

# Collecting and Incorporating User Requirements into Design Solutions

Kathy Baxter and Catherine Courage  
Oracle Corporation  
500 Oracle Parkway, M/S 2op10,  
Redwood Shores, CA 94065 USA

## ABSTRACT

Usability and design professionals know that user requirements gathering is critical to the development of quality products. However, development teams often skip formal user requirements gathering, fearing it will take too long. Certain techniques can be employed by design professionals that are easily learned and implemented with little overhead. They can help designers by providing insight into how users work and what they need to succeed at their task. Through lecture, case studies, and an emphasis on hands-on activities, participants will learn how to conduct three user requirements gathering techniques and incorporate the results into design solutions.

## Keywords

User requirements, methods, design solutions

## INTRODUCTION

User requirements gathering is critical to the development of quality products. Certain techniques can be employed that allow usability and design professionals to gather data quickly, with little overhead, and without extensive usability training. Three such techniques are the "Wants and Needs Analysis," "Group Card Sorting," and "Group Task Analysis." The Wants and Needs Analysis collects users' wants and needs for a particular product, resulting in a prioritised feature list. In the Group Card Sort, users are asked to organise concepts on cards into logical groups, enabling the designer to understand the users' mental model of the domain. The Group Task Analysis captures a task flow that illustrates a common workflow that users follow. These techniques work for any system, are easy to learn, quick to conduct, and require few resources. The results can help designers by providing insight into how users work and what they need to succeed at their tasks.

## TUTORIAL FORMAT

This full-day tutorial will cover three components:

1. Pre-Collection: Identify and recruit the end user. Choose the appropriate method to collect the information you need.

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or to republish, to post on servers or to redistribute to lists, requires specific permission and/or a fee.

2. Collection: Collect the user requirements and analyse the data for each of the three methods. This will be the emphasis of the tutorial.
3. Post-Collection: Turn your user requirements into a design solution.

## TARGET AUDIENCE

Interaction designers, information architects, product designers, product managers, and usability professionals

## MAXIMUM ATTENDANCE

The interactive nature of this tutorial limits class size to 30 participants.

## ORIGIN

Kathy and Catherine have taught these methods in tutorials for the Human Factors and Ergonomics Society 45<sup>th</sup> Annual Meeting and Bay Area Computer-Human Interaction Group. The presenters have also taught these methods to usability engineers, designers, and product managers within Oracle. This tutorial has been enhanced for DIS 2002 to specifically address the needs of designers of interactive systems.

## PRESENTERS

### Kathy Baxter

Kathy is a Sr. Usability Engineer in Oracle's Usability and Interface Design Dept. She supports desktop and mobile Manufacturing and Healthcare applications. In addition to collecting user requirements, conducting site visits, and performing usability tests, Kathy works with designers in the group to develop user interfaces and conduct design reviews. She received her Masters of Science degree in Engineering Psychology from the Georgia Institute of Technology.

### Catherine Courage

Catherine is a Usability Engineer within the Usability and Interface Design Group at Oracle Corporation. She conducts usability evaluations, and user requirements activities for web-based Human Resource and Financial applications. In addition to conducting user activities, she works with designers to transform usability data into design solutions. Catherine received a Masters of Applied Science degree specialising in Human Factors from the University of Toronto.