



Developer Experience...

Central to DevOps Success

*“DevEx - that’s more
about the frontend user
experience, right?”*

DevEx is *more* than your parent's
software development lifecycle

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DevEx Institute

<https://DevEx.Institute>



So what is DevEx?

So what is DevEx?

DevEx encompasses the journey of developers as they learn and deploy technology. When successful, it focuses on eliminating obstacles that hinder a developer or practitioner from achieving success in their endeavors.

DevEx is about more than the traditional UI/UX focus



The evolution of the IDE

Before the 1990s

USER FRIENDLY by Illiad



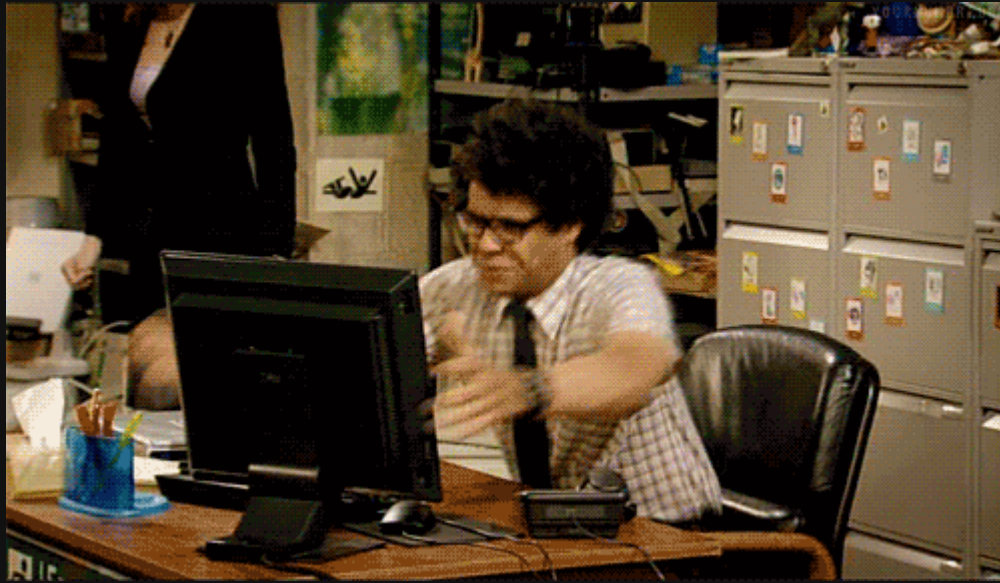
REF: O'Reilly "Learning the vi and Vim Editors"

The evolution of the IDE

Before the 1990s



```
    :::  
iLE88dj. :jd88888dj:  
.lGitE888d.f8GjjjL8888E;  
iE :8888Et. .G8888.  
;i E888, ,8888,  
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D888, :8888:  
D888, :8888:  
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W88W: :8888:  
DGGD: :8888:  
      :8888:  
      W888:  
      :8888:  
      E888i  
      tW88D
```



The evolution of the IDE

Before the 1990s



The evolution of the IDE

Before the 1990s

Conferences > IEE Colloquium on Architectur... ?

HP SoftBench-support for distributed working

Publisher: IET [Cite This](#) [PDF](#)

R. Bark [All Authors](#)

16
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Text Views

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| | |
|--------------------------|--|
| Abstract | Abstract: |
| Authors | The paper introduces the elements of the HP CASE product SoftBench that are relevant to its support for distributed working. It identifies the degree to which the current product supports distribution and outlines some of the areas of related |
| Keywords | research being carried out in HP Laboratories Bristol. The HP SoftBench product is an integrated software development environment designed to facilitate rapid, interactive |
| Metrics | program construction, test, and maintenance in a distributed computing environment. |

<>

Published in: IEE Colloquium on Architectures for Distributed Development Support

REF: <https://ieeexplore.ieee.org/document/182074>

The evolution of the IDE

Before the 1990s

“...the use of an IDE was not well received by developers since it would fence in their creativity.”

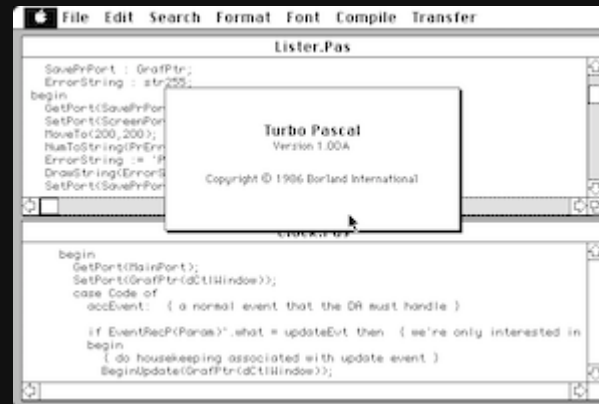
REF: *Computerwoche* (“Computer Week”, German counterpart of American magazine *Computer World*), 1995.

The evolution of the IDE

Before the 1990s



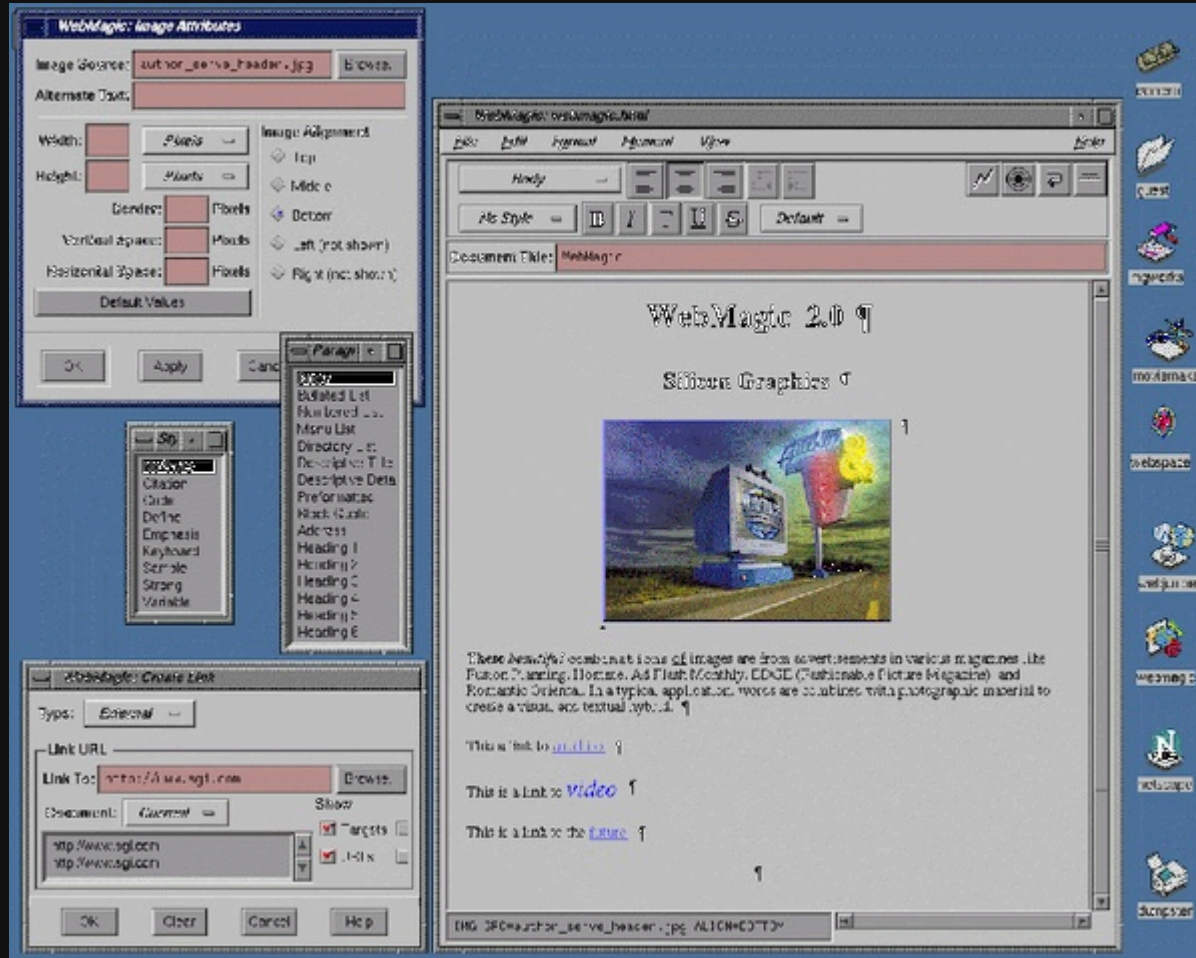
```
Macintosh HD...TIFFCompress
PPV Shell
• TIFFCompress - J. E. Brown Sat 02/08/85
• Compresses a black-and-white TIFF image.
• File is edited in place.
• Usage: TIFFCompress filename
If "*" = 1
  Get filename "()"
Else
  Echo "Usage: () filename" > DevErr
  Exit 1
End
If Not "Exists "[filename]"
  Echo "Error: file "[filename]" does not exist" > DevErr
  Exit 1
Else If "Exists "[filename]" And Not "Exists w "[filename]"
  Echo "Error: file "[filename]" is not writable" > DevErr
  Exit 1
End
set tempfile "(TempFolder)TIFFCompress.tmp
tiffcp -c -g "[filename]" "[tempfile]"
Duplicate ng "[tempfile]" "[filename]" *ng avoids dialog
SetFile -c -g "[filename]" * For Mac OS 9
SetFile -c -g "[filename]" * For Mac OS 8
```



```
File Edit Search Format Font Compile Transfer
Lister.Pas
SavePrPort : GrafPtr;
ErrorString : str[255];
begin
  GetPort(SavePrPort);
  SetPort(ScreenPort);
  MoveTo(200,200);
  HkToStrngPrErr;
  ErrorString := 'P';
  DrawStrngPrErr;
  SetPort(SavePrPort);
end;
begin
  GetPort(MainPort);
  SetPort(GrafPtr(dc11Window));
  case Code of
    occEvent: { a normal event that the DR must handle }
  if EventRecP(Parec).what = updateEvt then { we're only interested in
  begin
    { do housekeeping associated with update event }
    BeginUpdate(GrafPtr(dc11Window));
```

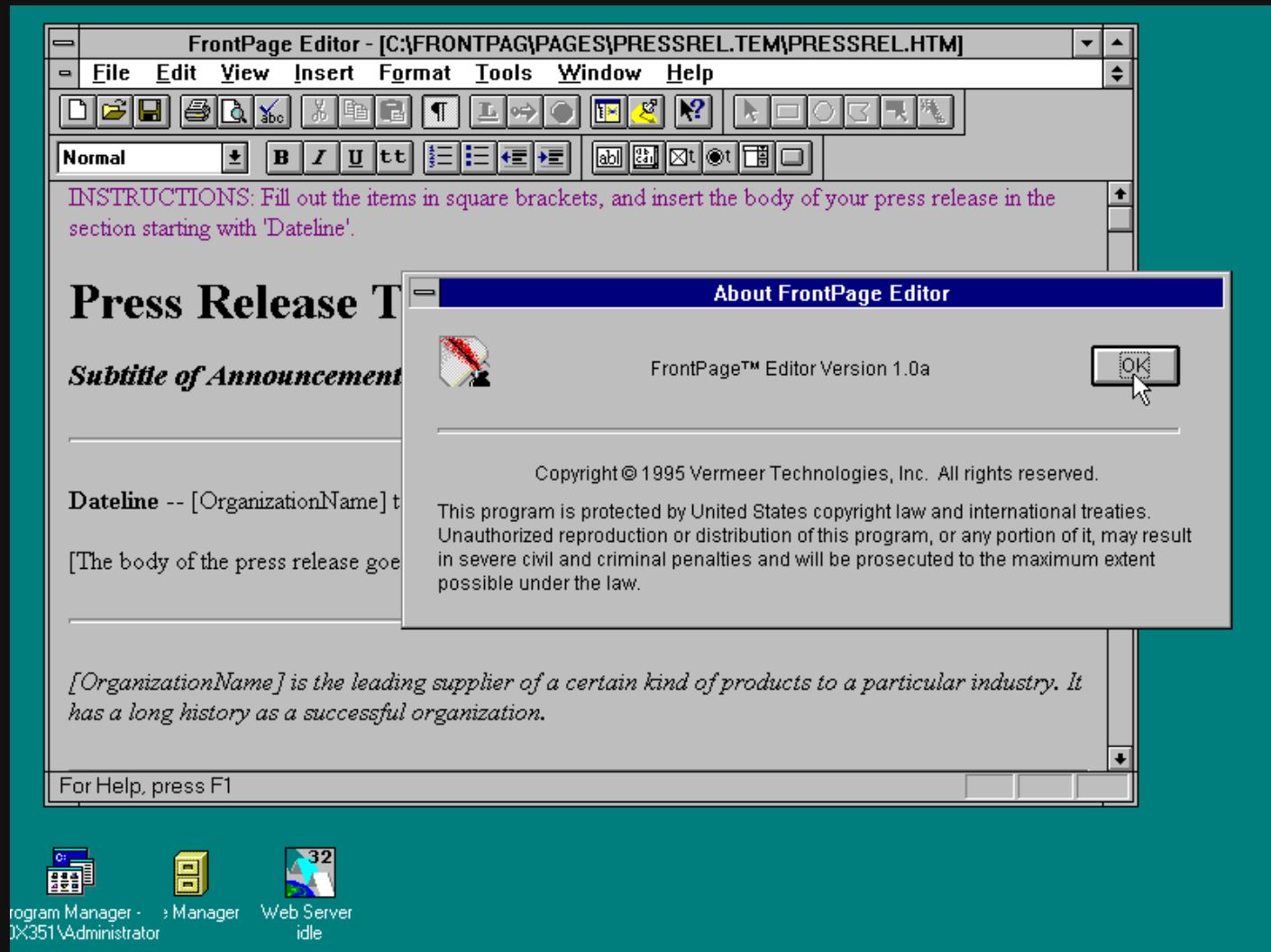
The evolution of the IDE

The Web and the 1990s



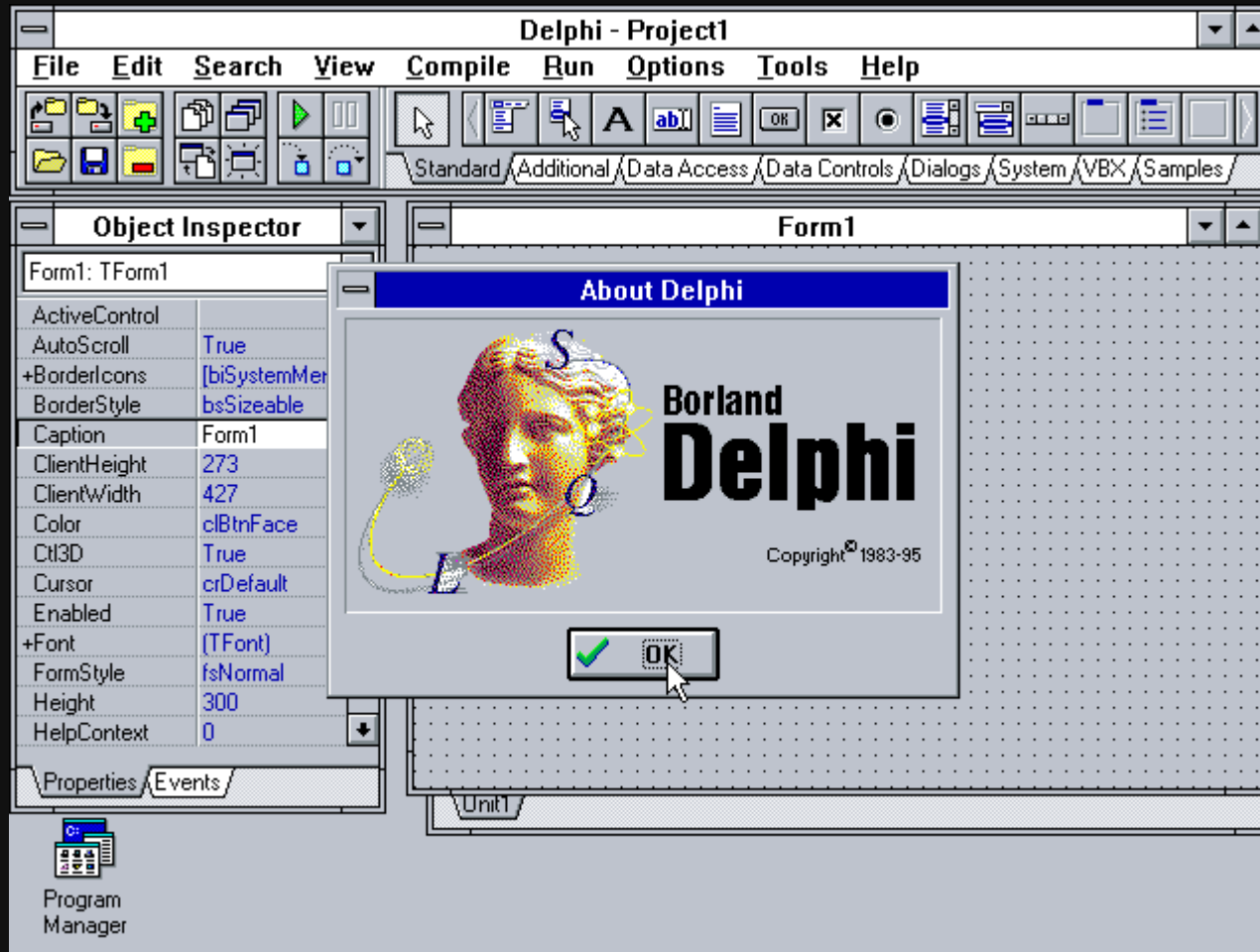
The evolution of the IDE

The Web and the 1990s



The evolution of the IDE

Cross-platform and the 1990s



The evolution of the IDE

Early iterations

(Late 1990s to Early 2000s)

- Macromedia Dreamweaver in late 1997 (what was it called before?)
- Visual Studio in late 1997
- FrontPage 2000 in 1999
- Netbeans in 2000
- Eclipse in 2001 (IBM kickstarted)

The evolution of the IDE

Feature & Usability Advancements

Mid-2000s to 2010s

- IntelliJ IDEA
- Eclipse
- Visual Studio

The evolution of the IDE

Lightweight and Cloud-Based

2010s to Now

- Sublime Text, Atom, VSCode (lightweight)
- AWS Cloud9, GitHub Codespaces, Gitpod (cloud-based)

IDEs are a result of DevEx

Things we never knew we needed...

- Code completion
- Syntax highlighting
- Debugging
- VCS integration (no more FTPing files around)
- Multi-language support
- Framework integration
- Pair programming



DevEx is a Key Differentiator

- Critical differentiator for attracting & retaining top talent
- Ensures high levels of team performance and product quality
- More engaged and productive development team
- Demonstrated commitment to DevEx enhances brand reputation + CSAT
- Directly impacts bottom line by enabling quicker time to market

Dev Environment Setup

Manual configuration

Late 1990s to Early 2000s

Dev Environment Setup

Manual configuration

Late 1990s to Early 2000s



Dev Environment Setup

Manual configuration

Late 1990s to Early 2000s



Dev Environment Setup

Config Mgmt & Containerization

Mid-2000s to 2010s



Dev Environment Setup

IaC and DevOps Integration

2010s to Present



Broader Impact of DevEx

- Deployment Pipelines
- Infrastructure as Code (IaC) Practices
- Developer Efficiencies

Good DevEx == Good DevOps

- Facilitates smoother transitions between Dev and Ops
- Minimizes bottlenecks with enhanced collaboration
- Ensures feedback loops are efficient and productive
- Enables DevOps principles to take hold within an organization

What is DevOps?

the combination of practices and tools designed to increase an organization's ability to deliver applications and services faster than traditional software development processes

Core DevOps Principles

- Collaboration

Core DevOps Principles

- Collaboration
- Communication

Core DevOps Principles

- Collaboration
- Communication
- Shared Responsibility



DevEx & DevOps Alignment

- Enhanced collaboration *via tools and processes*

DevEx & DevOps Alignment

- Enhanced collaboration *via tools and processes*
- Improving communication *via streamlined info sharing and feedback*

DevEx & DevOps Alignment

- Enhanced collaboration *via tools and processes*
- Improving communication *via streamlined info sharing and feedback*
- Shared responsibility *by empowering all teams with access and information*

The image features a central circular graphic with a glowing, multi-layered core. Surrounding this core is a ring of numerous small, circular icons. These icons include symbols for gears, a cloud, a heart, a lightbulb, a camera, a person, a globe, and various other technical and operational symbols. The background is dark with a grid of faint lines and scattered light particles, creating a high-tech, digital atmosphere.

DevEx and DevOps are
One

Platform Engineering

The rise of Platform Engineering

- Creation of specific, integrated environments that devs need
- Abstract away complexities of infrastructure & backend services
- Ensure devs have access to robust, scalable, easy-to-use platforms
- Streamline development processes and reduce setup time

Self-Service Platforms

- Empower developers to control their needs with necessary tools
- Leverage automation, templates, policies with agility
- Accelerate development, enhance productivity, and foster autonomy and innovation



Better Practices

- Empower with the right tools

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- Encourage Cross-functional Teams

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Better Practices

- Empower with the right tools
- Encourage Cross-functional Teams
- Implement Feedback Loops
- Focus on Automation
- Invest in Training and Development

DevEx Impact

Productivity

- Streamlined Development Environments

DevEx Impact

Productivity

- Streamlined Development Environments
- Integrated and Automated Toolchains

DevEx Impact

Productivity

- Streamlined Development Environments
- Integrated and Automated Toolchains
- Efficient Collaboration Platforms

DevEx Impact

Morale

- Autonomy and Empowerment

DevEx Impact

Morale

- Autonomy and Empowerment
- Recognition and Achievement

DevEx Impact

Morale

- Autonomy and Empowerment
- Recognition and Achievement
- Reduced Frustration and Burnout

DevEx Impact

Morale

- Autonomy and Empowerment
- Recognition and Achievement
- Reduced Frustration and Burnout
- Learning and Growth Opportunities



DevEx reflects an organizations values

Jeremy's @ #OSSNA  
@IAmJerdog · [Follow](#)

If your company does not already have a process for gathering feedback (internal & external) on your product and/or the tools you use, you will not have a good Developer Experience, and I seriously question your commitment to it.

10:57 AM · Jan 25, 2024 

 26  Reply  Copy link

[Read more on X](#)

Final Thoughts

Future is bright

Things to think about

Integration of AI and ML

- Automated Code Generation and Review
- Predictive Analytics in DevOps

Things to think about

Focus on Developer Well-Being

- Flexible working arrangements
- Tools that reduce frustration and burnout
- A culture that values learning and growth

Things to think about

Continuous Learning & Skill Development

- Investments in programs to help teams keep up with new tools, practices, tech

DevEx is...

*“ruthlessly eliminating
barriers (and blockers)
that keep your
developers from being
successful”*

Thank
You.



/in/jeremyeiss



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@jerdog



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