

Proposed Artifacts

Complementary material for ANONYMIZED paper.

Code	Artifact Name	Artifacts Description
[A1]	Auditory Code Overview and Navigation Tool (ACONT)	A tool designed to assist visually impaired programmers, in quickly scrolling through a class file to understand its structure. It utilizes a “ <i>timeline</i> ” navigation technique, allowing users to navigate line-by-line at their chosen speed. It also maps different sounds to programming constructs, such as a door opening for an “ <i>if</i> ” statement or a piano chord for a “ <i>public</i> ” function, to convey information non-visually [5].
[A2]	AudioHighlight	A tool that can be integrated into the Eclipse development environment or used as a web service. It allows blind programmers to quickly step through structural elements of code, such as class and function declarations and control flow statements, using HTML header tags to reflect the structure of the code [1].
[A3]	CodeTalk	A plugin for the Visual Studio IDE that aims to improve accessibility for visually impaired developers. It is designed to minimize developers’ effort to search for information by extracting and presenting relevant data in an accessible way and introducing a secondary audio channel to complement the screen reader [10].
[A4]	CodeWalk	A set of features added to Microsoft’s Live Share VS Code extension, designed to facilitate shared awareness in mixed-ability collaborative software development. It conveys sighted colleagues’ navigation and edit actions through sound effects and speech, allowing BVI developers to participate more equally in coding tasks such as code review and refactoring [8].
[A5]	VSCoDe Im- provements	Set of features integrated into Visual Studio Code (VSCoDe). An Accessible Terminal Buffer, which allows blind users to navigate using arrow keys, significantly improving the accessibility and usability of the integrated VSCoDe terminal. Audio Signals for Git Diff, Verbosity Settings, and Help Menus have also been implemented to enhance the non-visual programming experience in VSCoDe [12].
[A6]	Grid Editor	Grid Editor is an accessible programming tool designed to help blind and low-vision programmers navigate, understand, and edit source code in text-based programming languages. It presents code in a 2D grid structure, where each row represents a line of code, and each column represents an indentation level. It allows programmers to navigate code using arrow keys and edit code cells by pressing ENTER, making it easier to understand the context of the code and detect and correct syntax errors more efficiently. [4].
[A7]	No-Name	A code editor prototype specially designed for developers with physical impairments that integrates different code navigation approaches optimized for multimodal voice interaction [7].
[A8]	No-Name	Three Wizard of Oz prototypes to enhance communication between a deaf-blind employee and their colleagues. Consists of a Pager Alert System that includes a pager and a buzzer to notify the user of emergency situations quickly or to indicate that someone wants to initiate a personal interaction; an Add-on Braille Terminal Keys that allows the user to express emotions in emails, making communication more personal and less laborious; and an Accessible Messaging App with features that enable synchronous communication and tactile notifications for new messages, improving interaction in the workplace for deaf-blind people [13].
[A9]	Physical computing Streaming Sensor data Toolkit (PSSST)	It is a toolkit designed to enable blind and visually impaired (BVI) developers to create accessible data displays, particularly for understanding sensor-generated data. It provides the developers with tools to author sonification of streaming sensor data, making physical computing platforms more accessible [9].
[A10]	StructJumper	Is a prototype of an Eclipse plugin designed to help blind programmers navigate and understand code structure in integrated development environments (IDEs). It allows blind programmers to quickly navigate through code, using a hierarchical tree that represents the nesting structure of a Java class [2].
[A11]	Accessible Web Modeler (AWMo)	It is a prototype web tool designed to allow software developers, including those with visual impairments, to work with graphical software models and diagrams, offering two distinct views for working with UML (Unified Modeling Language) class diagrams: one graphic and one textual vision of the same elements [3].
[A12]	CodeMirror-Blocks (CMB)	It is a browser-based programming environment designed to be fully accessible for visually impaired programmers. It provides spoken descriptions of the program structure and allows navigation using keyboard shortcuts [11].
[A13]	Accessible Blockly	It is a prototype of an accessible block-based programming library designed to enable users with visual impairments to create and navigate block-based code using a screen reader and keyboard [6].

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