Template for Reporting on the User-Centered Design Process Used for Voting Systems

This document provides a template for reporting on the user-centered design (UCD) process to meet the requirements under Principle 2.2 as part of the certification of a voting system to the Voluntary Voting System Guidelines (VVSG) 2.0.

It is one of ten companion documents to the [NIST VTS 400-5 Handbook for VVSG 2.0 Usability and Accessibility Test Strategies](https://doi.org/10.6028/NIST.VTS.400-5) and can be downloaded with the Handbook. All documents are also available on the NIST Voting Program website at <https://www.nist.gov/itl/voting/vts-400-5-documents>.

About the UCD Report Template

This template is intended to help voting system manufacturers meet the Voluntary Voting System Guidelines (VVSG) 2.0 developed and maintained by the U.S. Election Assistance Commission (EAC).

The template can be used to meet the reporting requirements for the user-centered design process described in VVSG 2.0:

**Principle 2.2.** The voting system is implemented using best practice user-centered design methods that consider a wide range of representative voters, including those with and without disabilities, and election workers.

**2.2-A – User-centered design process**

The manufacturer must submit a report providing documentation that the system was developed following a user-centered design process. The report must include, at a minimum:

1. a listing of user-centered design methods used,

2. the types of voters and election workers included in those methods,

3. how those methods were integrated into the overall implementation process, and

4. how the results of those methods contributed to developing the final features and design of the voting system.

This template can also be helpful for manufacturers as they conduct usability testing in their software development cycle.

What is in this document?

This UCD report template serves as an outline of the UCD report. **Any content provided in this document is just a sample to illustrate the type of information to include in any section.**

The template includes the following sections:

Title page

1. Overview
2. Product Description
3. Timeline
4. User-Centered Design Activities
5. Appendices

How to use this document

This document is based on current professional practice in user-centered design, usability, and international standards, applying these practices to voting systems. The [International Organization for Standardization](https://www.iso.org/home.html) (ISO) has defined standards for UCD methods in each of these categories::

* Ergonomics of human-system interaction (ISO 9241)
* Common Industry Format (CIF) for usability test reports) (ISO/IEC 25062)
* Context of use description (ISO/IEC 25063)
* User needs report (ISO/IEC 25064)
* User requirements specification (ISO/IEC 25065)
* Evaluation reports (ISO/IEC 25066)

The CIF for Voting Systems discussed in this report is based on an international standard, **Common Industry Format (CIF) for usability test reports) (ISO/IEC 25062)**. Before using this document, you should become familiar with this standard. ISO/IEC 25062:2006 can be purchased from: <http://www.iso.org/iso/iso_catalogue/catalogue_tc/catalogue_detail.htm?csnumber=43046>.

The data sample provided in this template is an example or placeholder of the types of content that may be useful in completing the modified CIF template.

Gray background text (bounded in square brackets) is to be replaced by the manufacturer’s supplied information.

The UCD reporting template begins on the next page

User-Centered Design Report for   
[Name of Product and Version Tested]   
for VVSG 2.0 Requirement 2.2-A

[Full name of product and version]

Date of Report: [Date report was prepared]

Report Prepared By: [Customer Company Name]

[Customer Company Contact Person]

[Customer's phone number]

[Customer's email address]

[Customer's mailing address]

Table of Contents

1.0 Overview 5

1.1 UCD Scope and Participants 5

1.2 Impact 5

2.0 Product Description 6

2.1 Full Product Description 6

2.2 Changes from Previous Versions 6

3.0 Timeline 7

4.0 User-Centered Design Activity Detail 8

4.1 UCD event description (repeat as needed) 8

Appendices 10

[Appendix A: Title] 10

# 1.0 Overview

This report describes the user-centered design (UCD) process for [name of product and its version] conducted during the design and development process to meet VVSG 2.0 Requirement 2.2-A.

The scope of this work includes [describe the scope of product or updates submitted for certification].

[For updates: This voting system has been previously certified under VVSG X.X on date.]

## 1.1 UCD Scope and Participants

From [date] to [date] the UCD process included a variety of usability tests and other UCD methods, including:

* [##] usability tests with a total of [##] sessions
* [##] other UCD method activities
* [##] other UCD method activities
* [##] other UCD method activities

Participants in these activities included:

* [##] total voters, including:
  + [##] blind voters using the audio format and tactile keypad
  + [##] voters with low vision using audio format with visual display
  + [##] voters with low vision using screen text size and contrast
  + [##] deaf or hard of hearing voters
  + [##] voters with mobility disabilities
  + [##] voters with dexterity disabilities using the tactile keypad
  + [##] voters with dexterity disabilities using a dual switch
  + [##] voters with low literacy
  + [##] voters using alternative languages
* [##] total poll workers or other election workers

## 1.2 Impact

[Describe the overall impact of the UCD activities on the voting system design and development]

# 2.0 Product Description

## 2.1 Full Product Description

This report is for [name of product and its version]. Designed to present ballots to voters throughout the U.S. and collect voter responses, the [product] consists of [description of product and how it is used].

## 2.2 Changes from Previous Versions

[If this is a product update, describe the changes, otherwise delete this section.]

# 3.0 Timeline

#### Timeline and summary of UCD process for [product name and version]

| Date | Method | Participants | Location | Activity detail |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
|  |  |  |  |  |
|  |  |  |  |  |

# 4.0 User-Centered Design Activity Detail

This section contains a summary of each UCD activity or usability test conducted as part of the overall process.

## 4.1 UCD event description (repeat as needed)

#### About this activity

| People | Process | Product | Principles |
| --- | --- | --- | --- |
| Number and identification of participants | Method or activity | What was tested | What VVSG principles were the goal of this activity |

#### Activity process and results detail

| Description | Detail |
| --- | --- |
| Date and Location |  |
| Method |  |
| Goals |  |
| What we tested |  |
| People |  |
| Recruiting |  |
| What we learned |  |

# Appendices

Include or list any materials from the user-centered design activities or additional material. These materials might include a full summary of participant demographics, any forms or questionnaires used, any sample ballots used, or detailed reports. These appendices may be in separate files.

Some sample materials for usability testing in the UCD process are in the CIF for Voting Systems: Appendices of Sample Forms and Additional sample forms for usability testing voting systems as part of the companion documents for [NIST VTS 400-5 Handbook for VVSG 2.0 Usability and Accessibility Test Strategies](https://doi.org/10.6028/NIST.VTS.400-5) at <https://www.nist.gov/itl/voting/vts-400-5-documents>.

## [Appendix A: Title]