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Cross Platform Tool Benchmarking 2013

Hidden champions of the app economy

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Cross Platform App Development Tool Benchmarking 2013

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1. KEY TAKEAWAYS

Over the course of the last five years, multi-app and multi-platform app publishing have become common for traditional enterprises and pure app publishers. After having published their first apps on iOS and Android, developers have become increasingly aware of second-tier platforms like BlackBerry and Windows Phone. The result has been an increase in complexity, as well as development & maintenance costs.

With mobile app user penetration reaching mass-market size, small businesses like hotels, restaurants and copy shops now also want to have their own apps to complement company websites. Often, these small businesses lack the funds, time and technical know-how to develop native apps from scratch.

Thus, an ideal environment has been created for app development tools that support multi-app and multi-platform publishing for simple and complex apps.

Dozens of cross-platform tools (CP Tools) have been launched over the past few years. More than 90 CP Tools were identified for the purpose of this benchmarking report.

CP Tools fall into 5 categories: App factories, Web App Toolkits, Cross-Platform Integrated Development Environments (CP IDE), CP IDE for enterprise, CP compilers and CP Cloud services.

The complexity of these tools varies significantly: App factories address users without coding skills. They provide a "drag & drop" environment where apps can be developed within days. Only 12% of app factory users rate the complexity of their tool high or very high. IDEs for enterprises are seen as the most complex tools by their users. 38% rate the tool complexity high or very high. These tools need development skills and the average project duration is counted in months rather than weeks or days.

The increasing number of CP Tools has made it difficult for new solutions to become known amongst the app developer and publisher community. As a result, only 11 CP Tools are known by more than 20% of the app community.

For the majority of developers using CP Tools, these environments have become their primary development platform. 63% of CP Tool users develop more than 50% of their apps using a CP Tool.

CP Tools are mainly used for "dual" platform publishing, rather than "multi" platform publishing. Most developers use CP Tools to publish on iOS and Android.

Saving time is one of the main benefits of CP Tools. Up to 75% of CP Tool users (CP IDE for Enterprises) have indicated that they reduce app development time by more than 40%.

Realized time saving increased with the number of platforms being targeted (peak 5-6 platforms).

Overall, CP Tools are rated well by developers. A high rating has been indicated for platform coverage (83%) availability of pre-installed apps (57%), API cloud service (52%), access to device hardware features (64%) and support (63%). The overall cost-performance of CP Tools is rated by 85% of the users as high or very high.

App performance is seen as the main weakness of CP Tools. 50% of all users rate the performance of the apps that are being developed by CP Tools considerably lower than their native counterparts.

The CP Tool benchmarking shows a high user satisfaction with these tools. Despite this positive feedback, less than 5% of all apps available in today's leading apps stores are being developed with the help of CP Tools.

CP Tools vendors must increase awareness among "non-users" if they want to gain significantly more reach. Additionally, CP Tools vendors have to find ways to keep up with the speed of updates and new SDKs bringing increased functionality to traditional and challenger platforms. Increasingly, these updates are being sent half-yearly and sometimes even quarterly to device users. Additionally, there is now demand for app publishing beyond mobile devices (esp. TV, in-Car devices, desktop PCs).

The benchmarking results recommend to developers that before starting the next app project it makes sense to check if one of the existing CP Tools fits with the project requirement.

With the overall positive user feedback CP Tools received and the low awareness they have in the app market, they are really hidden champions of the app economy.

This report also aims to give an overview of the cross-platform tool market and to help developers and enterprises to narrow down the available tools and find those that fit their app project best.

Please see our detailed benchmarking reports for ratings of specific CP Tools.

1.1. REALIZED TIME SAVINGS

The majority of users say that CP Tools have saved them time compared to native app development. Almost 45% of the users estimate time-savings of 50% and more. (This applies to all CP Tool categories.)

Comments of CP Tool users underline the positive benchmarking results on time savings:

"As many times as fast as native."

"I support 5 app stores from a single code base, and cross platform issues are extremely rare."
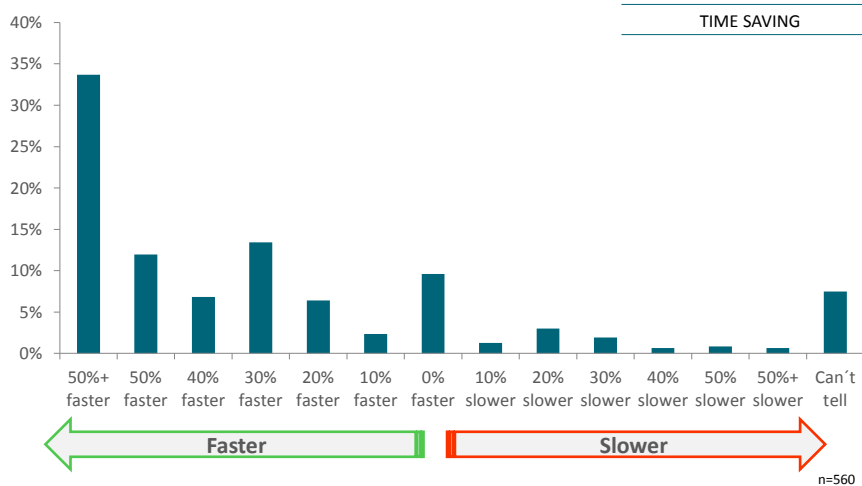
"By having only one code base and deploying to 3-4 native platform (I'm able to) save a lot of time."

"I can create my app (in a single) day."

Chart 1: Realized time savings with CP Tools

The majority of CP Tool developers realize significant time savings

Realized time savings with cross-platform tools compared to pure native development.

TIME SAVING

n=560

Source: Global Cross Platform Tool Benchmarking 2013
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Time saving increases with the number of platforms targeted. This effect occurs especially when a CP Tool targets three or more platforms (instead of one or two). The reason is quite simple: creating a master app takes time, porting to multiple platforms takes less time with CP Tools. The creation of the blue print source code takes sometime longer than building apps with a native SDK.

CP Tool users:

"Slow at first but when it comes to deploying to other platforms there is nothing quicker."
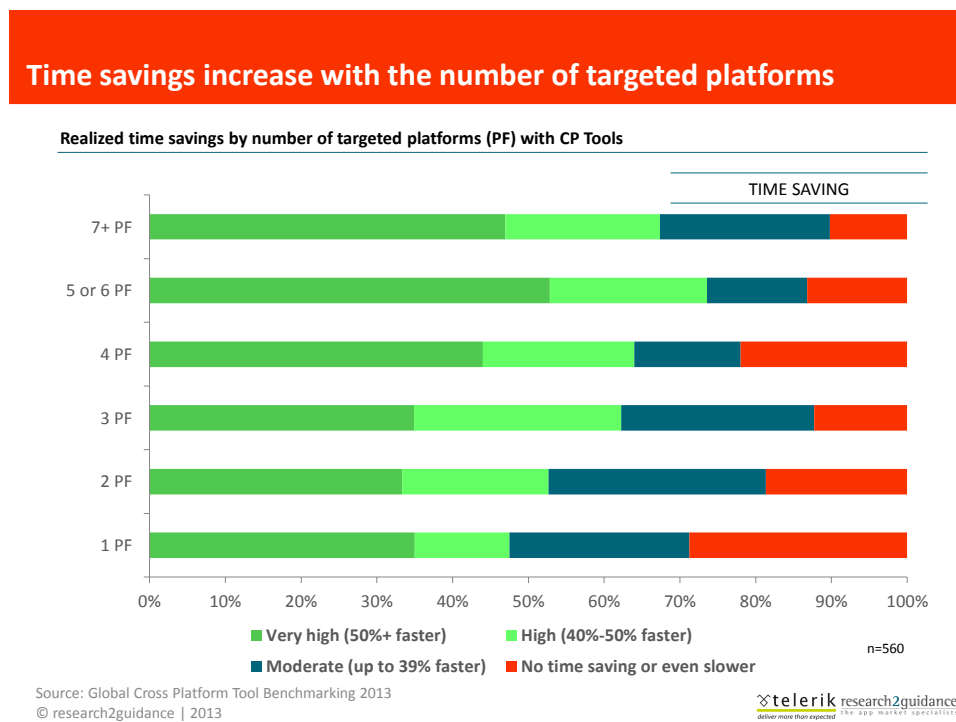
"Master version development is not any faster, but time is saved when versions for different platforms are done. Compared to earlier porting projects which took around 2-3 weeks, this takes 2-3 days."

"For deploying to iOS and Android alone, probably around 40% faster. This increases as we choose to target more platforms."

"Effort of optimisation across platforms is approximately the same as total native development effort for 2 platforms. For more than 2 platforms there is a saving."

Chart 2: Time savings with CP Tools by number of targeted platforms

Time savings increase with the number of targeted platforms

Realized time savings by number of targeted platforms (PF) with CP Tools

TIME SAVING

- ■ Very high (50%+ faster)
- ■ High (40%-50% faster)
- ■ Moderate (up to 39% faster)
- ■ No time saving or even slower

n=560

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Amongst all tool classes, CP IDEs with a focus on enterprise applications seems to accelerate app development the most. Users mention that CP IDEs offer pre-configured enterprise backend solutions for standard ERP and CRM software, saving time users would have spent developing these solutions on their own.

CP IDE Tool users: *"Especially a time saver on backend integration, and develop-deploy-test cycles internally and with customers."*

All other CP Tools also had a positive net effect on time saving balance. However, not every developer can realize time savings. In case of app factories, time is saved because of simple drag-and-drop interfaces and very little need for coding-supported customization. However, CP IDEs which focus on enterprise solutions tend to offer tools with a high degree of complexity and this could offset time savings from automatized multi-platform publishing.

Related reports and services:

Detailed Cross-Platform Tool Benchmarking 2013:
"A comparison of 10 leading tools for multi-platform app development"

Corona SDK Profile: "Service offering and user rating"

Xamarin Profile: "Service offering and user rating"

Unity 3D Profile: "Service offering and user rating"

Marmalade Profile: "Service offering and user rating"

Click on the covers to get more information

Need help with finding the right Cross-Platform Tool ? Use our standardized CP Tool selection process to find the right tool for your app projects. Contact the analyst Joachim Thiele-Schlesier: +49 (0) 30 609 89 33 60, js@research2guidance.com

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