

# What is the Ultimate Dev Toolbox?



We picked the brains behind:

- / .NET Rocks! / DEVIntersection
- / devRant / LIDNUG / KC Dev Con
- / CSS: The Definitive Guide & more!

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# Build**/**better

## What is the Ultimate Dev Toolbox?

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*Director of the Kansas City Dev Con*

*I've always loved developer tools, but I never thought I'd make them.*

# Tool is Human

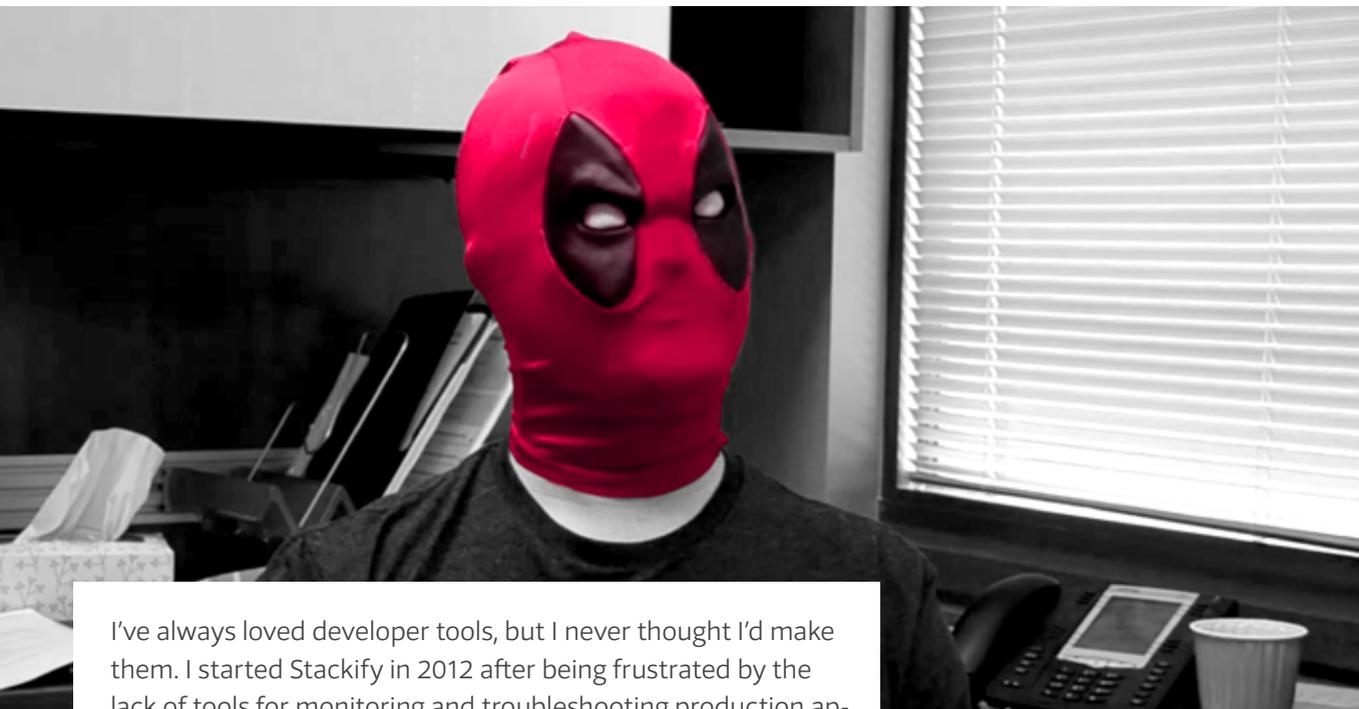
**Matt Watson**  
Founder & CEO / Stackify



It has been said that tools are what made us **human**. Our ability to create and use tools allows us to do things that were not imaginable before. Software itself has made developers profoundly more productive over the last 50 years. Can you imagine programming with punch cards? Amazingly, some developers still don't use a debugger while writing code!

[See what's in Matt's toolbox](#)

Matt Watson, continued...



I've always loved developer tools, but I never thought I'd make them. I started Stackify in 2012 after being frustrated by the lack of tools for monitoring and troubleshooting production application problems. All I wanted was easy access to metrics, errors, logs, slow DB queries, and other performance details. That was asking for a lot if you couldn't afford to spend \$100,000 on an enterprise APM product.

Earlier in my career it wasn't practical to collect tons of application data, then store and process it. Thanks to the cloud, things are changing rapidly. We've built tools that collect and analyze terabytes of application performance data every day—at an incredibly low cost. For ten bucks a month, millions of developers can now afford a tool that used to cost tens of thousands.

Incidentally, this past year we stumbled into something that could be even more important to developer's work: Prefix. It's a simple profiler that provides an instant feedback on your apps performance while you're building it. We've had a blast offering it as a free tool and portal to the rest of our amazing toolset.

Now is a good time to be a developer. It was great to chat with several amazing code warriors about their most important tools and tricks. Their responses comprise the remainder of this issue. I hope you enjoy it as much as we did.

[Connect with Matt /](#)

# Richard Campbell

Podcast, Dev Con, & Non-profit Rock Star

## *Paging Dr. Campbell...*

*The Co-host of .NET Rocks! Opens His Performance Diagnostic Toolbox for us, and for a Good Cause*

Richard Campbell—veteran developer, podcasting guru, Dev Con master (DEVIntersection!) and philanthropist—is like the Dr. House, M.D. of .NET applications. He’s also a super nice guy. Admitting that he doesn’t get to do a lot of “real work” these days, most of his time is spent speaking, teaching and helping a variety of companies troubleshoot their application issues.

“The reason my toolkit is full of instrumentation tooling is that I’m making sure that I’m working on the right thing. The thing that will provide the largest performance improvement in the least amount of time, because this is expensive time. This is time we’re not building features.”



Richard Campbell, continued...

## Richard's Dev Toolbox

Tools should be: **Portable, Budget-Conscious, Fit for the Task**

### 1. WebPageTest.org

"99% of the problems I deal with are performance diagnostic problems. Why are these offices not communicating well? Why is this website so slow? Once you know what the problem is, the fix is not usually that bad," he explained.

Webpagetest.org is a free website for anybody. "You type a URL—specify where you want that website hit from, anywhere in the world. So it will give me a detailed waterfall analysis of loading that webpage from that location with that browser. Question 1: Is the website up? Is it up for everyone else? Why is the website slow? What does slow mean to you?"

### 2. Glimpse

Looking at other free tools, Campbell suggests Glimpse. "Performance analysis tools are often a challenge for the customer to buy. Playing with free tools helps them get started with that. Glimpse gives me better instrumentation to the web server, web browser interaction of an application."

New Relic and AppDynamics are products that he considers when he has time and money to spend. "These are detailed instrumentation tools, so now I'm actually installing bits into the application to measure each part of the application as it runs."

### 3. Preemptive Analytics

One tool that many people don't know about, Preemptive Analytics comes in the Visual Studio box as the free version of the product.

Pre-Emptive Analytics provides real-time method profiling in production," Campbell explains. "Each method called gets individually measured, so that you can find methods that are having a huge impact on performance because of how often they are called, and how long they run."

## A Better Toolbox for a Good Cause

"I've harnessed my ADD for the forces of good," Campbell jokes, referring to his new passion project—**Humanitarian Toolbox**—as the hardest thing he's ever created.

"Donating software for free is like a free puppy... it's never actually free for whoever receives it," he said. "With Humanitarian Toolbox, anyone can contribute to the projects. We worry about the detailed projecting planning so that developers can just develop. The projects live on GitHub so they

are accessible to everyone. There are events run all over the world to contribute to the projects—we provide the pizza, you bring the coding. Folks get hooked on the contributing to the projects."

Any charity can use it—all the code is freely downloadable on GitHub. And anyone can contribute as well. "I didn't set out to build a charity, I was trying to solve the problem of letting developers contribute their time to a good cause. Today we're a 501(c)3 charity building software

for disaster relief and recovery. And the folks that contribute love that their efforts are helping to save lives."



[Learn More](#)

[Make a Donation / !\[\]\(6befd466863f06afb75445d91429f055\_img.jpg\)](#)

[Connect with Richard /](#)

[Listen to .NET Rocks! /](#)



# Bugs get hairy fast

Get Prefix—the free, killer profiler—to find them first

[Download Now—Free!](#)

For .NET & Java web apps



**David Fox**  
Co-Founder & Head of Eng / devRant

## *devRant Co-Founder Talks Shipping Code & Making Poops Fun*



After a day on the developer front line, we all need to blow off steam. Now there's an app for that. We got to chat with David Fox, co-founder and head of engineering of NYC-based devRant, about the app and the tools he uses to make ranting about bosses, projects and general idiocy user friendly.

### Does Zuckerberg Still Code?

If David could have lunch with any developer, it would be the Zuck himself.

"He's a developer and he founded a successful company that is engineering focused," Fox said. "I would ask him, because I'm curious, how much programming he still does."

David Fox, continued...



### So...What's Next for devRant?

Fox's group is currently working on improving the main feed algorithm for devRant by personalizing the feed.

"We want to give it more personalization and more learning what stuff you like...not continuing to show you stuff you've already seen."

Users have provided Fox with a unique perspective on the app, which he says a lot of people use in the bathroom. "People say how it makes their poops more fun!" That's a brand promise developers can get behind.

[Download devRant /](#)

[Connect with David /](#)

## David's Dev Toolbox

**Tools should be: Efficient, Fast, Simple**

### 1. PHPStorm

Fox appreciates features such as great static analyzation. "You can easily click through the different functions and methods," he said. "It's very good at understanding the code so it gives you a lot of short cuts. It knows how to work with the code and it's very efficient; it makes following the flow of the code very easy."

The cost of the tool also appeals to Fox, who says with a price tag of \$100-\$200 per year, it is not very expensive.

### 2. HAProxy

"This is more website related. We use it for our database infrastructure (neo4j). It allows us to create fall-backs for our database," Fox explained. "If one server goes down, it has these help checks available. It makes detecting outages very effective. With an administration interface so you can see all the stats on all your servers; it's cool to see how many requests are incoming."

The simplicity of the tool makes setup easy and allows the whole infrastructure to be more stable, Fox adds. "You set up rules to show you how much data is going through."

HAProxy is recommended by Neo4j with their clustering, Fox says about the data base he uses. Other features to point out include that it's easy to customize and it's Opensource.

### 3. git hooks / rsync (productivity hacks)

For development and code syncing, Fox likes using the productivity hacks git hooks and rsync. "It allows you to sync code. It syncs your file system up to the development folder." It definitely helps with the development process, Fox says, by deploying to the test environment. Plus, as a productivity hack, there is no cost.

*Developers are saving the world.  
It's true. Eric Meyer is proof.*



## **Eric A. Meyer**

*Technical Consultant, Author, Trainer  
and Co-founder of An Event Apart*

When he's not doing things like speaking at An Event Apart (which he co-founded), writing bleeding edge books on front-end development, and helping families heal after tragic loss—he still finds time to talk with us. We are extremely excited and humbled to have his insight in this issue, and he has a bunch of wisdom to share with us.

## Eric's Dev Toolbox

### Tools should be: Futuristic & Free

#### 1. ⌘F2

Meyer points to the screenshot command in Firefox's Developer Toolbar (the one you get with `⌘F2`, not `⌘K`) as his favorite productivity tool. And it's free!

"You can set device-pixel resolution to get really high-res page captures, capture the entire page (including the parts you can't see), and even supply a CSS selector to capture an image of just that element.

#### 2. Grid Inspector (Firefox)

...or Shapes Editor (Chrome), are two more productivity extensions that Meyer uses. He says the free extensions make working on the cutting edge of CSS easier to manage, because they allow in-browser visualization of things that can be difficult to imagine.

"As a bonus, the Shapes Editor lets you edit shapes in-browser and then copy the resulting values."

#### 3. ControlPlane

ControlPlane (OS X) has saved Meyer from public embarrassment at conferences, and it's also free. "It allows me to define various contexts based on parameters like the SSID of the wifi I'm using, or the time of day," he explains. "So if I'm on my home wifi, ControlPlane switches to 'Home' context, and disables 'mute' or the password on my screensaver.

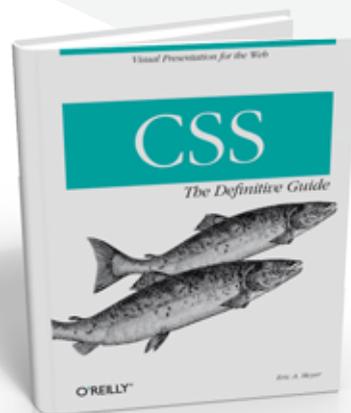
## Who's Building the future of Development?

When Eric A. Meyer dreams, he dreams big. He says if money was no object, he would develop an ambient system to combine current work, the season, the time of day, exterior light levels, his pulse rate, and other factors to select the right combination of music and lighting, as well as select from various levels of notification.

"I'd love for my system to be able to reasonably guess when I should only be pinged about high-priority email and direct Slack messages," he explains. "Combining it all with Status Board-like displays, showing data relevant to whatever I'm working on, would be some serious icing on that cake. I'm not saying any of that's impossible, or even all that fiscally expensive. It would just take a lot of time to develop properly, which I could only afford to invest if money was no object."

## CSS Pioneer

"I experiment with the latest stuff, try to figure out how it works, look for creative applications, that kind of thing. So when it comes to browsers, I actually do surf the bleeding edge, running Firefox Nightly and Chrome Canary and so on. I want to see what's coming and play with it before everyone else does—mostly so that, when the time comes, I can help everyone else learn what I learned."



In 2005, Jeffrey Zeldman and Eric A. Meyer founded An Event Apart, "the design conference for people who make websites."

[Learn More](#)

[Also visit /](#)

[Get the book /](#)

[Connect with Eric /](#)



## Brian Madsen

LinkedIn .Net User Group Manager,  
Microsoft MVP, Blogger, & Consultant  
at byBrick Development AB

*Government clearance and a happy wife. Success.*

You know when you meet someone and you say to yourself, "this person is my new best friend." (but not in a creepy way.) Brian Madsen is one of those super genuine, fun and funny guys. He also happens to have a little group on LinkedIn called, Linked.NET Users Group (LIDNUG), where he and around 52,000 of his closest friends talk coding, entrepreneurship and all things .NET. We're honored to have him as part of this issue and show you what's in his toolbox.

## Brian's Dev Toolbox

### Tools should: Pay for themselves

#### 1. Codelt.Right

Madsen's go-to tool is Codelt.Right from SubMain, a tool he always installs. Madsen likes the real-time code analysis, and ability to customize to your practices."

"The analytics are good and deep enough that I can get an understanding of what's been written and also highlight some of the practices the team uses. When you join bigger projects, or long-running solutions, it's really important to get a view of how the code is written and what areas are being focused on. This is especially true for consultants who tends to be transitional—in and out. Being efficient in the time you have is essential."

#### 2. Lenovo P50

"My foundation tool (as I call it) is the Lenovo P50. It's a beast of a laptop (XEON Cpu, 64Gb ram) that gives me workstation performance on the go. If money wasn't a problem I think I'd invest in the Lenovo P70 but for now the P50 is my choice."

#### 3. Prefix

As far as a dream tool, Madsen would like to see a full-stack DevOps analytics, metrics, Data, Service, CI, CB tool, essentially an all-in-one tool. "Actually, I've been pretty impressed with what I'm seeing from Stackify lately," he says. "The PreFix tool covered a really nice area for me (and it's free!!)"



Given the opportunity, the Microsoft MVP and Lenovo INsider would like to peek into the toolbox of [Jeremy Likness](#) (Dir. of Application Development at iVision). "He's an awesome developer and I wouldn't mind learning a few things from him."

[/ Check out Brian's Blog](#)

[/ Connect with Brian](#)

[/ Join Brian's .NET User Group](#)

### Brian's Current Project

Currently, Madsen is working on a large government client in Stockholm that he can't reveal much about. "At the moment I am working on a Legacy platform. .Net 4 or 4.5 for a very large government client in Stockholm that has a 32 project solution size .Net 4 application that is both servicing up the public but also internal stuff and purpose."

### Brian on Balance

"Happy wife, happy life—no? Got to keep focus on what's important in life and it can't all be just about work. My family is everything to me. I think working hard for something as a developer has been rewarding in its own right but also has its negatives, lack of family time and lack of time to learn. Find a balance, learn something new each week and stay healthy "

# Onshore, Offshore, Nearshore. Boon is One Epic Leader.

What's better than chatting with a multi-talented, hugely respected development manager like Boon Lee? Seeing his kids' heads pop up in the video interview. Mini Boon Lee clones. This, my friends, is how we'll take over the world...Mwahahaha!!!

Anywho. We're excited to have Boon share some of the tools he uses to keep track of and manage HUGE development teams worldwide. So welcome Boon Lee (our hometown hero) to the hot seat.

## Best and Worst Advice

"Javascript will be a dead technology," he says, shaking his head. "I honestly believed it for awhile, but look where it's at now. That was bad advice. Javascript is alive and it's a hot item now."

The best advice came from Lee Brandt, one of Lee's partners in organizing the Kansas City Developer Conference (KCDC).

"This was, in fact, the first time I ever met him," says Lee. "He said, 'to become a good developer you have to have a thick skin. You write your code, throw it out into the world and let people rip you apart. Yes, you'll have people that say your code sucks, but there are others that help you make it better. As a developer, you'll grow that way.'"



## Boon Lee

*Director of KC Dev Con & Dev  
Manager Extraordinaire*

Boon Lee, continued...



## Growth is in the Air

As Kansas City continues to grow into the name, "Silicon Prairie," Lee says there are some interesting startup companies to watch, including Stackify. One outgrowth of the tech boom has been the explosive growth of KCDC, from 150 attendees eight years ago to 1,602 attendees at the most recent conference.

[Learn more about KCDC /](#)

[Connect with Boon /](#)

## Boon's Dev (Mgr) Toolbox

**Tools should: Get. The. Job. Done.**

1. **Visual Studio Team Services** "I use it on a daily basis, not from a source code management standpoint, just keeping up-to-date. It's easy to use and provides all the data that I need to do my job and understand where things are from a project perspective."

2. **Balsamiq** Balsamiq is a tool Lee uses to convey what he wants the site or application to look like. "It's a very easy-to-use tool," he explains. "At the end of the day it almost looks like you just took a paper napkin and a pen and you draw on it. It's not fancy, but it gets the point across: this is where the button goes, this is where the drop-down goes, this is the label, this is what you need to label!"

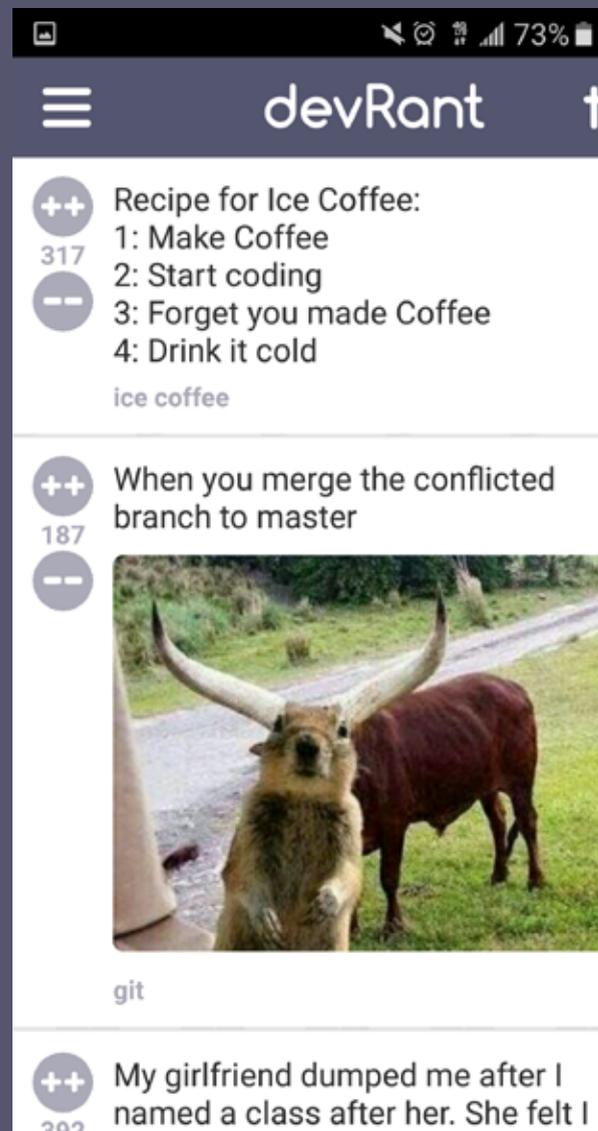
3. **Evernote** Another tool that Lee uses is Evernote, which he considers his "brain dump" with notes that help him remember things. Whether that's from a one-on-one conversation with his employees or with his manager, he relies on it on a daily basis. [laughing] "I don't remember things like I used to, so this tool is very helpful for me."



# devRant

There are plenty of things to rant about.  
Now there's a safe place to do it.

DOWNLOAD NOW



# Rapid Dev Improvement

## Developers & the Full Application Lifecycle

The most common reaction we get to our BuildBetter eMag is, "what is this?" True we aren't a publishing company, but we are a developer company, and that's bigger than building software.

Applications are taking over the world, and the role of the developer is moving from the back room to the forefront of any business. To meet rapidly increasing demands, developers need to focus their time on what they do best: building amazing solutions. These are not only cool ideas, but tools that solve real problems as designed.

Stackify exists to increase developers' ability to create amazing applications as quickly as possible. We believe that the ideal development team, today and in the future, is consistently optimizing its output across the entire lifecycle of an application; from development to testing to production. Stackify's mission is to give

developer teams easy access to powerful tools, which enable them to take the lead in delivering the best applications as quickly as possible.

For more information on our developer tools, visit [stackify.com](http://stackify.com).

For more dev-centric information and resources, visit our content hub, [BuildBetter Online](#).

And as always, we love to hear your comments and requests: [mhobbs@stackify.com](mailto:mhobbs@stackify.com)

Build on,



**Max Hobbs**

*Stackify CMO & BuildBetter Co-Editor*

## Dial Up Your Next User Group Meeting!



[Request the Stackify DevBox](#)

## Call for Entries:

BuildBetter is both an eMag and a site hub. We're always open to content from you, like:

- Topic suggestions/general ideas
- Blog articles
- Interview subjects (volunteers, nominations)

**Next Issue: Implication of AI and machine learning on developer's code, careers, and teams.**

[Submit to BuildBetter Team](#)

# Tools from this Issue

If these aren't in your bag of tricks, maybe they should be.



**.Net Rocks!** A weekly podcast for anyone interested in programming on the Microsoft .NET platform.

[dotnetrocks.com](http://dotnetrocks.com)

**An Event Apart** An intensely educational two-day learning session for practitioners of standards-based web design.

[aneventapart.com](http://aneventapart.com)

**Balsamiq** A wireframing and mock up tool with a high focus on usability.

[balsamiq.com](http://balsamiq.com)

**ControlPlane** For OS X, allows you to build config profiles, contexts in ControlPlane lingo, for your Mac based on where you are or what you are doing.

[controlplaneapp.com](http://controlplaneapp.com)

**Chrome Canary** Access to the newest of the new Chrome features but since it's designed for developers and early adopters, it can sometimes break down completely.

[google.com/intl/en/chrome/browser/canary.html](http://google.com/intl/en/chrome/browser/canary.html)

**Codelt.Right** Provides a fast, automated way to ensure that your source code adheres to (your) predefined design and style guidelines as well as best coding practices.

[submain.com/products/codeit.right.aspx](http://submain.com/products/codeit.right.aspx)

**devRant** A social networking app for iOS and Android that allows developers to gripe and commiserate and have all sort of fun without getting in trouble.

[devrant.io](http://devrant.io)

**Evernote** A cloud-based, organization app.

[evernote.com](http://evernote.com)

**Firefox Developer Toolbar** Command-line access to a number of developer tools from within Firefox.

[developer.mozilla.org/en-US/docs/Tools/GCLI](http://developer.mozilla.org/en-US/docs/Tools/GCLI)

**Git hooks** Scripts that Git executes before or after events such as: commit, push, and receive. Git hooks are a built-in feature that are run locally.

[githooks.com](http://githooks.com)

**Glimpse** Real time diagnostics & insights to the fingertips of hundreds of thousands of developers daily.

[getglimpse.com](http://getglimpse.com)

**Grid Inspector** For Firefox, visualize grid lines defined by the CSS Grid API.

[addons.mozilla.org/en-US/firefox/addon/css-grid-inspector/](http://addons.mozilla.org/en-US/firefox/addon/css-grid-inspector/)

**HAProxy** A free, fast and reliable solution offering high availability, load balancing, and proxying for TCP and HTTP-based applications.

[haproxy.org](http://haproxy.org)

**Humanitarian Toolbox** An organization that connects developers with crisis management and rescue organizations to build life-saving tools and solutions in an open-source environment so the tools can be adapted, integrated and deployed to emergency situations as they evolve.

[htbox.org](http://htbox.org)

# Tools from this Issue



Cont...

**iVision** Fully managed enterprise-class technology infrastructure, applications and solutions—ready when you are.

[ivision.com](http://ivision.com)

**Lenovo P50** The latest generation Intel® processors, optional X-Rite® PANTONE® color calibration, Mil-Spec tested for durability, blazing fast connection speeds, and unprecedented storage and memory.

[shop.lenovo.com/us/en/laptops/thinkpad/p-series/p50/](http://shop.lenovo.com/us/en/laptops/thinkpad/p-series/p50/)

**Lenovo P70** The first ever mobile workstation with an Intel® Xeon™ processor, the ThinkPad P70 redefines the concept of power, With optional X-Rite® PANTONE® color calibration and NVIDIA Quadro graphics, Mil-Spec durability, blazing fast connection speeds, and the highest capacity storage and memory.

[shop.lenovo.com/us/en/laptops/thinkpad/p-series/p70/](http://shop.lenovo.com/us/en/laptops/thinkpad/p-series/p70/)

**Neo4j** A native graph database, designed to store and process graphs from bottom to top

[neo4j.com/product](http://neo4j.com/product)

**PHPStorm** A PHP IDE that supports PHP 5.3/5.4/5.5/5.6/7.0, provides on-the-fly error prevention, best autocompletion & code refactoring, zero configuration debugging, and an extended HTML, CSS, and JavaScript editor.

[jetbrains.com/phpstorm](http://jetbrains.com/phpstorm)

**Prefix** A free lightweight, real-time profiler for .NET and Java web apps, helps you fix code problems before they get to production.

[stackify.com/prefix](http://stackify.com/prefix)

**Rsync** An open source utility that provides fast incremental file transfer.

[rsync.samba.org](http://rsync.samba.org)

**Shapes Editor** For Chrome, create and adjust CSS Shapes values with an interactive editor overlapping the selected element.

[chrome.google.com/webstore/detail/css-shapes-editor/nenndldnbcncjmeacmnonndmkkfedmgmp?hl=en-US](http://chrome.google.com/webstore/detail/css-shapes-editor/nenndldnbcncjmeacmnonndmkkfedmgmp?hl=en-US)

**Slack** Team communication for the 21st century.

[slack.com](http://slack.com)

**Stackify** Software company that create developer tools to rapidly improve your apps performance from dev to prod.

[stackify.com](http://stackify.com)

**Visual Studio PreEmptive Analytics** For TFS, allows you to integrate feedback-driven development processes into your development workflow.

[msdn.microsoft.com/en-us/library/hh973124\(v=vs.110\).aspx](http://msdn.microsoft.com/en-us/library/hh973124(v=vs.110).aspx)

**Visual Studio Team Services** For teams to share code, track work, and ship software—for any language, all in a single package.

[visualstudio.com/en-us/products/visual-studio-team-services-vs.aspx](http://visualstudio.com/en-us/products/visual-studio-team-services-vs.aspx)

**WebPageTest.org** Run a free website speed test from multiple locations around the globe using real browsers (IE and Chrome) and at real consumer connection speeds.

[webpagetest.org](http://webpagetest.org)