ARCAD Software

Breaking barriers

common Romandie

2 Mars 2017

Nouveaux languages et outils de développement dans une stratégie DevOps

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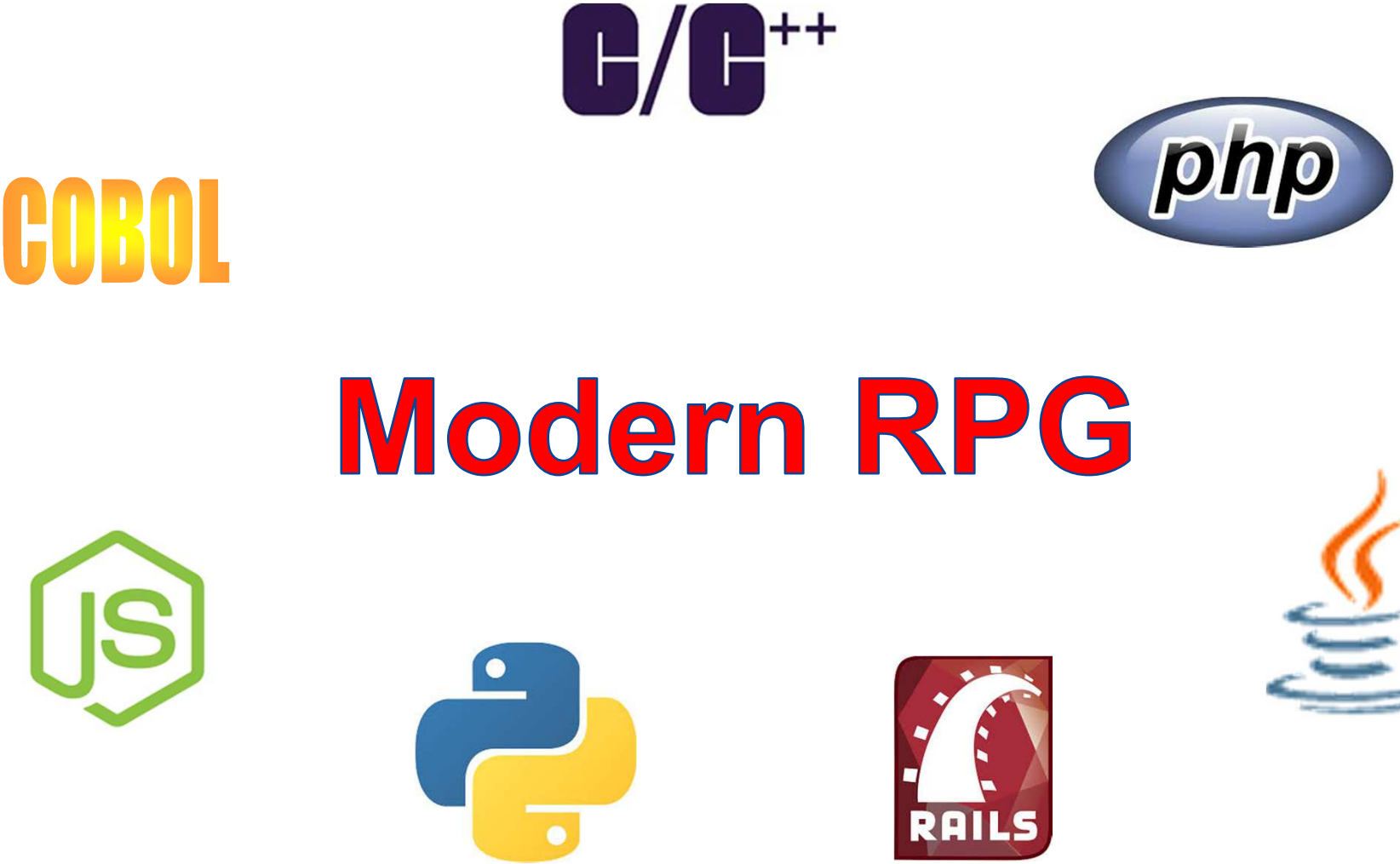
Languages of IBM i



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2

copyright
internet
applications
OPEN
SOURCE
choice
software
community

php

MariaDB

GCC

ORION

RAILS

JS

MySQL

chroot

OpenSSL
Cryptography and SSL/TLS Toolkit

IBM i Open Source and the Future

- Focus on the eco system
- Languages & Tools
- Normal tools combined with industry best tools to build DevOps

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FACTS

Legacy systems are responsible for >70% of the world's business transactions

Translation…the world runs on COBOL… and RPG…. and this will not change for the foreseeable future…will it be a bottleneck or an asset?

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1. We must succeed in our digital transformation
2. We must succeed with our generational transition

=> We must:

Modernize !

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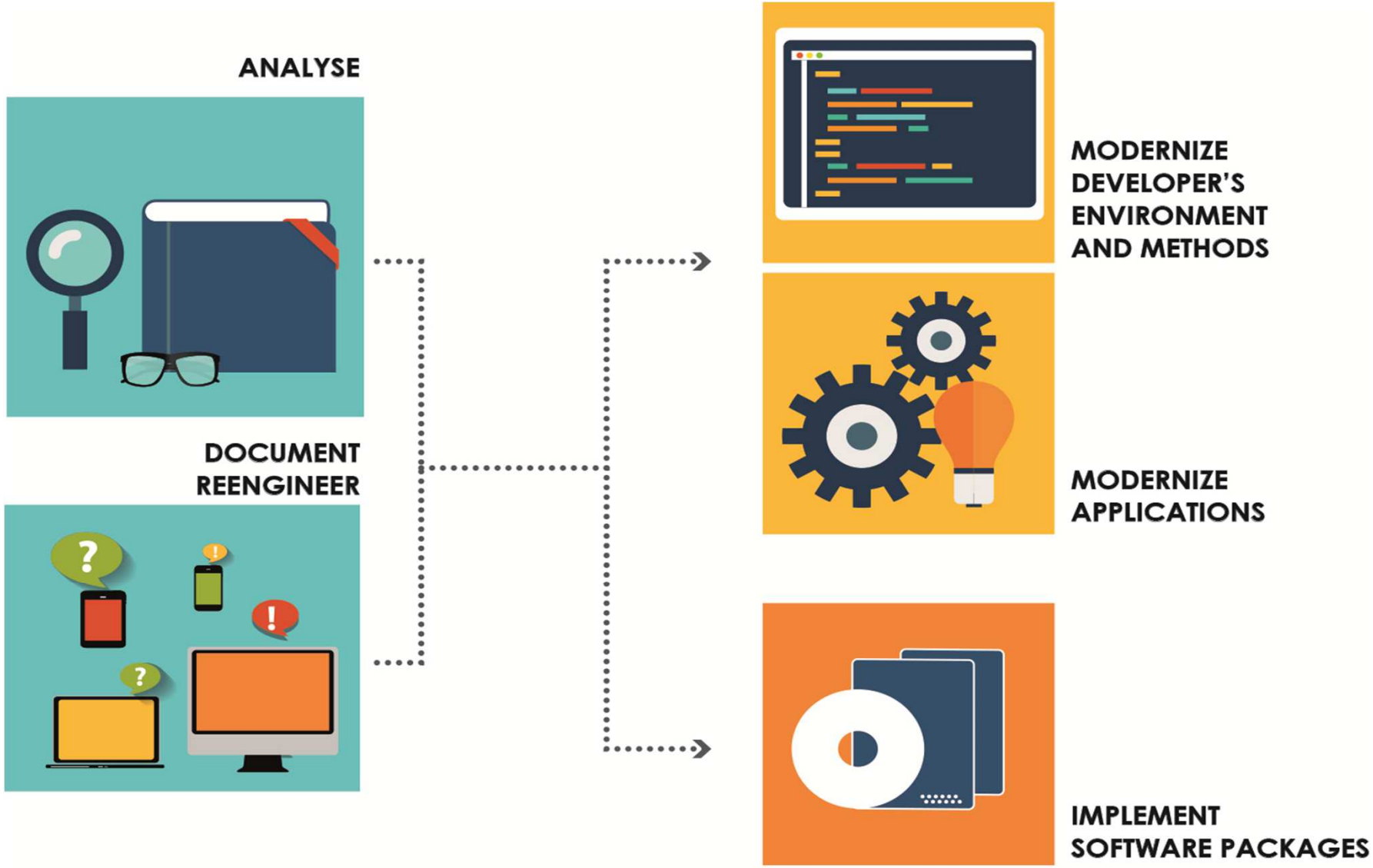
Strategic steps



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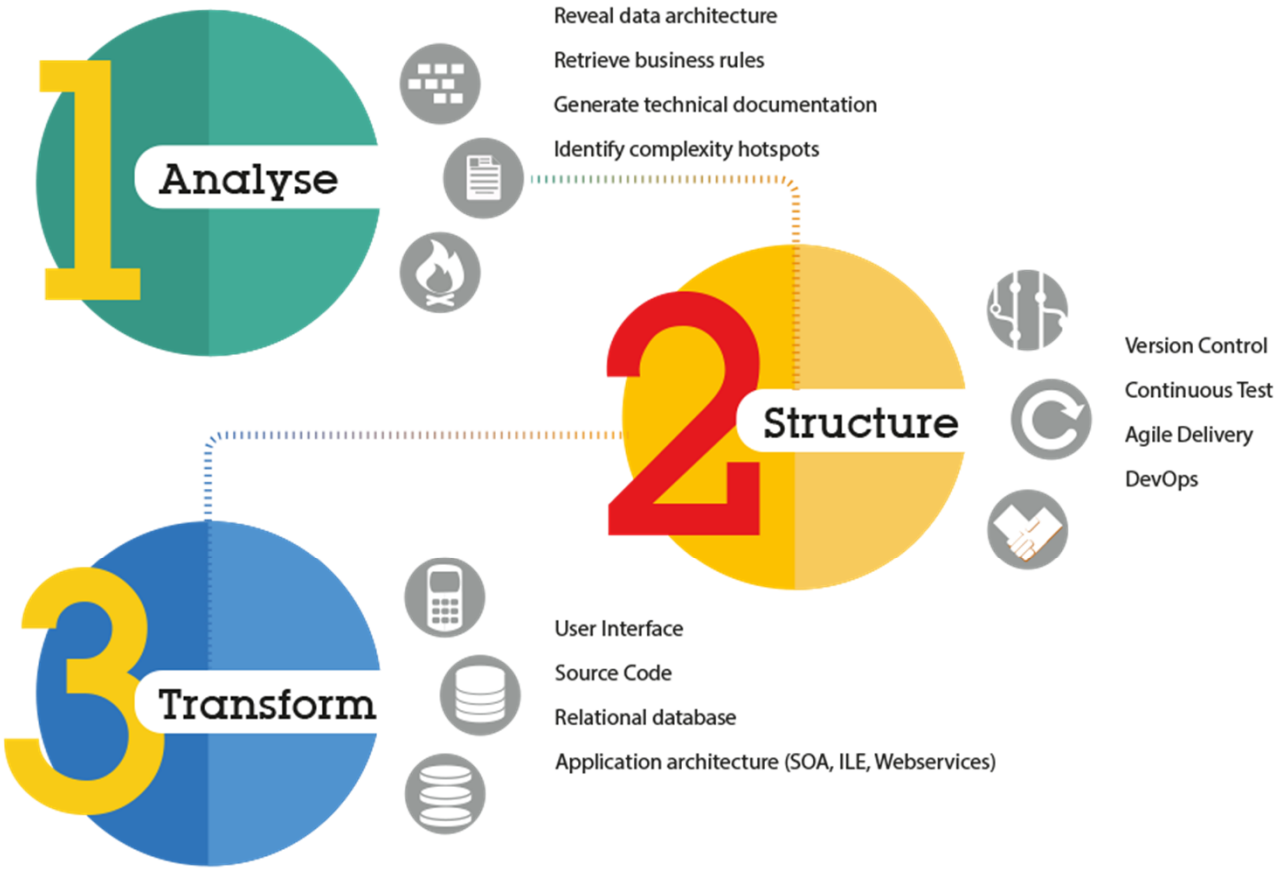
Methodology



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Application Analysis

- Does the application have a well-structured database?
- Was the application originally written for System/34, System/36, System/38, or one of the many flavors of IBM AS/400, IBM eServer systems, IBM iSeries, or IBM i?
- What language is the application written in? Is it COBOL, COBOL ILE, RPG II, RPG III, RPG IV, Java, C, some other language, or some combination of two or more languages?
- Is the application using the IBM Integrated Language Environment (ILE)?
- Are the application programs well-structured?
- How maintainable is the application source code?

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Maintainability Index

Analyze your existing application portfolio from a business standpoint. This will help identify which applications to maintain, modernize, replace or reengineer.

- **Quantitative**
  - What is volume of code contained? Which components are obsolete? Where is the dead code? What is the modification rate? What level of complexity?
  - According to the Lean Software Foundation, on average 45% of features in enterprise software are never used. Cut out dead wood to avoid unnecessary maintenance overhead.
- **Qualitative**
  - How well does each application/function meet the user's needs? What technical skills are needed to maintain and adapt this application into the future?

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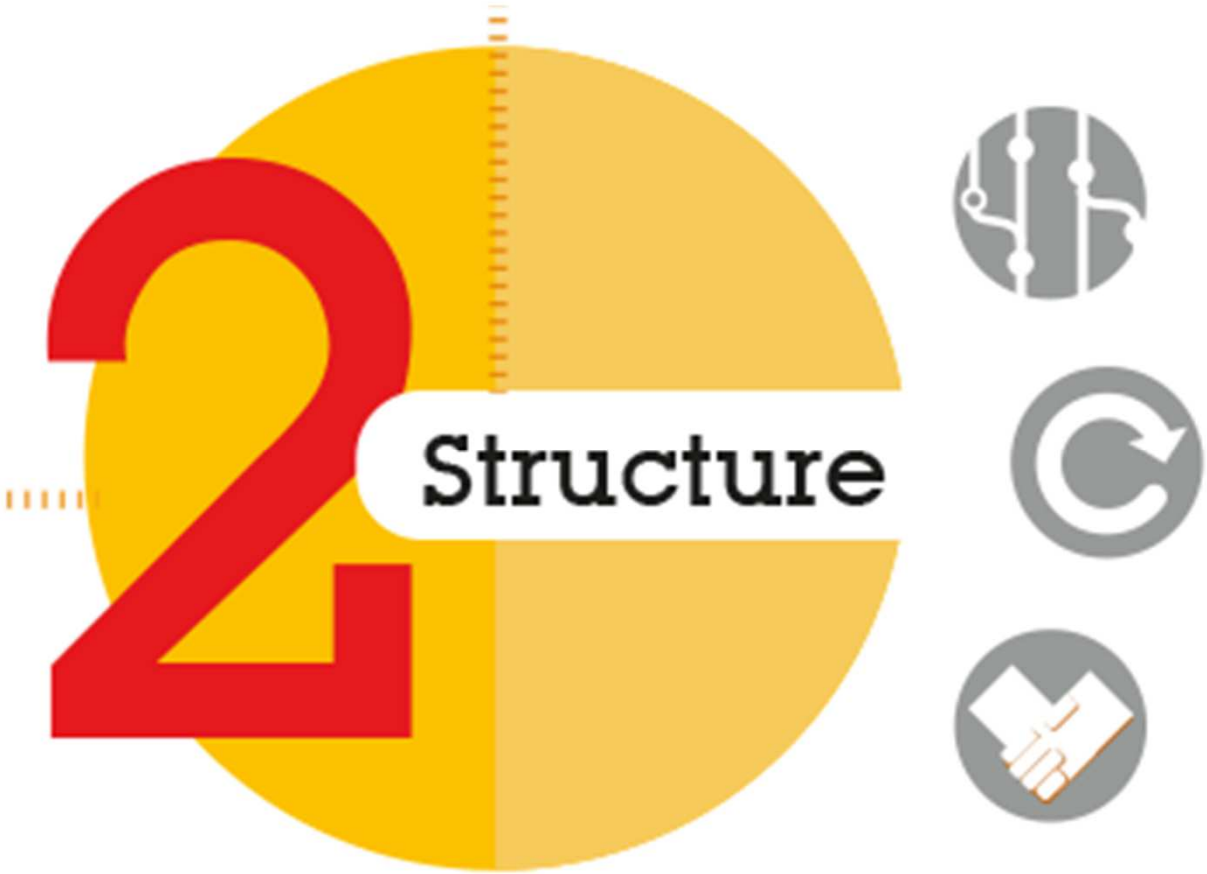

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Digital transformation revolutionizes IT organizations

- Value
- Speed
- Robustness

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Bi modal IT

	Systems of Records	Systems of Engagement
Applications	Old/volume	New/small
Speed of change	Slow	Fast
Methodology	V Cycle	Agile
Knowledge	Specialized	« Jack of all trades »
Collaboration	Silos	Collaborative
	Controled by IT	External eco system

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What is DevOps?

A DevOps strategy:

- **Aligns the Development and Operations functions** ***to structure and automate continuous software delivery***
- Brings diverse development teams together
- Supports synchronized, multi-platform deployment

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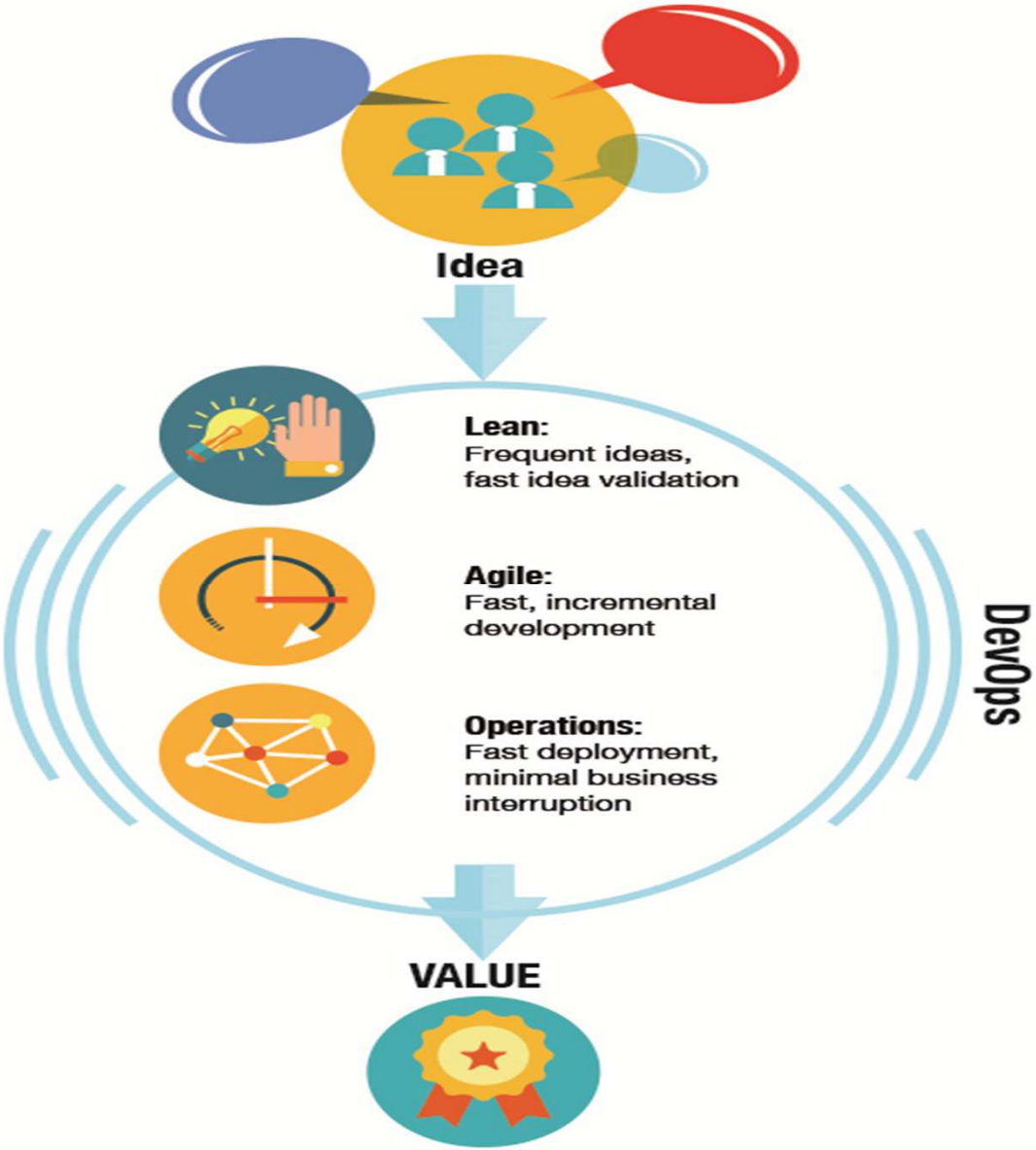
The 3 components of a DevOps strategy



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The value of DevOps strategy

ACCELERATE software delivery

BALANCE speed, cost, quality and risk

REDUCE time to customer feedback

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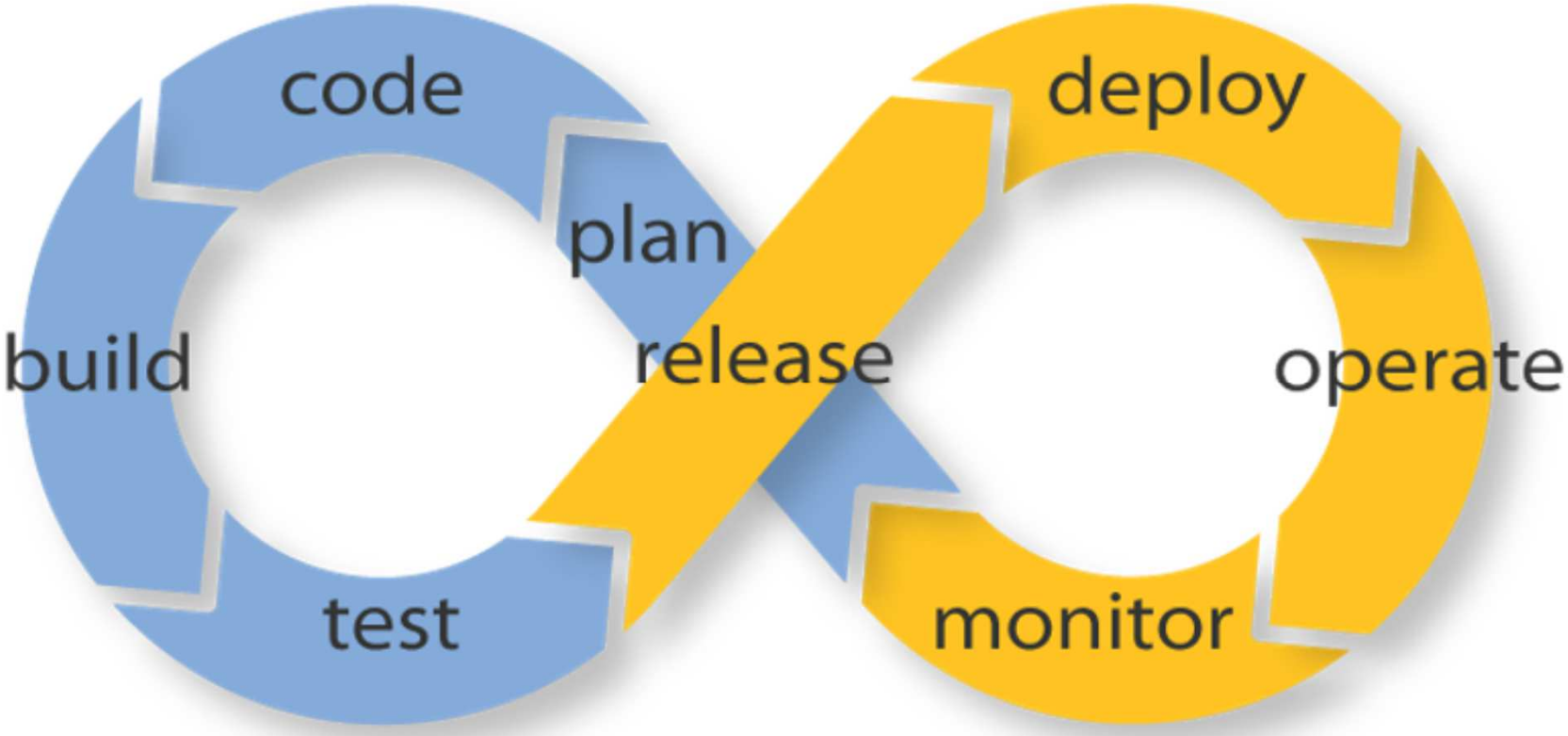
« Continuous »



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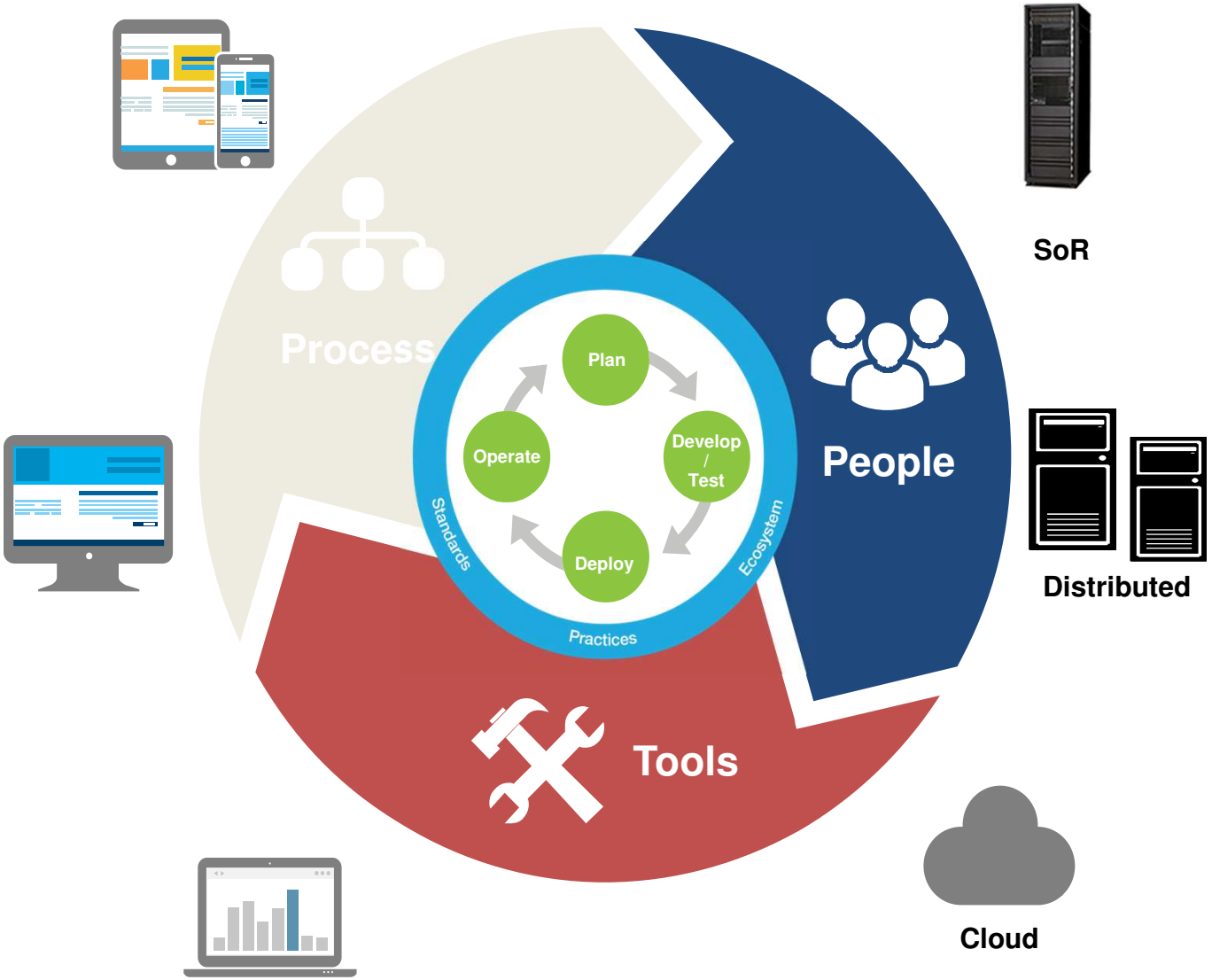
Process, People, Tools

- DevOps is not one of these things… It's all of them!
- …across the entire lifecycle
- …for all technologies and platforms



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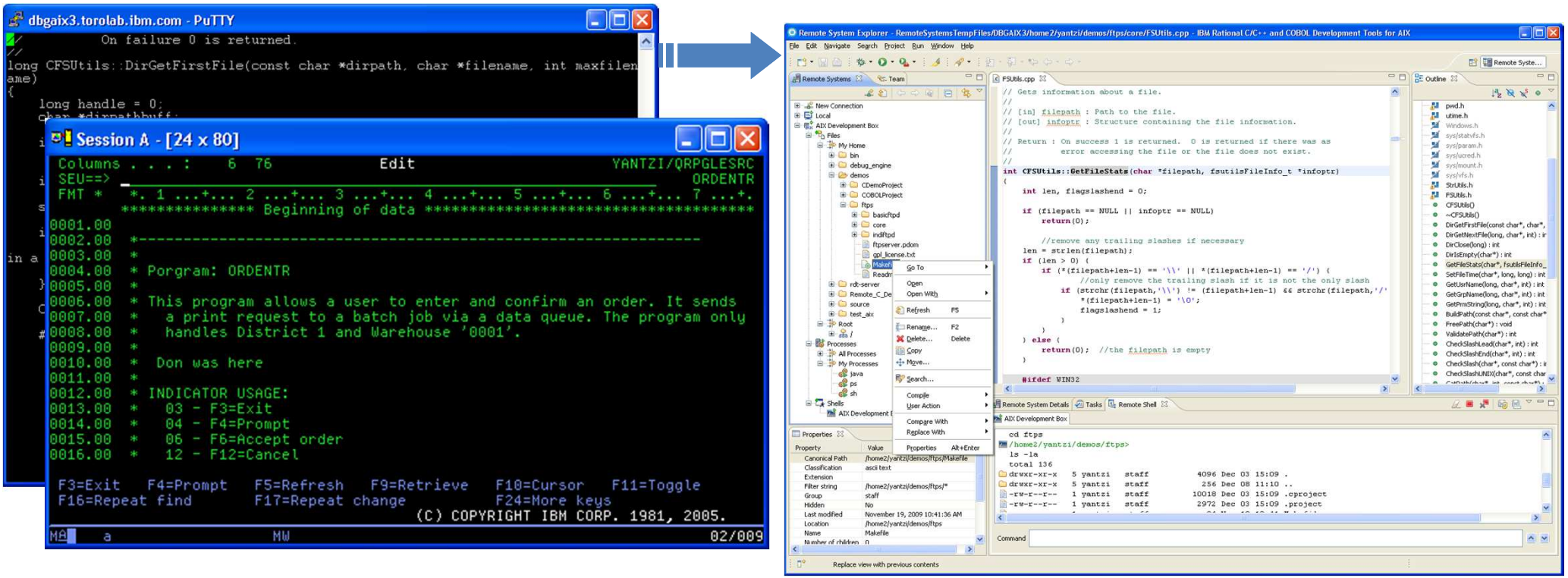
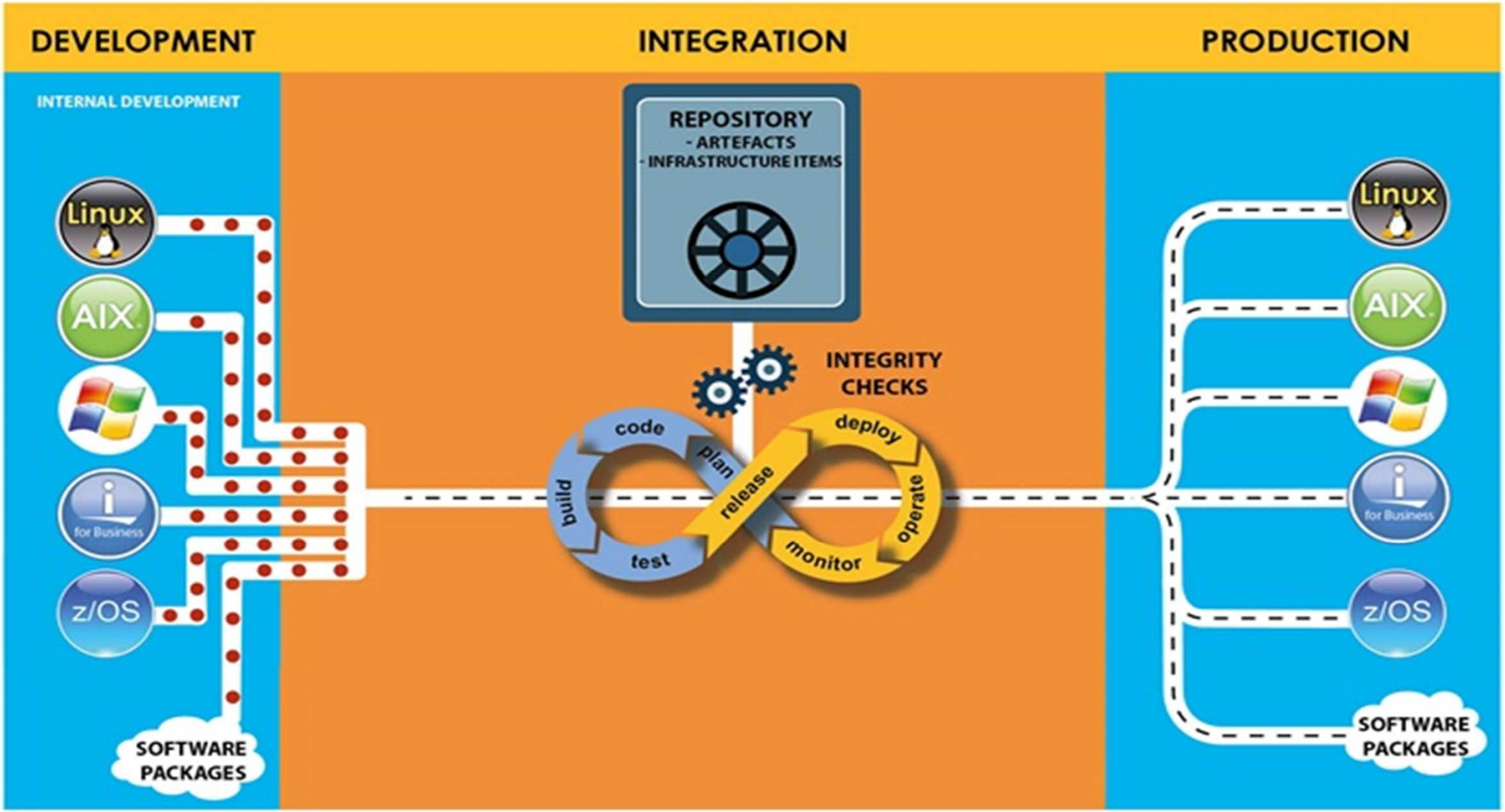
Adopt RDi: modern development environment



DevOps journey



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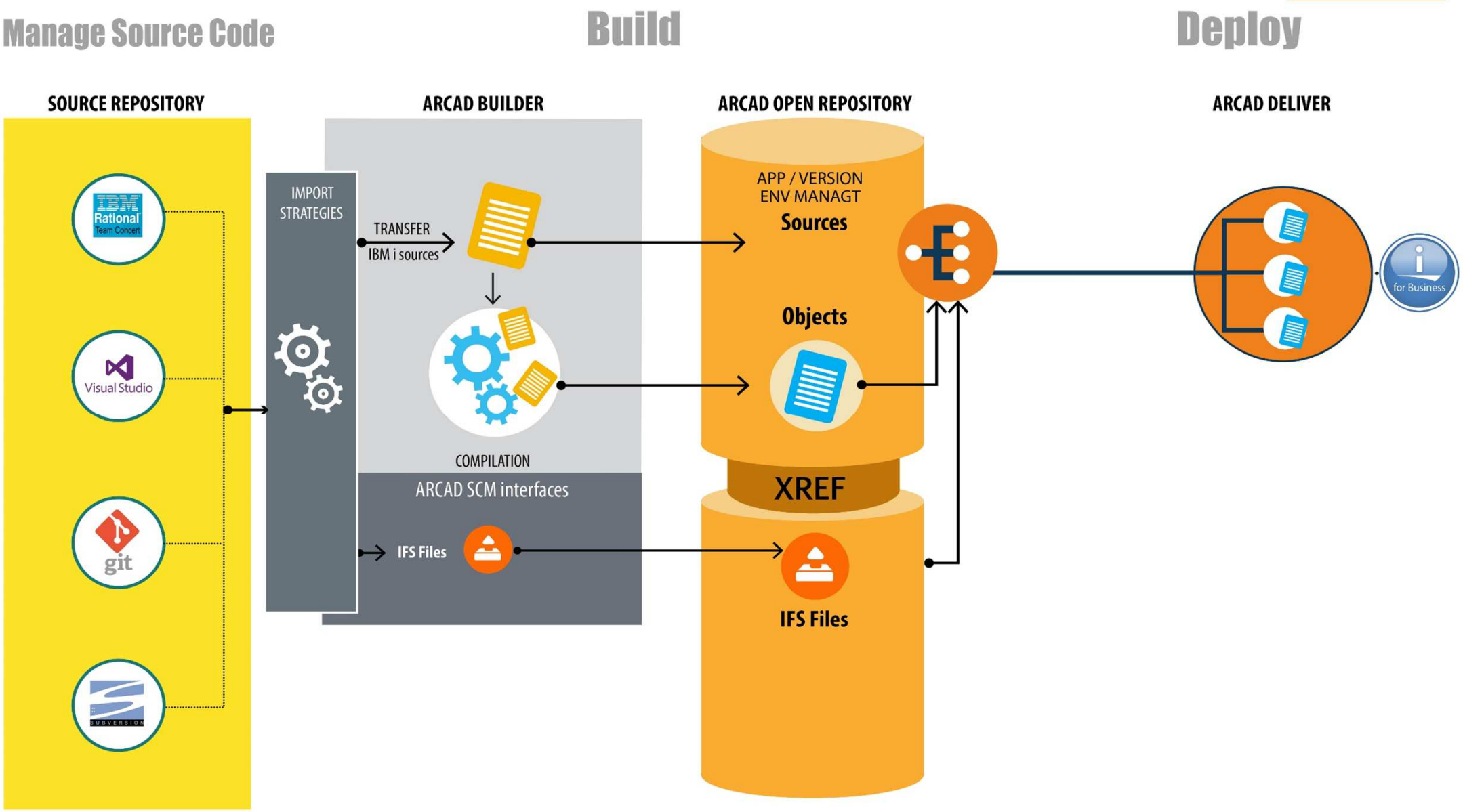
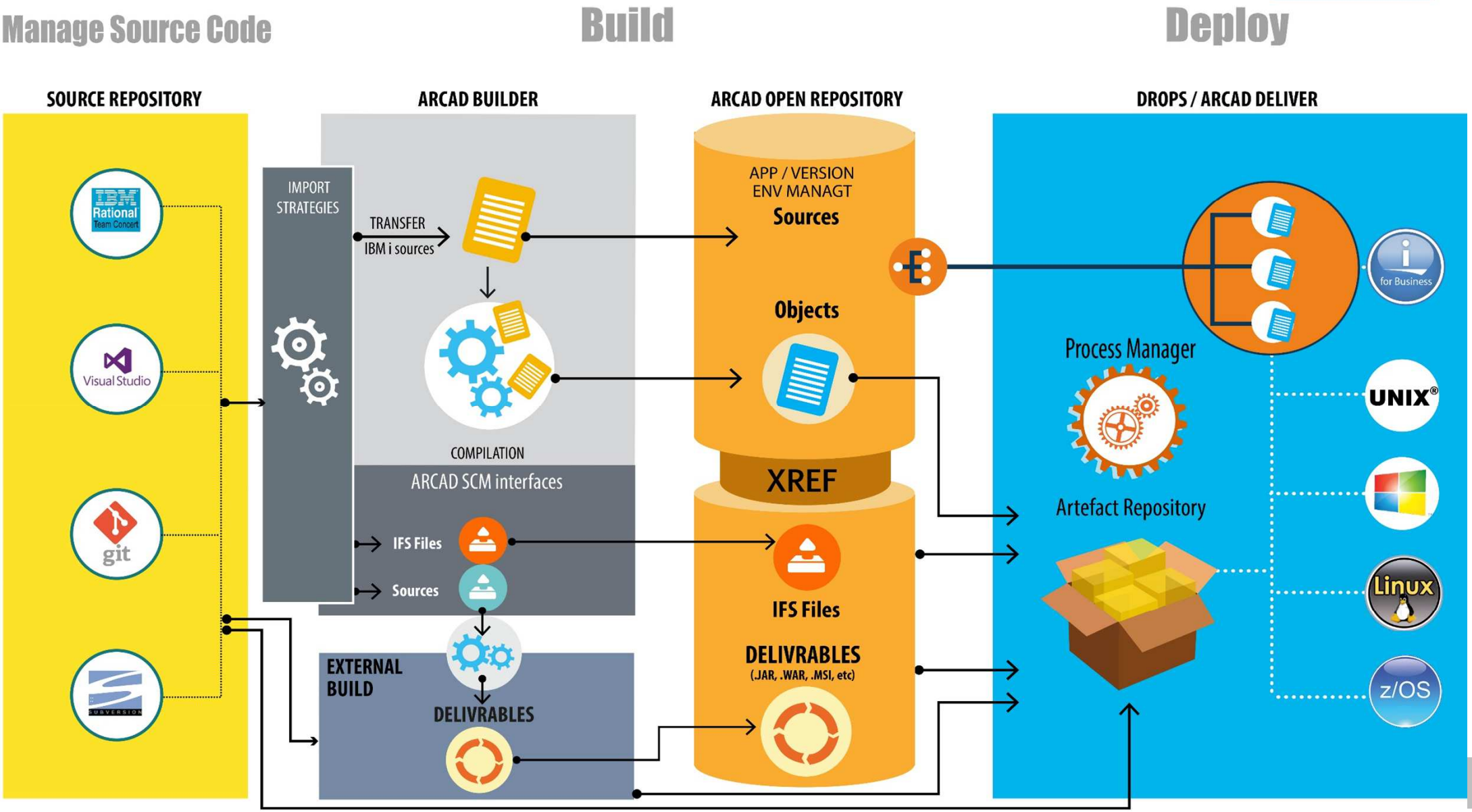
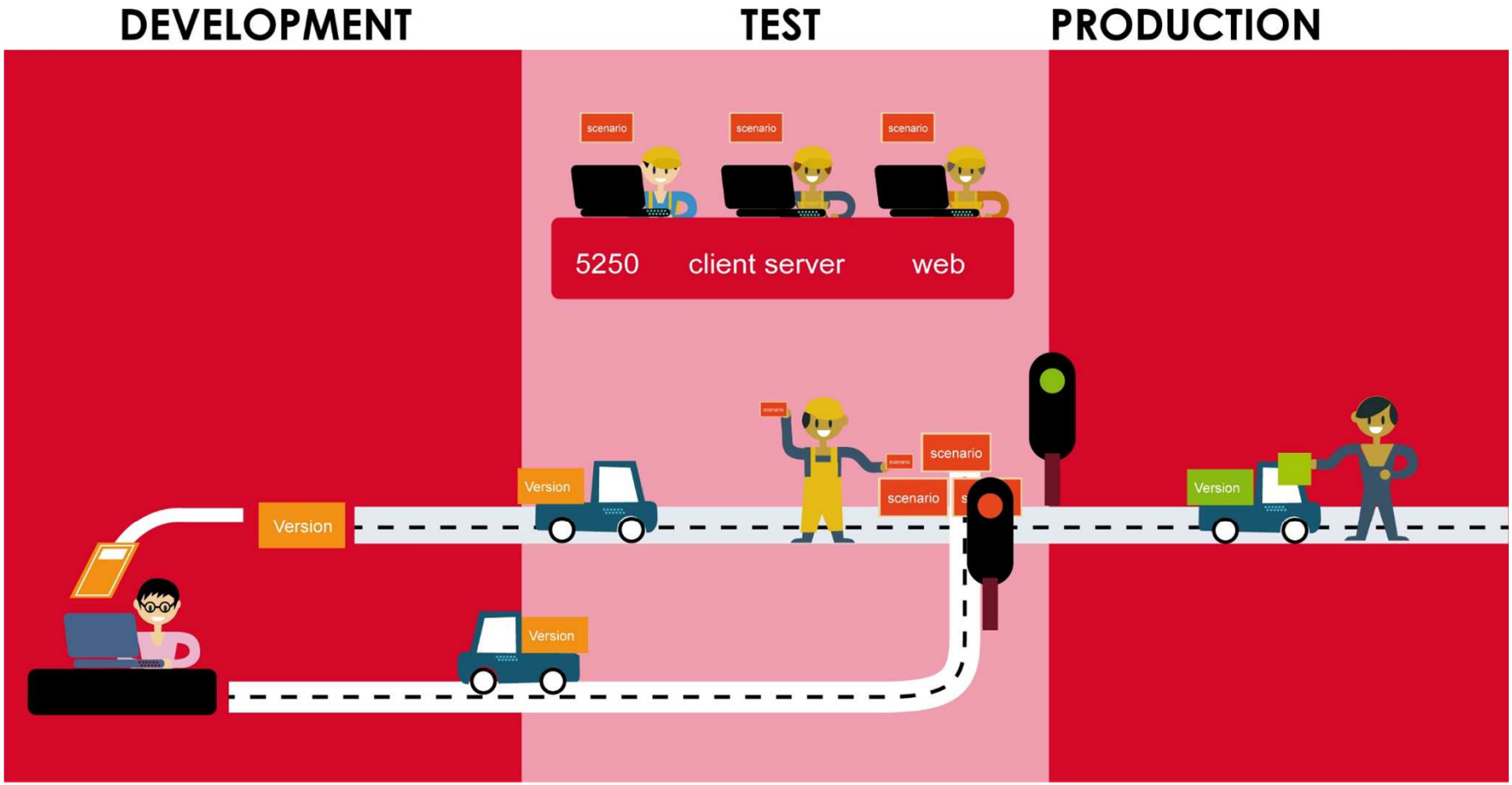
IBM i


Manage Source Code
Build
Deploy
SOURCE REPOSITORY
ARCAD BUILDER
ARCAD OPEN REPOSITORY
ARCAD DELIVER
IBM Rational Team Concert
Visual Studio
git
SUBVERSION
IMPORT STRATEGIES
TRANSFER
IBM i sources
COMPILATION
ARCAD SCM interfaces
IFS Files
APP / VERSION
ENV MANAGT
Sources
Objects
XREF
IFS Files
for Business

Multi-platform



Including « application change firewall »



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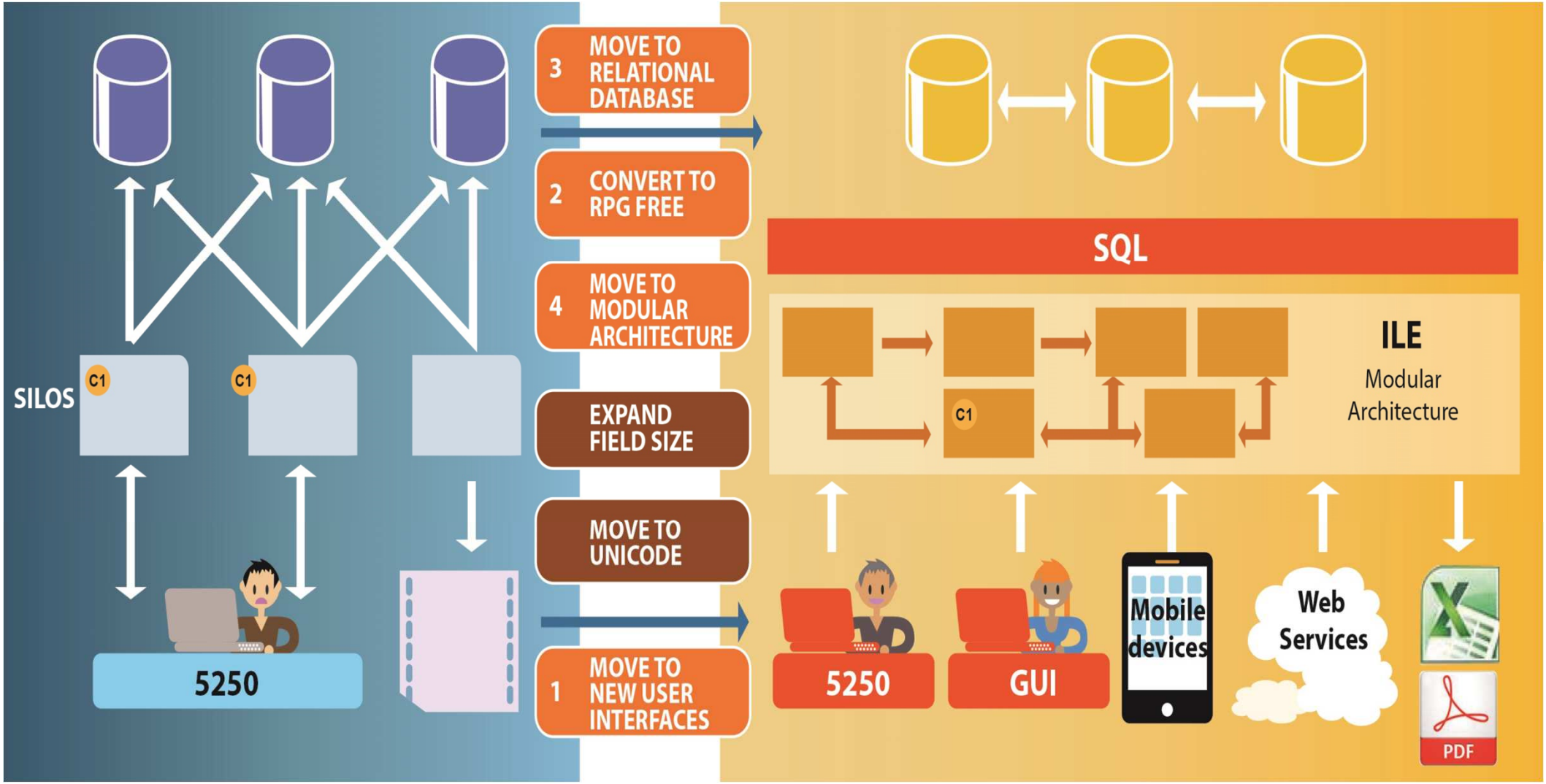
Modernization 2.0



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Database modernization

- Record integrity checks
- DDS -> DDL
- Long names adoption
- « false » constraints

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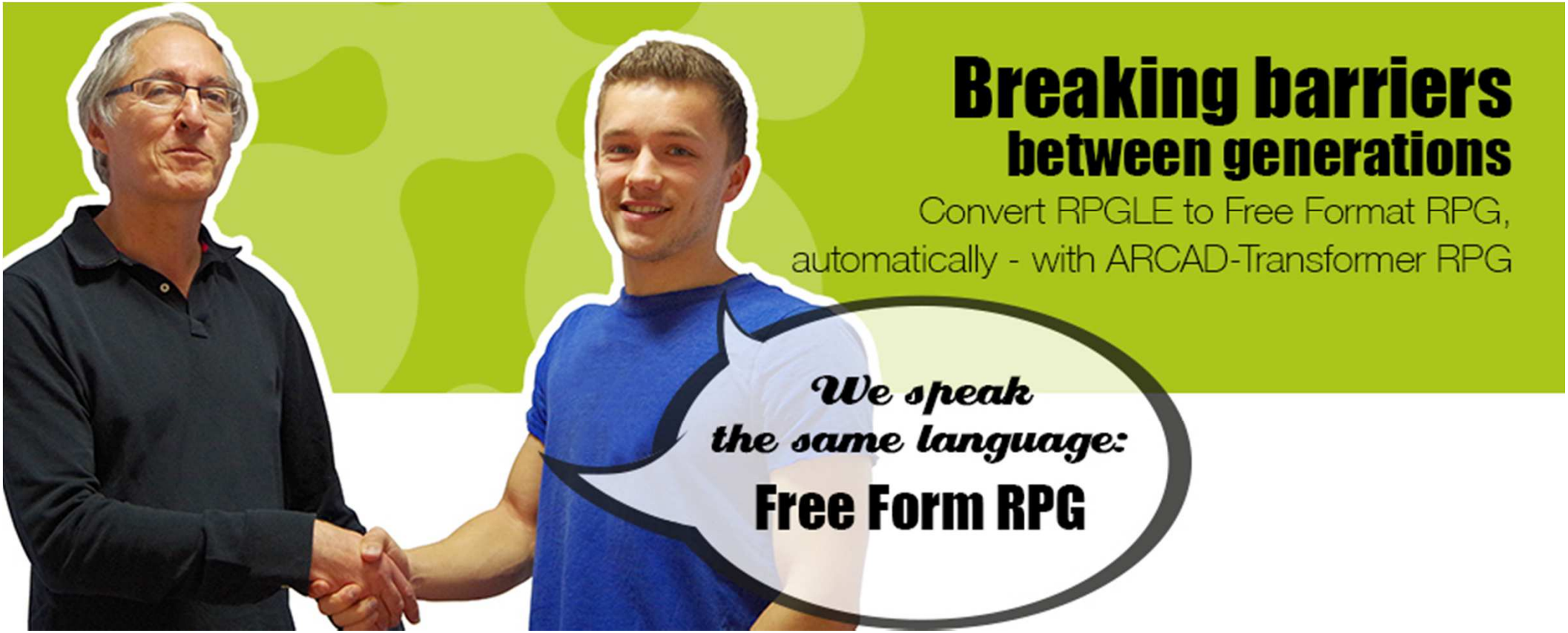
Free form RPG



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Development with Profound UI

Web	Hybrid w/ Mobile Client	Hybrid w/PhoneGap
- Mobile-enabled applications that work in any device/browser - Easy deployment of 5250 applications - Does not support native capabilities (Camera, etc)	- Profound UI Mobile Client makes deploying iPhone/iPad/Android applications easy - Develop native applications without worry of app store approval or 3rd party tools	- Deploy mobile apps with native capabilities without learning 3rd party languages - More control over application branding and submitting to app stores

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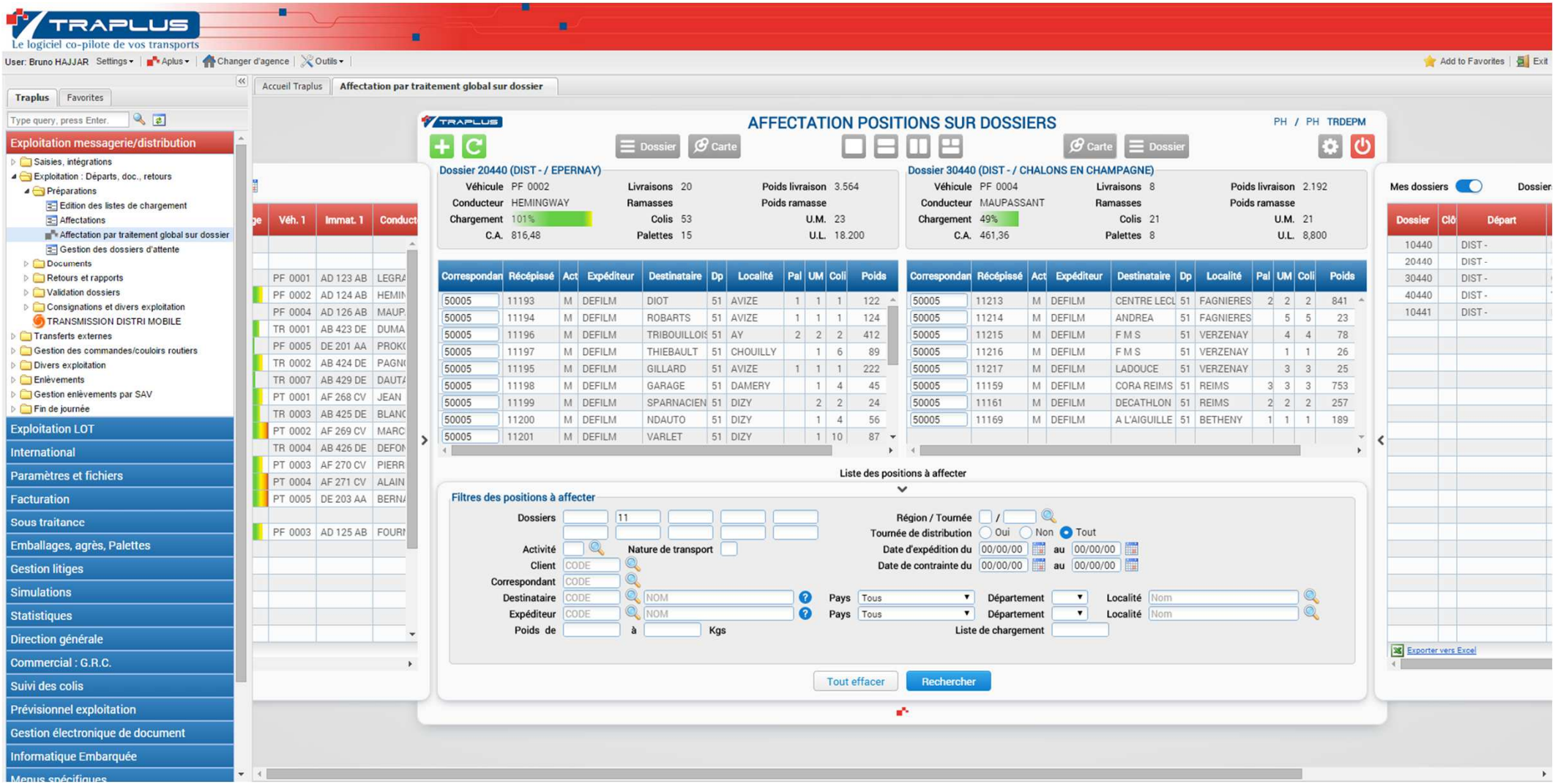
Profound UI in action



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Modernization As A Service

- Fixed-price Package offering to :
  - Modernize DB and Code
  - Abandon case tools:
    - CA/2E (Synon)
    - Adelia

- Optional
  - User Interface Modernization
    - Web
    - Mobile

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Added Value

- Migration to a standard language
- Migration to a standard development environment
- Migration to a relational data base

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How ?

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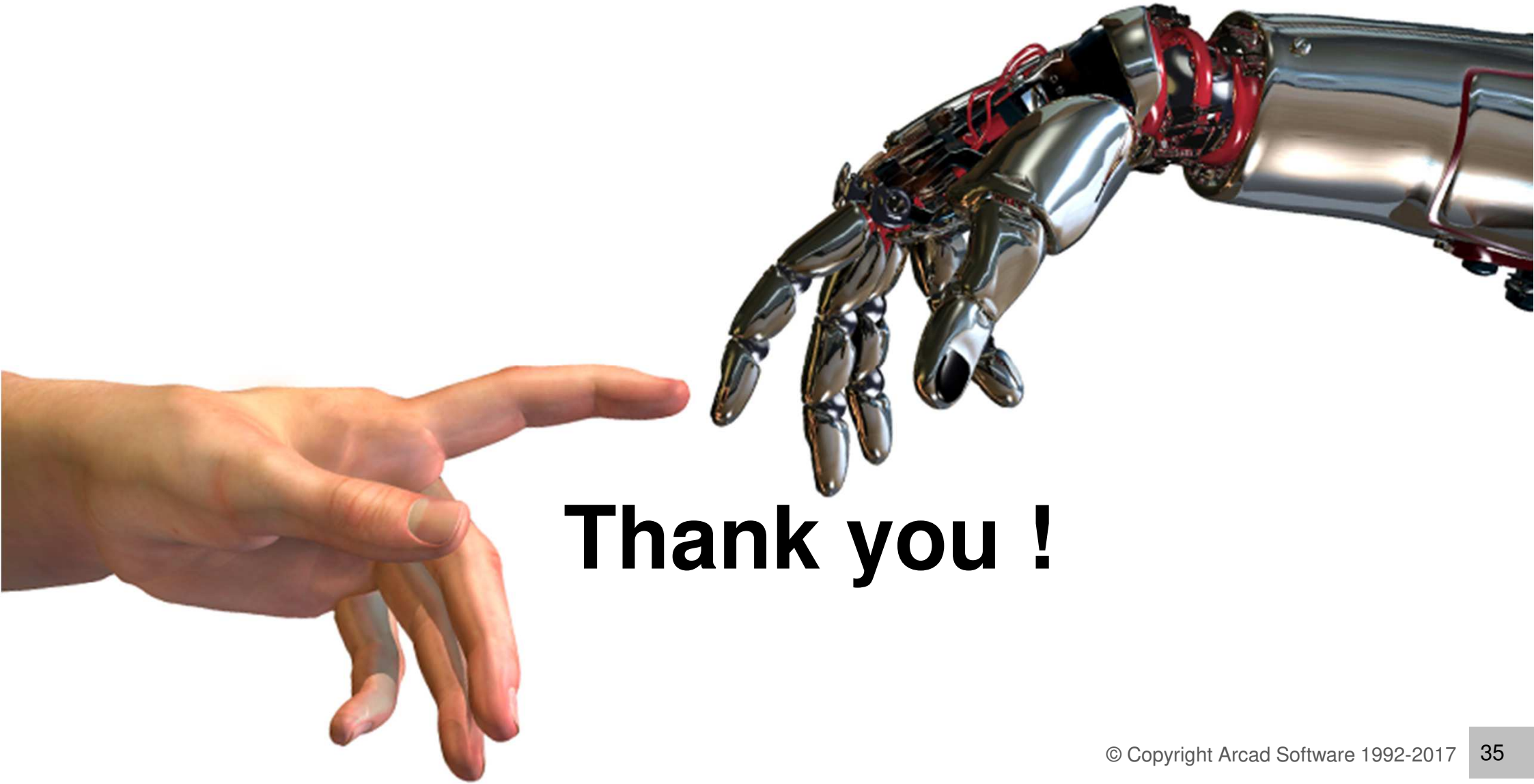

Thank you !

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