

# Code Snippet for Insight Addition using Encodable

Extracted components and interactions based on four different means. The first one extracts the ordered list of components for a sales dashboard using a video, the second is based on a programmed guided tour, the third dashboard outlines how a passive human narrated dashboard was explained, and lastly, we provide the ordered list of components of an observation from an interactive onboarding with a human presenter.

Here, we propose to incorporate insights based on [Encodable](#), a configurable grammar for visualization components.

Encodable allows the author to define a visualization channel along with its types and expected output type.

This essentially lets onboarding authors set up exemplary insights in a similar way as encodings or mark types would be specified in Vega Lite.

The configuration for adding insights to one component could be represented as:

```
type InsightType = 'Outliers'|'Association'|
  'Trend'|'Distribution';

type Output = string | range | null;

interface EncodingConfig {
  [name: string]: [InsightType, Output, 'multiple?'];
}
```

Based on Encodable, the author can specify the insight names along with their types and expected output type:

```
interface BarChartInsightConfig {
  trend: ['Trend', string];
  distribution: ['Distribution', []];
}
```

Such a flexible representation makes it easy to specify the insight information in the component graph.