

```
+ setLanguage(language: String): FileManager
+ setRootdir(rootPath: Path): FileManager
+ setRootdir(rootDir: String): FileManager
+ update(): FileManager
+ setAll(rootPath: Path, language: String): FileManager
+ setAll(rootDir: String, language: String): FileManager

+ getRootdir(): Path
+ getLanguage(): String
+ getFiles(): ArrayList<SFile>
+ getLanguageFiles(): ArrayList<SFile>
+ getCurrentFile(): SFile
+ getCurrentFilePath(): String

+ setCurrentFile(currentFile: SFile): void
+ getRelativePath(sfile: SFile): Path
+ saveAll(): void
+ openNewFolder(): void
- getAllowedExtensions(lang:String): Set<String>
- listAllContents(rootDir: Path,
    allowed_extensions: Set<String>): void
```

**FileWatcher
(implements Runnable)**

```
- fmlInstance : FileManager
- feInstance : FileExplorer
- filePaths : List<Path>
- rootDir : Path
- watcher : WatchService
- keys : ConcurrentHashMap<WatchKey, Path>

+ FileWatcher(fm: FileManager,
    fe: FileExplorer) throws IOException
+ run(): void
+ closeAndCleanup(): void throws IOException
- registerAll(start:Path) : void throws IOException
- shouldIgnore(dir:Path) : boolean
- handleCreate(path:Path) : void
- handleDelete(deletedPath:Path) : void
```

**CCFile
<< abstract >>**

```
- loadedFiles : Map<Path,CCFile> (static)
# path : Path

# CCFile(filepath:String)
# CCFile(path:Path)
+ getCached(path:String): CCFile (static)
+ getCached(path:Path): CCFile (static)
+ delete(): void
+ getPath(): Path
+ getStringPath(): String
+ setPath(newPath:Path): void
# read(): void (abstract)
+ write(): void (abstract)
```

CrypticWriter

```

- addFolderNode(parentNode: DefaultMutableTreeNode,
               childPath: Path): void {static}

- loadFileContent(sfile: SFile): void
+ updateRootDirectory(newRootDir: String): void
+ handleCreateFolderAction(): void
+ buildFileTree(): void {static}
+ addTreeNodeToTree(filePath: Path): void {static}
+ removeTreeNodeFromTree(filePath: Path): void {static}
+ resolveNodeToPath(node: DefaultMutableTreeNode): Path
+ getFileManager(): FileManager
+ getSelectedFile(): SFile
+ setSelectedFile(newFile: SFile): void
+ setSyntaxHightlighting(path: String): void
+ getTestcaseFile(): TestcaseFile
+ setTestcaseFile(newFile: TestcaseFile): void
+ getSelectedNode(): DefaultMutableTreeNode
+ getFeTree(): JTree
+ getInstance(): FileExplorer {static}
+ getFileExtension(filePath: String): String {static}

```

```

+ getInstance(): TextEditor
- TextEditor()

+ setAll(folderPath: String,
         mainMenu: MainMenu): TextEditor

+ setDiffMenuDoc(actual: StyledDocument,
                 expected: StyledDocument): void

+ openDiffMenu(): void
+ closeDiffMenu(): void
+ saveCurrentFileContent(): void
+ handleAddFileAction(): void
+ getCurrentSelectedLanguage(): String
+ setTextArea(ok: boolean): void
+ makeCoolAndNormal(): void {static}
+ getSetEntryPointButton(): JButton
- initializeComponents(): void
- initializeBackend(): void
- initializeStyles(): void
- setupLayout(): void
- setupEventListeners(): void
- displayActualDiff(actualLines: String[],
                    expectedLines: String[],
                    doc: StyledDocument): void

- displayExpectedDiff(actualLines: String[],
                      expectedLines: String[],
                      doc: StyledDocument): void

- create_first_panel(): JPanel
- create_second_panel(): JPanel
- create_third_panel.Container(): JPanel

- getScaledIcon(imageUrl: URL, width: int,
               height: int): ImageIcon

- configureToolbarButton(button: JButton): void
- canProceedRunCode(): boolean {static}

```

ComponentHandler
(implements ActionListener)
<< abstract >>

- textEditor: TextEditor

```

+ ComponentHandler(textEditor: TextEditor)
+ actionPerformed(e: ActionEvent) : void
+ getTextEditor(): TextEditor

```

Event Handlers
(Static Inner Classes extending ComponentHandler)

```

+ OpenFolderButtonHandler
+ AddFileButtonHandler
+ LanguageSelectHandler

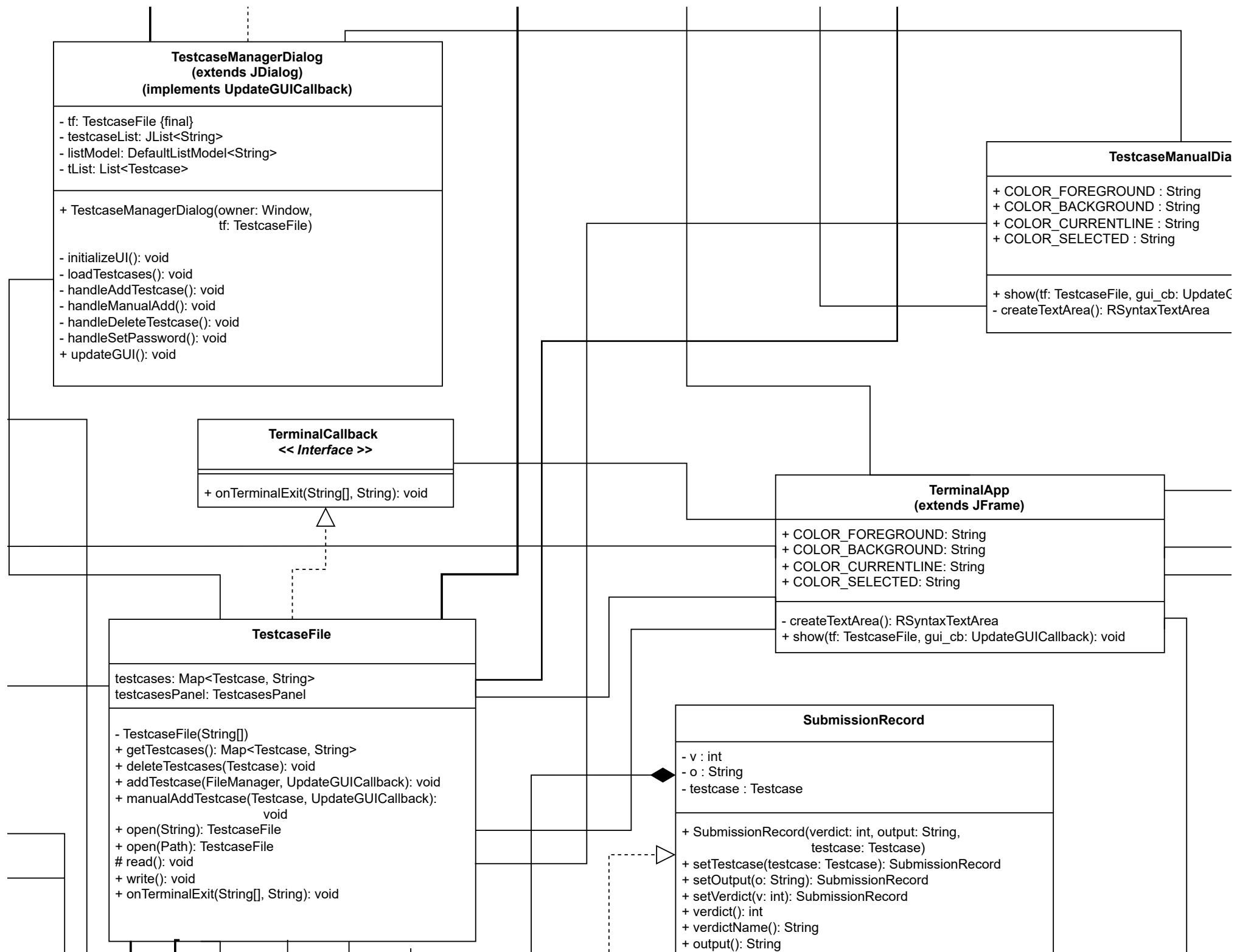
```

DiffWorker
(implements Runnable)

```

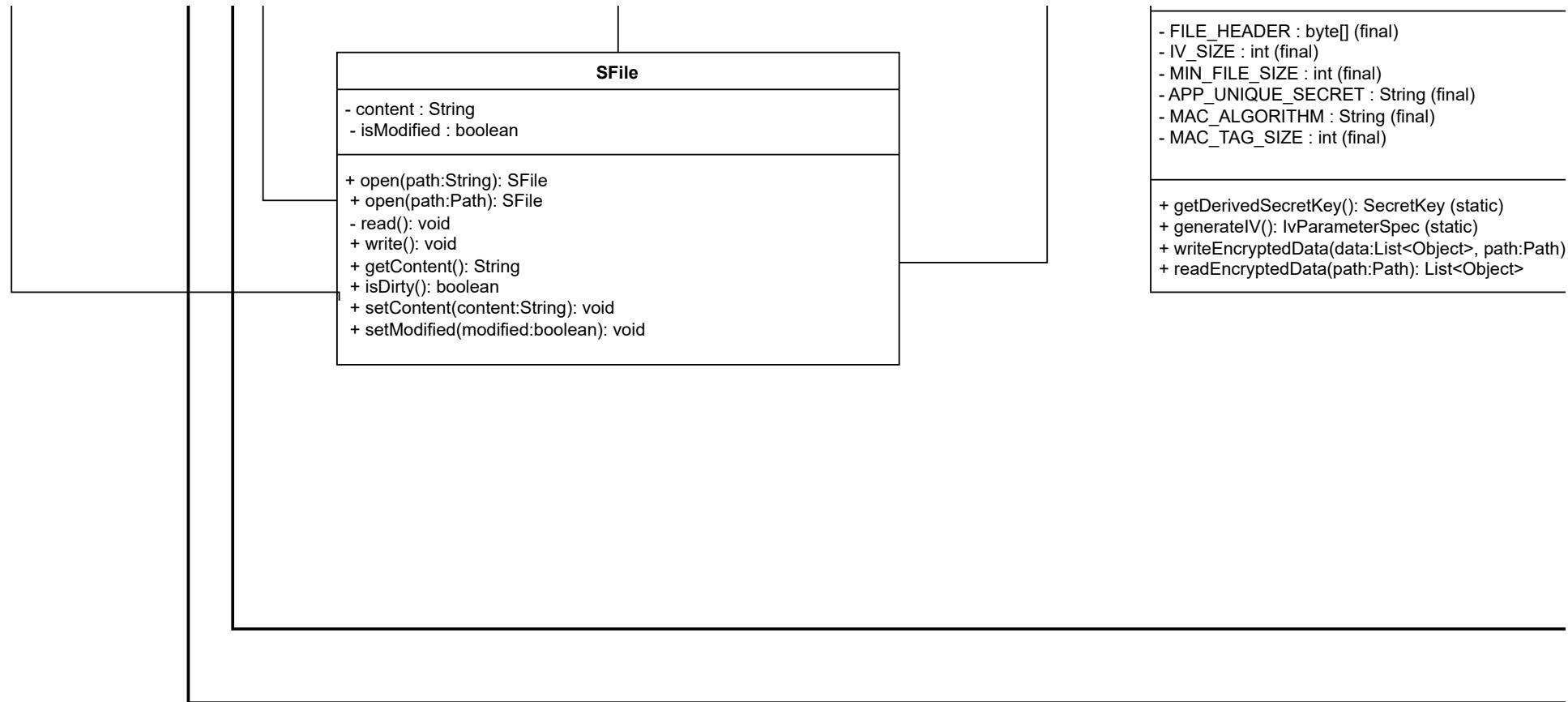
- actual: String
- expected: String
- actualDoc: StyledDocument
- expectedDoc: StyledDocument

```



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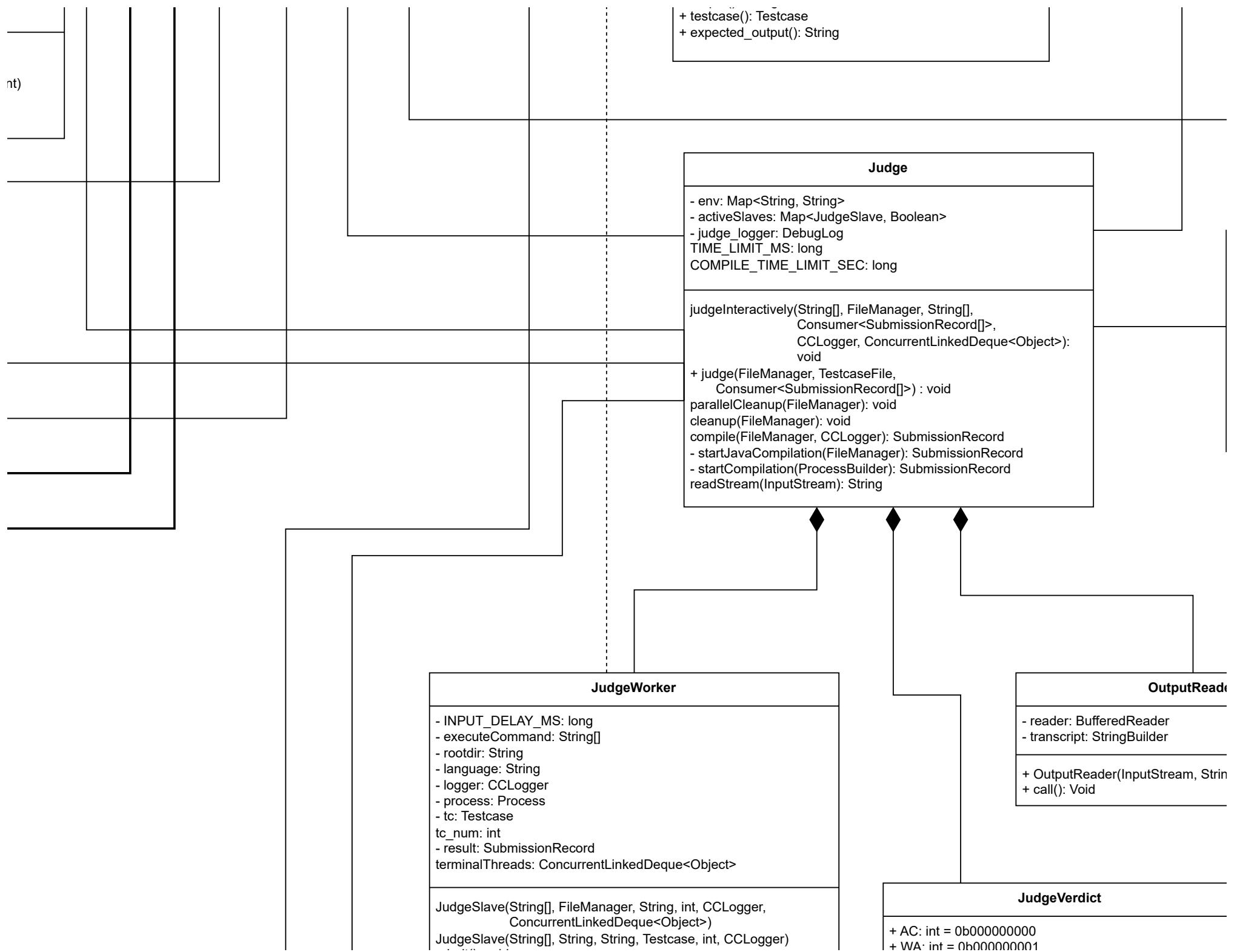
GUICallback): void



+ RunButtonHandler
+ SetEntryPointButtonHandler
+ ImportTestcaseButtonHandler
+ ManageTestcaseButtonHandler
+ SubmitButtonHandler

+ DiffWorker(rec: SubmissionRecord,
actualDoc: StyledDocument,
expectedDoc: StyledDocumer
+ run(): void

): void



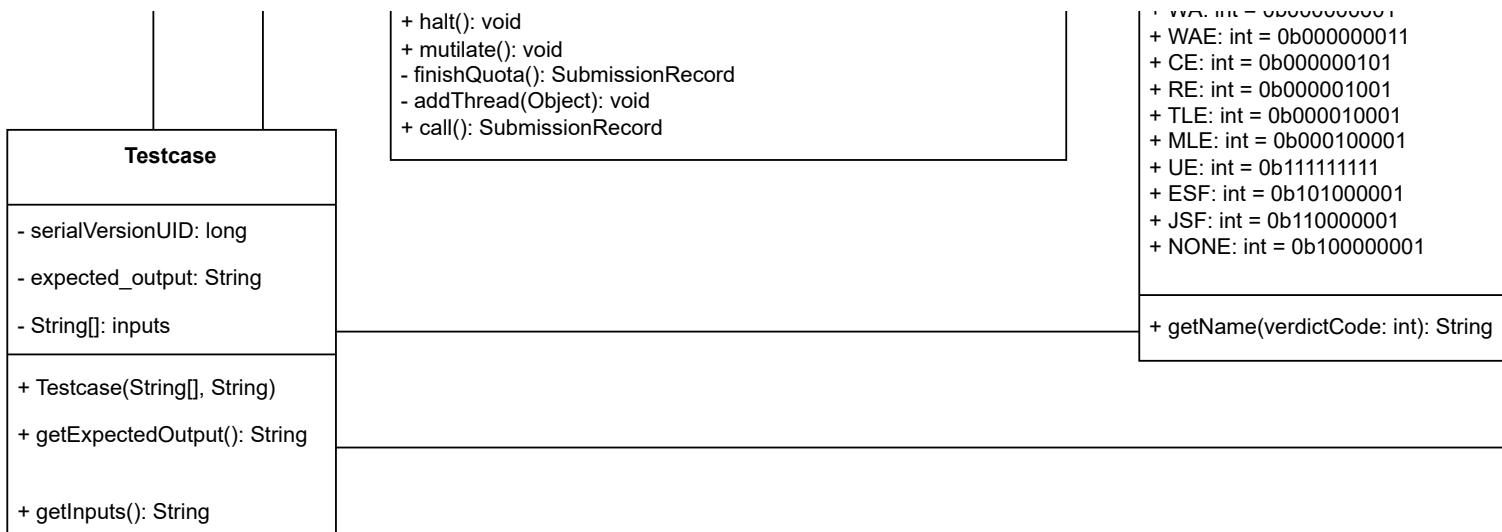
ExecutionConfig

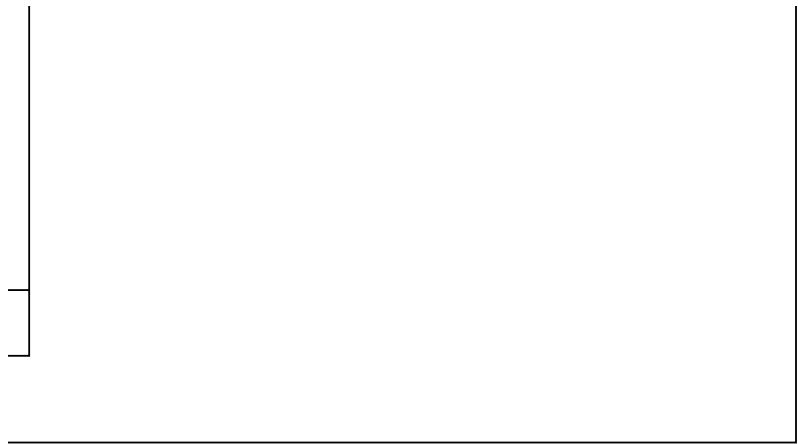
```
+ COMMAND_CACHE: ConcurrentHashMap<String, Boolean>
+ NO_JDK_ERROR: String
+ NO_C_COMPILER_ERROR: String

+ getCompileCommand(FileManager): String[]
- getCompileCommand(String, String[]): String[]
+ getExecuteCommand(FileManager): String[]
+ getRunCommand(FileManager): String[]
+ isCommandAvailable(String): boolean
```

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ngBuilder)





RoundedComboBox<E>
(extends JComboBox<E>)

- radius: int
- + RoundedComboBox(items: E[])
 - + RoundedComboBox()
 - setupRoundedStyle(): void
 - + setRadius(radius: int): void
 - # paintComponent(g: Graphics): void
 - # paintBorder(g: Graphics): void

RoundedButton
(extends JButton)

- radius: int
- verticalOffset: int
- iconImage: Image
- + RoundedButton(text: String, radius: int)
- + setIconImage(image: Image): void
- + setVerticalOffset(offset: int): void
- # paintComponent(g: Graphics): void
- # paintBorder(g: Graphics): void

Helpers

- + concatStringArrays(arrays: String[]): String[]
- + joinStringArrays(a: String[],
b: String[],
elemSep: String,
arraySep: String): String
- + stripAnsi(input: String): String
- + stripCRLines(input: String): String
- + stripAnsiCRLines(input: String) : String
- + getPythonLineSeparator(): String

TestcaseButton

- textLabel: JLabel
- testcaseNumber: int
- + setTestcaseNumber(int): void
- + getTestcaseNumber(): int
- + TestcaseButton(int)

- radius: int
- borderColc
- borderThic
- + RoundedF
- + RoundedF
- + RoundedF
- + setRadiusi
- + setBorderC
- + setBorderT
- # paintCompr
- # paintBorde

SlaveMa

- + slaveWorkers: Ex

RoundedPanel
(extends JPanel)

or: Color = null
Thickness: int

Panel(radius: int)
Panel(layout: LayoutManager,
radius: int)

Panel(layout: LayoutManager,
radius: int,
hexColor: String)

(radius: int): void
Color(color: Color): void
Thickness(thickness: int): void
ponent(g: Graphics): void
er(g: Graphics): void

anager

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