

Nova obzorja spletnih tehnologij s Smalltalkom in ogrodjem Aida/Web

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OTS 2011



AIDAweb

Smalltalk Web Application Server

```
o add: self documentTitleElement; add: self documentActionsElement.  
bucketElement := self bucketsElement. "detailed info, references..."  
o add: self infoLineElement. "brief info about document"  
o add: bucketElement. "infoLine needs buckets before"
```



Zakaj nova obzorja?



- ▶ Sveža novica: celo Microsoft prehaja na HTML5
 - ▶ Za namizne aplikacije zamenjuje .NET in WPF s trojčkom HTML5, CSS in JavaScript
- ▶ Google ChromeOS, ChromeBook
- ▶ Bodo vse bodoče aplikacije na osnovi spletnih tehnologij?

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Združitev ključnih dogodkov



- ▶ HTML5
- ▶ JavaScript
- ▶ Spletni brskalniki
- ▶ Dogodkovna zanka
- ▶ Mobilne naprave
- ▶ Oblak

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Trojček spletnih tehnologij



HTML5

+



CSS3

+



JavaScript

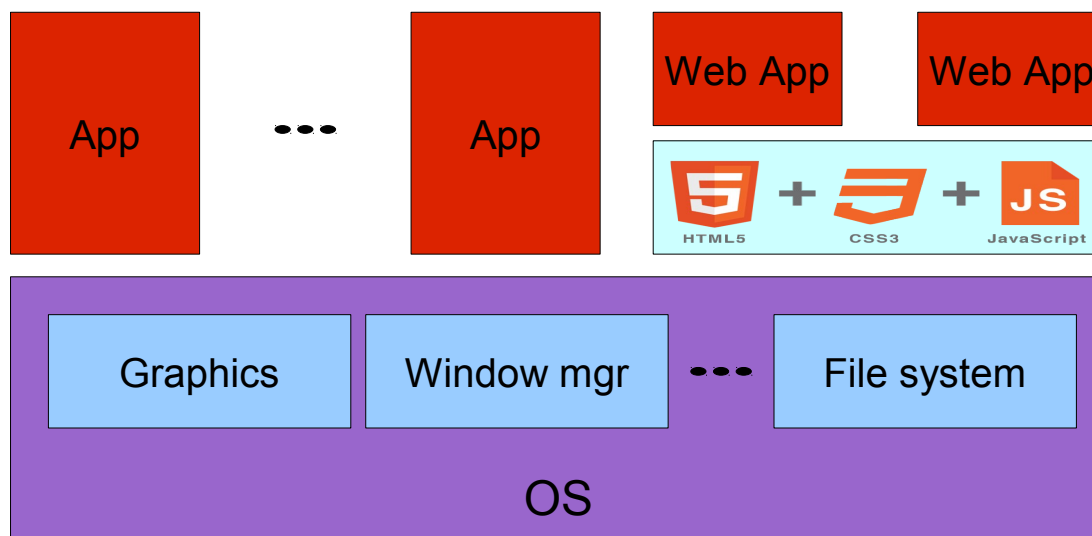
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self add: self documentTitleElement; add: self documentActionsElement.  
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AIDAwab
Smalltalk Web Application Server



Integracija spleta v operacijski sistem



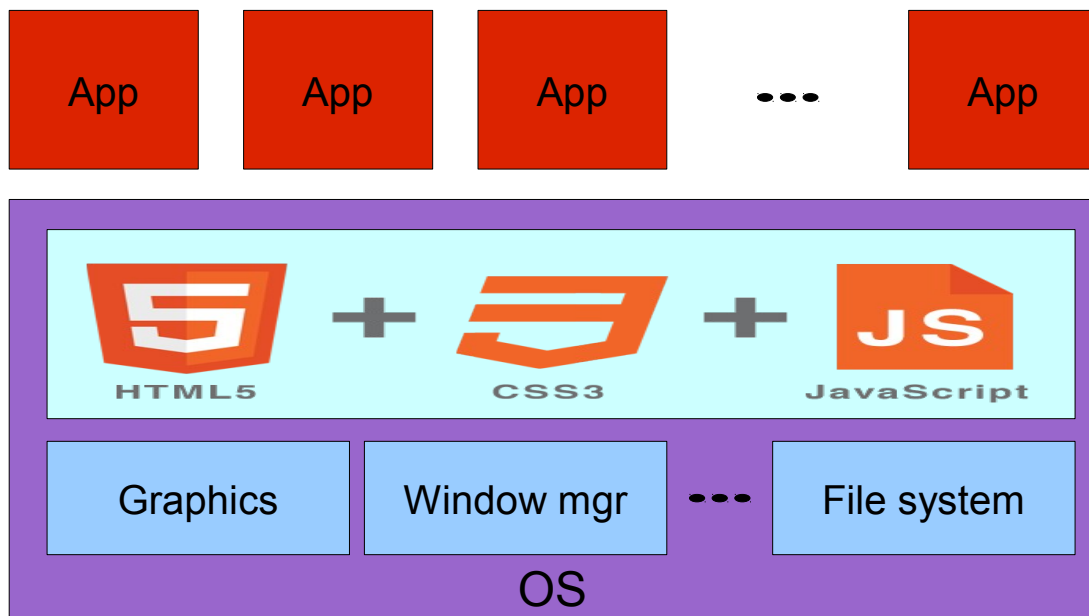
Sedanje stanje: spletni trojček ločen od OS

```
o add: self documentTitleElement; add: self documentActionsElement.  
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Integracija spleta v operacijski sistem



Bodočnost: spletni trojček del OS

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HTML5



- ✓ OFFLINE & STORAGE
- ✓ CONNECTIVITY / REALTIME
- ✓ MULTIMEDIA
- ✓ GRAPHICS, 3D & EFFECTS
- ✓ DEVICE ACCESS
- ✓ PERFORMANCE & INTEGRATION
- ✓ SEMANTICS
- ✓ CSS3 / STYLING



www.w3.org/html/logo/

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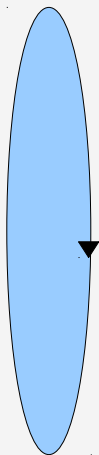
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Dogodkovna zanka v brskalniku



Spletni brskalnik



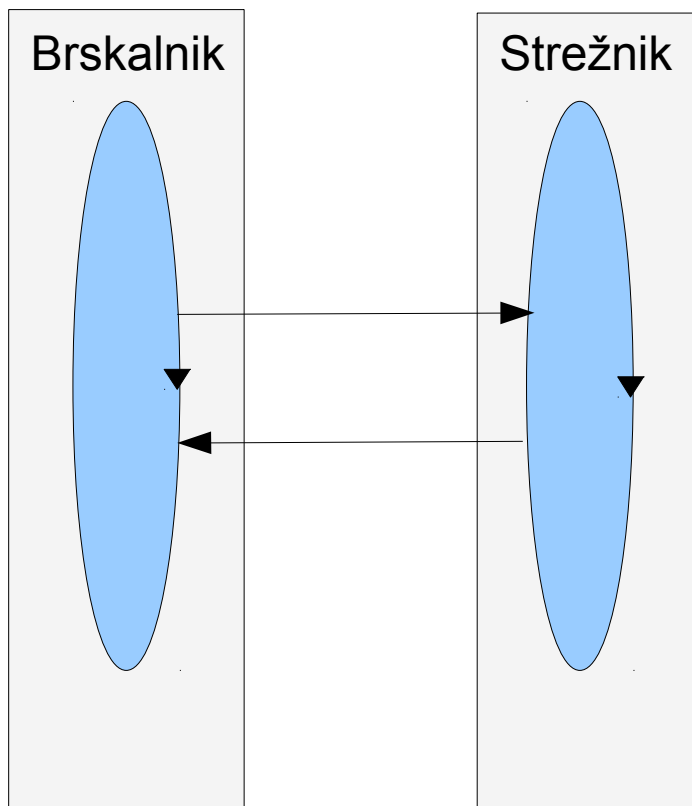
```
ajax = new XMLHttpRequest;  
ajax.onreadystatechange = function() {...};  
ajax.open('get', '/ajax-example', true);
```

```
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Dogodkovna zanka razširjena na strežnik



```
db.query('select..',function(result){..});
```

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Strežnik na osnovi dogodkovne zanke



nodeJS

```
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Živ splet



Timeline

@Mentions

Retweets ▾

Searches ▾

Lists ▾

4 new tweets

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z add: self documentTitleElement; add: self documentActionsElement.  
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Živ splet



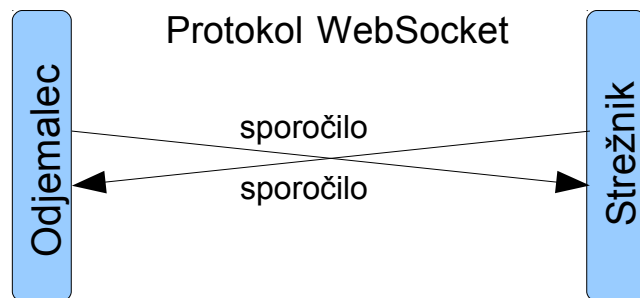
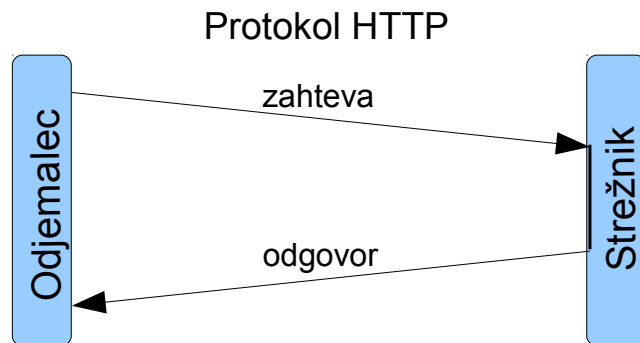
- ▶ (Real-time Web)
- ▶ Spletne strani se same odzivajo na spremembe
 - Brez posredovanja uporabnika
- ▶ Ključna tehnologija: protokol WebSocket
 - Kot zamenjava za Comet

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Protokol WebSocket



Format sporočila WebSocket

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Živ splet



Primer: klepetalnica

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Primer živega spleta

chatExample

| e lines |

e := WebElement newDiv.

e addTextH1: 'Multi-user Chat'.

lines := self linesElement.

e add: le; addBreak.

(e addInputFieldAspect: #line for: self) focus.

(e addButtonText: 'Send')

onSubmitDo:

[self observee addLine: self line.

self line: "].

self observee whenChangedDo: [lines update] on: self.

^e

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Smalltalk



exampleWithNumber: x

"A method that illustrates every part of Smalltalk method syntax except primitives. It has unary, binary, and keyword messages, declares arguments and temporaries, accesses a global variable (but not an instance variable), uses literals (array, character, symbol, string, integer, float), uses the pseudo variables true false, nil, self, and super, and has sequence, assignment, return and cascade. It has both zero argument and one argument blocks."

```
|y|
true & false not & (nil isNil) ifFalse: [self halt].
y := self size + super size.
#($a #a "a" 1 1.0)
  do: [:each | Transcript show: (each class name);
      show: ' '].

^ x < y
```





Spletna ogrodja v Smalltalku



seaside 

www.seaside.st



AIDAweb

www.aidaweb.si



iliad

www.iliadproject.org

Jtalk

www.jtalk-projekt.org

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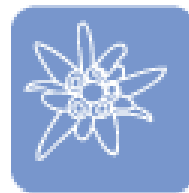


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```
e addTextH4: 'AiDing the WeB'.  
element := self ajaxDelayedFieldElement.  
input := WebDelayedField aspect: #delayedInput for: self observee.
```

This is HOW the Web Works!



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www.aidaweb.si

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AIDAweb

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Hvala za vašo pozornost!

www.aidaweb.si

janko.mivsek@eranova.si

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