Washington University in St. Louis
Office of Technology Management

ID CUBE: INTERACTIVE DISCOVERY CUBE

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Background: With the advancement in the area of hyperspectral imaging technology, there is an influx of data being collected from disparate sources of highly sophisticated technology. Processing these data using current software is either non-interactive, in capable of leveraging the wealth of information hidden in the 3D datasets, or not very user friendly. Therefore, a more interactive software that is efficient of analyzing and visualizing the 3D data sets using powerful algorithms is warranted.

Technology Description: Researchers at Washington University in St. Louis have developed an interactive software that processes hyperspectral 3D datasets with efficient algorithms called the ID CUBE. Hyperspectral imaging creates spatial and spectral datasets rendering 3D data for qualitative and quantitative processing. Commercial packages are available to analyze this data, yet none are interactive or user-friendly. ID CUBE, on the other hand, have shown (as seen above) to identify and amplify hidden features and generate a highly refined image while using interactive features for enhanced, qualitative, and quantitative analysis.

Key Advantages:

- Fast, intuitive, interactive and user-friendly
- Rapid processing of 3D datasets. Support various image format through conversion
- Features includes - principal component analysis, phasor analysis, region of interest comparison, exhaustive contrast, spectral analysis, clustering, image mathematics, and many more…