

# ARCAD Software V11 release marries traditional IBM i development with open systems world of Git



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**Major ARCAD V11 release delivers process automation and seamless Git/Jenkins integration, driving down development costs and opening the IBM i (aka iSeries, AS/400) to a new generation of developers.**

Annecy, May 17, 2019 – ARCAD Software, leader in DevOps and Modernization solutions announced key V11 release launching a new graphical process manager for IBM i, continuous test automation and deep integration with Git and Jenkins for synchronized development in both traditional and modern development environments.

## **GIT FOR TRADITIONAL IBM i DEVELOPMENT**

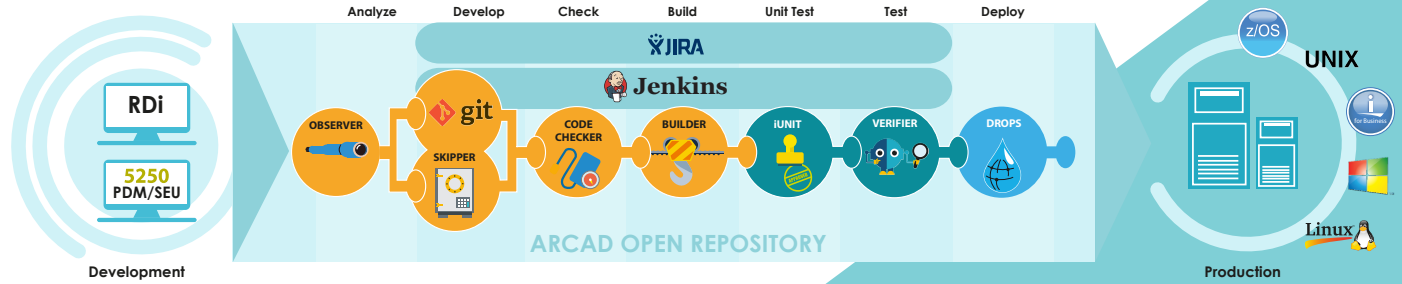
ARCAD has pioneered **Git on IBM i** since 2016, having rolled out its DevOps solutions in some of the world's largest banking institutions, some already reporting 200% faster software delivery schedules.

New in the V11 release is ARCAD's support for 5250 and Git-style software development in parallel, enabling teams to retain the most powerful features of native IBM i development such as change history and project view while benefiting from a common, shared Git repository and unparalleled support for branch and merge.

Michel Mouchon, ARCAD CTO, explains the "business value" and rationale behind the new features:

"Our main goal with V11 has been **to ease the transition between the long-established SCM tools on the IBM i platform and a true DevOps stack**. Many IBM i customers currently face the challenge of managing two types of development: software packages (such as JD Edwards) with a proprietary 5250 interface, along with native-style RPG development. Until now, Git was a "world away" for these development teams, and using standard Git from IBM's RDi would actually mean losing some valuable features needed for IBM i development.

Our new V11 has eliminated that barrier to enable traditional teams **to continue using feature-rich development techniques on IBM i whilst being able to exploit the Git repository and a full DevOps stack including Jenkins and Jira**".



Key advantages of the new Git integration include

### - Optimized Project View

One of the challenges facing the early adopters of Git on IBM i has been the management of change history. Standard implementations like the Eclipse iProject view provide a "flat" list of files, from where the developer is unable to see a history of changes without stepping outside of the IDE and interacting directly with Git. The advantage of ARCAD's V11 is its full "project-level" view of changes, taking into account the specifics of IBM i, its object types and characteristics.

Mouchon continues: "To facilitate the developer's work, we have taken the proven ARCAD-Skipper developer view, and connected this to Git. This way developers gain visibility, control, agility, traceability of source code management from a familiar interface, while still benefiting from Git, Jenkins pipelines and full-cycle DevOps automation".

### - Enhanced Build Automation

Another challenge faced by IBM i shops has been the management of a build (recompile) from Git. Previously, using iProject with Git any compilation had to be launched separately outside of the SCM environment, along with manual updates of the library list to ensure the integrity of the build. Now with V11, ARCAD's "smart" dependency build using Git is completely automated – just like a local build - and launched from ANY SCM, all transparent from the developer standpoint.

Bringing a massive productivity gain for developers – including those that choose to remain in a traditional 5250 PDM/SEU environment - ARCAD V11 integrates with Jenkins, the industry-standard orchestration tool. This feature leverages the ARCAD repository dependency knowledge to optimize the build process, recompiling only the impacted components and correctly sequencing compilation order.

Once the build is complete, via Jenkins, ARCAD automatically deploys the application to test environments, ready for the next continuous test phase. ARCAD V11's superior level of automation in the DevOps flow accelerates the speed of software delivery whilst improving software quality to dramatically reduce IT cost overall.

Further, a new V11 Build Wizard eases the creation and configuration of build models, seamlessly guiding the user through the operations needed to configure a recompilation, and grouping these into a single process for unprecedented ease of use.

### - Git integration

Leveraging their technology partnership with GitHub, ARCAD have enhanced the level of automation between their DevOps solutions and Git on IBM i, enabling auto-connection between branches and isolated IBM i workspaces. This provides developers with a mixed workspace for development, comprising both a local Git Sandbox both on the Desktop and the IBM i.

# MACRO-MAKER: "YOUTH SERUM" FOR PROCESS AUTOMATION ON IBM i

Historically IBM i users have had no alternative for process automation other than the native, compiled language CL, which requires specific IBM i knowledge for use.

With V11, as an interpreted alternative to CL, ARCAD launches a new **graphical process management solution "Macro Maker"**, providing general-purpose task automation on IBM i.

Unlike CL, the new Macro Maker is based on a universal and interpreted scripting language, available from a powerful easy-to-use Graphical studio that any developer can use, even with **no prior IBM i experience**.

Macro Maker can be used both for customizing existing ARCAD processes and also for automating general systems admin tasks on IBM i.

Philippe Magne, ARCAD CEO, comments "Our Macro Maker GUI studio makes the creation of systems processes easy, and shields users from the complexities of the underlying IBM i platform itself. It effectively opens the IBM i platform to a whole new generation of users, including those developers who would have previously been reluctant to work with a traditional green-screen".

# FROM DEVOPS TO "DEVTESTOPS"

Test Automation serves the essential function in any DevOps strategy of catching costly errors before they reach production, while preventing the bottleneck of manual testing and software delivery delays. The importance of the testing function has given rise to the term "DevTestOps".

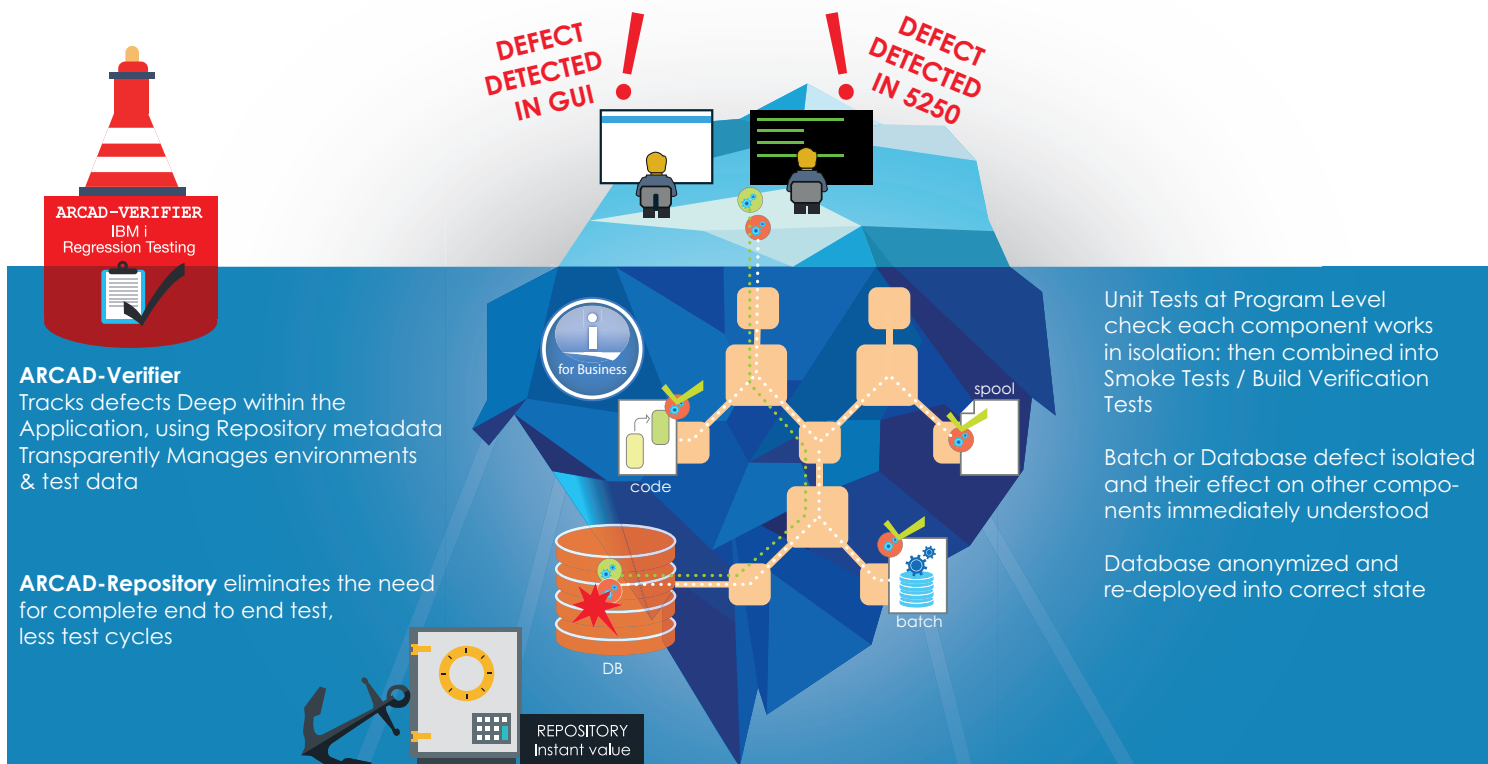
With the V11, ARCAD Software offers IBM i test automation as an integrated part of the ARCAD for DevOps stack:

## - Continuous Test (CI/CT/CD)

ARCAD's Verifier solution for regression test automation is also integrated with Jenkins, to offer true continuous test on IBM i. An entire Verifier test suite can be launched from Jenkins as part of a continuous CI/CT/CD flow.

Verifier optimizes test automation on IBM i by executing **only the test cases that are actually impacted by a given software change**, creating the perfect conditions for systematic and continuous test. Verifier manages test data transparently, restoring the data context to original state after each execution. And by sharing application metadata with all other modules in the ARCAD suite, Verifier maximizes the "shift-left" of defects to detect errors at their earliest (and least costly) stage (Societe Generale Insurance reduces Application Test Phase by 93% using Verifier Regression Testing).

## With ARCAD:



## - Test Coverage Analysis

New with V11, Verifier offers IBM test coverage analysis features to automatically measure the relevance of tests, revealing the percentage of code that has actually been tested. Such analysis gives an accurate assessment of the efficiency and quality of a given test suite and contributes to the reliability/security of applications in production and eliminates Test Coverage Audit and Compliance challenges.

Further, thanks to the ARCAD repository, Verifier can assess the impact of a given code change on the relevance of an existing test.

## - Unit Test automation

Also new with V11, ARCAD launches iUnit unit-test automation, complementary to the Verifier regression test functionality and contributing to the "shift-left" of the overall ARCAD for DevOps suite.

ARCAD iUnit strengthens ARCAD's continuous test offering on IBM i by automating the launch of procedures from service programs, specifying the input parameters and expected output parameters, and reporting on test behaviour.

Similar to JUnit on distributed platforms, ARCAD iUnit facilitates modular and modern development on IBM i, reducing IT cost through the early detection of defects.

**Philippe MAGNE, ARCAD CEO concludes:**  
"ARCAD has been offering source code management and process automation on IBM i for over 20 years. Yet to keep control of the multi-technology environments of today, our customers have demanded a universal, platform-agnostic DevOps toolchain. ARCAD's vision has been to reconcile the convenience of native-style development on IBM i with the transition to a full DevOps stack. By synchronizing traditional environments with the Git repository, we have achieved what many have thought impossible: to "marry" the old and the new worlds and exploit the power of each".



## ABOUT ARCAD SOFTWARE

ARCAD Software group is leading international vendor of DevOps and Modernization solutions, supporting multiple platforms including IBM i, UNIX, Linux, Windows and z/OS. Since 1992, ARCAD has built on its specialist IBM i expertise to develop an integrated and multi-platform solution range for Application Lifecycle Management, Enterprise Modernization, Release Management, DevOps, Test Automation and Data Masking. The company operates through headquarters in Europe and subsidiaries in US and Asia, and ARCAD technology is distributed by IBM worldwide. ARCAD solutions integrate with Rational Developer for i (RDi), Rational Team Concert (RTC), GitHub, JIRA, and also open source tools Git, SVN, and Jenkins.

ARCAD's Application Release Automation product, DROPS, is a standalone solution, but can also be used in conjunction with external tooling such as IBM UrbanCode Deploy, Docker, Ansible, Chef and Puppet.

Press contact: Olenka Van Schendel, WW Marketing Director

[www.arcadsoftware.com](http://www.arcadsoftware.com)