

# Experimentos em Psicolinguística com a plataforma PCIBEX



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**Evento Linguagens e Contemporaneidade – PPG Linguística UFJF**

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# AULA 1

# Panorama do Curso

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- 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

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- 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.
- Link: <https://spellout.net/ibexfarm/>



# PennController for IBEX

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





# PennController for IBEX

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- Plataforma gratuita, versátil e amigável.
- Permite criar experimentos dinâmicos e interativos.
- Permite criar diferentes tipos de estímulos:
  - Escritos
  - Imagens
  - Áudios
  - Vídeos
- O PennController é atualizado de tempos em tempos. (Versão atual: PennController 1.8)





# PennController for IBEX

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- 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

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- 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  #!/Library/Frameworks/Python.framework/Versions/3.7/bin/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

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- Vejamos alguns exemplos de experimentos feitos no PCIBEX:

- Leitura Automonitorada

[https://expt.pcibex.net/ibexexps/minicursolec/leitura\\_automonitorada/experiment.html](https://expt.pcibex.net/ibexexps/minicursolec/leitura_automonitorada/experiment.html)

- Teste Auditivo

[https://expt.pcibex.net/ibexexps/minicursotesteauditivo/Teste\\_Auditivo/experiment.html](https://expt.pcibex.net/ibexexps/minicursotesteauditivo/Teste_Auditivo/experiment.html)

- Teste de Imagens

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

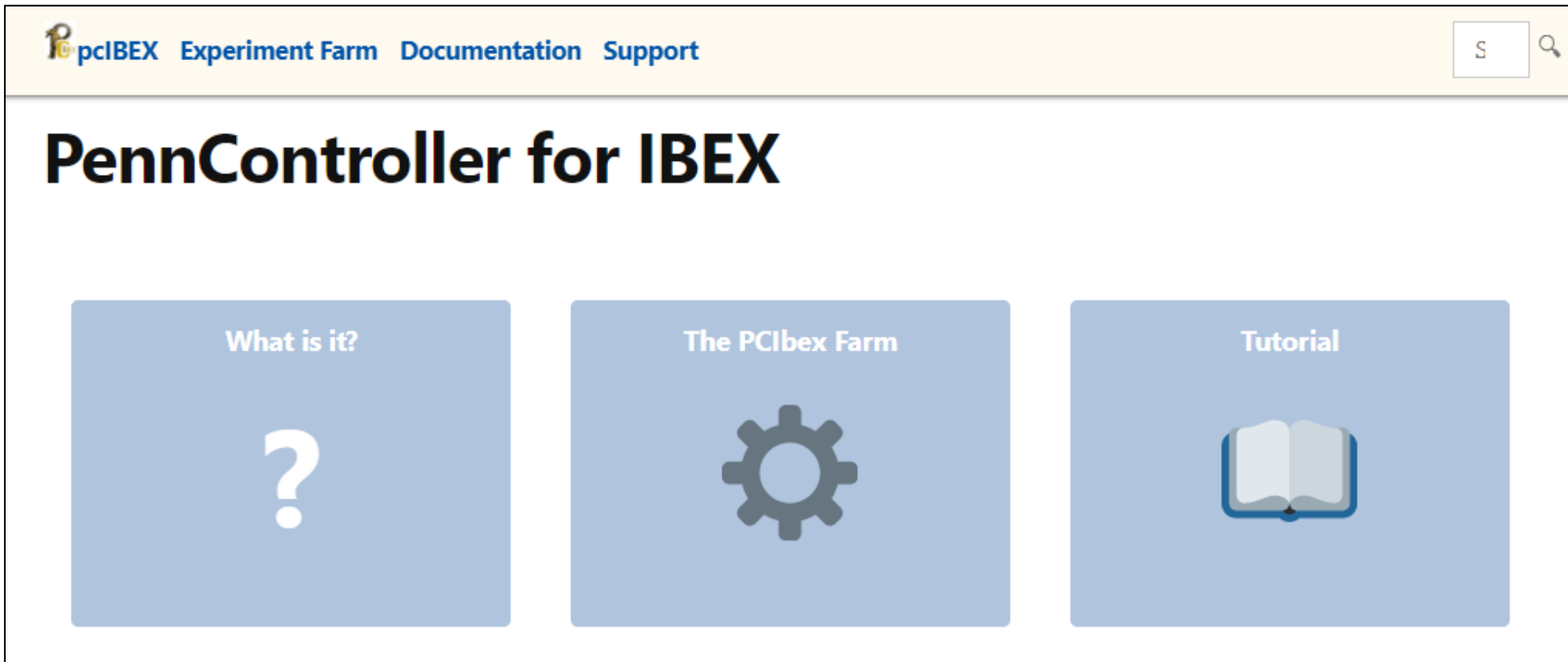
**Iniciação à plataforma**

**PCIBEX**



# PCIBEX

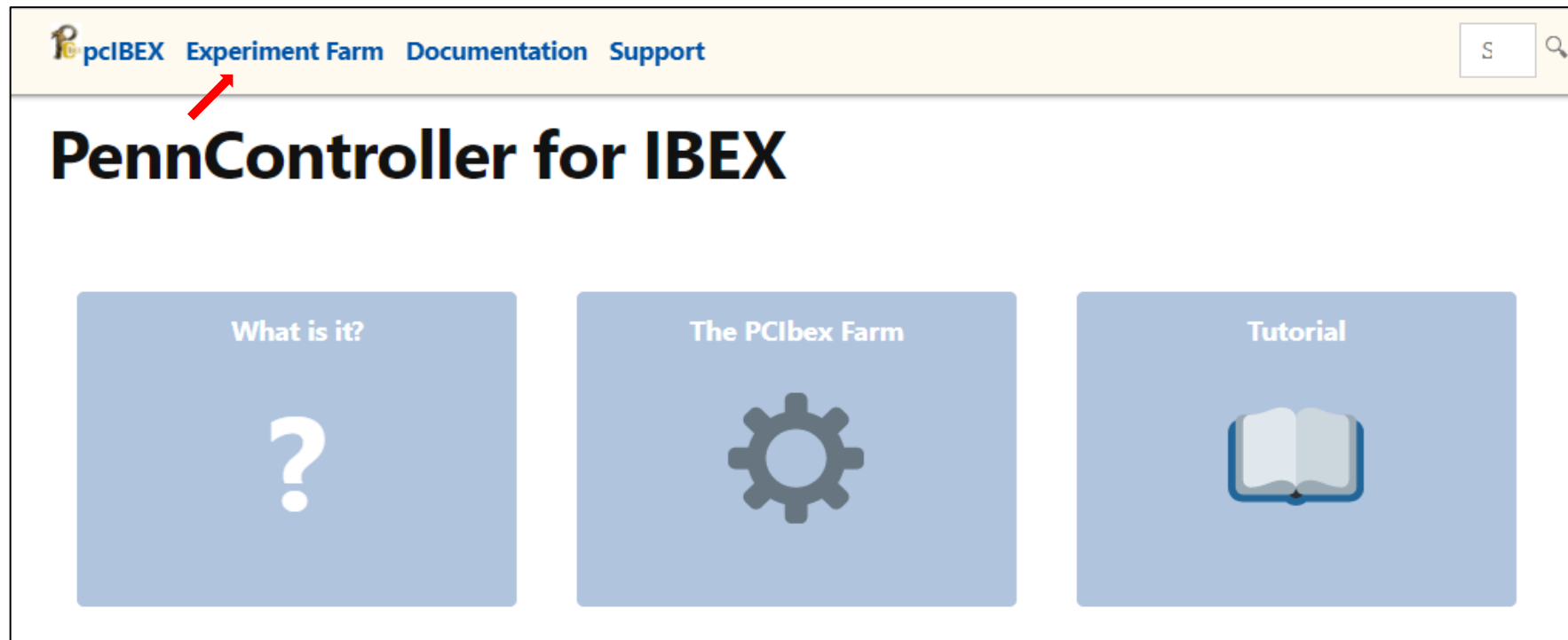
- A página inicial: <https://www.pcibex.net/>





# 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.

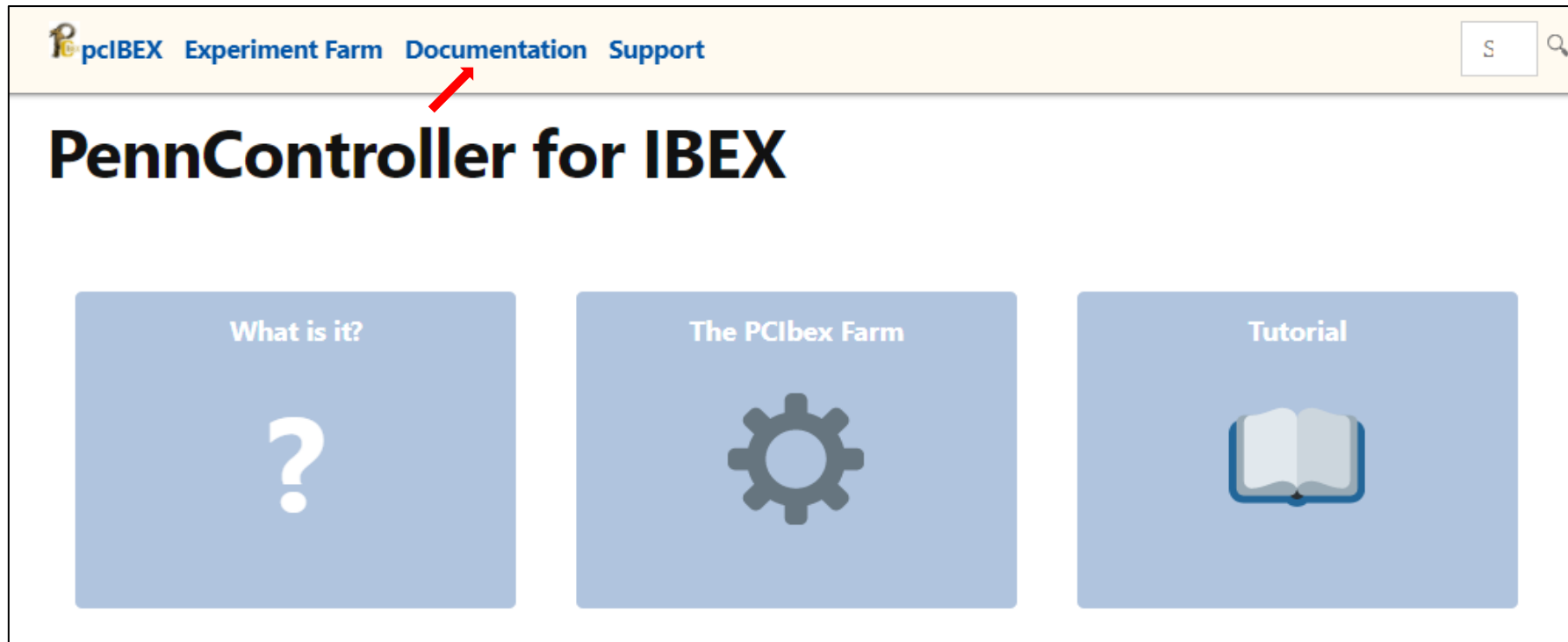







# PCIBEX

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





# PCIBEX: Documentation

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

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## Documentation

Getting Started

Commands and Elements

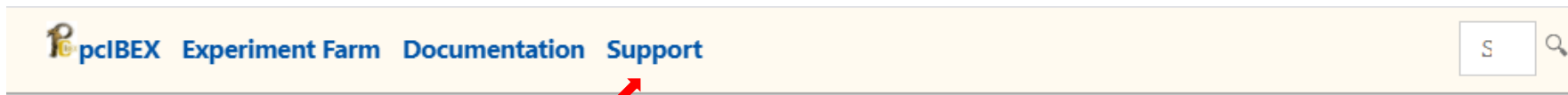
Guides

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



# 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](#)

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## About

**Cite us:** Zehr, J., & Schwarz, F. (2018). PennController for Internet Based Experiments (IBEX). <https://doi.org/10.17605/OSF.IO/MDB32>

**Contact us:** [admin@pcibex.net](mailto:admin@pcibex.net)

**Backstory:** [see page](#)

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## 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

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

[admin@pcibex.net](mailto: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 PCibex Farm

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

## PCibex 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](#)).

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**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](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

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

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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](#)  
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[https://expt.pcibex.net/ibexexps/minicursolec/leitura\\_automonitorada/experiment.html](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



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](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

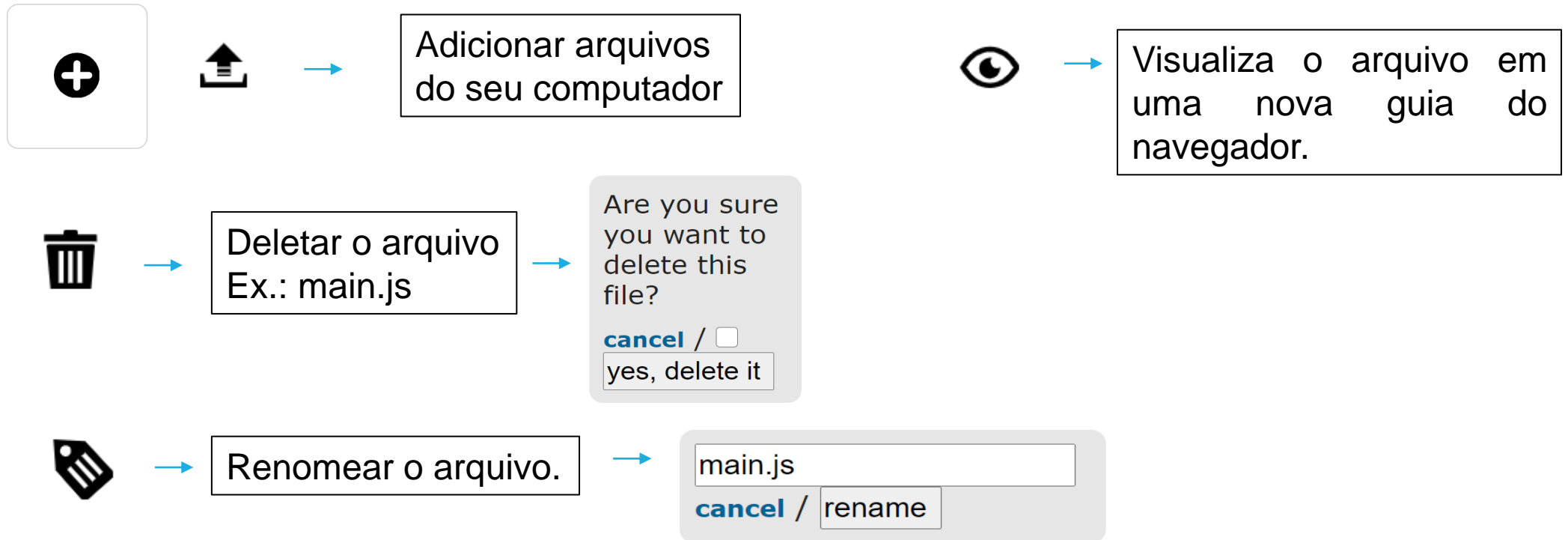
repo url  
branch/revision

#### 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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33   .print()
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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 x

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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 docs ibex docs x

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

Discard changes Save changes Save and close Save and test

Salva as alterações. O editor continua aberto.



# O editor de script

main.js

PennController docs ibex docs x

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

Salva 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

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

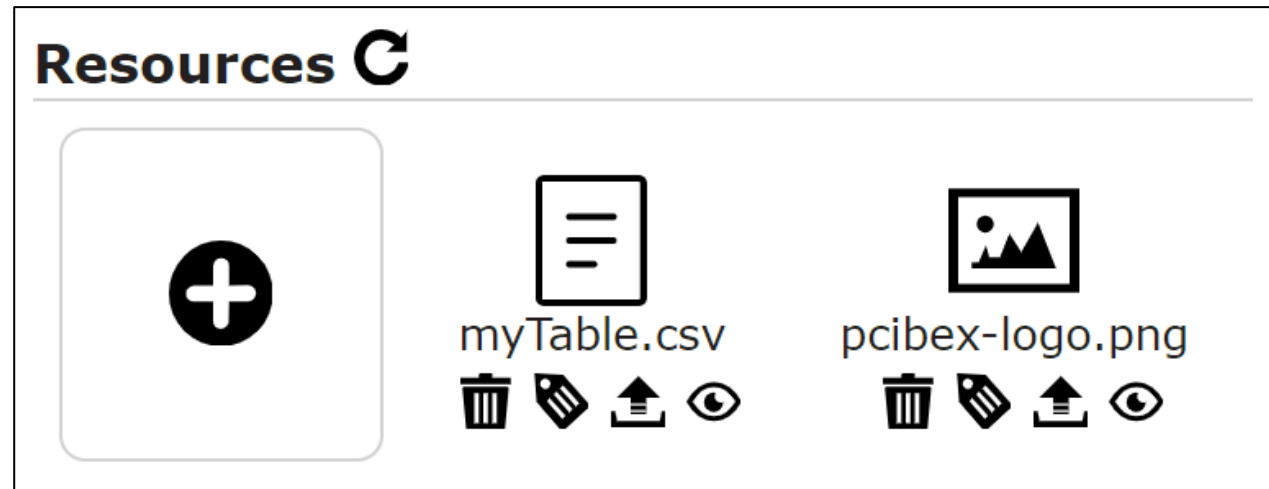
Salva as alterações e abre a página com a versão atual do experimento.

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 e das distratoras. O formato `.csv` = comma-separated-values
- Outros arquivos a serem usados no experimento podem ser incluídos em **Resources**: imagens, áudios, vídeos, outras tabelas.





# myTable.csv

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

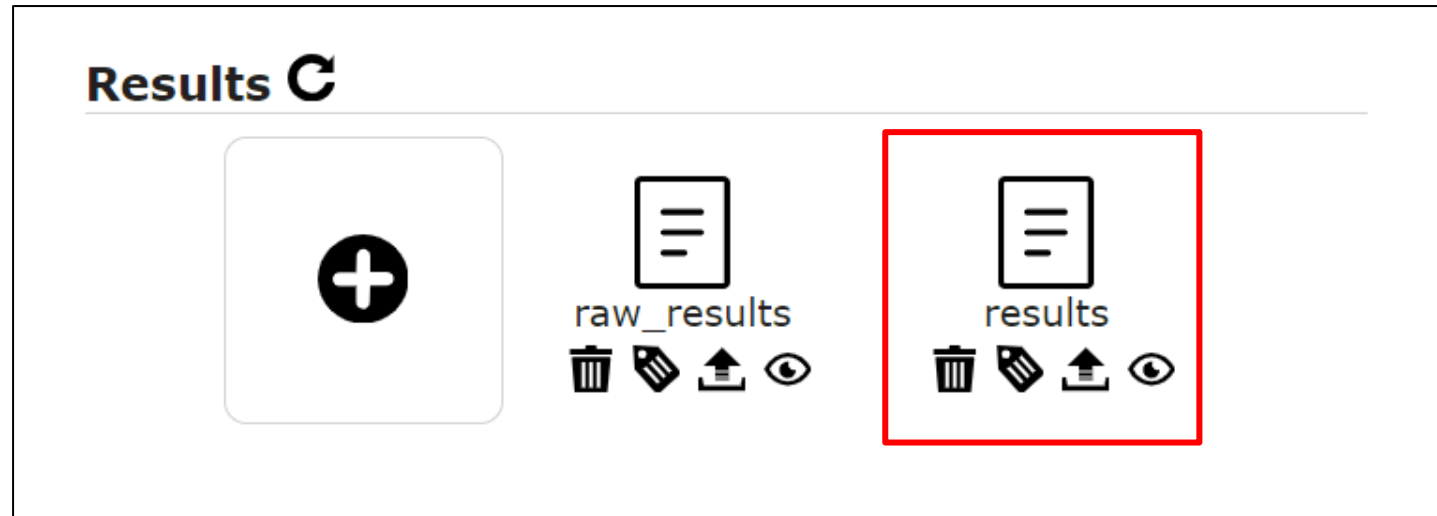
```
myTable.csv PennController docs ibex docs x
i 1 Frase,Pergunta,Item,Grupo
x 2 A_Beatriz assou a_pizza e a_Carla o_bolo de_limão pro_lanche.,A Carla assou uma pizza pro lanche?,GAP,A
x 3 O_Ricardo plantou o_cravo e o_Marcos arrumou o_jardim dos_fundos.,O Marcos estragou o jardim dos fundos?,SEN,A
x 4 A_Simone usou a_pulseira e o_anel de_ouro na_festa do_bairro.,A Simone usou um colar na festa?,OBJ,A
x 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:

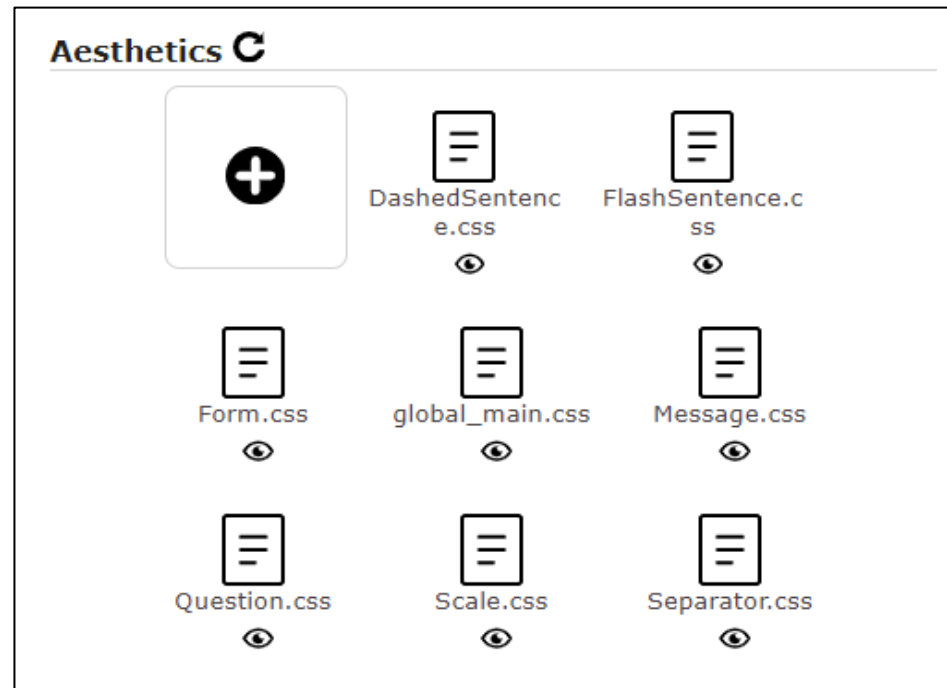


- Veremos esse arquivo com detalhes mais adiante.



# A plataforma de edição do experimento

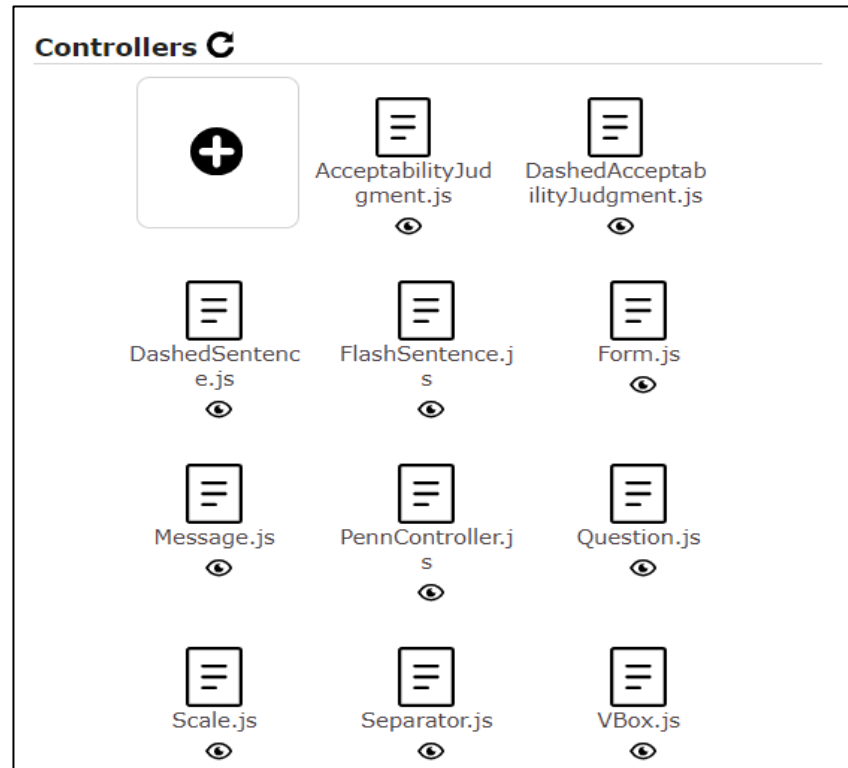
- Configurações sobre a estética dos comandos.
- O formato `.css` = descreve como os elementos HTML devem ser exibidos.





# A plataforma de edição do experimento

- Configurações sobre comandos da plataforma.







# A plataforma de edição do experimento

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





# A plataforma de edição do experimento

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- 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

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- É possível fazer download de todos 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

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- Para as próximas aulas:
  - Lembrete: guardem os dados da conta que você criou no PCIBEX Farm.
  - Dica para as Aulas 2 e 3: assistir a aula em outro dispositivo (celular, tablet) e usar o computador para mexer na plataforma.
  - Usaremos na Aula 2 os arquivos da pasta “**Materiais do Minicurso PCIBEX**”
  - Certifiquem-se de baixá-la para os seus computadores.
  - Vamos ver os arquivos do minicurso no GitHub: [https://github.com/julia-greco/Minicurso\\_PCIBex](https://github.com/julia-greco/Minicurso_PCIBex)

# Referências

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HUNT, J. **A Beginners Guide to Python 3 Programming**. Brighton, UK: Springer Publishing Company, 2019.

ZEHR, J.; SCHWARZ, F. **PennController for Internet Based Experiments (IBEX)**. 2018. < <https://doi.org/10.17605/OSF.IO/MD832> >  
Acesso em 05 de outubro de 2020.

Por hoje é só!

