



Module 7

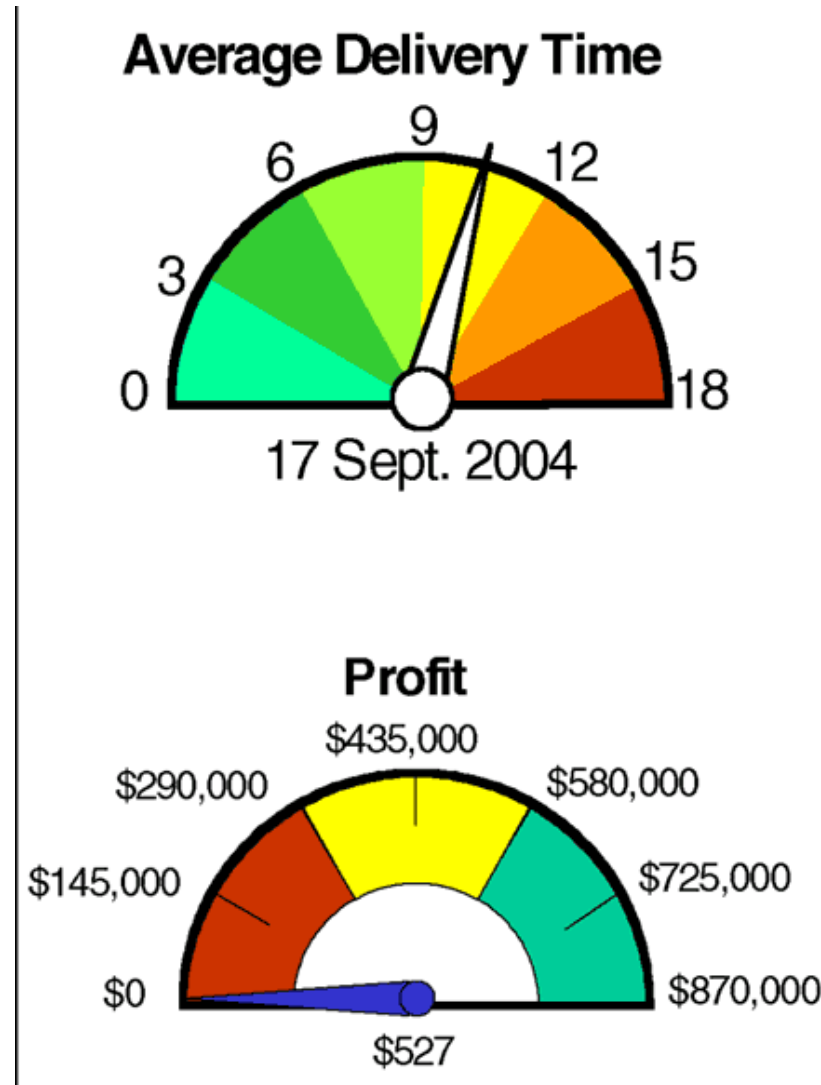
Dashboard Design Principles



Design principles and elements

- **Design importance and key principles**
 - Effective design
 - Key design principles
- **Understanding and applying design principles**
 - Ineffective displays
 - Objective of graphics

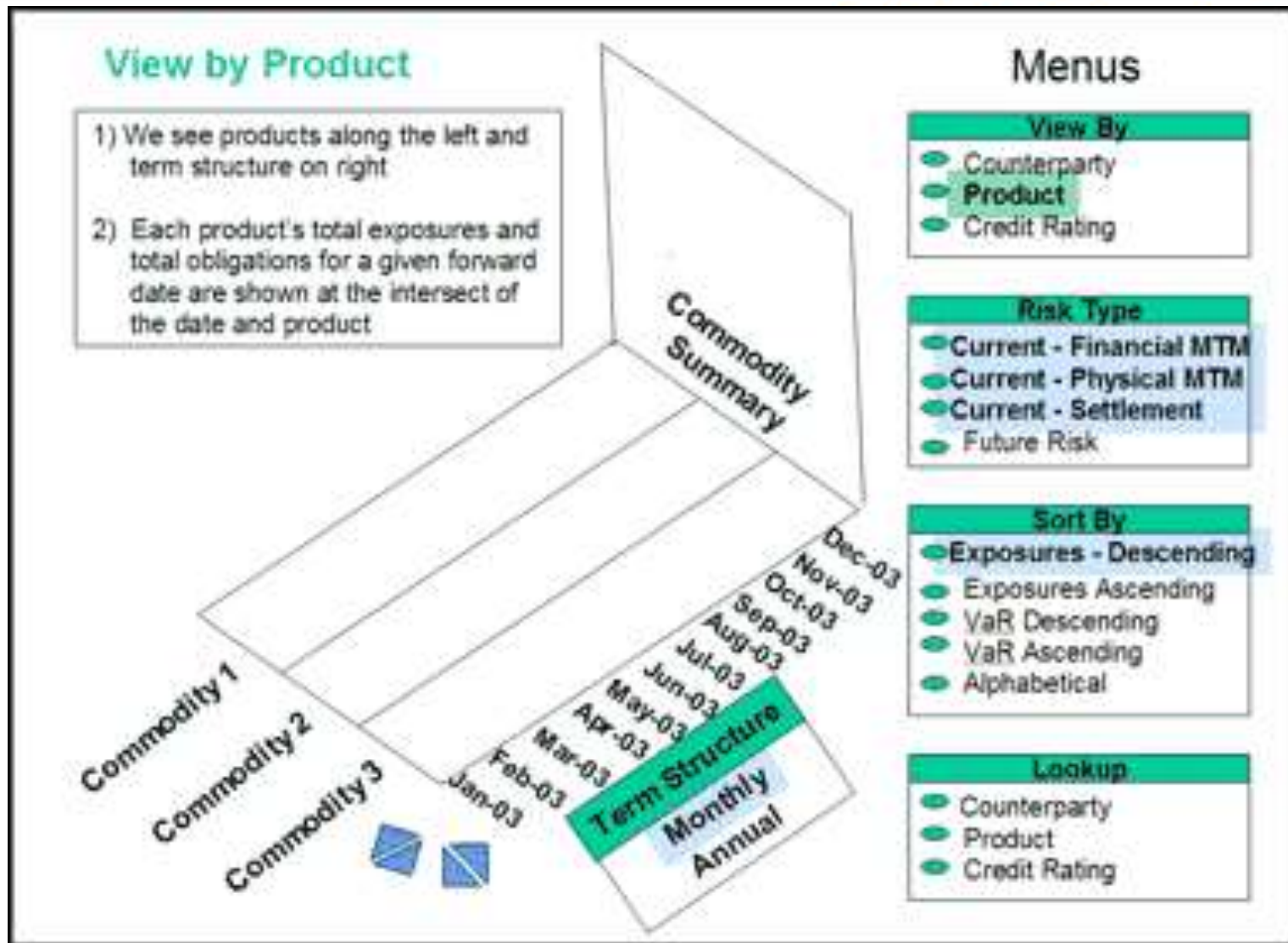
Figure 11: Inadequate gauges



Understanding and applying design principles

- **Key element in designing an effective representation**
- **Sketches, mockups and prototypes**
- **Desired complexity of sketches**

Figure 12: Mockup example



Understanding and applying design principles

- **Mockup benefits**
- **Impact of poorly designed appearances**
- **Iterative process**
- **Recognizing uniqueness**
- **Leveraging external expertise**

Effective principles of dashboard design

■ **Introduction**

- Levels of awareness to be supported by a dashboard
- Implementing best practices and standards
- Avoiding information overload

■ **Implement appropriate design**

- Design for rapid performance monitoring
- Organizing dashboard content
- Responsive design

Effective principles of dashboard design (cont.)

- **Provide insight, not reports**
 - Understand what the user really wants
 - Techniques for making dashboards effective
- **Utilize valuable real estate**
 - Understand what the user really wants
 - Techniques for making dashboards effective

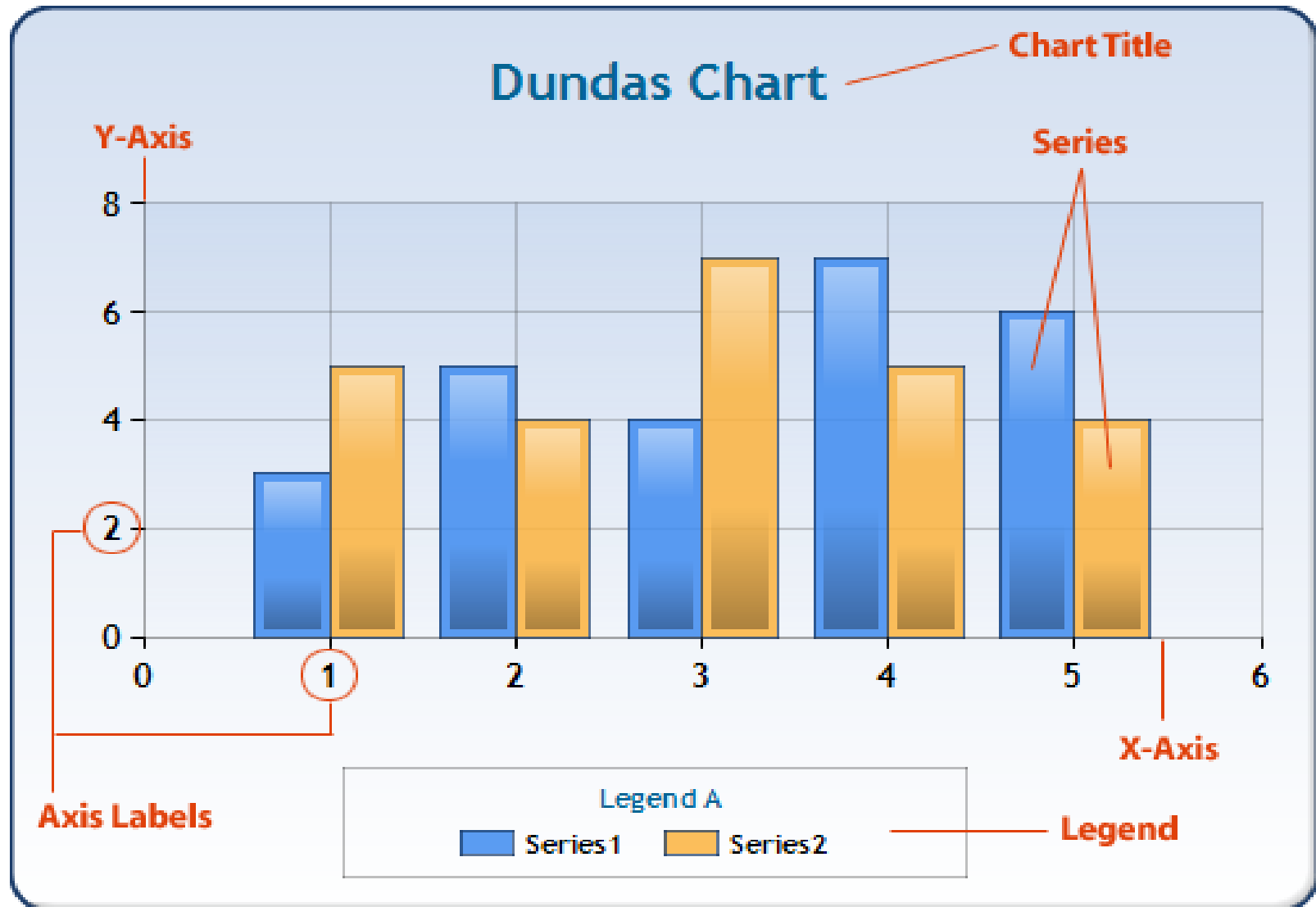
Effective principles of dashboard design (cont.)

- **Complement IT skills with business skills**
 - Leverage web skills
 - Need to complement technical skills with business skills
 - What designers should avoid
 - Designers' interaction with users
- **Use an iterative design process and continue to refine**
 - Iterative process
 - Post-rollout tasks

Effective principles of dashboard design (cont.)

- **Layout, colors, and fonts**
 - Importance of layout

Figure 13: Elements of a chart



Basics of general styling: Figures 14 & 15


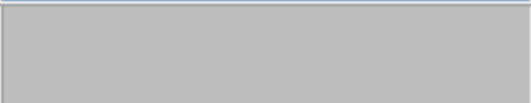
Color	Hex Value (RGB)	
Cool Blue	#6b97bf(107,151,191)	
Light Gray	#bdbdbd(189,189,189)	

Figure 14: Neutral colors used as base color palette






Color	Hex Value (RGB)	
Blue	#1a3b69(26,59,105)	
Orange	#fcb441(252,180,65)	
Red	#e0400a(224,64,10)	

Figure 15: Example of a corporate color palette

Figure 16: Colors to be favored



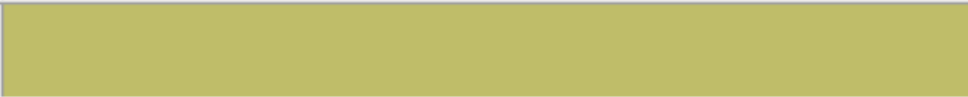


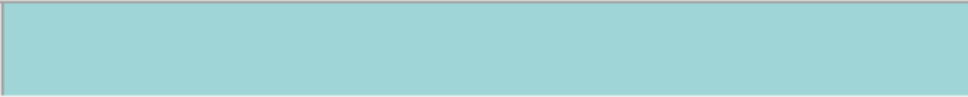


- Avoid use of bright colors (left) except to highlight particular data
- Stick with subdued colors (right) for most displays



Bright versus subdued colors

Source: Information Dashboard Design, Few

Figure 17: Creating a diverse range of colors

Hex Value (RGB)	
#69BF92 (105,191,146)	
#E3D0BF (227,208,191)	
#BFBD69 (191,189,105)	
#BF6995 (191,105,149)	
#696ABF (105,106,191)	
#9FD5D6 (159,213,214)	
#AF7F4B (175,127,75)	
#B9D69F (185,214,159)	

Color palette using a free open source tool

Figure 18: Visualization backgrounds

Color	Hex Value (RGB)	
Light Gray 1	#EDEDED (237,237,237)	
Light Gray 2	#F0F0FF (240,240,255)	
Pastel 1	#F7FFF0 (247,255,240)	
Pastel 2	#FFFFB3 (255,255,235)	

Some neutral background colors

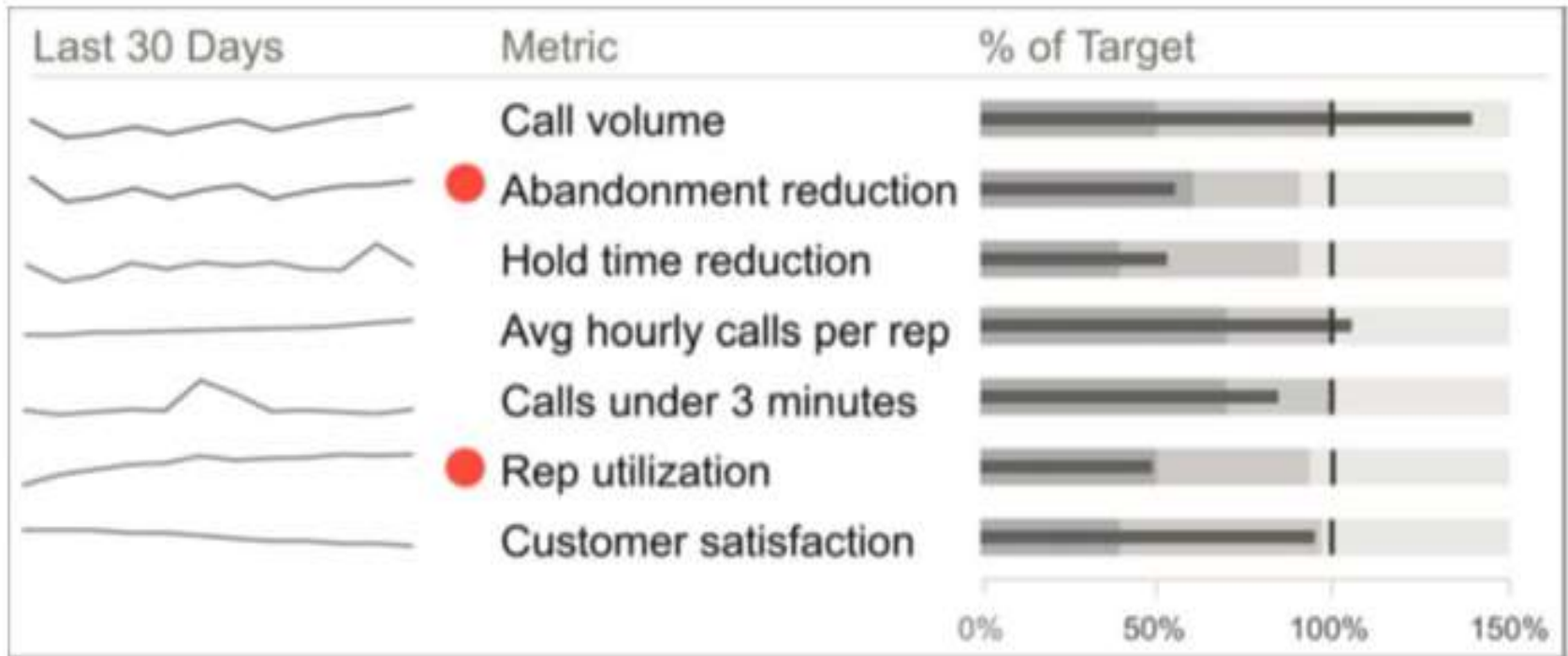
Fonts to be used

- **Pay attention to detail**
- **Use consistent font types and sizes throughout the dashboard**
- **Decide early on the minimum font size for the dashboard text**

Design principles & tips for real-time monitoring

- **Call center dashboard characteristics**
- **Flicker and audio alarm**
- **Maintain situational awareness**
- **Avoid excessive automation**
- **Enable easy responding**
- **Share the whole picture with the team**
- **Support projections for proactive responses**
- **Match the mental model**

Figure 19: Sparklines



Meaningful context has been added to these metrics in the form of sparklines, which provide a quick sense of history that has led up to the present