

«abstract» Field -prompt: String -- clear : boolean # Value: Type # Field () # Field (pronft: String) + prompt (): String + set (value : Type) : Void + Value (): Tape + clear (): Void # Lirtyl): Void + cleared (): boolean + is Read Only (): boolean + ccabstract >> parselin : Stringle boolean

Dialog

- Co Jinolas ACTION CHANEL: String= "Mi" -cefinal > CHANEL SWIND: HINDE "SOUND"

- < (Jina >> CHANEL NEW XUING: String = "newswing"

FieldBoolean - ccfinal => BooLEAN WORD YES: String= "Sin" - << final>> BOOLEAN WORD NO: String = " nac" - cc Pinal >> BOOLEAN CHAR YES: String = 151 - (final >> BOOLEAN-CHAR No: char = 'n' NField Boolean (brompt: String) + barse (in: String): boolean FieldInteger ~ Field Integer (brombt: String) + parse (in: String): boolean FieldNone

+ barse (in: String): boolpan + is Read only(): boolean ec interface >> Interaction Driver topen (menu: Menu) : Void I+ Sill (form: Form): Void der (title: String, text: String): Void

~ Field None (brompt: String)

- (Cfinal >) CHANEL-NEW DIM	1+ Jill
- << final>>CHANEL NEW TEXT: String = "text"	trend
+UI: Dialog	telo:
- backend: Interaction Driver	
-Dialog()	
+ Dialog (bockend: Interaction Driver)	-
+ open (menu: Menu): Void	
+ fill (form: Form) : void	1+0p
+ render (title: String, text: String): void	Charles designed assessment
tclose(): Void	

cc inter	(ace>)
Messag	· ·
peration Failed evro	r: String): String

Field Option - options: String[] ~ Field Option (prompt: String, options: String[] + parse (in: String) : boolean

Menu ~ Field String (prompt: String) - ni: Dialog + parse (in: String): boolean - title: String - Commands: Command = ? > [] + Menulai: Dialog, title: String, commands: Commander. HMENU (+itle: String, Commands: Command () ...

((abstracts)

+ open (): Void

DoOpenMenu + DeopenMenullabel: String, reciever: nem) # co (inal >> execute (): void + 5; ze(): int + entry(n: int): (ommand 6?>

FieldReal

NField Real (prompt: String)

+ parse (in: String): boolean

FieldString

```
(command (Reciever)
- last : boolean
-title: String
# reciever : Reciever
A- Walid: Predicate < Reciever>
- Keffinal > - Porm: Form
mafinal >> - his play : Display
 + Command (last: boolean, title: String
 + Conmand ( last: boolean, title: String, vaciever: Reciever)
+ Commandilat: boolean, title: String, reciever: Reciever, valid: Predicate (Reciever)
 + Connand (title: String, raciever: Reciever)
 + Command (title: String, reciever: Reviewer, ratid: Pordicate ( Recievers)
 +isValid (): boolean
 tadd Boolean Field ( Ney : String, prompt: String): void
  tadd Real Field (neg: String, prompt: String): void
  +add Integer Field (Mey: String, prompt: String): void
  + all string Field ( neg: String, prompt: String): wid
  +add Option Field ( Neg: String, prompt: String, options: String. ): Wid
  + boolean Field ( hes: String) : Boolean
  + real Field (heg: String): Double
  Tinteger Field ( Meg: String): Integer
  + String Field ( Ney: String): String
  + option Field ( neg: String): String
  + 26 finals > perform (ommand () : void throws Command Exception
  # << abstracts) execute() = void throws (our mand Exception
```

Form - ni: Dialog - title: String - fields: Map (String, Field (?>> + Form () + Form (title: String) + Form (mi: Dialog, title: String) tadd Boolean Field (heg: String, label: String); boid tall String Field (May: String, label: String): void tadd Neal Field (Ney: String, label: String): Void tady Integer Field (Neg: String, label: String): beid tall Option Field (Meg: String, label: String, options: String ...): Veil + barse (): Form + parse (clear: boolean): Form +clear (): Void +confirm (prompt: String): Booleah traquest Integer (prompt: String): Integer trequest Real (prompt: String): Double + request string (prompt: String): String + request Option (prombt: String, options: String ...): String

«interface»
Message le
The second and the se
+ Neg Already Exists (form: String, Neg: String): String
+ Com Not Filled (Porm: String): String
1 to 1 t Frank (Porm: String, Men: String): String
type Mismatch (form: String, Neg: String, actualtype: String, repustallype: String
: String

Display	
-ui: Dialog	
-title: String=	
-text: String Builder	
+ Display ()	
Iniables (title: String)	
+ Disblas (Ni: Dialog, title: STUMS)	
+add (+oAdd: Object): Display	
+ add All litems: Collection): Display	
+addline (to Add: Object): Display	
told Newline (total: Object, force: bolean): Disp	lay
+display (): Voil	
+ displayText (): voil	
+ popul (telop: Object): void	
+ bopup (to Pop: Collection (?): void	
tclear (): Void	

Text Interaction - in: Buffered Reader - out: Print Stream - log: Printstream - write Input : boolean +Text Interaction () + close(): void + oben (meno: Meno): Void + fill (form: Form): Void + vender / title: String, text: String): V -real String (prompt: String): String - real Integer (prompt: String): int

	Form Exception
	- Sevia Nersion UID: long
getionistis tipsaalis cylenististelly	+ Form Exception (nsg: String)
	Runtime EOFException
	- Sevial Version UID: long
	+ Runtine EOFException() + Runtine EOFException(Msg: String)
	Command Exception
they and	- Serial Version UID; long
YCC GALLER AND	+CommandException (msg: String)
	+ (command Exception onso: String, throughlo; Throw
	ceintagaess Prompt
	+obtion(): String
open de proposition de	texit(): String
A current from excline and the second	ainterface» Properto
and sense productions of the sense of the se	+ WRITE_ INPUT: String + BOTH_ CHANELS: String
	+INPUT_CHANEL: String +OUTPUT_CHANEL: String
TO SEE STATE OF THE PERSON NAMED IN	+LOG CHANEL : String
no september de la constitución de	
d	

```
Composite Print Stream
```

```
- streams : Collection & Print Stream>
- ervor : boolean
+ Composite Print Stream ()
+ Composite Print Stream ( print Streams: print Stream ...)
tall ( ps: Printstream): Void
+ chech Error (): booleah
+close(): void
 + Plush 11: Void
 + print (b: boolean): Void
 + brint (c: char) : void
 + print (c: char[]): Void
 + print( 1: double): Void
 + print( f: float): Void
 + print(i: int) : loid
  + brint ( : (ong) : Void
  + print(0:Object): boid
  + print(s: String): Void
  + brintla (b: boolean): Void
  + println ( eschar) : void
  + println(c: char[]): boid
   + println( d. doub): with
   + brintln(1: float); boid
    + print la ( : int) : void
    + printle ( 1: long) : Void
    + brint In (0: Object): Void
    + brintle (s: Stribs) : Waid
     +write (bog: bgte II, off: int, len: int) : void
     + write (b: int): void
```

+ write (b: byte []) : Void

Set Euroy (): Voil

«cinterface»> Message

tinualid operation (error: String): String

+ invalid Option (): String

+ error EOF (e: EOF Exception): String

+ error To (ice: IO Exception): String

+ error Invalid Number (e: Number Format Exception): String

terror REOF (e: Runtime EOF Exception): String

+ inpot Error (e: File Not Found Exception): String

+ error (losing In but (e: To Exception): String

tendolInbut(): String

+ cut put Error (e: File Not Found Exception): String

+ log Error (e: File Not Found Exception): String