

Experimentos em Psicolinguística com a plataforma PCIBEX



Evento Linguagens e Contemporaneidade – PPG Linguística UFJF

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AULA 1

Panorama do Curso

- 1) O que é a plataforma PCIBEX?
- 2) Iniciação à plataforma PCIBEX
- 3) Criando um script para experimento de Leitura Automonitorada
- 4) Criando um repositório no Github
- 5) Criando um script para um Teste Auditivo

O que é a plataforma

PCIBEX?



A sigla PCIBEX

**PC =
PennController**



**Ibex =
Internet Based
EXperiments**



Plataforma Ibex Farm



- Criada originalmente por Alex Drummond.
- Permite rodar experimentos psicolinguísticos de forma remota, em navegadores da internet.
- Inicialmente criada para rodar dois tipos de experimento: leitura automonitorada e julgamento de aceitabilidade.



PennController for IBEX

- Extensão do IBEX desenvolvida e gerenciada por Jeremy Zehr e prof. Florian Schwarz na Universidade da Pensilvânia (Upenn).





PennController for IBEX

- Plataforma gratuita, versátil e amigável.
- Permite criar experimentos dinâmicos e interativos.
- Permite criar diferentes tipos de estímulos:
 - Escritos
 - Imagens
 - Áudios
 - Vídeos



PennController for IBEX

- A plataforma usa JavaScript e HTML.
- Interface com códigos simplificados: não é necessário ter conhecimento de JavaScript para programar os experimentos.
- Compatível com: Google Chrome, Firefox, Internet Explorer, Safari e Opera.
- Os comandos dos experimentos são escritos na linguagem Python.



Python

- Linguagem de programação de alto nível.
- Permite escrever em **linguagem de script**.



conjunto de instruções para que uma função seja executada em determinado aplicativo.



Python

- Um exemplo:

A screenshot of a code editor window titled 'hello.py'. The editor shows a Python script with the following code:

```
1 #!/usr/bin/env python3
2
3 print('Hello World')
4 print(5 + 4)
5 name = 'John'
6 print(name)
7
```

The code is color-coded: comments are grey, strings are yellow, and code is blue. The editor interface includes a tab bar at the top with 'hello.py' and a close button. At the bottom, it shows 'Line 7, Column 1' and 'Tab Size: 4'.

Imagem retirada de Mackie, 2019



Experimentos no PCIBEX

- Vejamos alguns exemplos de experimentos feitos no PCIBEX:

- Leitura Automonitorada

https://expt.pcibex.net/ibexexps/minicursolec/leitura_automonitorada/experiment.html

- Teste Auditivo

https://expt.pcibex.net/ibexexps/minicursotesteauditivo/Teste_Auditivo/experiment.html

- Teste de Imagens

<https://expt.pcibex.net/ibexexps/asilva91/tuto/experiment.html>

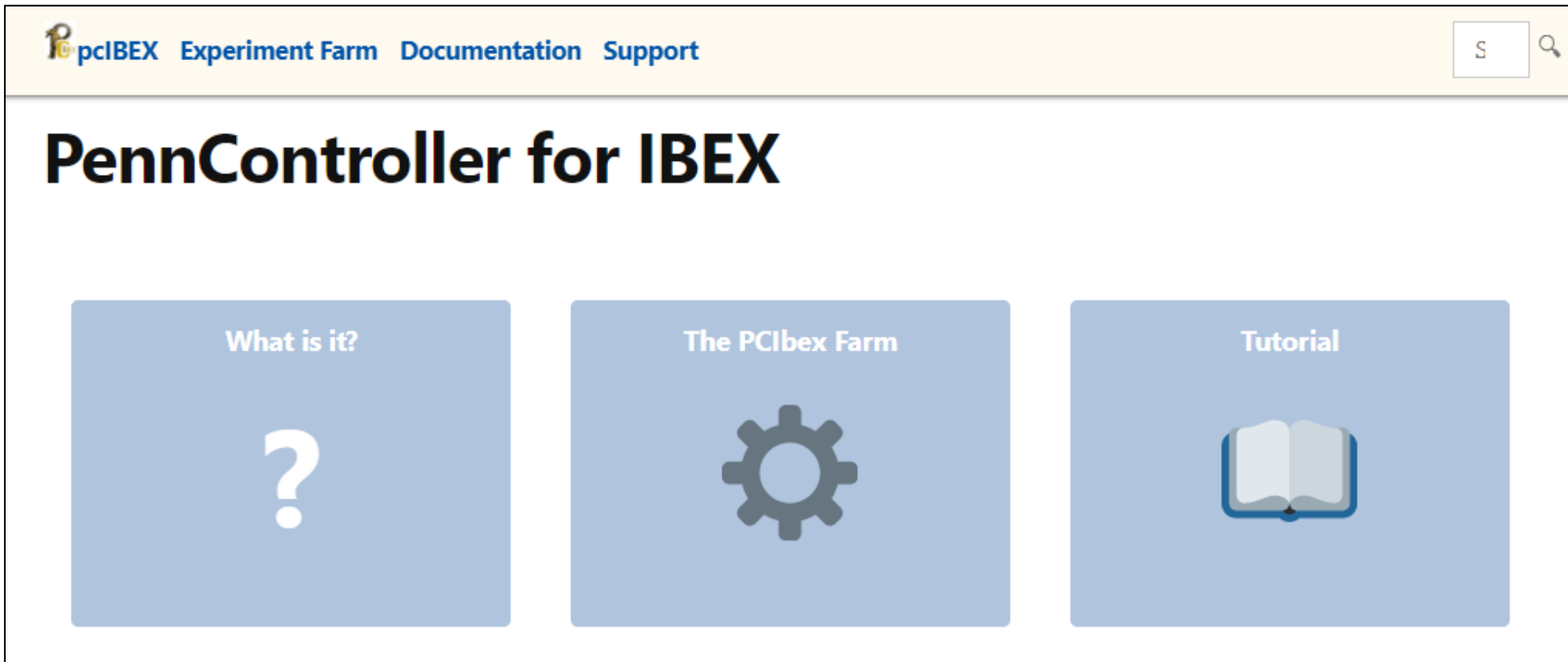
Iniciação à plataforma

PCIBEX



PCIBEX

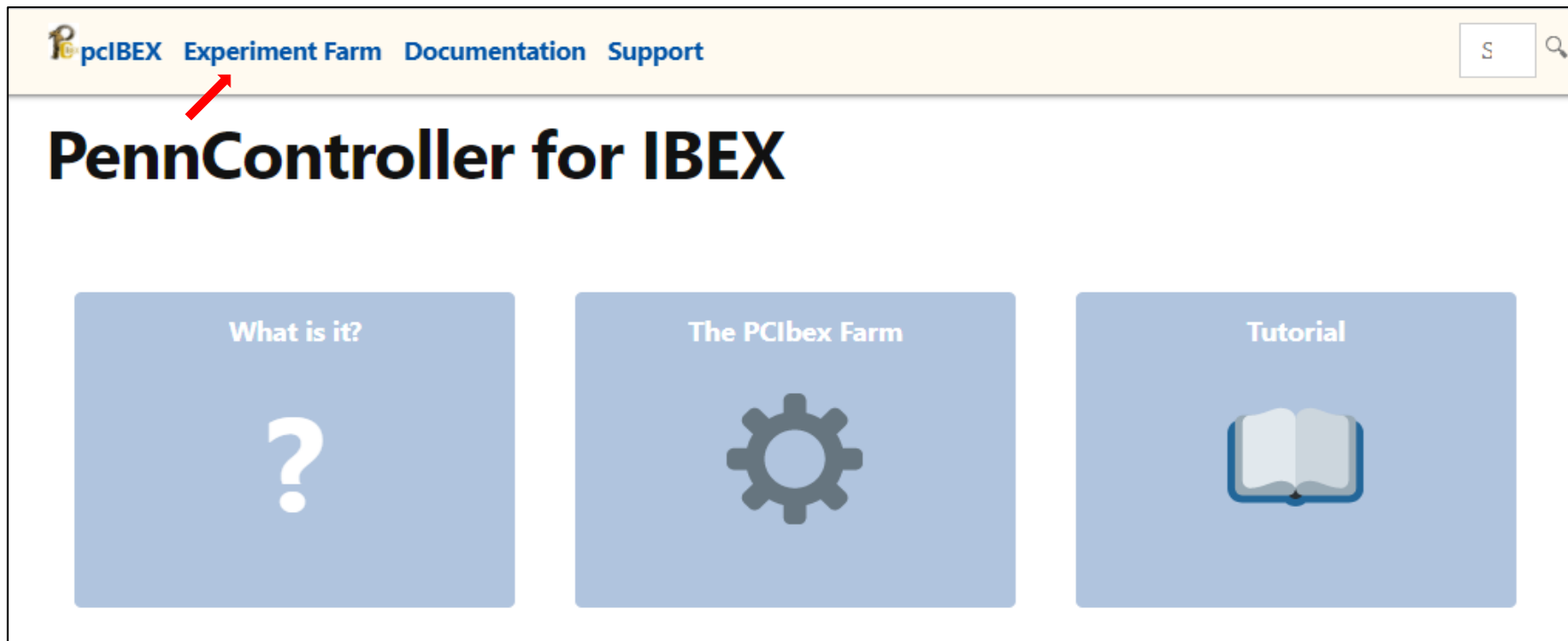
- A página inicial: <https://www.pcibex.net/>





PCIBEX

- **Experiment Farm:** página para criar os experimentos ou ver um exemplo de experimento.





PCIBEX: Experiment Farm

PCibex Farm

[home](#) | [login/signup](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)

Welcome to the PCibex farm

**Design
experiments**

**View an example
experiment**

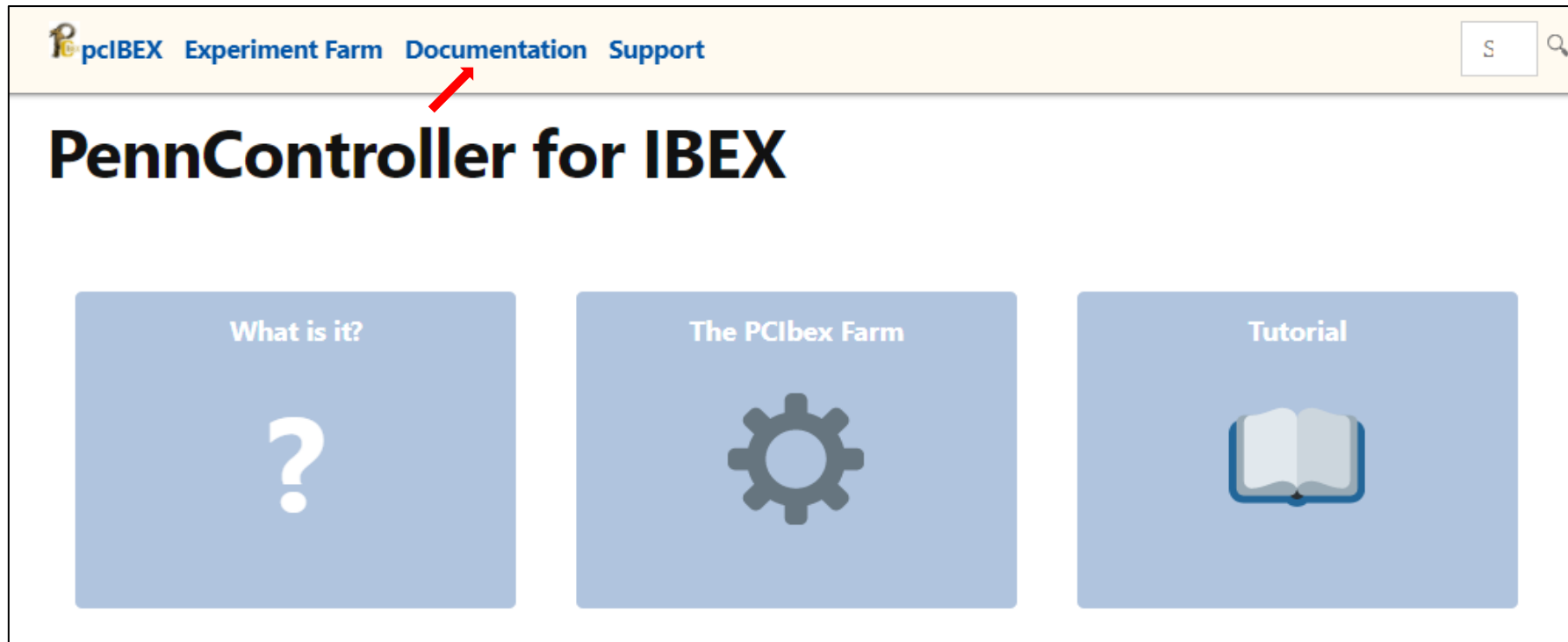
This site provides free hosting for **PCibex** experiments.






PCIBEX

- **Documentation:** página com o tutorial, informações técnicas, informações sobre os comandos e soluções de problemas.





PCIBEX: Documentation

 [pcIBEX](#) [Experiment Farm](#) [Documentation](#) [Support](#)

S

Documentation

Getting Started

Commands and Elements

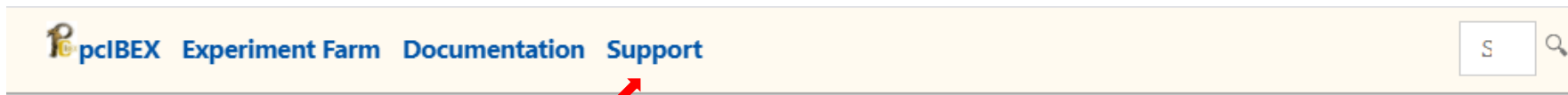
Guides

Trouble-shooting



PCIBEX

- **Support:** página para tirar dúvidas sobre a plataforma, problemas técnicos e montagem de experimentos.





PennController for IBEX







PCIBEX: Support




 [Experiment Farm](#) [Documentation](#) [Support](#)



Forums


[PennController for IBEX](#) > Forums


Forum	Topics	Posts	Freshness
Support If you have any technical issues with PennController, this is the place to ask your questions!	199	954	1 day, 22 hours ago  abraver
FAQ / Tips This section addresses issues people frequently encounter	7	46	3 months ago  Jeremy
Requests Post you feature requests here (e.g. "add a drag-and-drop element!")	5	20	3 months, 3 weeks ago  Jeremy



PCIBEX: Support

- Observação: é preciso criar conta tanto para elaborar experimentos quanto para postar no fórum.

 [Experiment Farm](#) [Documentation](#) [Support](#)



Log in

Please note: you cannot use your PCIBEX Farm account on the forums---you need to Register an account here to post on the forums.

Username:

Password:

☐ Remember Me

[Register](#)

[Lost Password](#)

[Log In](#)

About

Cite us: Zehr, J., & Schwarz, F. (2018). PennController for Internet Based Experiments (IBEX). <https://doi.org/10.17605/OSF.IO/MD832>

Contact us: admin@pcibex.net

Backstory: [see page](#)

Acknowledgments

This project has been made possible by a grant from Penn's University Research Foundation, titled 'Building a Comprehensive Library for Online Experiments in IBEX.' Initial development of preliminary versions of many of the tools that are part of PennController took place as part of work on NSF-grant BCS-1349009 to Florian Schwarz. It is currently maintained by Jeremy Zehr who is a post-doctoral researcher for the Integrated Language Sciences and Technology initiative at mindCORE.



PCIBEX: Support

- Você também pode mandar e-mails para tirar dúvidas:

admin@pcibex.net





PCIBEX


 [pcIBEX](#) [Experiment Farm](#) [Documentation](#) [Support](#)



PennController for IBEX

 What is it?


The PCibex Farm


Tutorial


O que é e para que serve a plataforma.



PCIBEX

 [pcIBEX](#) [Experiment Farm](#) [Documentation](#) [Support](#)



PennController for IBEX

What is it?



The PCibex Farm



 Tutorial



Apresenta um tutorial (em inglês) que ensina a criar um experimento.





PCIBEX

pcIBEX Experiment Farm Documentation Support

S



PennController for IBEX

What is it?



The PCibex Farm



Tutorial





Criando a conta no PCibex Farm

- Acessem o site:

<https://expt.pcibex.net/>

- Cliquem em
“[login/sign up](#)”.





Criando a conta no PC Ibex Farm

- Preencha os campos de **New User** com seus dados.

PC Ibex Farm

[home](#) | [login/signup](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)

Returning user

Username:

Password:

Login

New user

Username:

Password:

Verify password:

Email: (optional)

Create account



Criando um experimento

- Clique em “**Create a new experiment**”



PCibex Farm

[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)

You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCibex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

Experiments



[Create a new experiment](#)

You do not currently have any experiments set up.



Criando um experimento


- Escolha o nome do seu experimento e digite no campo “**Name**”.

PCIbex Farm

[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)
You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCIbex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

Experiments



Create a new experiment

Name:

You do not currently have any experiments set up.



Criando um experimento

- Clique em “Create”.

PCibex Farm

[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)

You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCibex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

Experiments

+

Create a new experiment

Name:

You do not currently have any experiments set up.



Criando um experimento

- Clique em cima do nome do experimento que você acabou de criar.

PCIbex Farm

[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)

You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCIbex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

Experiments

+

Create a new experiment

leitura_automonitorada (ibex 0.3.9)
([delete](#) | [rename](#))



A plataforma de edição do experimento

PCibex Farm
[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)
You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCibex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

https://expt.pcibex.net/ibexexps/minicursolec/leitura_automonitorada/experiment.html

Go to the **my account** page to view your other experiments or to create/delete experiments.

Experiment 'leitura_automonitorada' (ibex 0.3.9)

[Update from git repo»](#) ([help](#))

repo url
master
branch/revision

Script **C**

main.js



A plataforma de edição do experimento

O espaço interno
do PCibex
é bem **pequeno**
(64MB)

PCibex Farm

[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)
You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCibex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

https://expt.pcibex.net/ibexexps/minicursolec/leitura_automonitorada/experiment.html

Go to the **my account** page to view your other experiments or to create/delete experiments.

Experiment 'leitura_automonitorada' (ibex 0.3.9)

Update from git repo» ([help](#))

master
Sync

repo url
branch/revision

Script **C**

main.js



A plataforma de edição do experimento

Link do seu
experimento.

PCibex Farm

[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)
You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCibex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

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Go to the **my account** page to view your other experiments or to create/delete experiments.

Experiment 'leitura_automonitorada' (ibex 0.3.9)

Update from git repo» ([help](#))

master
Sync

repo url
branch/revision

Script **C**

main.js



A plataforma de edição do experimento



Solução para o espaço pequeno da plataforma

Veremos isso mais adiante.

PCibex Farm

[home](#) | [ibex docs \(pdf\)](#) | [PennController docs](#)
You are logged in as [minicursolec](#) ([logout](#)).

Important note: PCibex Farm accounts' storage space is limited to **64MB**; exceeding the limit will prevent you from making changes to your experiments. [Click here to learn more](#)

https://expt.pcibex.net/ibexexps/minicursolec/leitura_automonitorada/experiment.html

Go to the **my account** page to view your other experiments or to create/delete experiments.

Experiment 'leitura_automonitorada' (ibex 0.3.9)

Update from git repo» ([help](#))

master
Sync

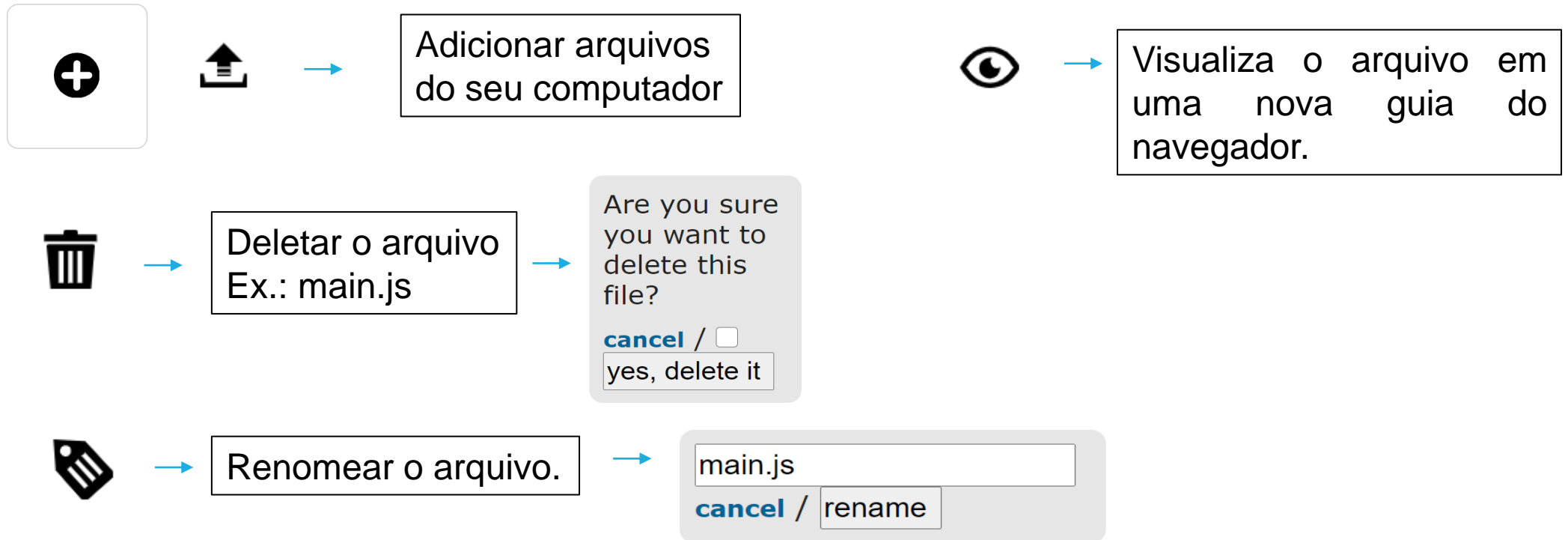
repo url
branch/revision

Script **C**

main.js



A plataforma de edição do experimento





A plataforma de edição do experimento

- O arquivo `main.js` é o editor de script do experimento.
- Cliquem no arquivo `main.js`





O editor de script



main.js PennController docs ibex docs x

```
1 // This is a simple demo script, feel free to edit or delete it
2 // Find a tutorial and the list of available elements at:
3 // https://www.pcibex.net/documentation/
4
5 PennController.ResetPrefix(null) // Shorten command names (keep this line here)
6
7 // Show the 'intro' trial first, then all the 'experiment' trials in a random order
8 // then send the results and finally show the trial labeled 'bye'
9 Sequence( "intro", randomize("experiment") , SendResults() , "bye" )
10
11
12 // What is in Header happens at the beginning of every single trial
13 Header(
14   // We will use this global Var element later to store the participant's name
15   newVar("ParticipantName")
16   .global()
17   ,
18   // Delay of 250ms before every trial
19   newTimer(250)
20   .start()
21   .wait()
22 )
23 .log( "Name" , getVar("ParticipantName") )
24 // This log command adds a column reporting the participant's name to every line saved to the results
25
26
27 newTrial( "intro" ,
28   newImage("pcibex-logo.png")
29   .size( 150 , 200 ) // Resize the image to 150x250px
30   .print()
31   ,
32   newText("<p>Welcome to the PCibex demo experiment.</p><p>Please enter your name below and press Enter:</p>")
33   .print()
34   ,
35   newTextInput()
```

Discard changes Save changes Save and close Save and test



O editor de script

main.js

PennController docs ibex docs x

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19   newTimer(250)
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21   .wait()
22 )
23 .log( "Name" , getVar("ParticipantName") )
24 // This log command adds a column reporting the participant's name to every line saved to the results
25
26
27 newTrial( "intro" ,
28   newImage("pcibex-logo.png")
29   .size( 150 , 200 ) // Resize the image to 150x250px
30   .print()
31   ,
32   newText("<p>Welcome to the PCibex demo experiment.</p><p>Please enter your name below and press Enter:</p>")
33   .print()
34   ,
35   newTextInput()
```

Comandos

Manual do Ibex original

Discard changes Save changes Save and close Save and test



O editor de script

main.js

PennController docs ibex docs

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4
5 PennController.ResetPrefix(null) // Shorten command names (keep this line here)
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17   ,
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19   newTimer(250)
20   .start()
21   .wait()
22 )
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24 // This log command adds a column reporting the participant's name to every line saved to the results
25
26
27 newTrial( "intro" ,
28   newImage("pcibex-logo.png")
29   .size( 150 , 200 ) // Resize the image to 150x250px
30   .print()
31   ,
32   newText("<p>Welcome to the PCibex demo experiment.</p><p>Please enter your name below and press Enter:</p>")
33   .print()
34   ,
35   newTextInput()
```

Fecha o editor sem salvar as alterações.

Discard changes Save changes Save and close Save and test



O editor de script

main.js

PennController docsibex docs

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33     .print()
34   ,
35   newTextInput()
```

Discard changesSave changesSave and closeSave and test

Salva as alterações. O editor continua aberto.



O editor de script

main.js

PennController docs ibex docs x

```
1 // This is a simple demo script, feel free to edit or delete it
2 // Find a tutorial and the list of available elements at:
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4
5 i PennController.ResetPrefix(null) // Shorten command names (keep this line here)
6
7 // Show the 'intro' trial first, then all the 'experiment' trials in a random order
8 // then send the results and finally show the trial labeled 'bye'
9 i Sequence( "intro", randomize("experiment") , SendResults() , "bye" )
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11
12 // What is in Header happens at the beginning of every single trial
13 v Header(
14   // We will use this global Var element later to store the participant's name
15   newVar("ParticipantName")
16   .global()
17   ,
18   // Delay of 250ms before every trial
19   newTimer(250)
20   .start()
21   .wait()
22 )
23 i .log( "Name" , getVar("ParticipantName") )
24 // This log command adds a column reporting the participant's name to every line saved to the results
25
26
27 v newTrial( "intro" ,
28   newImage("pcibex-logo.png")
29   .size( 150 , 200 ) // Resize the image to 150x250px
30   .print()
31   ,
32   newText("<p>Welcome to the PCibex demo experiment.</p><p>Please enter your name below and press Enter:</p>")
33   .print()
34   ,
35   newTextInput()
```

Fecha o editor sem salvar as alterações e fecha o editor.

Discard changes Save changes Save and close Save and test



O editor de script

main.js

PennController docs ibex docs x

```
1 // This is a simple demo script, feel free to edit or delete it
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27 v newTrial( "intro" ,
28   newImage("pcibex-logo.png")
29   .size( 150 , 200 ) // Resize the image to 150x250px
30   .print()
31   ,
32   newText("<p>Welcome to the PCibex demo experiment.</p><p>Please enter your name below and press Enter:</p>")
33   .print()
34   ,
35   newTextInput()
```

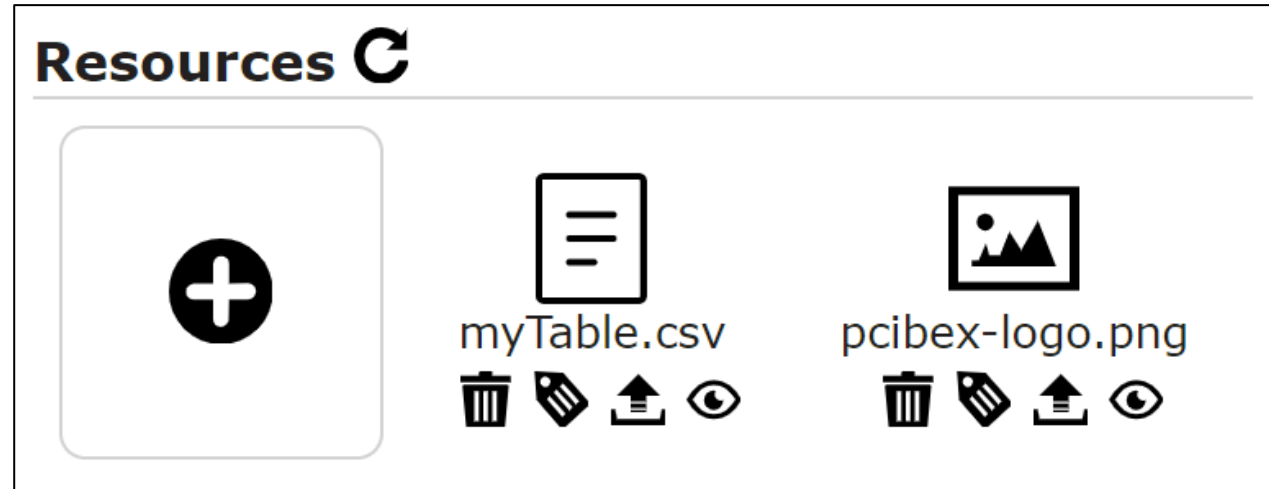
Salva as alterações e abre a página com a versão atual do experimento.

Discard changes Save changes Save and close Save and test



A plataforma de edição do experimento

- O arquivo `myTable.csv` contém os detalhes dos itens experimentais das e distratoras. O formato `.csv` = comma-separated-value
- Outros arquivos a serem usados no experimento podem ser incluídos em **Resources**: imagens, áudios, vídeos, outras tabelas.





myTable.csv

- O comando pré-estabelecido no script apontará para cada linha da tabela ao rodar o experimento.

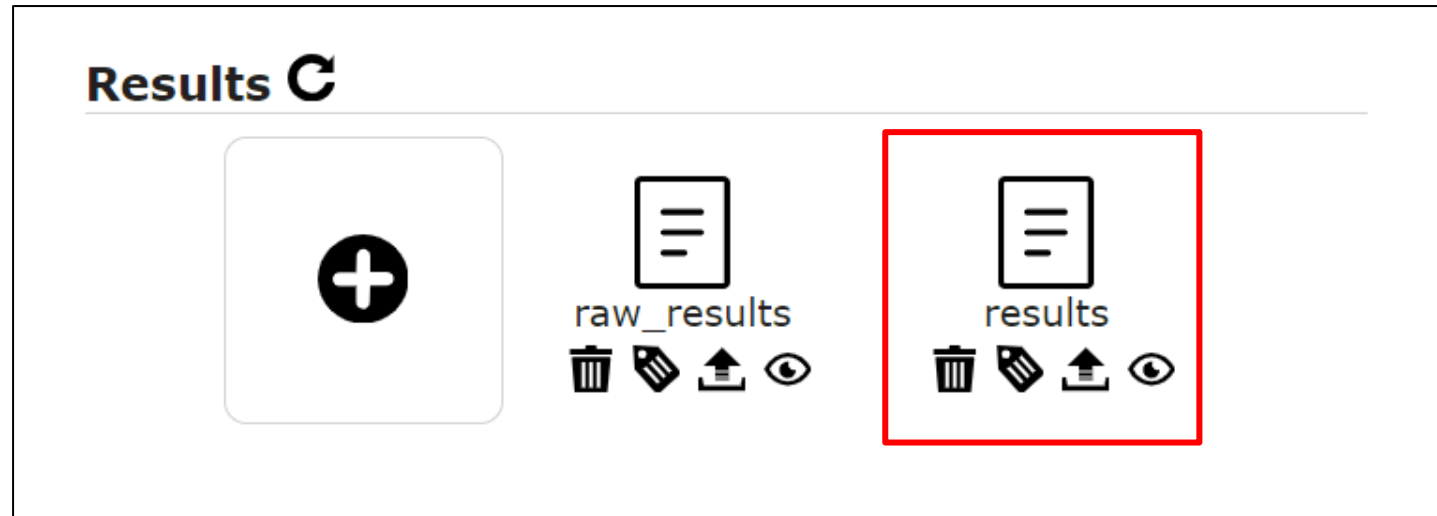
```
myTable.csv PennController docs ibex docs x
i 1 Frase,Pergunta,Item,Grupo
2 A_Beatriz assou a_pizza e a_Carla o_bolo de_limão pro_lanche.,A Carla assou uma pizza pro lanche?,GAP,A
3 O_Ricardo plantou o_cravo e o_Marcos arrumou o_jardim dos_fundos.,O Marcos estragou o jardim dos fundos?,SEN,A
4 A_Simone usou a_pulseira e o_anel de_ouro na_festa do_bairro.,A Simone usou um colar na festa?,OBJ,A
5 A_Beatriz assou a_pizza e o_bolo de_limão pro_lanche da_tarde.,A Beatriz assou biscoitos pro lanche?,OBJ,B
6 O_Ricardo plantou o_cravo e o_Marcos a_rosa no_jardim dos_fundos.,O Marcos plantou a margarida no jardim?,GAP,B
7 A_Simone usou a_pulseira e a_Leda admirou a_joia de_ouro.,A Leda odiou a joia de ouro?,SEN,B
8 A_Beatriz assou a_pizza e a_Carla preparou um_suco de_limão.,A Carla assou uma pizza?,SEN,C
9 O_Ricardo plantou o_cravo e a_rosa no_jardim dos_fundos da_casa.,O Ricardo plantou três tipos de flores?,OBJ,C
10 A_Simone usou a_pulseira e a_Leda o_anel de_ouro na_festa.,A Leda usou um colar de ouro na festa?,GAP,C

Discard changes Save changes Save and close Save and test
```



A plataforma de edição do experimento

- O PCIBEX gera dois arquivos de resultados:

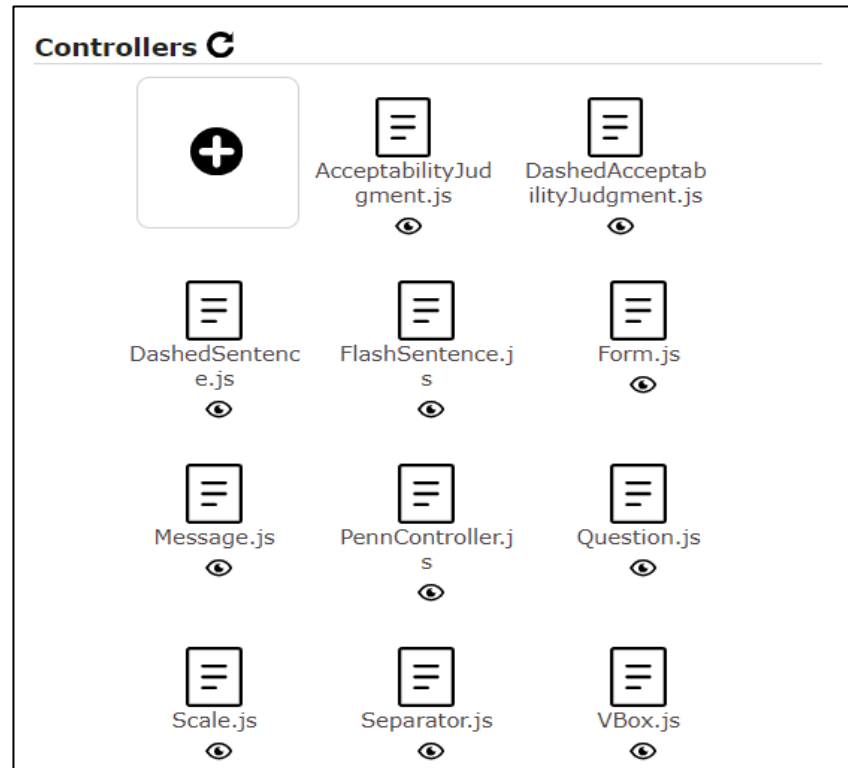


- Veremos esse arquivo com detalhes mais adiante.



A plataforma de edição do experimento

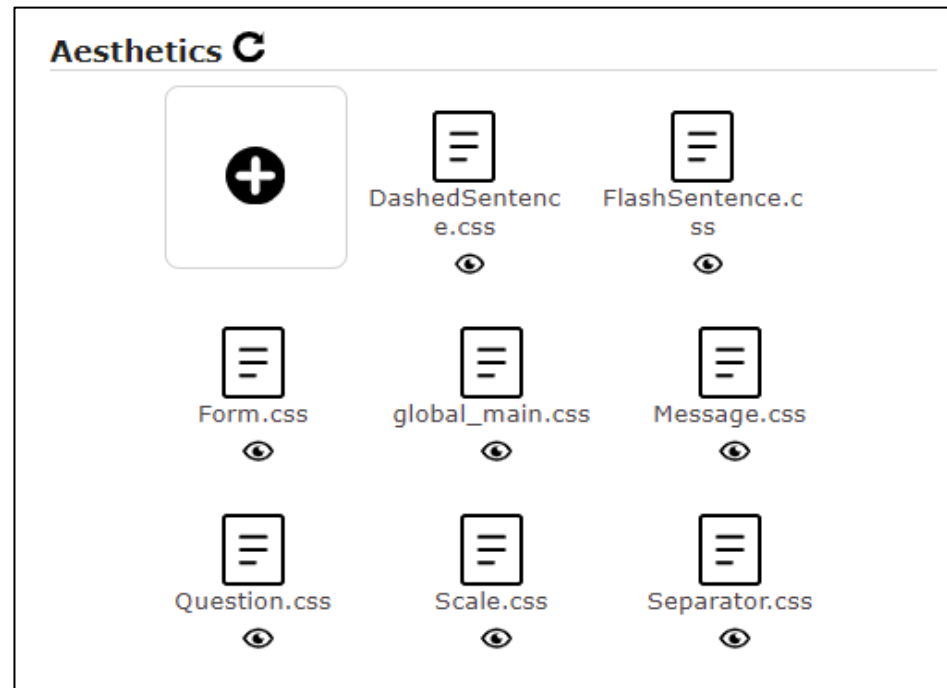
- Configurações sobre comandos da plataforma.





A plataforma de edição do experimento

- Configurações sobre a estética dos comandos.
- O formato `.css` = descreve como os elementos HTML devem ser exibidos.





A plataforma de edição do experimento

- Traz informação sobre o **número de participantes** que fizeram o experimento.





A plataforma de edição do experimento

- Ao elaborarmos um experimento no PCIBEX, utilizaremos as seções **Script**, **Resources** e **Results**.
- As seções **Controllers**, **Aesthetics** e **Counter** não serão utilizados nesse curso.



A plataforma de edição do experimento

- É possível fazer download de todos os arquivos do seu experimento.

Archive

You can download a **zip archive** of the files above.

In some browsers, you may need to right click and select "save link as" to download the file. The link will only work when you are logged in.



Recados

- Para a próxima aula:
 - Usaremos os arquivos da pasta “**Materiais Script Leitura Automonitorada**” que está no GitHub.
 - Certifiquem-se de baixa-la para os seus computadores.
 - Lembrete: guardem os dados da conta que você criou no PCIBEX Farm.

Por hoje é só!

