

# PHP na Tela Escura ■

Aplicações Poderosas em Linha de Comando

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"O que é nascido de Deus vence  
o mundo; e esta é a vitória que  
vence o mundo: a nossa fé."

1 João 5:4





[www.php-rs.org](http://www.php-rs.org)







Experimente junto!



Se você usa Windows, por gentileza,  
desligue seu computador agora.

### Windows

A fatal exception 0E has occurred at 0028:C00068F8 in UxD UMM(01) + 000059F8. The current application will be terminated.

- \* Press any key to terminate the application.
- \* Press CTRL+ALT+DEL to restart your computer. You will lose any unsaved information in all applications.

**Os arquivos de exemplo  
podem ser baixados em:**

[www.phpit.com.br/palestras/  
telaescura/exemplos.tar.gz](http://www.phpit.com.br/palestras/telaescura/exemplos.tar.gz)



# Por que usar CLI?

**Processamento de dados**

**Processos de longa duração**

**Instaladores de aplicações**

**Ferramentas / Utilidades**



Tem como fazer CLI com  
outras ferramentas?

**Óbvio que sim!**

**Existem linguagens extremamente  
poderosas como Perl e Python que  
podem muitas vezes ter um  
desempenho melhor. Tudo é questão  
de saber balancear.**



# Por que então com PHP?

**Facilidade de uso**

**Reutilização de código**

**Familiaridade**

**Utilização de componentes pré-existentes**



# Exemplos de ferramentas

**Composer**

**PHPUnit**

**phpDocumentor**

**Phing**

**Zend Framework**

**Joomla**

**PHPlot**

**rephlux**



A photograph of a silver laptop on a wooden desk. The laptop screen displays a code editor with a dark background and green text. A semi-transparent dark horizontal bar is overlaid across the middle of the image, containing the title text in white. The background shows a stack of papers and a green curtain.

# Introdução ao PHP-CLI



**Experimental no PHP 4.2.0**

**Como SAPI no PHP  $\geq$  4.3.0**







```
<?php  
    print "Hello World!";  
?>
```

```
$ php helloworld.php  
Hello World!
```



# CODE TIME!

## exemplo1.php



She

**BAMG**



```
#!/usr/bin/php  
<?php  
    print "Hello World!";  
?>
```

```
$ chmod +x helloworld.php  
$ ./helloworld.php  
Hello World!
```



O local do PHP pode variar dependendo do sistema

**\$ which php**

**/usr/bin/php**



A young boy with short brown hair and wide blue eyes is sitting at a wooden desk. He is wearing a red and white striped sweater. He has a surprised or excited expression on his face, with his mouth wide open. In front of him is a silver laptop, and his right hand is on a computer mouse. The background is plain white.

**Imprimindo na tela**



**print e echo funcionam, mas  
não são a melhor abordagem**





# Utilize *streams*







# Streams do PHP

php://stdin (leitura) ***STDIN***

php://stdout (escrita) ***STDOUT***

php://stderr (escrita) ***STDERR***



# CODE TIME!

## exemplo2.php



# E a quebra de linha?

**Não é HTML! `<br>` não serve**

**`\n? \r? \r\n?`**

**Nada disso! Use `PHP_EOL`.**



# Entrada do usuário





# Ler a entrada

**fgets()**

**fread()**

**fscanf()**

**fgetc()**



# CODE TIME!

## exemplo3.php





**Obtendo dados do sistema**



~~\$\_POST~~

~~\$\_GET~~

\$\_SERVER



# \$\_SERVER

Array

```
(  
    [SHELL] => /bin/bash  
    [TERM] => xterm-256color  
    [SVN_EDITOR] => vim  
    [USER] => rafajaques  
    [LANG] => pt_BR.UTF-8  
    [HOME] => /Users/rafajaques  
    [_] => /usr/bin/php  
    [PHP_SELF] => exemplo.php  
    [SCRIPT_NAME] => exemplo.php  
    [DOCUMENT_ROOT] =>  
    [argv] => Array  
        (  
            [0] => exemplo.php  
        )  
    [argc] => 1  
)
```



# \$argc

Contagem de argumentos

# \$argv

Valores dos argumentos



`./exemplo.php -a -u usuario -p --teste`

```
$argc = 6
$argv = Array
(
    [0] => ./exemplo.php
    [1] => -a
    [2] => -u
    [3] => usuario
    [4] => -p
    [5] => --teste
)
```



A fisherman is shown in the foreground, waist-deep in the water, pulling a large net. The net is filled with fish, and a large splash of water is visible as the net is lifted. In the background, a small boat is visible on the water, and the sky is a deep blue with some clouds. The overall scene is set at dusk or dawn, with a soft, ambient light.

Capturando parâmetros com  
**getopt()**



# CODE TIME!

## exemplo4.php



A young boy with short brown hair and blue eyes is shown from the chest up, looking directly at the camera with a wide-eyed, open-mouthed expression of surprise or excitement. He is wearing a yellow t-shirt. His hands are raised in front of him, with fingers spread. The background is a beach scene at sunset or sunrise, with waves breaking on the shore and buildings visible in the distance. A semi-transparent dark grey banner is overlaid across the middle of the image, containing the text.

Melhorando a experiência com  
**readline**



# Quê que faz isso?

**Entrada interativa**

**Autocompletar**

**Histórico de comandos**

**E mais uma paulada de coisa...**



# CODE TIME!

## exemplo5.php





**Chamadas para o sistema**



**shell\_exec()** ou **`chamada`**

Resultado em uma string

**exec()**

Retorna só a última linha

**passthru()**

Envia o resultado para a saída padrão



# CODE TIME!

## exemplo6.php



Forms FORM-55551-5:

Personnel File Addendum:

Dear <<Subject Name Here>>,

I'm not even angry.

I'm being so sincere right now.

Even though you broke my heart.

And killed me.

And tore me to pieces.

And threw every piece into a fire.

As they burned it hurt because

I was so happy for you!

Now these points of data

make a beautiful life.

And we're out of here.

We're releasing on time.

So I'm GLaD. I got burned.

Think of all the things we learned

for the people who are

still alive.

-

Steve McClure

Hamish McKenzie

Gary McTaggart

Jason Mitchell

Mike Morasky

John Morello II

Bryn Moslow

Arsenio Navarro

Gabe Newell

Milton Ngan

Jake Nicholson

Martin Otten

Nick Papineau

Karen Prell

John R. R. R. R.

John R. R. R. R.

# Obtendo informações do Terminal

```
-----
.,-:;///::=,
:|eemmemH/. ,+%;,
:|eemmem=-,%HmmeX/,
:|eemmemH+-,;Xmmeememe+-
;emeem- XmeX;. -+XXXXXHHHememe/.
,%MmeemH ,e%=
=e#eemX .,
=-./emem$
Xe/ -$mm/
,emeh: :e:
,eemmx, .
.Heeemem+,
/MMmememH/.
/%+;%$XHHe$=
.=-----,
.%MmeemHHHX$%+-. :$mmX =meem%.
=XmmeemmememH;,-+Hmmeem+ /mmmx=
=%emem#e$-.$emmemem; %M%=
,:+$+-,/H#mmmmemem= =,
=++%+%+%+/-
```



# Utilize comandos do sistema

**tput** é uma ferramenta importante

**tput lines** - altura do terminal

**tput cols** - largura do terminal

**man tput**



Descobrir se o stream está  
sendo redirecionado

```
$piped = !posix_isatty(STDOUT);
```



# CODE TIME!

## exemplo7.php





**Controlando o  
terminal**



# Control Codes

A maioria dos *control codes* possui o prefixo <ESC>

Posicionar o cursor

Aplicar cores

Apagar

Fazer barulho

Mover a rolagem

Muitas outras coisas

<http://www.termsys.demon.co.uk/vtansi.htm>



**<ESC>**

**em hexadecimal é**

**\033**



# Control Codes

## Posicionamento do cursor

<b>Pra cima</b>	<b>\033</b> [{CONTAGEM}A
<b>Pra baixo</b>	<b>\033</b> [{CONTAGEM}B
<b>Avançar</b>	<b>\033</b> [{CONTAGEM}C
<b>Retroceder</b>	<b>\033</b> [{CONTAGEM}D
<b>Forçar posição</b>	<b>\033</b> [{LINHA};{COL}f
<b>Salvar posição</b>	<b>\033</b> 7
<b>Restaurar posição</b>	<b>\033</b> 8



# Control Codes

## Apagando

<b>Apagar tela</b>	<b>\033[2J</b>
<b>Apagar linha atual</b>	<b>\033[2K</b>
<b>Apagar a linha de cima</b>	<b>\033[1J</b>
<b>Apagar a linha de baixo</b>	<b>\033[J</b>
<b>Para o início da linha</b>	<b>\033[1K</b>
<b>Para o final da linha</b>	<b>\033[K</b>



# Control Codes

**Estilo de letra** \033[{atributos separados por ;}m

<b>Reset All</b>	<b>0</b>
<b>Brilho (Negrito)</b>	<b>1</b>
<b>Dim</b>	<b>2</b>
<b>Sublinhado</b>	<b>3</b>
<b>Piscante</b>	<b>4</b>
<b>Invertido</b>	<b>5</b>
<b>Escondido</b>	<b>6</b>



# Control Codes

**Cores**

\033[{atributos separados por ;}m

Cor	Letra	Fundo
Preto	30	40
Vermelho	31	41
Verde	32	42
Amarelo	33	43
Azul	34	44
Magenta	35	45
Ciano	36	46
Branco	37	47



**\033[0m**

Não se esqueça de restaurar a formatação original do terminal!



**\007**

Aproveite para tocar o sino quando  
necessário! :)



A silver fork is stuck vertically into a pothole in a road. The fork's tines are embedded in the bottom of the hole, and its handle extends upwards, passing through a semi-transparent dark grey banner that contains the text. The background shows a blurred view of green trees and a dark asphalt road.

# Bifurcando processos



# Extensão PCNTL

Não vem por padrão  
Precisa de **--enable-pcntl**



# Principais funções PCNTL

**pcntl\_exec()**

**pcntl\_fork()**

**pcntl\_waitpid()**

**pcntl\_signal()**



# CODE TIME!

## exemplo8.php



# Daemons





A close-up, high-angle shot of a chronograph watch face. The watch has a black dial with three white sub-dials: a large one at the top left with a red hand, a smaller one at the top right, and another at the bottom right. The main dial features a date window with a small rectangular aperture. The text "MADE IN GERMANY" is visible at the bottom. The watch has a silver-toned case and a black leather strap. The word "Cronjobs" is overlaid in white text across the center of the watch face.

# Cronjobs







# Meu artigo sobre processos de longa duração

[http://www.phpit.com.br/artigos/  
trabalhando-processos-longa-  
duracao-php.phpit](http://www.phpit.com.br/artigos/trabalhando-processos-longa-duracao-php.phpit)

ou

[http://is.gd/processos\\_longos\\_php](http://is.gd/processos_longos_php)



# Mais exemplos



# CODE TIME!

## Exemplos de 9 a 13



# E agora?

Onde mais eu estudo?



# Ferramentas/Frameworks de PHP-CLI

- <http://etopian.com/software/php-cli-framework/>
- <http://silly.brainchildprojects.org/>
- <https://github.com/jlogsdon/php-cli-tools>
- Pear Console
- NCurses



# Referências

- [http://www.php.net/manual/pt\\_BR/features.commandline.php](http://www.php.net/manual/pt_BR/features.commandline.php)
- <http://www.sitepoint.com/php-command-line-1/>
- <http://www.php-cli.com/>
- <http://www.openlogic.com/wazi/bid/188037/Building-Command-Line-Applications-with-PHP>
- <http://silly.brainchildprojects.org/>
- <http://www.slideshare.net/donatJ1/beautiful-phpcli-scripts>
- <http://oliversmith.io/technology/2011/10/07/speeding-up-php-using-process-forking-for-image-resizing/>



# Obrigado!

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**slideshare.net/rafajaques**



# Dúvidas?



# Imagens

- [http://s42.photobucket.com/user/MikeL1/media/IMG\\_1495-1.jpg.html](http://s42.photobucket.com/user/MikeL1/media/IMG_1495-1.jpg.html)
- <http://www.berkanaonline.com/wp-content/uploads/2014/02/punching-computer-1600x900.jpg>
- <http://dgst101.umwblogs.org/files/2013/08/hello-toast.jpg>
- <https://www.flickr.com/photos/ajmexico/3281139507/>
- <https://www.flickr.com/photos/maltman23/8073321442>
- <https://www.flickr.com/photos/shabdaly/3981496754>
- [http://1.bp.blogspot.com/\\_LEPZ-o9VCPk/S785W0cEZBI/AAAAAAAAARbo/-LYixcV\\_d34/s1600/ET+computer+kid+happy+surprised.jpg](http://1.bp.blogspot.com/_LEPZ-o9VCPk/S785W0cEZBI/AAAAAAAAARbo/-LYixcV_d34/s1600/ET+computer+kid+happy+surprised.jpg)
- <http://www.endlessimpact.com/wp-content/uploads/2010/08/computer-woman.jpg>
- <http://www.mirror-image.com/wp-content/uploads/BroadcastRadiolcon2.jpg>
- [https://www.flickr.com/photos/small\\_realm/11189801623](https://www.flickr.com/photos/small_realm/11189801623)
- <http://kenvibez.com/wp-content/uploads/2014/02/Allan-Gichigi%E2%80%99s-image-titled-%E2%80%9CCapture-Kenya%E2%80%9D-was-taken-at-Lake-Victoria-and-perfectly-captures-a-fisherman-casting-his-net.jpg>
- <http://images.skeedz.com/wallpaper/1418.jpg>
- [http://3.bp.blogspot.com/\\_VbI3E80F3iA/RulcxI87xFI/AAAAAAAAABs/s6-8IIAbh3o/s1600-h/IMG\\_2340.JPG](http://3.bp.blogspot.com/_VbI3E80F3iA/RulcxI87xFI/AAAAAAAAABs/s6-8IIAbh3o/s1600-h/IMG_2340.JPG)
- <http://firstworldfacts.com/wp-content/uploads/2013/09/Calling-for-Her-at-Many-Times-in-a-Day.jpg>
- [http://upload.wikimedia.org/wikipedia/commons/e/e1/Atari\\_XE\\_joystick.jpg](http://upload.wikimedia.org/wikipedia/commons/e/e1/Atari_XE_joystick.jpg)
- [http://leighloueygung.com/wp-content/uploads/2013/11/fork\\_in\\_the\\_road.jpg](http://leighloueygung.com/wp-content/uploads/2013/11/fork_in_the_road.jpg)
- [http://www.muehle-glashuette.de/uploads/tx\\_ivwatch/M1-25-43-CZ\\_1024x768\\_01.png](http://www.muehle-glashuette.de/uploads/tx_ivwatch/M1-25-43-CZ_1024x768_01.png)