# **IBM System z Technology Summit**



Let's tie it all together and get started



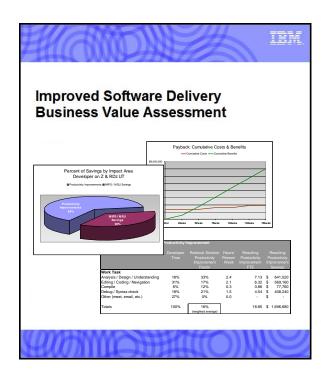


### **Business Value Assessment for Customer Example**

The purpose of the Business Value Assessment is to quantify the business value of improving software productivity and lowering costs within the Customer Example environment.

The analysis is based upon data and assumptions that have been provided through interviews with Customer Example team members, the IBM Client team, and results from many other Client implementations.

The results of this ROI / savings analysis have shown that utilizing an improved software delivery solution improves the productivity and tool standardization / modernization across mainframe developers. In addition, RDz / RDzUT provides substantial mainframe cost reduction and savings for Customer Example.





### Rational Business Value Assessment for Customer Example

### Situation:

Customer Example would like to reduce costs of mainframe development, integrate key legacy processes with new business processes (SOA), and prepare for turn over in the Cobol development workforce.

### **Primary Business Drivers:**

- Extract greater productivity from Cobol software development team and projects. Customer Example desires a more productive development environment. Talent attraction to maintain and work with existing assets is crucial.
- ➤ Reduce costs of mainframe development. Customer Example desires reduced costs of software maintenance. Capacity for the mainframe is expensive. Also production cycles to priority, limiting the availability of the mainframe for testing purposes.
- ➤ Integration of legacy processes with distributed applications. Customer Example would like to leverage the cobol code base and integrate it with new development and business requirements. Reusing these assets as services, reduces risk of re-write.
- Currently Customer Example plans on continuing licenses for the following:

Rational Developer for Z and Rational Developer for Z Unit Test



# Rational Proposed Solution RDz & RDz UT

Rational Developer for z – Rational Developer for System z consists of an eclipsed based common workbench and an integrated set of tools that support end-to-end, model-based application development, run-time testing, and rapid deployment of on demand applications.

- RDz replaces ISPF interface and provides excellent GUI to get more done with less typing
- Significant savings in CPU utilization and compiles
- Developer analysis, edit and debug tasks performed much faster
- WebServices wizards to integration legacy code and processes with SOA strategy and new processes
- A modern IDE that developers new to Cobol will become more productive in faster than ISPF

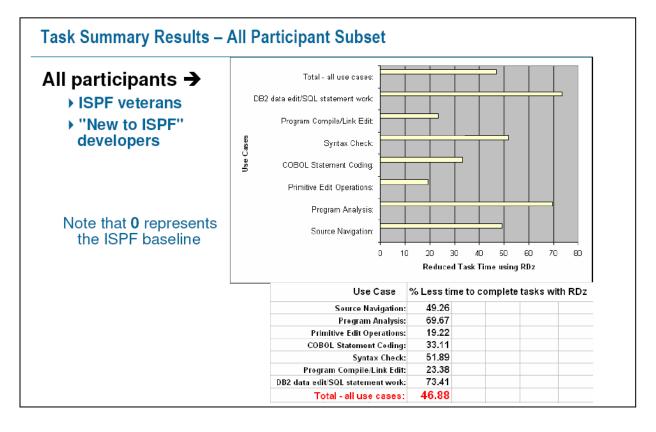
Rational Developer for z Unit Test – Provides a z platform and environment on low cost x86 hardware that developers can use for testing. Establishing this environment transitions testing workload and capacity off the mainframe.

- Move significant workload off the mainframe to low cost x86 Linux server
- Dedicated available environment for dev team
- Creates available capacity on the mainframe more for production, reduce capacity and MLC costs or defer future z upgrade



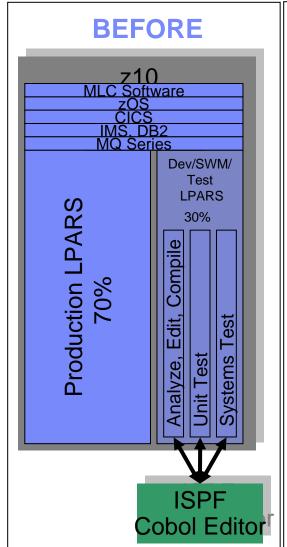
# Rational Developer for Z Productivity Gain Statement

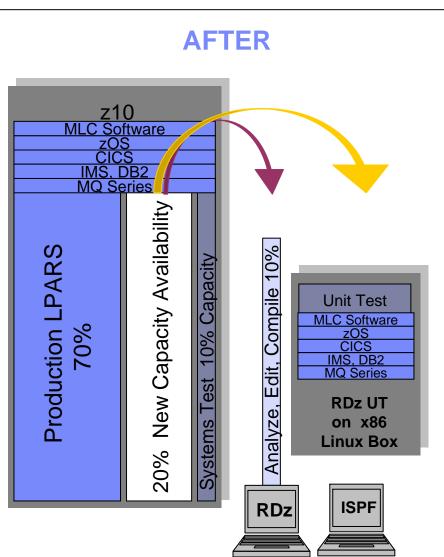
To focus on developer productivity for Customer Example, IBM Rational's Business Value Assessment will utilize benchmark results from a study comparing ISPF to RDz. Results of the study and it's validity have been reviewed with the Customer Example team.



Although the results of the IBM study confirm an overall 46% productivity gain across 7 categories of tasks and 100 specific tasks, IBM will apply a conservative productivity advantage to the ROI calculations

# RDz UT & Mainframe Capacity - Before and After





Establishing RDz UT, as in the "AFTER" picture, provides opportunities for savings in the following areas.

- MLC Usage Reductions – JPMC has the opportunity to reduce MSU Capacity and subsequently MLC usage.
- Newly available capacity can help defer z upgrade By establishing the RDz UT environment JPMC can defer upgrade costs related to IBM MLC and One Time Charge upgrades costs from ISV's.

# The BVA Analysis for Rational RDz & RDz UT

The following inputs were used to calculate productivity gains and MIPS savings from the RDz & RDz UT solution.

Сι	ıstomer Example						
Savings Estimation for RDz & RDz UT							
Quantity		Description					
	913	Mainframe capacity in MSU					
\$	1,051.48	Avg cost per MSU					
	70%	Production & Batch Cycles (Non Dev & Unit Test)					
	85%	Percent of Dev & Unit Test Off-Load from Mainframe					
\$	50.00	Hourly FTE rate for on shore Developer					
\$	20.00	Hourly FTE rate for offshore Developer					
	100	Number of onshore developers					
	0	Number of offshore developers					
\$	8,250.00	Estimated cost per license					
\$	45,000.00	Estimated cost for consulting services					

Based on other Client implementations and the current infrastructure of Rational tools at Customer Example, the adoption of the Rational solution will be phased in over three years in the following adoption plan:

Customer Example								
RDz & RDz UT Adoption rate for Users and Off-loaded Processing Adoption Rate in Weeks								
	26	52	78	104	130	156		
Onshore and Offshore Adoption of Full Solution	40%	90%	100%	100%	100%	100%		

# The BVA Analysis – Business Value

Savings is calculated through productivity uplifts based on time on task and the number of mainframe MIPS currently consumed in Dev and Unit Test environments.

Customer Example						
Savings Estimation for RDz & RD	z UT					
As-Is Percent of Mainframe by	As-Is Percent	Off-Loaded Percent of		Value of MSU		
Category	of MSU MSU		Savings			
Production & Batch Cycles	70%	0%	\$	-		
Non Production Cycles						
Development	10%	8.0%	\$	921,600		
Unit Test	10%	8.0%	\$	921,600		
System Test	10%	0.0%	\$	-		
Totals	100%	16%	\$	1,843,200		

Off-loading dev and unit test to linux emulating the mainframe environment for substantial MIPS savings.

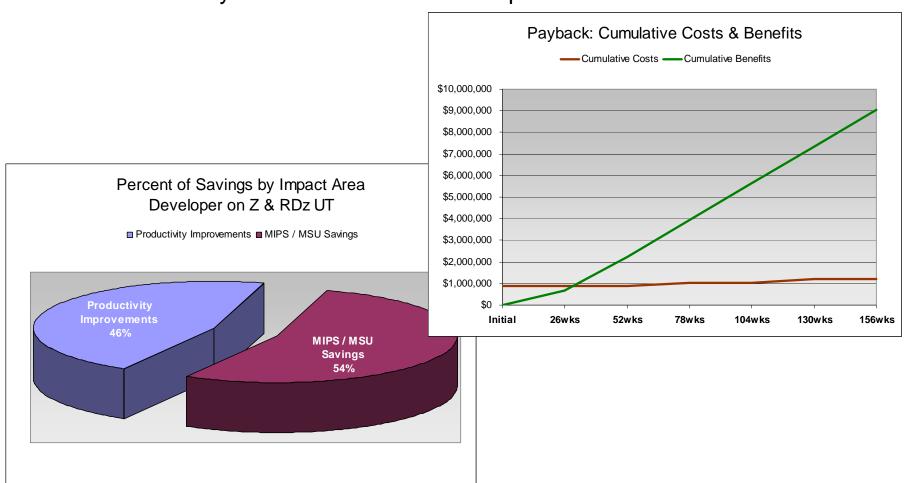
Enhanced tools for the developer provides improvement to current time on task.

Customer Example								
Savings Estimation for RDz & RDz UT								
Mainframe Development Team	Developer Time	Rational Solution Productivity Improvement Factor	Hours/ Person/ Week	Resulting Productivity Improvement FTE		Resulting Productivity Improvement Savings		
Work Task								
Analysis / Design / Understanding	18%	33%	2.4	5.94	\$	594,000		
Editing / Coding / Navigation	31%	17%	2.1	5.27	\$	527,000		
Compile	6%	12%	0.3	0.72	\$	72,000		
Debug / Syntax check	18%	21%	1.5	3.78	\$	378,000		
Other (meet, email, etc.)	27%	0%	0.0	-	\$	-		
Totals	100%	16%	]	15.71	\$	1,571,000		
		(weighted average)						



# The BVA Analysis – Business Value

Based upon inputs and estimated costs, the three year Investment Analysis shows substantial monetary value for Customer Example.



# The BVA Analysis – Business Value

Based upon inputs and estimated costs, the three year Investment Analysis shows substantial monetary value for Customer Example.

Customer Example										
Savings of Off-Loaded MIPS & Developer Productivity Improvement										
Three Year Investment Analysis										
, and the second se	Initial	26wks	52wks	78wks	104wks	130wks	156wks			
Costs										
Licensing Costs	\$ 825,000			\$165,000		\$165,000				
IBM Services Cost (S&S)	\$45,000									
Total	\$870,000	\$0	\$0	\$165,000	\$0	\$165,000	\$0			
Cumulative Costs	\$870,000	\$870,000	\$870,000	\$1,035,000	\$1,035,000	\$1,200,000	\$1,200,000			
Benefits										
Productivity Improvements		\$314,200	\$706,950	\$785,500	\$785,500	\$785,500	\$785,500			
MIPS / MSU Savings		\$368,640	\$829,440	\$921,600	\$921,600	\$921,600	\$921,600			
Total	\$0	\$682,840	\$1,536,390	\$1,707,100	\$1,707,100	\$1,707,100	\$1,707,100			
Cumulative Benefits	\$0	\$682,840	\$2,219,230	\$3,926,330	\$5,633,430	\$7,340,530	\$9,047,630			
Cash Flow	(\$870,000)	(\$187,160)	\$1,349,230	\$2,891,330	\$4,598,430	\$6,140,530	\$7,847,630			
ROI		-27%	155%	279%	444%	512%	654%			
Payback Ratio	0%	78%	255%	379%	544%	612%	754%			
*This information is for budget and planning purposes	s, and does not cons	titute a firm offer or bid.								

At the conclusion of the first year, there is a 155% return on investment, with a break even in approximately 8 months. Restated, the benefit totals to \$9m for a total three year investment of \$1.2m.

The three year analysis compares the cumulative costs for a license agreement with suggested services consulting compared to the cumulative benefits of the teams' productivity and quality uplift with the Rational solution. MSU Savings may be also considered as "avoided potential upgrade expense savings" given the current utilization at Customer Example. Productivity improvements are "hard savings" as they are task-based time savings through use of RDz features. Other savings may exist due to delay of expense of expanding mainframe capacity.



# Readiness



# **Pilot Best Practices**

- Ensure that the pilot process includes a champion.
- Keep the entire development staff informed early and often.
- Select a subset of features to evaluate.
- Be as specific as possible with the success criteria.
- Include a mainframe systems administrator on the pilot team.
- Ensure that the evaluation staff is adequately trained.
- Offer additional training and mentoring to long time "green screen" developers.
- Prepare for opposition from "green screen" advocates.



# Getting Started with RTC

# Have SCM on z already? Start with Co-Existence –

- Use RTC for planning, collaboration and reporting
- Get the teams started with the eclipse client and working with the same process
- Refine reports and dashboards
- One team at a time stating at the beginning of a project

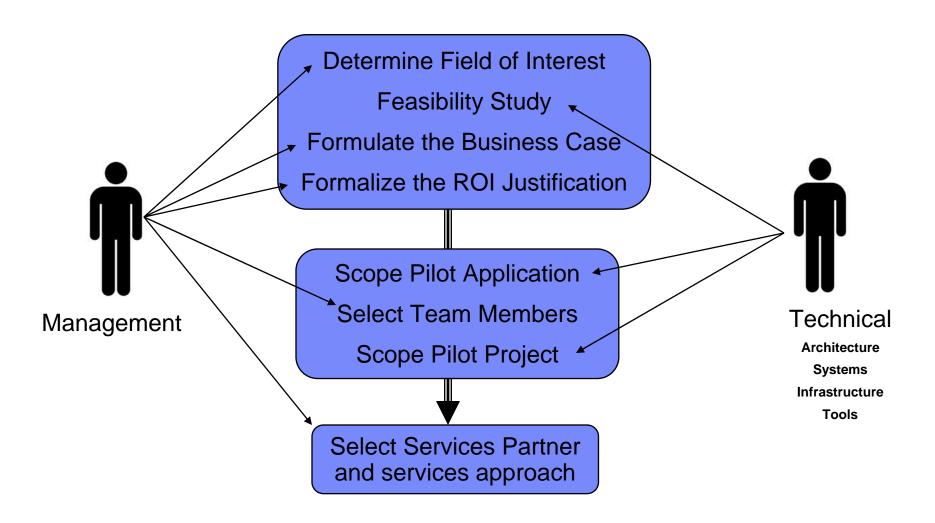
### Move to Build and SCM

 Start with a project and move just their parts and build for a team already moved for planning and collaboration

### Continue...

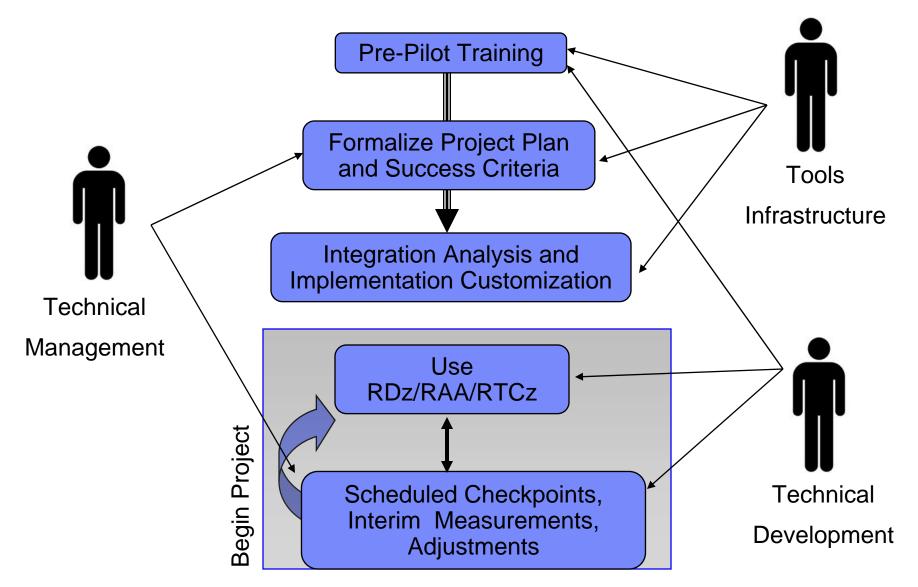


# Implementing the Tools - Planning and Organization



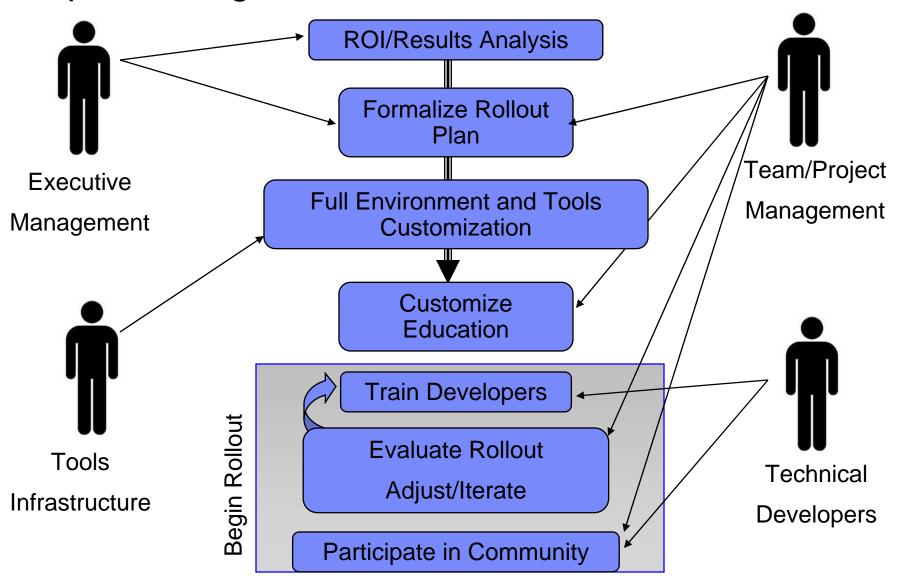


# Implementing the Tools – Pilot Project





# Implementing the Tools – Rollout



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IBM Rational Cafés > COBOL Café > RDz - Rational Developer for System z Hub

### RDz - Rational Developer for System z Hub

Overview

Discussions (146)

Documents (25)

Blog Posts (0)

#### ANNOUNCEMENT:

### RDz Hub Forum New Location by cafe at Aug 18, 2010 8:42 AM

The RDz Hub Forum has been relocated to developerWorks and is open for business. Please use this link to access it: http://www.ibm.com/developerworks/forums/forums/spa?

forumID=2282. We suggest that you click the "Watch Forum" tab at the top of the forum for e-mail notifications of new messages. Stay tuned for more information on the reopening of our Cafes on My dW.

#### ANNOUNCEMENT:

### Certification Now Available for RDz Developers! by jsayles at Apr 2, 2010 7:34 AM

IBM Rational is pleased to announce that a certificate for Rational Developer for System z -- IBM Certified Application Developer - Rational Developer for System z v7.6 -- is now available to IBM Business Partners, End-User Practitioners, Students and IBM employees. Details at: Rational Certification (http://www-03.ibm.com/certify/certs/38005001.shtml)

#### ANNOUNCEMENT:

### 2010 - Rational Developer for System z Online User Group meetings by isayles at Dec 14, 2009 9:21 AM

Free - and available once/quarter - IBM offers RDz technical user information via an online (web-based) user group, featuring presentations, demos, discussion, Q&A. The session (including audio) is free to the world-wide RDz user community (customers, business partners and IBM internal technicians). But space (connections are) limited. To read more about this offering - or to sign up, go here: <a href="http://www-949.ibm.com/software/rational/cafe/docs/DOC-3345?approved=true">http://www-949.ibm.com/software/rational/cafe/docs/DOC-3345?approved=true</a>

#### ANNOUNCEMENT:

### 2010 Rational Developer for System z - Free Distance Learning Classes 2010 by isayles at Nov 30, 2009 10:46 AM

If you're interested in signing up for one of the Distance Learning web-casts, or just want to learn more about these free events, click here: <a href="http://www-949.ibm.com/software/rational/cafe/docs/DOC-3303">http://www-949.ibm.com/software/rational/cafe/docs/DOC-3303</a> - but don't wait until the last minute (the classes generally fill up 4 - 6 weeks before the start date)

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The Enterprise Modernization Sandbox for Power Systems is a cloud offering that provides a dedicated, hosted environment with mainframe connectivity and IBM enterprise modernization products already installed just for you. Each solution scenario is centered around a simple, realistic customer exercise that shows how to optimize the value of your applications, people, teams, and infrastructure investments for Power Systems.



View the quick-start guide, which includes the steps to get up and running and tutorials for scenarios to try. Watch this 10-minute flash presentation of the products available in the Enterprise Modernization Sandbox for Power Systems.



Install the Citrix client to access the hosted trials: If you do not already have a Citrix client, you will need to download and install it before accessing the trials. See the online trial prerequisites for more information.



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# **Thanks**