# API usability for DSP: a 1-day class

### **DSP Extension**

#### **Benefits**

- Assess API usability
- Design more usable APIs
- Understand usability discussions

Learn to assess the usability of an API, to design more usable APIs, and to discuss API usability in a well-informed way.







Or usable?

#### **Contents**

In this class we discuss the measure of 'usability' for an API in terms of the time it takes to learn about it, and to complete tasks using it. We outline simple but effective ways to assess the relative usability f an API, and set out guidelines for designing with usability in mind.

#### **API** usability

Understand what is meant by 'usability', how to measure it quickly and how to use this information.

- Usability
- Usability applied to an API
- Profiling API usability
- Guidelines for usable APIs

# **Profiling API usability**

We explain how usability is measured, and relate this to traditional guidelines on programming style.

- Profiling usability: observation
- Microsoft's ™ way
- · Cognitive dimensions
- Simplicity, generality, clarity

### **Cognitive dimensions**

We explain what Cognitive Dimensions are, how they are used, and their limitations.

- Programmer profiles
- · Cognitive dimensions
- · Cognitive dimensions in practice

# Simple API profiling

Learn straightforward guidelines for assessing usability, and a simple way to quickly asses API usability.

- The true aims of usability
- · Kernighan's guidelines
- Simplicity, clarity, generality
- The importance of focus
- Programming style
- API mapping to application
- Generality and focus
- Measuring API generality
- Measuring API focus
- Simplicity
- Measuring API simplicity
- Clarity
- Measuring API clarity
- Layered APIs
- Examples: UHAPI and TSSA

# **Design for usability**

We explain how to design an API for usability by following simple guidelines.

- Logical decomposition
- Choice of components
- Interface design
- Naming conventions
- Infrastructure versus application
- Layering
- Wrappers
- Abstraction layers
- Good and bad: UHAPI examples

## **Time and arrangements**

This class takes 1 day.

It is presented 'on-site' by arrangement - the material can be adapted if you have specific needs (at extra cost).

Sometimes we arrange 'public' classes: schedules are posted on the Internet:

http://www.bores.com/schedule.htm

#### Other classes

Other relevant classes include:

- DSP Foundation
- Universal Home API
- TriMedia Foundation

Contact us for details and advice:

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### **Booking and questions**

Call us by 'phone or send email to book or to ask questions.

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#### **About us**

BORES Signal Processing train managers, engineers and programmers to understand and use DSP and streaming media processing.

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- established 17 years
- excellent reputation
- worldwide activities
- www.bores.com