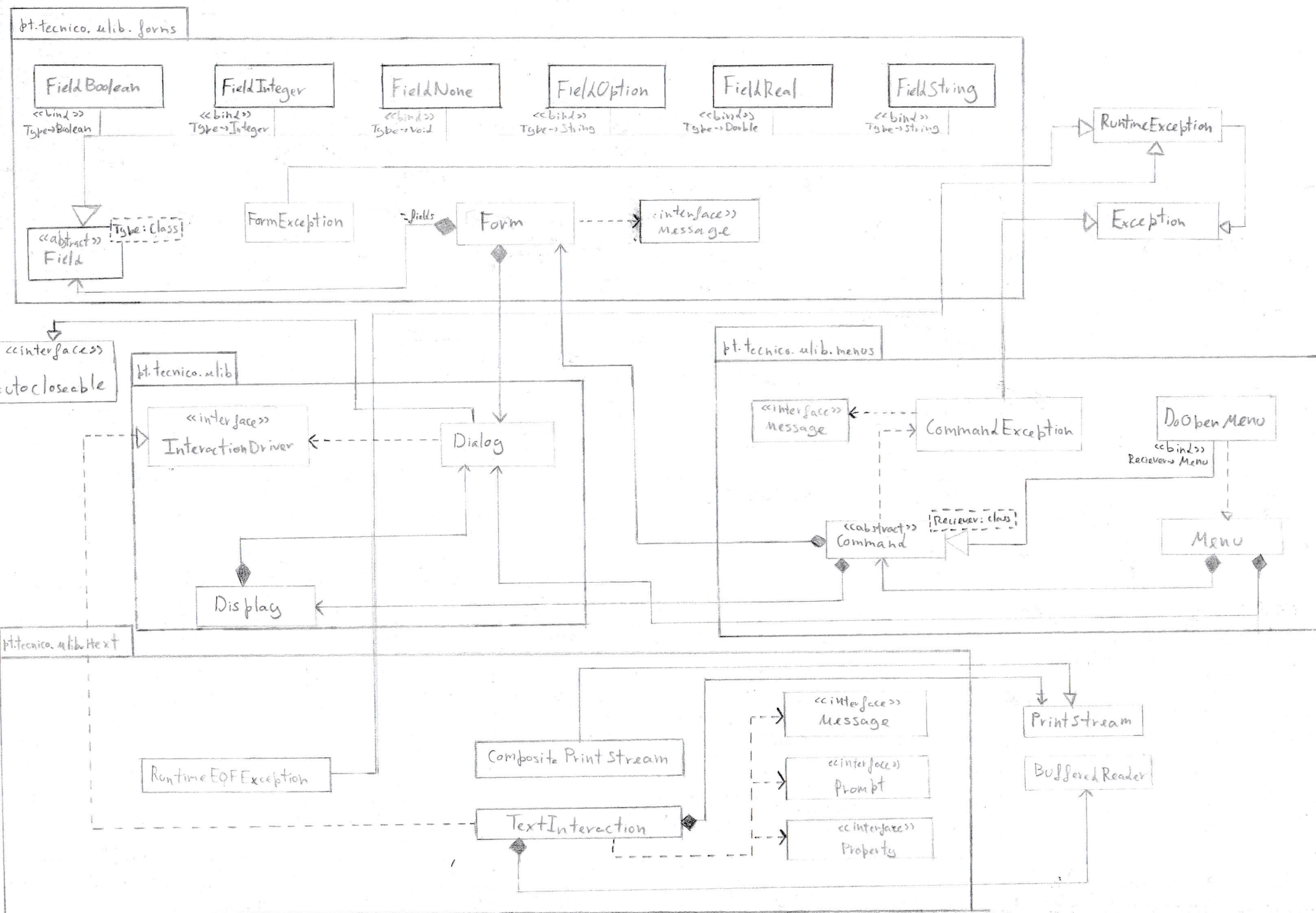


Declaro por minha honra que este diagrama foi realizado apenas pelos elementos que constituem o grupo de projeto: Bruno Silva ist 118985



```

«abstract»
Field
- _prompt : String
- _clear : boolean
# _value : Type
# Field()
# Field(prompt : String)
+ prompt() : String
+ set(value : Type) : void
+ value() : Type
+ clear() : void
# dirty() : void
+ cleared() : boolean
+ isReadOnly() : boolean
+ «abstract» parse(in : String) : boolean

```

```

Dialog
- «final» ACTION_CHANNEL : String = "ui"
- «final» CHANNEL_SWING : String = "swing"
- «final» CHANNEL_NEW_SWING : String = "newswing"
- «final» CHANNEL_TEXT : String = "text"
+ UI : Dialog
- _backend : InteractionDriver
- Dialog()
+ Dialog(backend : InteractionDriver)
+ open(menu : Menu) : void
+ fill(form : Form) : void
+ render(title : String, text : String) : void
+ close() : void

```

```

FieldBoolean
- «final» BOOLEAN_WORD_YES : String = "sin"
- «final» BOOLEAN_WORD_NO : String = "no"
- «final» BOOLEAN_CHAR_YES : String = 's'
- «final» BOOLEAN_CHAR_NO : char = 'n'
~ FieldBoolean(prompt : String)
+ parse(in : String) : boolean

```

```

FieldInteger
~ FieldInteger(prompt : String)
+ parse(in : String) : boolean

```

```

FieldNone
~ FieldNone(prompt : String)
+ parse(in : String) : boolean
+ isReadOnly() : boolean

```

```

«interface»
InteractionDriver
+ open(menu : Menu) : void
+ fill(form : Form) : void
+ render(title : String, text : String) : void
+ close() : void

```

```

«interface»
Message
+ operationFailed(error : String) : String

```

```

FieldOption
- _options : String[]
~ FieldOption(prompt : String, options : String[])
+ parse(in : String) : boolean

```

```

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

```

```

FieldReal
~ FieldReal(prompt : String)
+ parse(in : String) : boolean

```

```

FieldString
~ FieldString(prompt : String)
+ parse(in : String) : boolean

```

```

DoOpenMenu
+ DoOpenMenu(label : String, receiver : Menu)
# «final» execute() : void

```

```

«abstract»
Command<Receiver>
- _last : boolean
- _title : String
# _receiver : Receiver
# _valid : Predicate<Receiver>
- «final» _form : Form
# «final» _display : Display
+ Command(last : boolean, title : String)
+ Command(last : boolean, title : String, receiver : Receiver)
+ Command(last : boolean, title : String, receiver : Receiver, valid : Predicate<Receiver>)
+ Command(title : String, receiver : Receiver)
+ Command(title : String, receiver : Receiver, valid : Predicate<Receiver>)
+ 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
+ addOptionField(key : String, prompt : String, options : String...) : void
+ booleanField(key : String) : Boolean
+ realField(key : String) : Double
+ integerField(key : String) : Integer
+ stringField(key : String) : String
+ optionField(key : String) : String
+ «final» performCommand() : void throws CommandException
# «abstract» execute() : void throws CommandException

```



Form
<pre> - _ui: Dialog - title: String - fields: Map&lt;String, Field&lt;?&gt;&gt;  + Form() + Form(title: String) + Form(ui: Dialog, title: String) + addBooleanField(key: String, label: String): void + addStringField(key: String, label: String): void + addRealField(key: String, label: String): void + addIntegerField(key: String, label: String): void + addOptionField(key: String, label: String, options: String...): void + parse(): Form + parse(clear: boolean): Form + clear(): void + confirm(prompt: String): Boolean + requestInteger(prompt: String): Integer + requestReal(prompt: String): Double + requestString(prompt: String): String + requestOption(prompt: String, options: String...): String </pre>

«interface» Message
<pre> + keyAlreadyExists(form: String, key: String): String + formNotFilled(form: String): String + keyNotFound(form: String, key: String): String + typeMismatch(form: String, key: String, actualType: String, requestedType: String): String </pre>

Display
<pre> - _ui: Dialog - title: String = "" - text: String Builder  + Display() + Display(title: String) + Display(ui: Dialog, title: String) + add(toAdd: Object): Display + addAll(items: Collection&lt;?&gt;): Display + addLine(toAdd: Object): Display + addNewLine(toAdd: Object, force: boolean): Display + display(): void + displayText(): void + popup(toPop: Object): void + popup(toPop: Collection&lt;?&gt;): void + clear(): void </pre>

TextInteraction
<pre> - _in: BufferedReader - _out: PrintStream - _log: PrintStream - writeInput: boolean  + TextInteraction() + close(): void + open(menu: Menu): void + fill(form: Form): void + render(title: String, text: String): void - readString(prompt: String): String - readInteger(prompt: String): int </pre>

FormException
<pre> - serialVersionUID: long + FormException(msg: String) </pre>

RuntimeEOFException
<pre> - serialVersionUID: long + RuntimeEOFException() + RuntimeEOFException(msg: String) </pre>

«abstract» CommandException
<pre> - serialVersionUID: long + CommandException(msg: String) + CommandException(msg: String, throwable: Throwable) </pre>

«interface» Prompt
<pre> + option(): String + exit(): String </pre>

«interface» Property
<pre> + WRITE_INPUT: String + BOTH_CHANNELS: String + INPUT_CHANNEL: String + OUTPUT_CHANNEL: String + LOG_CHANNEL: String </pre>

## Composite PrintStream

```
- streams : Collection<PrintStream>
- error : boolean

+ CompositePrintStream()
+ CompositePrintStream(printStreams: printStream...)
+ add(ps: PrintStream): void
+ checkError(): boolean
+ close(): void
+ flush(): void
+ print(b: boolean): void
+ print(c: char): void
+ print(c: char[]): void
+ print(d: double): void
+ print(f: float): void
+ print(i: int): void
+ print(l: long): void
+ print(o: Object): void
+ print(s: String): void
+ println(b: boolean): void
+ println(c: char): void
+ println(c: char[]): void
+ println(d: double): void
+ println(f: float): void
+ println(i: int): void
+ println(l: long): void
+ println(o: Object): void
+ println(s: String): void
+ write(buf: byte[], off: int, len: int): void
+ write(b: int): void
+ write(b: byte[]): void
+ setError(): void
```

<<interface>>

## Message

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