Software Maleable

De usuaries a artesáns

whoami

- Chámome: Sergio ou @kenkeiras
- Son: Programador xeneralista
- Onde: Ando de acá pra alá, facendo un pouco de todo

Obxectivos da charla

- Que é o Software maleable?
- 4 exemplos rápidos
- cacharrear 2 deles

Que é o software maleable?

Tamén coñecido como:

- Sistemas maleables
- *User-tailored software*
- *Self-authoring systems*

Segundo Maleable.Systems

1) Sinxelo de cambiar
2) Recombinable/modificable a todos os niveis
3) Base sinxela pero con **potencial aberto**
4) Xente de **todos os niveis de experiencia** debe poder manter a propiedade e o control
5) As modificacións deben ser libremente compartibles
6) A modificación do sistema debe ocorrer no contexto do uso, non nun entorno separado
7) Una experiencia coidadosamente elaborada, divertida e empoderante

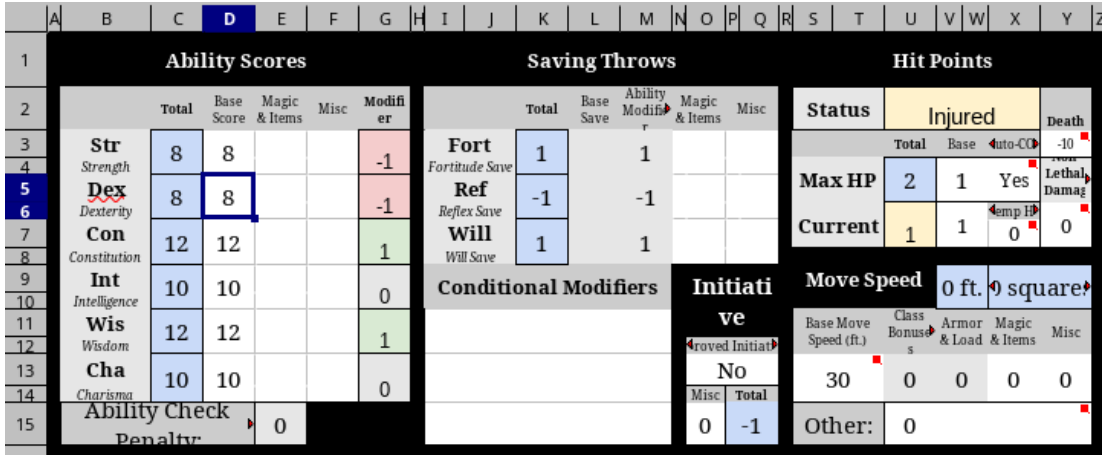
O meu criterio hoxe

1) A modificación do sistema debe ocorrer no contexto do uso
2) Recombinacións libremente compartibles
3) Potencial aberto

Exemplos

1) Follas de cálculo
2) Emacs
3) Hypercard
4) Smalltalk

Follas de cálculo – Sinxelas e flexibles



Ability Scores

	Total	Base Score	Magic & Items	Misc	Modifier
Str *Strength*	8	8			-1
Dex *Dexterity*	8	8			-1
Con *Constitution*	12	12			1
Int *Intelligence*	10	10			0
Wis *Wisdom*	12	12			1
Cha *Charisma*	10	10			0
Ability Check Penalty:	0				

Saving Throws

	Total	Base Save	Ability Modifier	Magic & Items	Misc
Fort *Fortitude Save*	1		1		
Ref *Reflex Save*	-1		-1		
Will *Will Save*	1		1		

Conditional Modifiers

Initiative

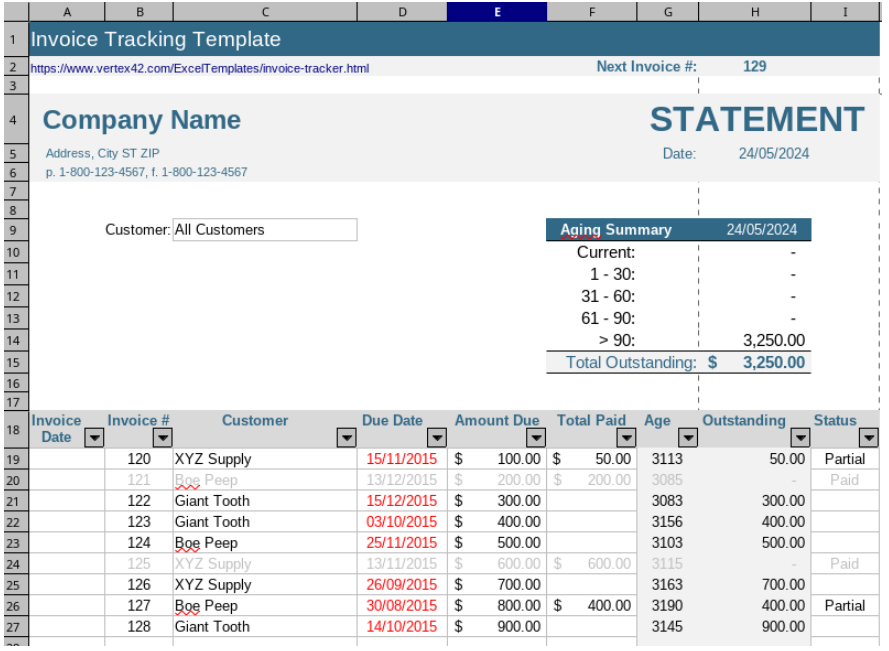
Improved Initiative	
No	
Misc	Total
0	-1

Hit Points

Status	Injured			Death
	Total	Base	Auto-CON	-10
Max HP	2	1	Yes	Non-Lethal Damage
Current	1	1	Temp HP: 0	0

Move Speed	0 ft.	0 squares
Base Move Speed (ft.)	Class Bonuses	Armor & Load	Magic & Items	Misc
30	0	0	0	0

Other: 0



Invoice Tracking Template

https://www.vertex42.com/ExcelTemplates/invoice-tracker.html

Next Invoice #: 129

Company Name

Address, City ST ZIP
p. 1-800-123-4567, f. 1-800-123-4567

STATEMENT

Date: 24/05/2024

Customer: All Customers

Aging Summary	24/05/2024
Current:	-
1 - 30:	-
31 - 60:	-
61 - 90:	-
> 90:	3,250.00
Total Outstanding:	$ 3,250.00

Invoice Date	Invoice #	Customer	Due Date	Amount Due	Total Paid	Age	Outstanding	Status
	120	XYZ Supply	15/11/2015	$ 100.00	$ 50.00	3113	50.00	Partial
	121	Boe Peep	13/12/2015	$ 200.00	$ 200.00	3085	-	Paid
	122	Giant Tooth	15/12/2015	$ 300.00		3083	300.00	
	123	Giant Tooth	03/10/2015	$ 400.00		3156	400.00	
	124	Boe Peep	25/11/2015	$ 500.00		3103	500.00	
	125	XYZ Supply	13/11/2015	$ 600.00	$ 600.00	3115	-	Paid
	126	XYZ Supply	26/09/2015	$ 700.00		3163	700.00	
	127	Boe Peep	30/08/2015	$ 800.00	$ 400.00	3190	400.00	Partial
	128	Giant Tooth	14/10/2015	$ 900.00		3145	900.00	

Follas de cálculo – Maleables?

A modificación do sistema debe ocorrer no contexto do uso

Recombinacións libremente compartibles

Potencial aberto... limitado

Exemplos

1) ~~Follas de cálculo~~
2) Emacs
3) Hypercard
4) Smalltalk

Emacs – Caso paradigmático

"*Emacs is a good OS, but it lacks a good text editor*"

Emacs – Exemplo rápido

Como utilizar emacs para amosar diapositivas en org-mode:

```
(defun smp/goto-next()
  (interactive)
  ;; Para saltar a proxima diapo

  (widen) ;; Saimos da sección na que estamos...
  (outline-show-subtree) ;; Asegurámonos de ter todo a man...
  (org-next-visible-heading 1) ;; Poñemos o cursor na seguinte...
  (org-narrow-to-subtree) ;; Ocultamos todo menos a seguinte...

  ;; Asegurámonos de o contido necesario esté visible...
  (org-fold-hide-sublevels 1)
  (org-fold-show-entry t))

;; Ligamos a función a Alt-l
(local-set-key (kbd "M-l") #'smp/goto-next)
```

Emacs – Maleable?

A modificación do sistema debe ocorrer no contexto do uso

Recombinacións libremente compartibles

Potencial aberto

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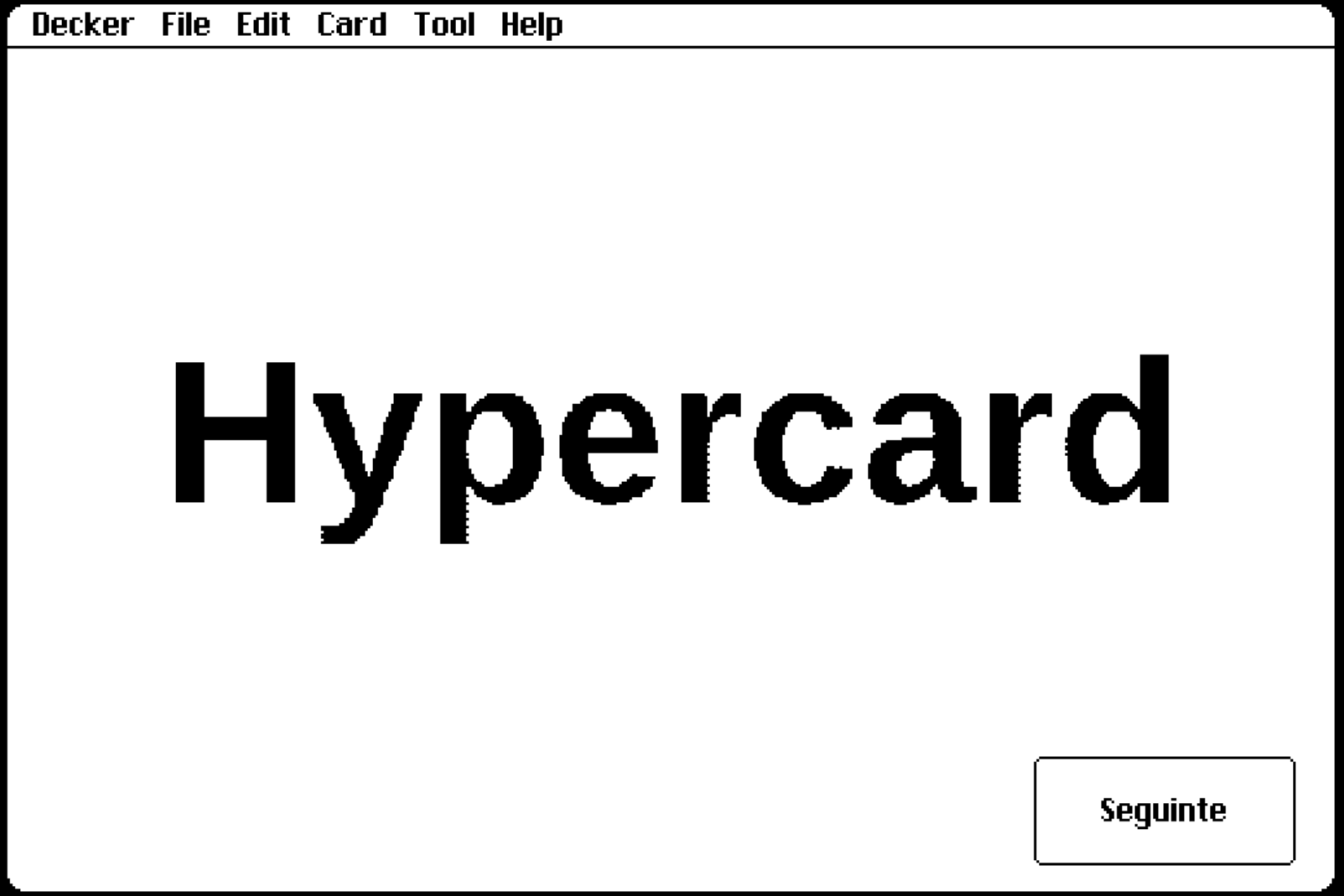
Decker File Edit Card Tool Help
Hypercard
Seguinte

Decker File Edit Card Tool Help

1987 - 2004

Seguinte

Decker File Edit Card Tool View Style Help card2

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Botons

Seguinte

Decker File Edit Card Tool Help

Xogos

Entretemento

Software á medida

Seguinte

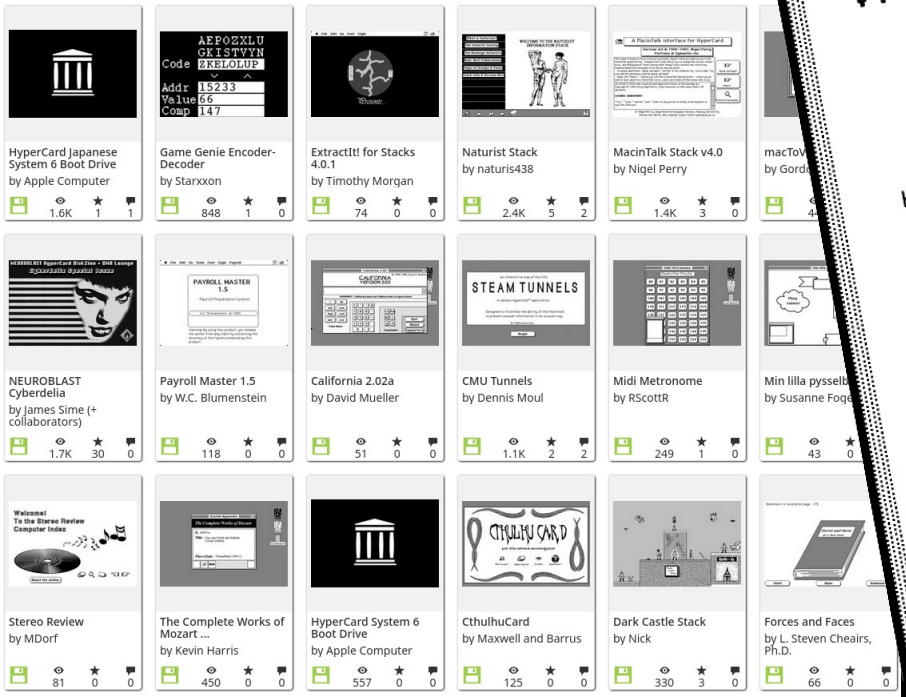
Decker File Edit Card Tool Help

Hoxe en día

Seguinte

Decker File Edit Card Tool Help

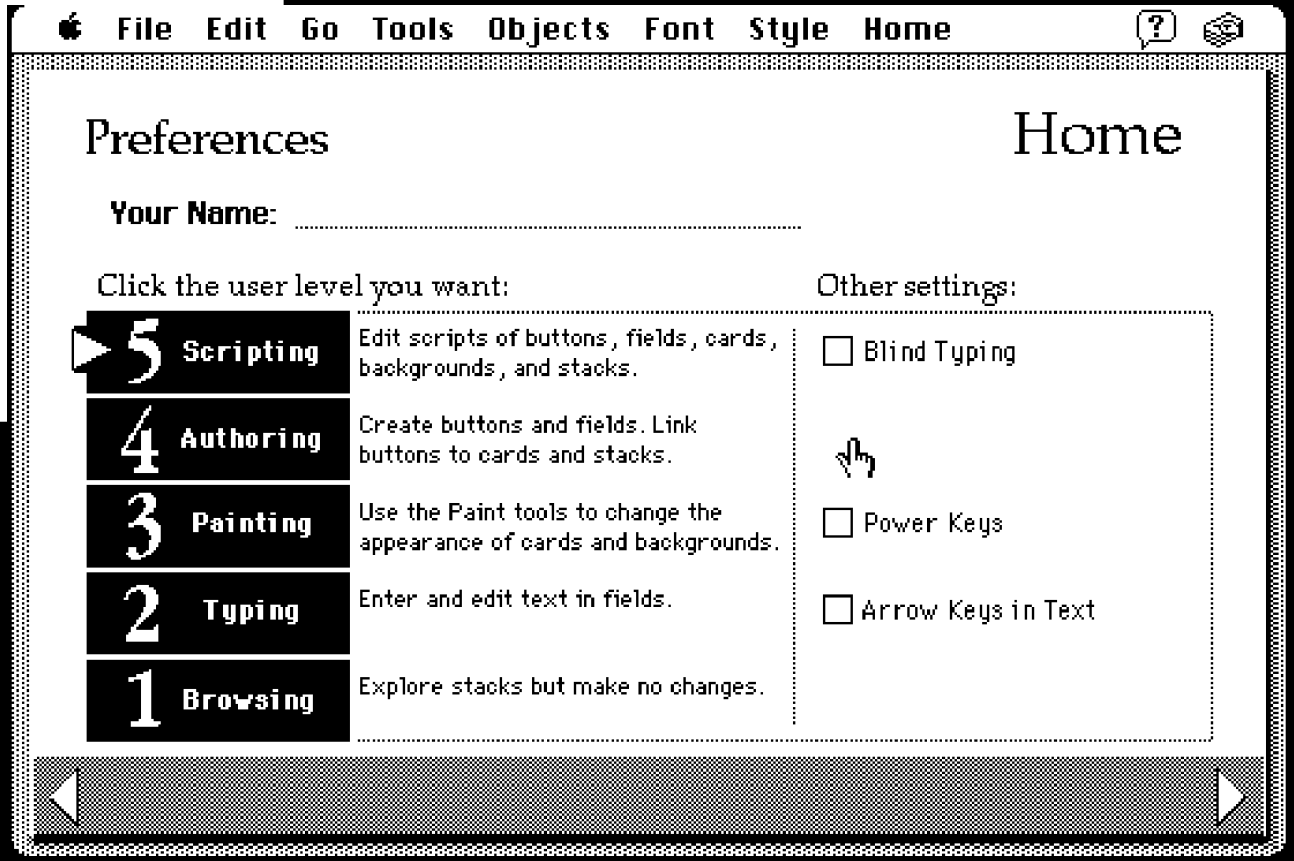
No Internet Archive



Decker File Edit Card Tool Help

En Internet Archive

↳ Niveles de usuario



Hypercard – Maleable?

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Recombinacións libremente compartibles

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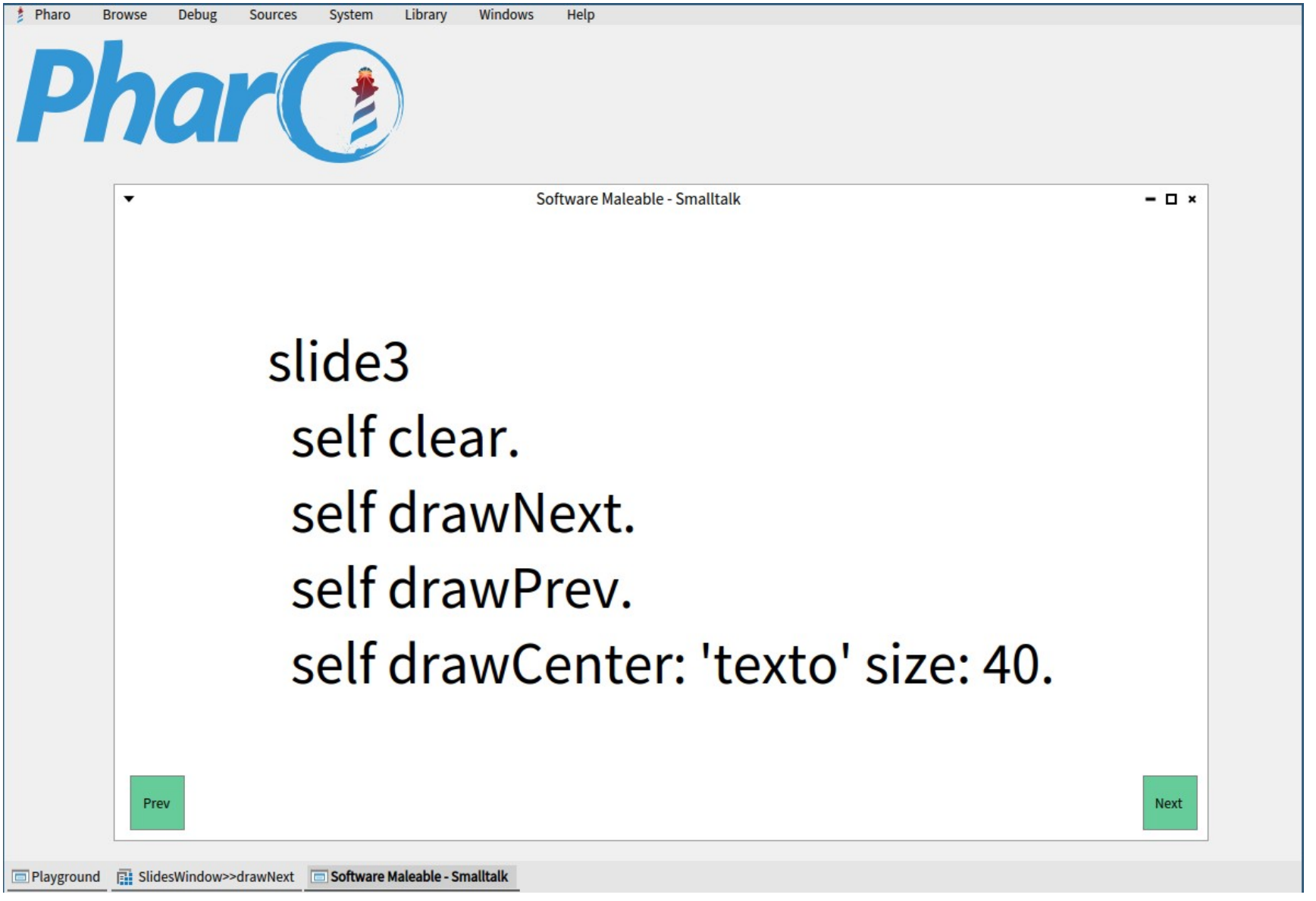
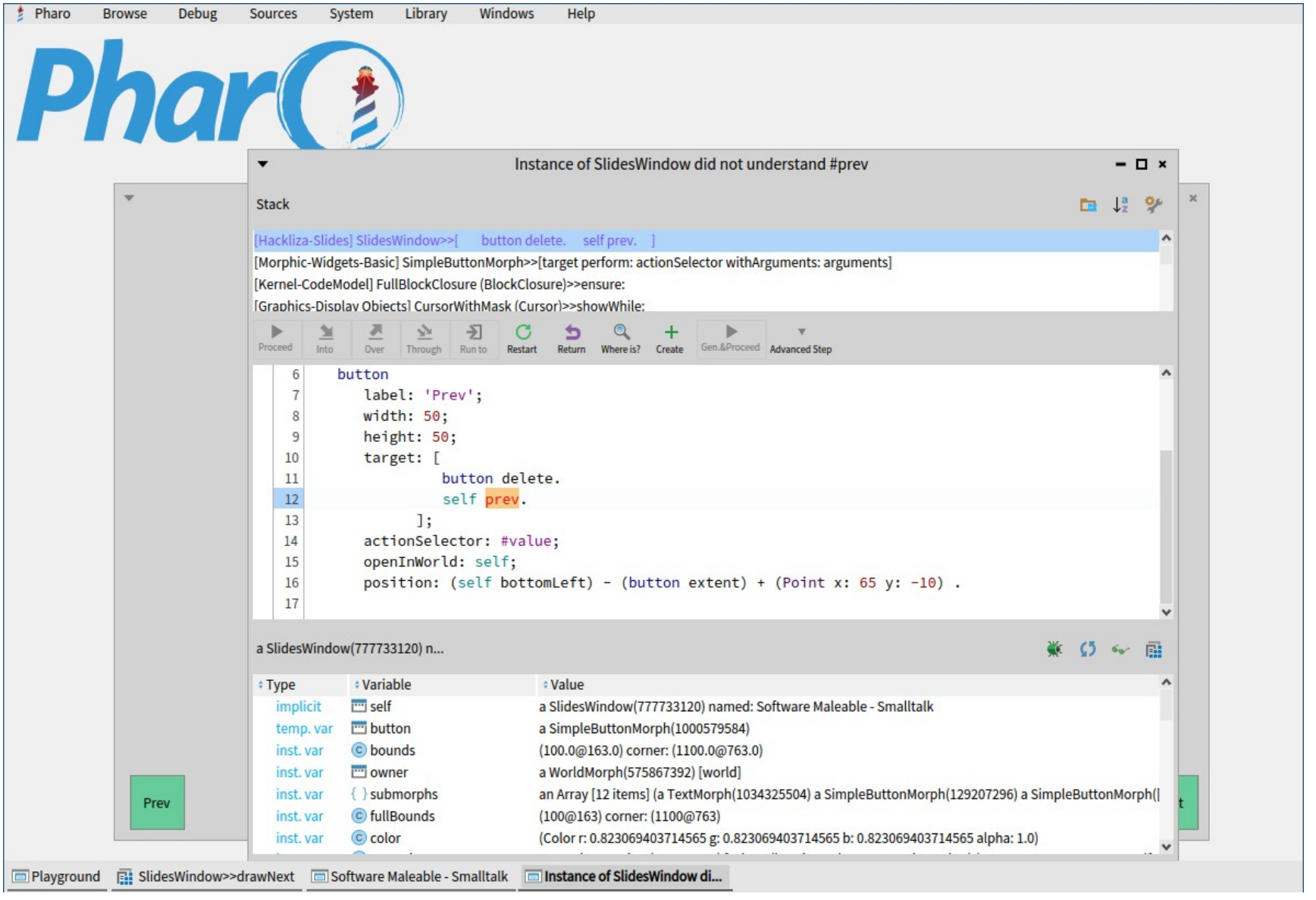
Exemplos

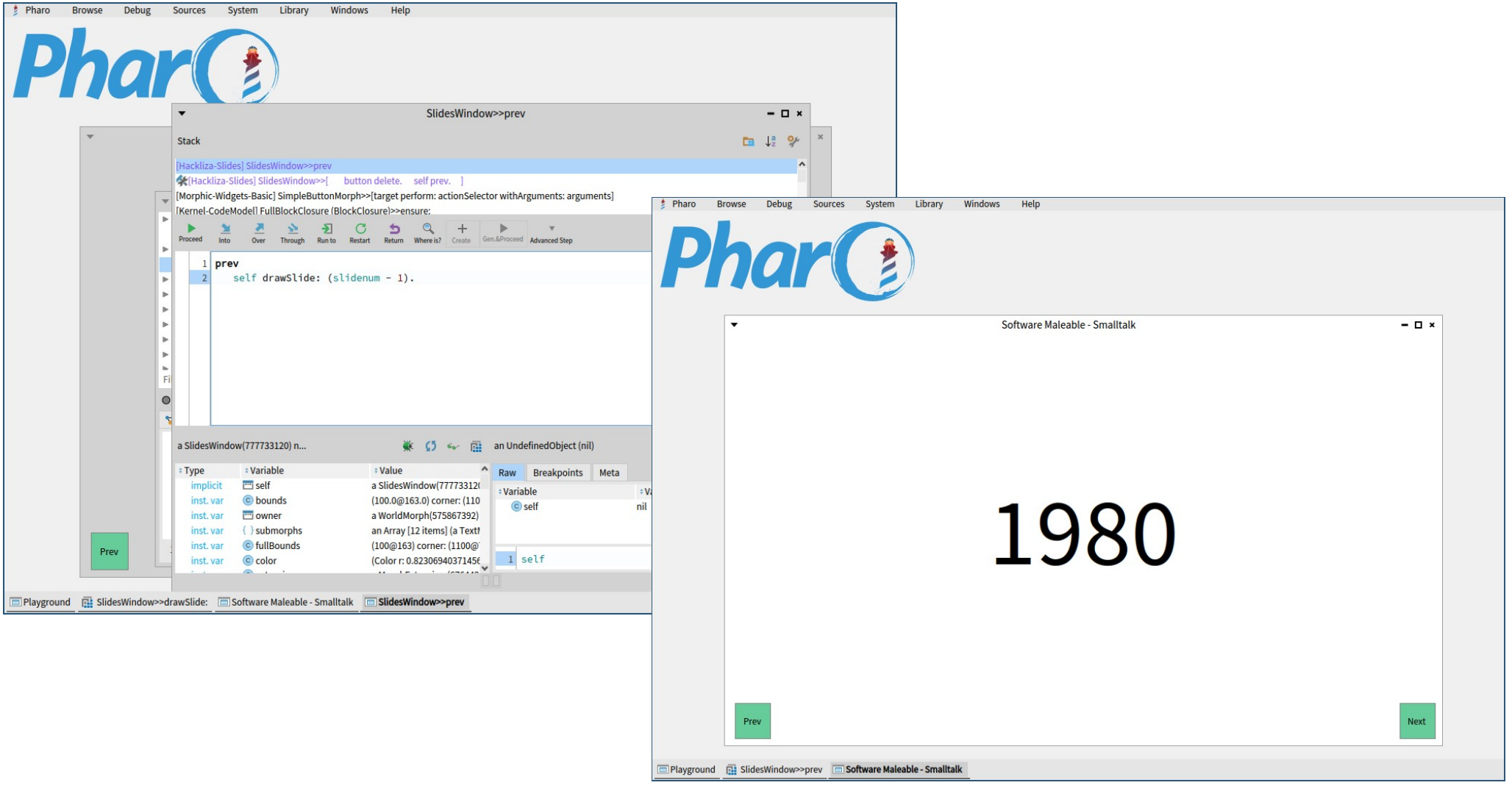
1) ~~Follas de cálculo~~
2) ~~Emacs~~
3) ~~Hypercard~~
4) Smalltalk


Pharo Browse Debug Sources System Library Windows Help
Software Maleable - Smalltalk
Smalltalk
Next
Playground
SlidesWindow>>drawNext
Software Maleable - Smalltalk


Pharo Browse Debug Sources System Library Windows Help
Software Maleable - Smalltalk
1980
Prev
Next
Playground
SlidesWindow>>drawNext
Software Maleable - Smalltalk


Pharo Browse Debug Sources System Library Windows Help
Software Maleable - Smalltalk
slide3
self clear.
self drawNext.
self drawPrev.
self drawCenter: 'texto' size: 40.
Prev
Next
Playground
SlidesWindow>>drawNext
Software Maleable - Smalltalk


Pharo Browse Debug Sources System Library Windows Help
Instance of SlidesWindow did not understand #prev
Stack
[Hackliza-Slides] SlidesWindow>>[button delete. self prev.]
[Morphic-Widgets-Basic] SimpleButtonMorph>>[target perform: actionSelector withArguments: arguments]
[Kernel-CodeModel] FullBlockClosure (BlockClosure)>>ensure:
[Graphics-Display Objects] CursorWithMask (Cursor)>>showWhile:
Proceed Into Over Through Run to Restart Return Where is? Create Gen.&Proceed Advanced Step
6 button
7 label: 'Prev';
8 width: 50;
9 height: 50;
10 target: [
11 button delete.
12 self prev.
13];
14 actionSelector: #value;
15 openInWorld: self;
16 position: (self bottomLeft) - (button extent) + (Point x: 65 y: -10) .
17
a SlidesWindow(777733120) n...
Type Variable Value
implicit self a SlidesWindow(777733120) named: Software Maleable - Smalltalk
temp. var button a SimpleButtonMorph(1000579584)
inst. var bounds (100.0@163.0) corner: (1100.0@763.0)
inst. var owner a WorldMorph(575867392) [world]
inst. var submorphs an Array [12 items] (a TextMorph(1034325504) a SimpleButtonMorph(129207296) a SimpleButtonMorph(|
inst. var fullBounds (100@163) corner: (1100@763)
inst. var color (Color r: 0.823069403714565 g: 0.823069403714565 b: 0.823069403714565 alpha: 1.0)
Prev
Playground SlidesWindow>>drawNext Software Maleable - Smalltalk Instance of SlidesWindow di...


Pharo Browse Debug Sources System Library Windows Help
SlidesWindow>>prev
Stack
[Hackliza-Slides] SlidesWindow>>prev
[Hackliza-Slides] SlidesWindow>>[button delete. self prev.]
[Morphic-Widgets-Basic] SimpleButtonMorph>>[target perform: actionSelector withArguments: arguments]
[Kernel-CodeModel] FullBlockClosure (BlockClosure)>>ensure:
Proceed Into Over Through Run to Restart Return Where is? Create Gen.&Proceed Advanced Step
1 prev
2 self drawSlide: (slidenum - 1).
a SlidesWindow(777733120) n...
an UndefinedObject (nil)
Type Variable Value
implicit self a SlidesWindow(
inst. var bounds (100.0@163.0) corner: (110
inst. var owner a WorldMorph(575867392)
inst. var submorphs an Array [12 items] (a Text
inst. var fullBounds (100@163) corner: (1100@
inst. var color (Color r: 0.82306940371456
Raw Breakpoints Meta
Variable
self nil
1 self
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Playground SlidesWindow>>prev Software Maleable - Smalltalk

Smalltalk - Lendas

Alan Kay conta como, nunha demo en PARC, Steve Jobs comentou que non lle gustaba o estilo do *scrolling* e **unha persoa foi capaz de implementar o cambio en menos dun minuto**.

Smalltalk – Maleable?

A modificación do sistema debe ocorrer no contexto do uso

Recombinacións libremente compartibles

Potencial aberto

Reflexións...

- Por que algúns prosperan e outros non?
  - Ser útiles por si mesmos.
  - Cubrir unha necesidade universal.

Conclusión

- Vimos **4 Exemplos:**
  - **2 No que entorno que se modifica son ficheiros:**
    - Follas de cálculo
    - Hypercard
  - **2 No que a configuración/imaxe do programa é o que se modifica**
    - Emacs
    - Smalltalk

Anexo

- Outros sistemas
  - Viewpoint
  - Dynamicland
  - Minecraft!
- Comunidades
  - Future of coding
  - Malleable.Systems
  - Ink&Switch