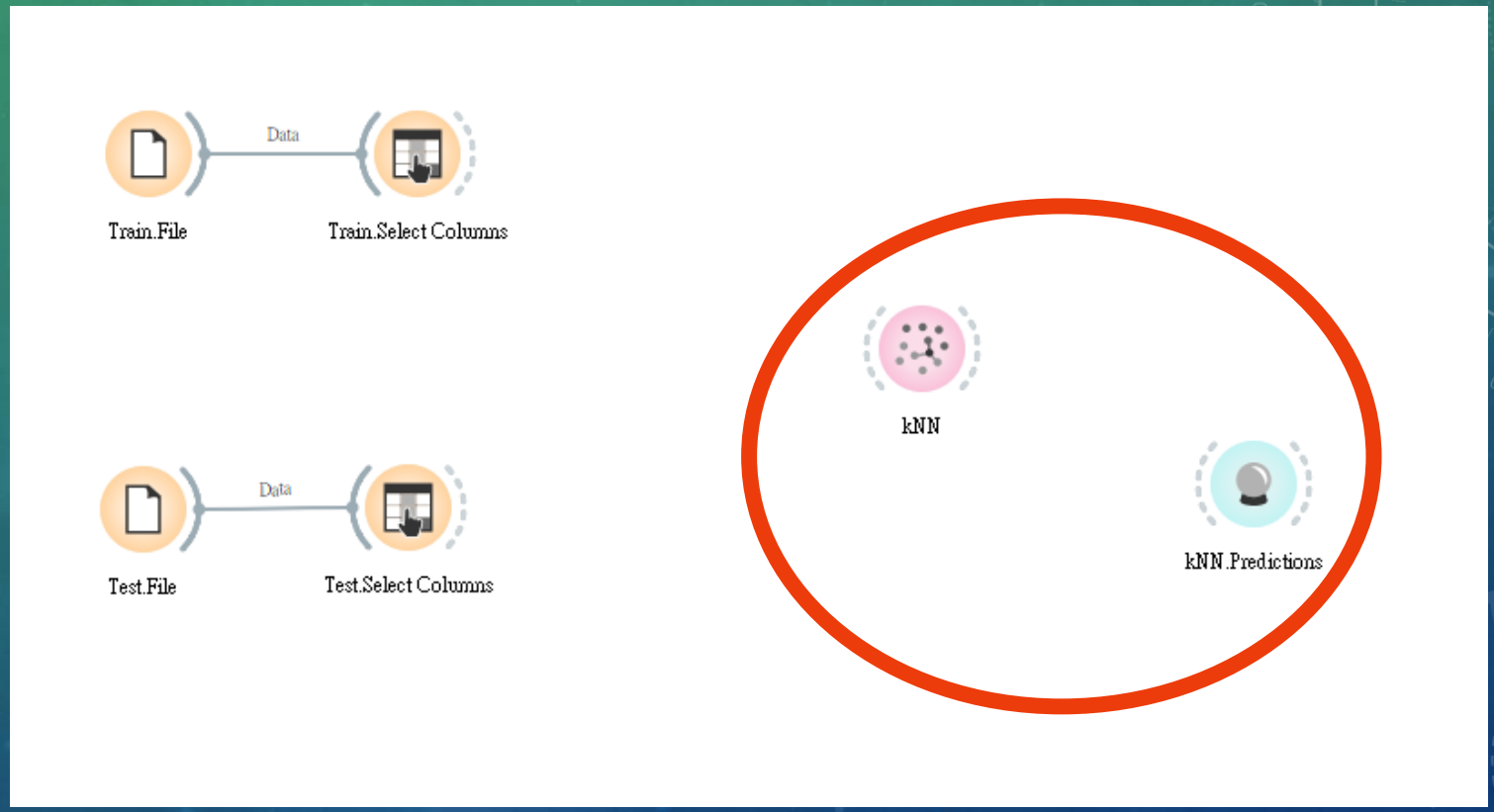
調整Axis欄位可設定顯示的x,y座標項目

點選”Show color regions”可察看SVM計算後的種類分佈



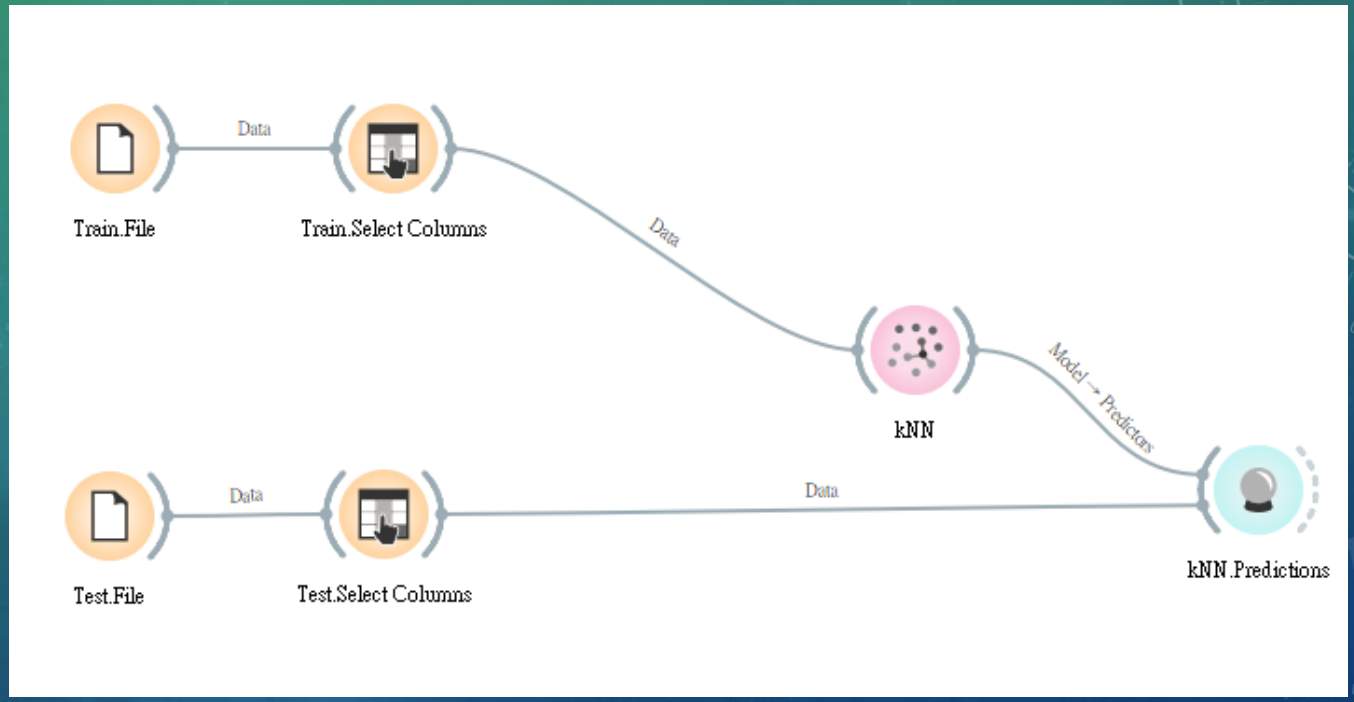
建立KNN

至左側抓取”kNN”、”Predictions”模組



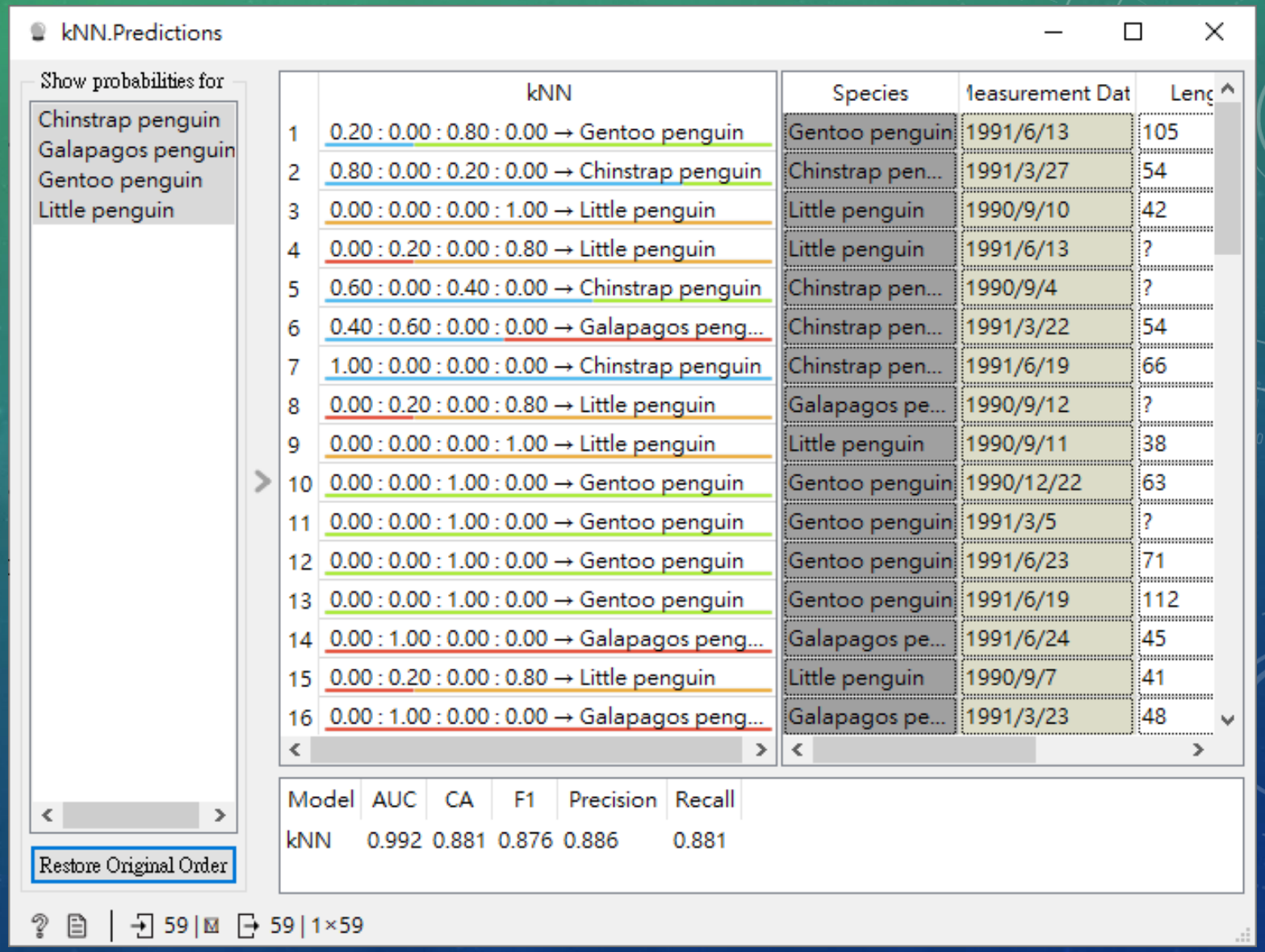
連結KNN

將訓練資料庫連結到KNN
將測試資料庫連結到預測



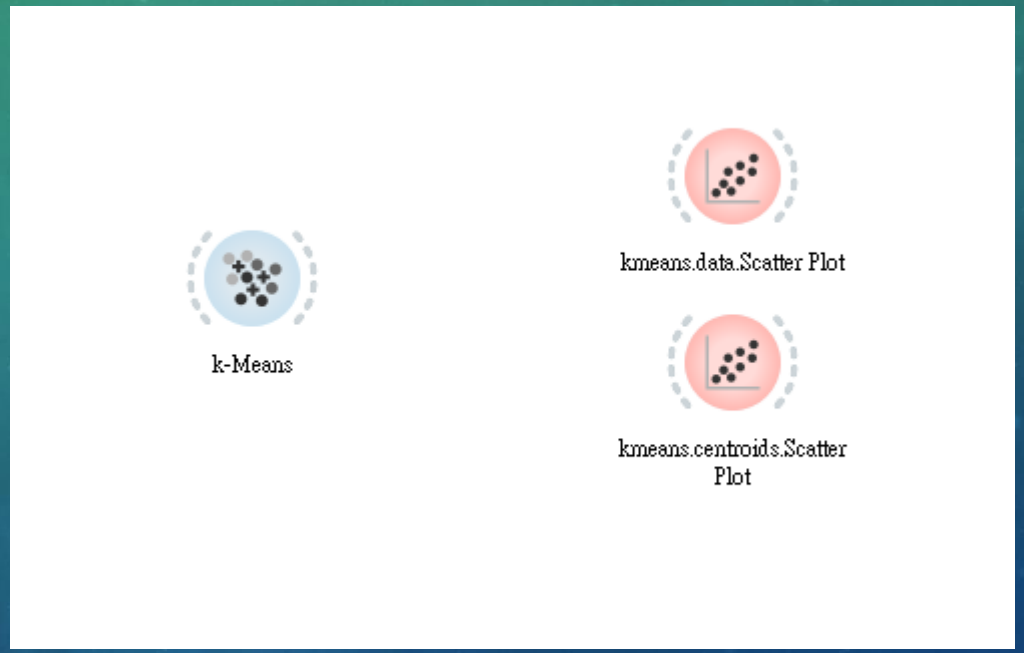
檢視KNN

連點” Predictions”即
可察看KNN預測結果

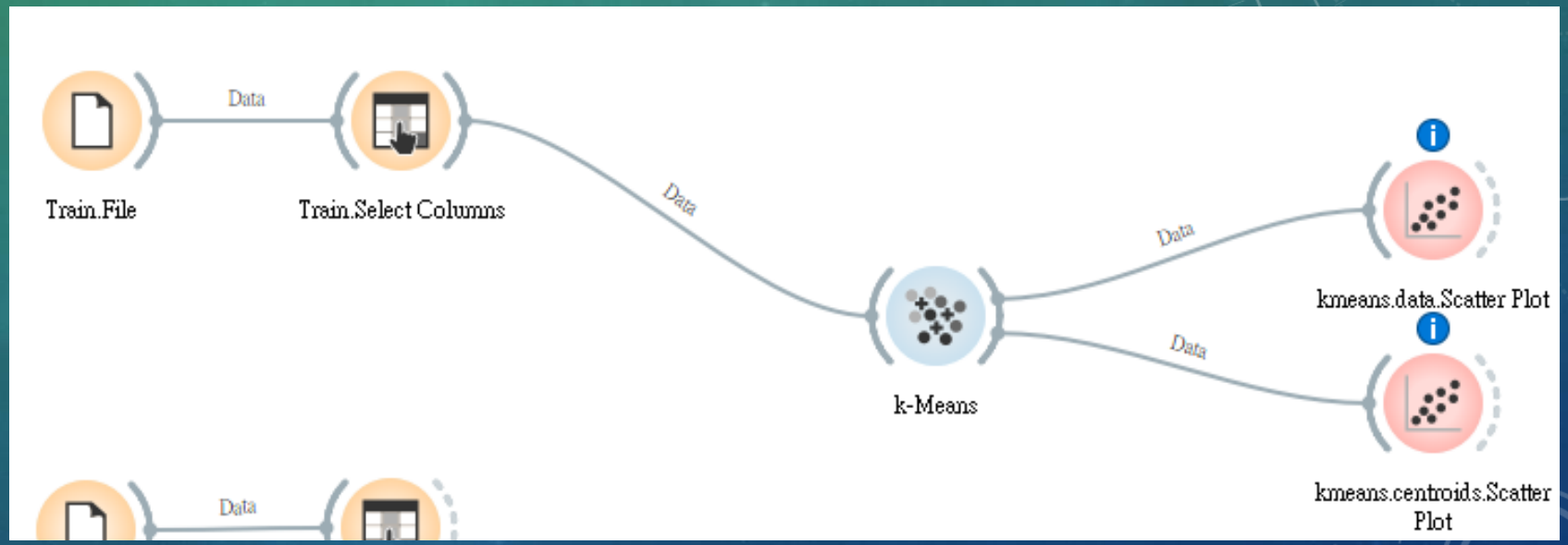


建立K-MEANS相關模組

拉取一個”k-Means”、以及兩個”Scatter Plot”模組



連接K-MEANS模組

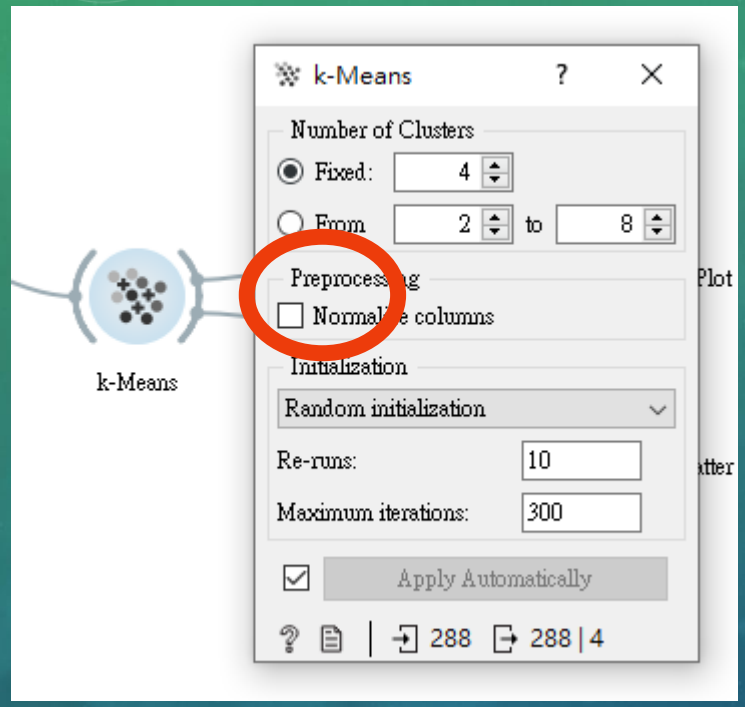

Data
Train.File
Train.Select Columns
Data
Data
Data
k-Means
kmeans.data.Scatter Plot
kmeans.centroids.Scatter Plot
Data

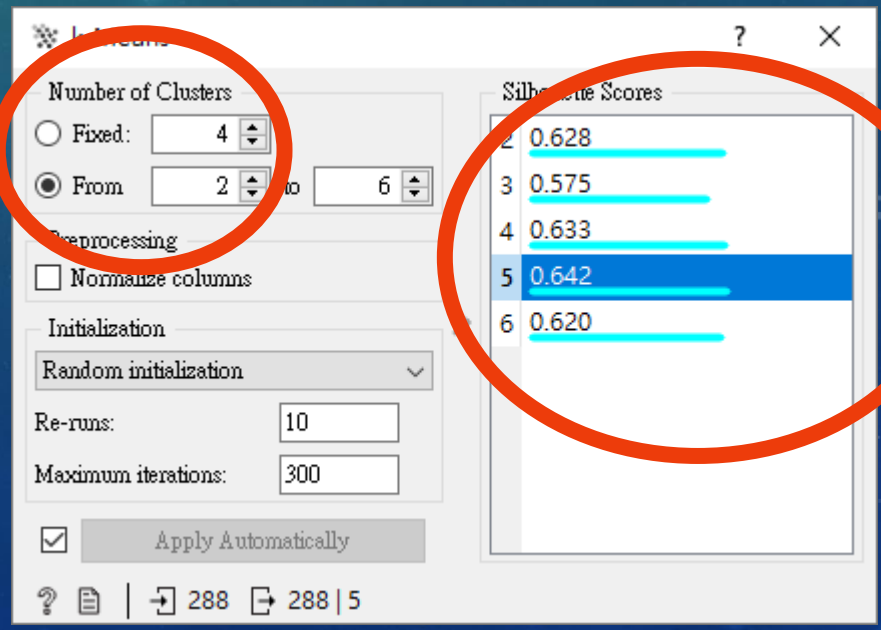
變更K-MEANS模組設定

已知欲分類4種企鵝故選擇定群集

若未知群集數量，則可選擇範圍，模組會自動預測最有可能的群集數量

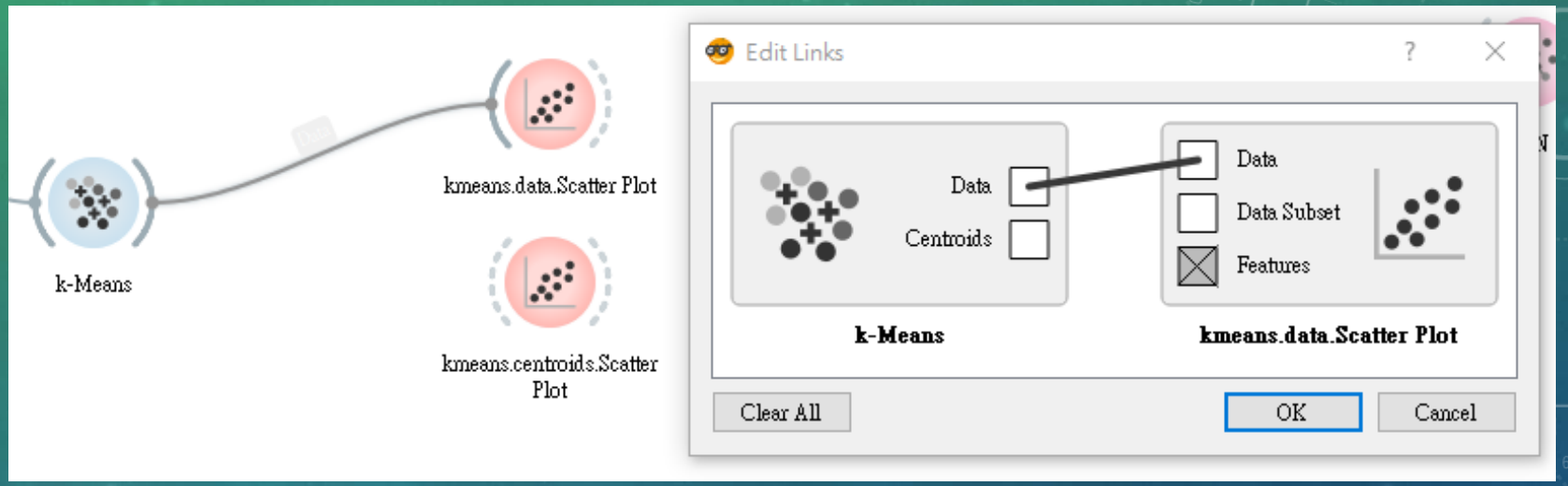
此外，關閉”Normalize columns”不要進行標準化

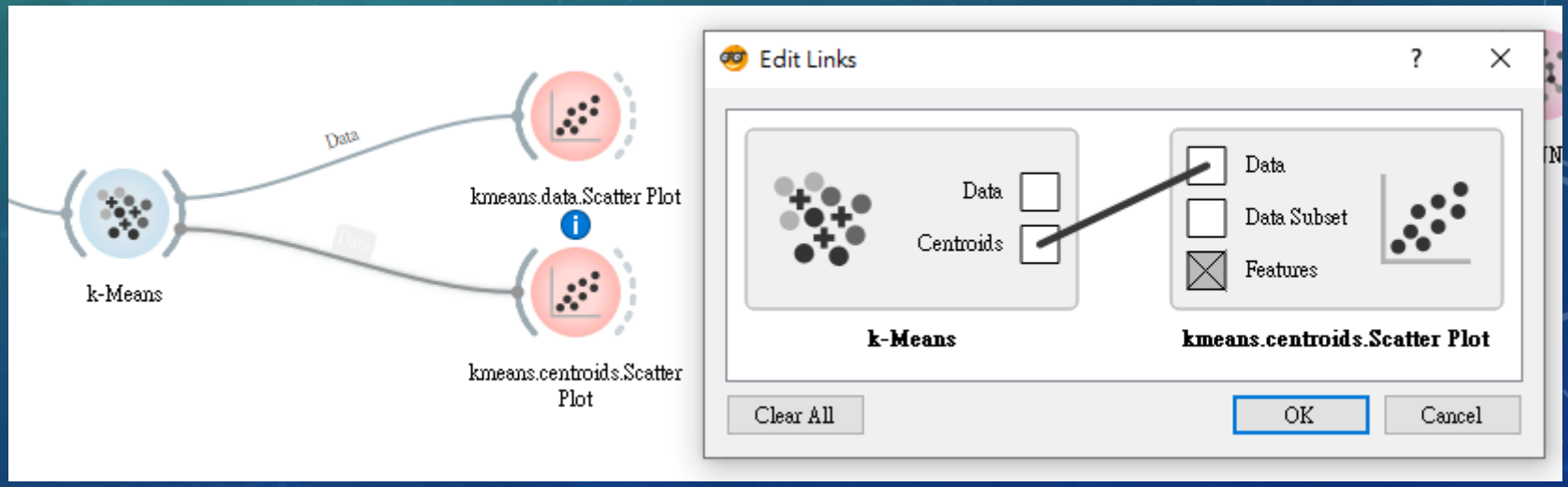




連接K-MEANS模組

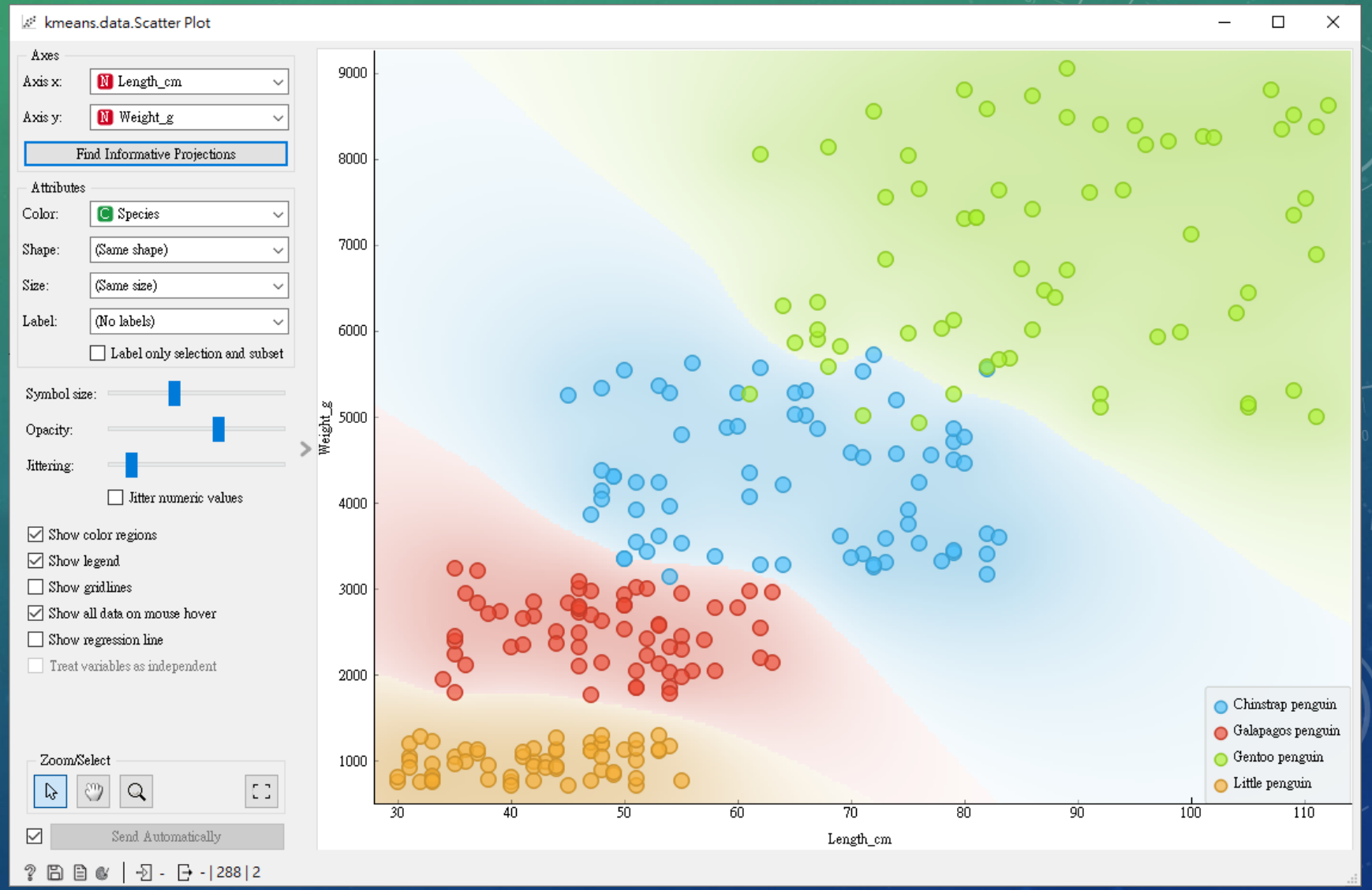
分別設定兩種連接線





檢視K-MEANS分群結果

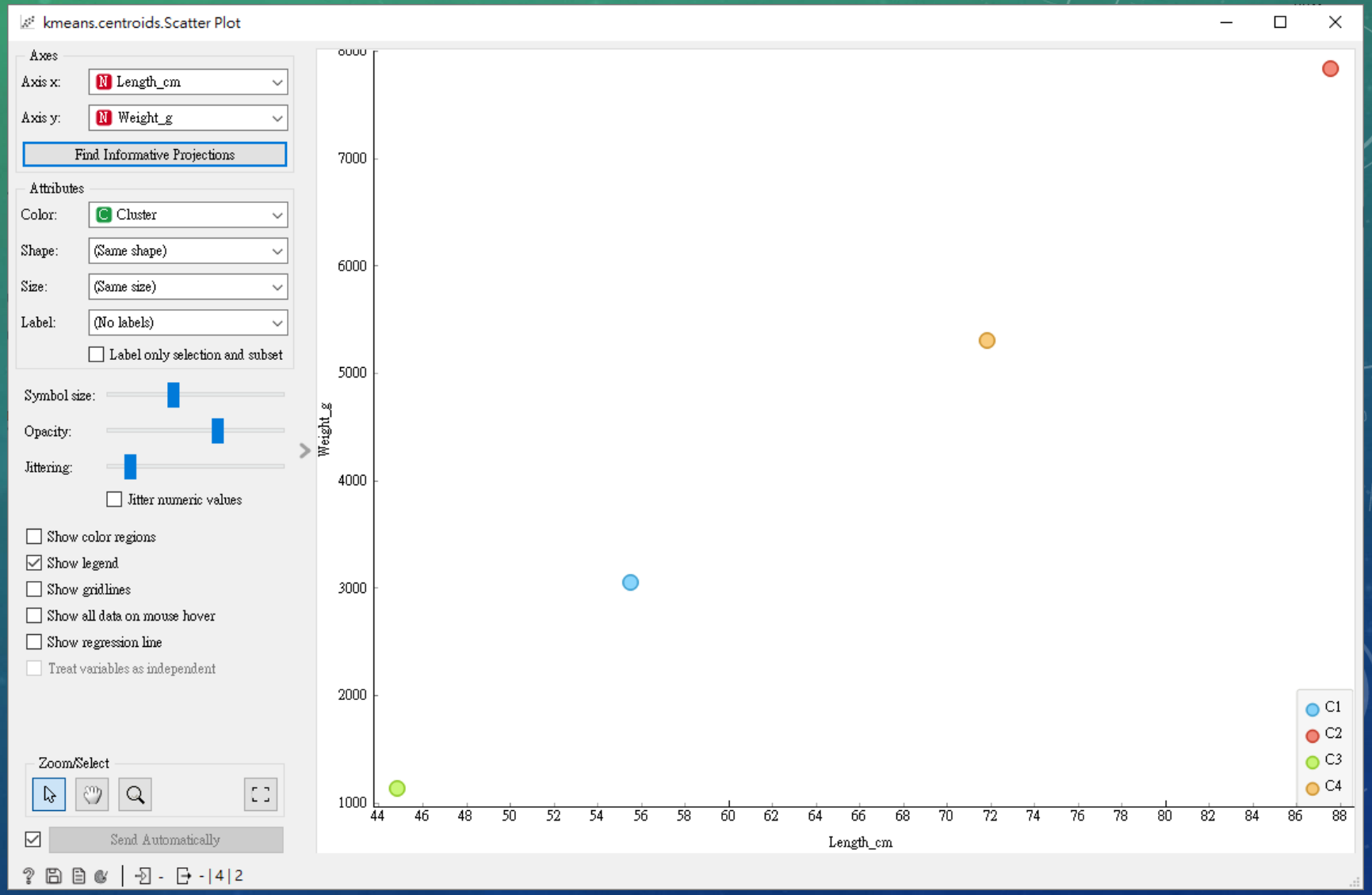
連點輸出資料連接的Scatter Plot即可檢視k-Means分群結果



檢視K-MEANS分群結果

連點輸出中心點(Centroids)連接的Scatter Plot即可檢視k-Means分群分出各群的中心點座標值

若前面k-Means模組有設定標準化，則此圖座標會變成標準化後的座標



總圖

將三模型串接，可分別點選預測結果與圖形。可以用來來檢視與比較各演算法之間計算群集的差異