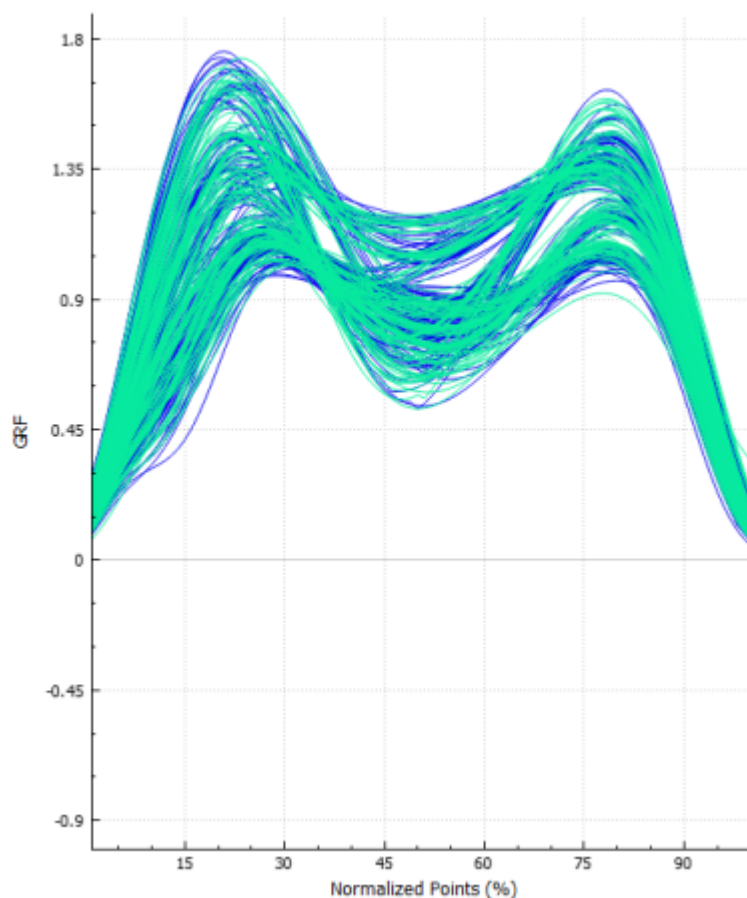


Principal Component Analysis



Inspect3D provides a number of ways to visualize and interact with the results of [Principal Component Analysis](#) (PCA). An overview of all PCA visualizes can be found in [Inspect3D PCA Graphs](#).

This page includes:

- Visualizing the [variance explained by each PC individually](#);
- Visualizing the [variance explained by each PC at each point in the signal's cycle](#);
- [Scatter-plotting workspace scores](#) in PC-space;
- Showing the [distribution of scores by group](#) for each PC;
- Visualizing the [mean and extreme values](#) that result from reconstructing the underlying data with each PC; and
- Visualizing how the signals can be [reconstructed from the computed PCs](#).

Tutorials

For a step-by-step example of how to use Inspect3D to perform PCA on your data, see the [PCA Tutorial](#).

For a step-by-step example of how to use Inspect3D to perform further statistical testing on PCA results, see the [Tutorial: Run K-Means](#).

For a step-by-step example of processing and analyzing large data sets in Inspect3D and using PCA to distinguish between groups, see the [Tutorial: Treadmill Walking In Healthy Individuals](#) and the [Tutorial: Analysis of Baseball Hitters](#).

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