

## Dialog

- ACTION\_CHANNEL: String = "ui"
- CHANNEL\_SWING: String = "swing"
- CHANNEL\_NEW\_SWING: String = "newswing"
- CHANNEL\_TEXT: String = "text"

- \_backend: InteractionDriver

- Dialog(): void

+ Dialog(backend: InteractionDriver): void

+ open(menu: Menu): void

+ fill(form: Form): void

+ render(title: String, text: String): void

+ close(): void

## Display

- \_ui: Dialog

- \_title: String = ""

- \_text: StringBuilder = new StringBuilder()

+ Display(): void

+ Display(title: String): void

+ Display(ui: Dialog, title: String): void

+ addAll(items: Collection<?>): Display

+ addLine(toAdd: Object): Display

+ addNewLine(toAdd: Object, force: boolean): Display

+ display(): void

+ popup(toPop: Object): void

+ popup(toPop: Collection<?>): void

+ clear(): void

<<interface>>

## InteractionDriver

+ open(menu: Menu): void

+ fill(form: Form): void

+ render(title: String, text: String): void

+ close(): void

<<abstract>>  
Field

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- \_prompt: String  
- \_clear: boolean  
# \_value: Value

# Field(): void  
# Field(prompt: String): void  
+ prompt(): String  
+ set(value: Type): void  
+ value(): Type  
+ clear(): void  
+ dirty(): void  
+ cleared(): boolean  
+ isReadOnly(): boolean  
+ <<abstract>> parse(in: String): boolean

Field Boolean

- <<final>> BOOLEAN\_WORD\_YES: String = "sim"  
- <<final>> BOOLEAN\_WORD\_NO: String = "não"  
- <<final>> BOOLEAN\_CHAR\_YES: char = 's'  
- <<final>> BOOLEAN\_CHAR\_NO: char = 'n'

~ Field Boolean(prompt: String): void  
+ parse(in: String): boolean

Field Integer

~ Field Integer(prompt: String): void  
+ parse(in: String): boolean

Field None

~ Field None(prompt: String): void  
+ parse(in: String): boolean  
+ isReadOnly(): boolean

Field Real

~ Field Real(prompt: String): void  
+ parse(in: String): boolean

Field String

~ Field String(prompt: String): void  
+ parse(in: String): boolean

Form Exception

~ <<final>> SerialVersionUID: long = 202010272136L  
+ FormException(msg: String): void

<<interface>>  
Messages

+ KeyAlreadyExists(form: String, key: String): String  
+ KeyNotFound(form: String, key: String): String  
+ typeMismatch(form: String, key: String, actualType: String, requestedType: String): String

## Form

```

- _ui: Dialog
- _title: String
- _fields: Map<String, Field<?>> = new LinkedHashMap<>()

```

```

+ Form(): void
+ Form(title: String): void
+ Form(ui: Dialog, title: String): void
+ title(): String
+ entries(): Collection<Field<?>>
+ Field(key: String): Field<?>
- add(key: String, in: Field<?>): void
+ addBooleanField(key: String, label: String): void
+ addStringField(key: String, label: String): void
+ addRealField(key: String, label: String): void
+ addIntegerField(key: String, label: String): void
- get(key: String, type: String): Object
+ booleanField(key: String): Boolean
+ stringField(key: String): String
+ realField(key: String): Double
+ integerField(key: String): Integer
+ parse(): Form
+ parse(clear: boolean): Form
+ clear(): void
+ confirm(prompt: String): Boolean
+ requestInteger(prompt: String): Integer
+ requestReal(prompt: String): Double
+ requestString(prompt: String): String

```

## Menu

```

- _ui: Dialog
- _title: String
- _commands: Command<?>[]
+ Menu(ui: Dialog, title: String, commands: Command<?>...): void
+ Menu(title: String, commands: Command<?>...): void
+ title(): String
+ size(): int
+ entry(n: int): Command<?>
+ entries(): Command<?>[]
+ open(): void

```



<<abstract>>  
Command

- \_last : boolean  
- \_title : String  
# <<final>> \_receiver : Receiver  
# \_valid : Predicate <Receiver> = receiver → true  
- <<final>> \_form : Form  
# <<final>> \_display : Display  
+ Command (last: boolean, title: String): void  
+ Command (last: boolean, title: String, receiver: Receiver): void  
+ Command (last: boolean, title: String, receiver: Receiver, valid: Predicate <Receiver>): void  
+ Command (title: String, receiver: Receiver): void  
+ Command (title: String, receiver: Receiver, valid: Predicate <Receiver>): void  
+ <<final>> title(): String  
+ isLast(): boolean  
+ isValid(): boolean  
+ addBooleanField (key: String, prompt: String): void  
+ addRealField (key: String, prompt: String): void  
+ addIntegerField (key: String, prompt: String): void  
+ addStringField (key: String, prompt: String): void  
+ booleanField (key: String): Boolean  
+ realField (key: String): Double  
+ integerField (key: String): Integer  
+ stringField (key: String): String  
+ <<final>> performCommand(): void  
# <<abstract>> execute(): void

<<abstract>>  
CommandException

- <<final>> serialVersionUID = 20200150838L  
+ CommandException (message: String): void  
+ CommandException (message: String, throwable: Throwable): void

DoOpenMenu

+ DoOpenMenu (label: String, receiver: Menu): void  
# <<final>> execute(): void

<<interface>>  
Message

+ operationFailed (error: String): String

## Composite PrintStream

- streams: Collection<PrintStream> = new ArrayList<>()
- error: boolean = false
- ~ CompositePrintStream(): void
- ~ CompositePrintStream(printStreams: PrintStream...): void
- ~ <<final>> add(ps: PrintStream): void

### <<interface>> Message

- + invalidOperation(error: String): String
- + invalidOption(): String
- + errorEOF(e: EOFException): String
- + errorIO(ioe: IOException): String
- + errorInvalidNumber(e: NumberFormatException): String
- + errorREOF(e: RuntimeEOFException): String
- + inputError(e: FileNotFoundException): String
- + errorClosingInput(e: IOException): String
- + endOfInput(): String
- + outputError(e: FileNotFoundException): String
- + logError(e: FileNotFoundException): String

### <<interface>> Prompt

- + option(): String
- + exit(): String

### <<interface>> Properties

- + WRITE\_INPUT: String = "writeInput"
- + BOTH\_CHANNELS: String = "both"
- + INPUT\_CHANNEL: String = "in"
- + OUTPUT\_CHANNEL: String = "out"
- + LOG\_CHANNEL: String = "log"

### RuntimeEOFException

- ~ <<final>> serialVersionUID: long = 200610291655L
- ~ RuntimeEOFException(): void
- ~ RuntimeEOFException(msg: String): void

## Text Interaction

```
- _in: BufferedReader = new BufferedReader(new InputStreamReader(System.in))  
- _out: PrintStream = System.out  
- _log: PrintStream = null  
- _writeInput: boolean
```

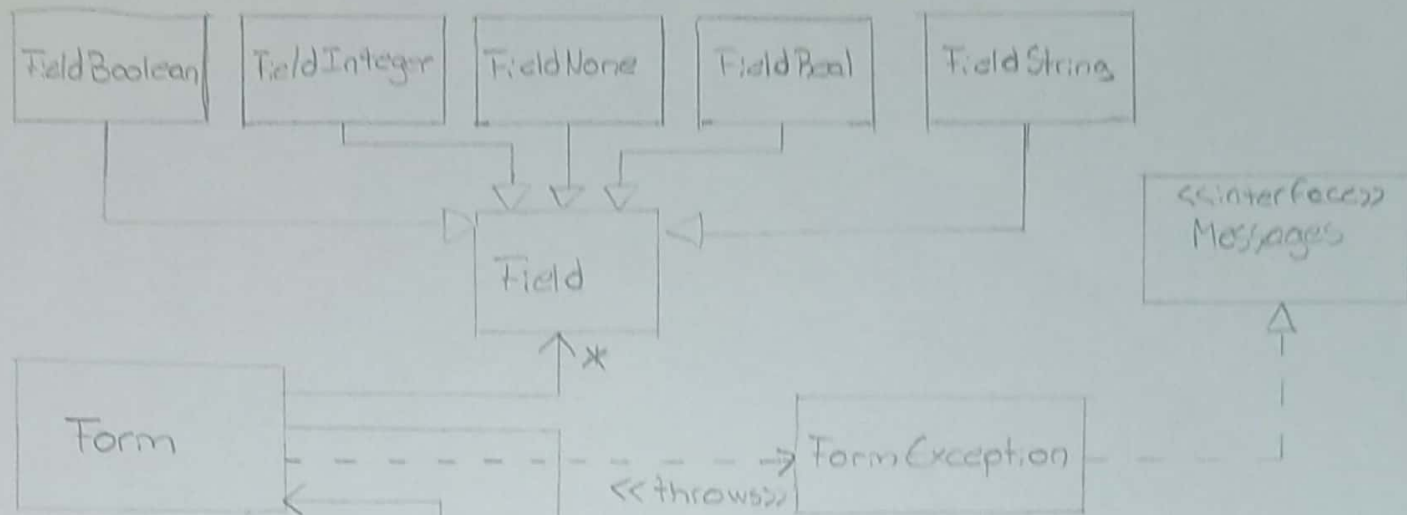
```
+ TextInteraction(): void
```

```
- <<final>> readString(prompt: String): String
```

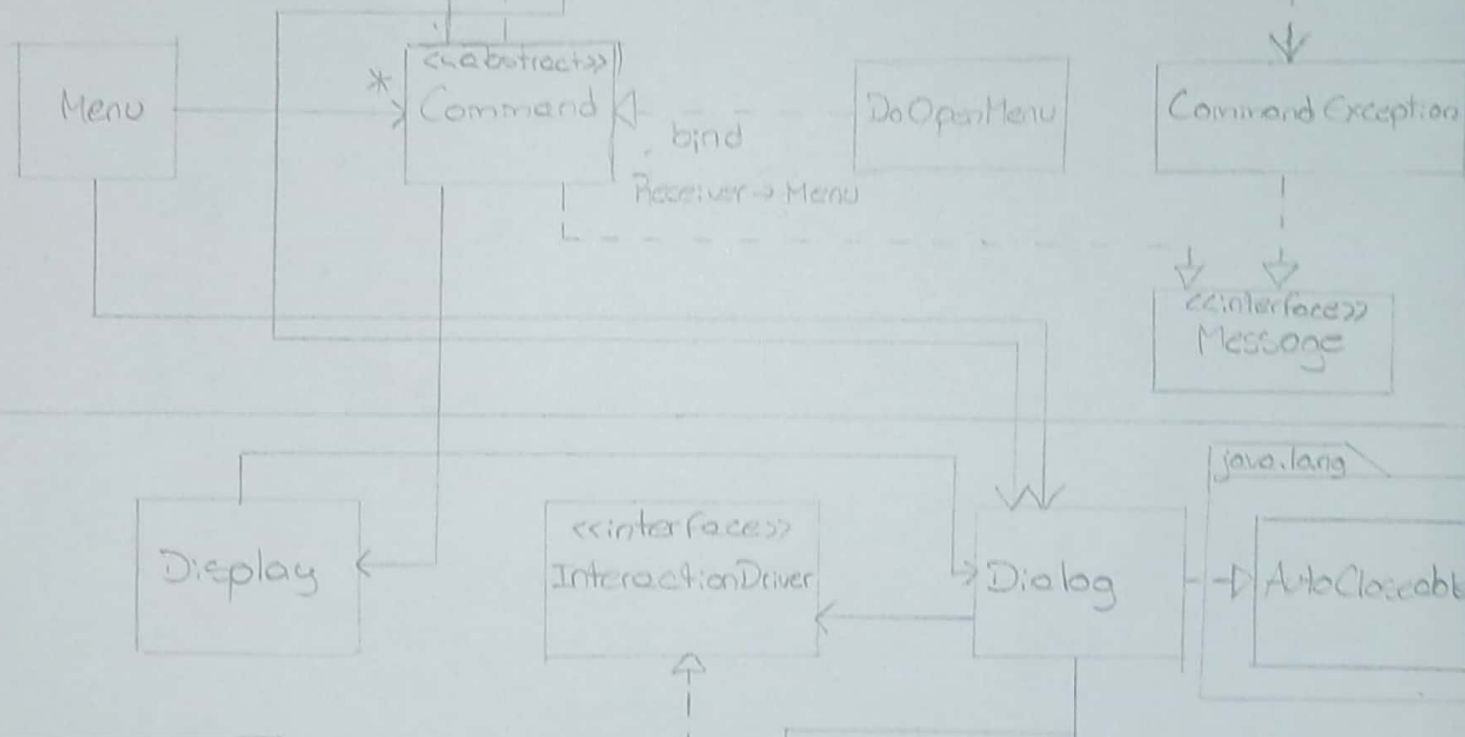
```
- <<final>> readInteger(prompt: String): int
```

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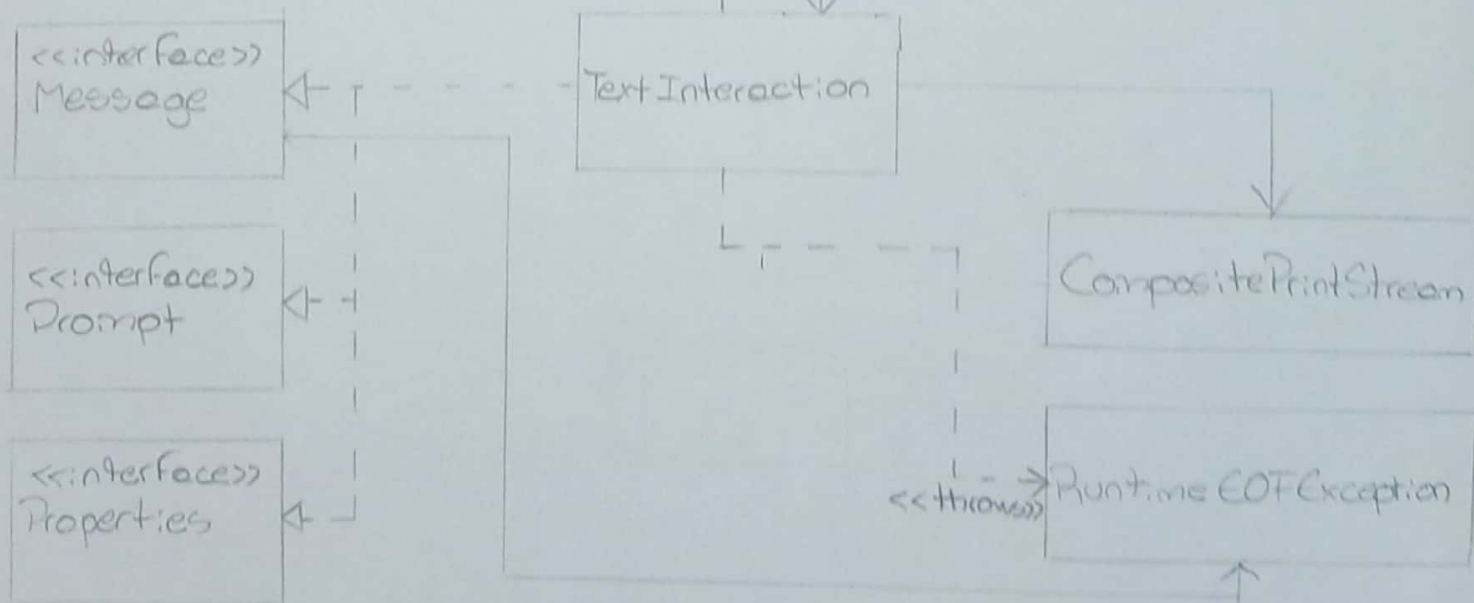
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Declaro por minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo de projeto.

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