



The Future of z Systems Documentation

IBM Knowledge Center and Beyond

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Information overload and the tools we use

- Agile and DevOps methodology
- IBM Design Thinking
- IBM Knowledge Center
- IBM Watson and cognitive computing
- Hot Topics, Redbooks, and Communities





Agile and DevOps Methodology

Susan Shumway

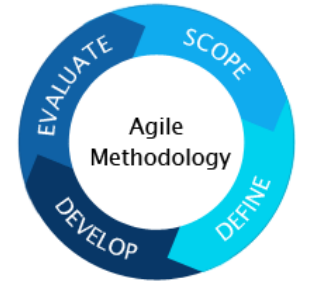


How we are using Agile and DevOps methodologies

- Agile
- DevOps



What is Agile?



Defined as a project management alternative to traditional “waterfall” development, characterized by:

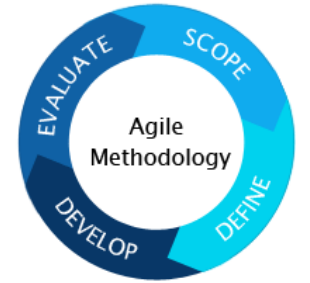
- Incremental, iterative work cadences, known as sprints or iterations
- Regular assessment of the direction of a project throughout the development lifecycle
- Project redirection whenever deemed necessary
- Potential delivery of a consumable product increment at the end of a sprint/iteration
 - “Continuous delivery” = software can be reliably released at any time. Every change is deployable to production, but a team **may choose to not deploy it**.

What is Agile? (cont.)



- Around for decades
 - “Agile methodology” originally introduced in the late 1970s
 - "Manifesto for Agile Software Development" first proclaimed in 2001
- Successfully implemented by many top companies (Google, Facebook, PayPal), for example:
 - Agile transformation at **Nationwide** led to **50% improvement in code quality**
 - Agile transformation at **Cars.com** led to **7.5x more releases per year**
 - Agile transformation at **Cap Gemini** led to **25% faster to market**
 - Agile transformation and SAFe adoption at **Telstra Corporation** led to **fewer mistakes**
- z/OS development use = ~ 5 years

How does Agile impact the z Systems documentation?



Documentation for a function is written in the same sprint/iteration as the coding and testing of the function, not long afterward like in previous waterfall models.

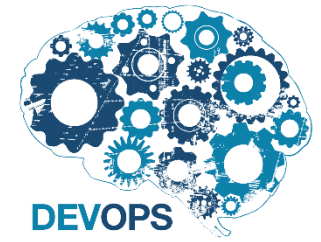
This promotes:

- More efficient workload balancing
 - (A piece of work is completed, then everybody moves on to the next one)
- Faster turnaround of and more complete technical reviews
 - (Everybody works on the same piece of work at the same time)
- Greater accuracy of the documentation
 - (Function is fresh in everybody's minds)

= Higher quality of the end product



What is DevOps (DEVELOPMENT OPERATIONS)?

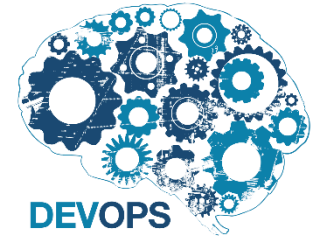


Defined as the practice of operations and development engineers participating together in the entire service lifecycle, from early design of the product through service of the shipped product.

All disciplines (design, code, documentation, test, build, support, etc.) are involved, with equal influence, at all stages of product development.



How does DevOps impact the z Systems documentation?



The product documentation team members are involved in all aspects of product development.

This promotes:

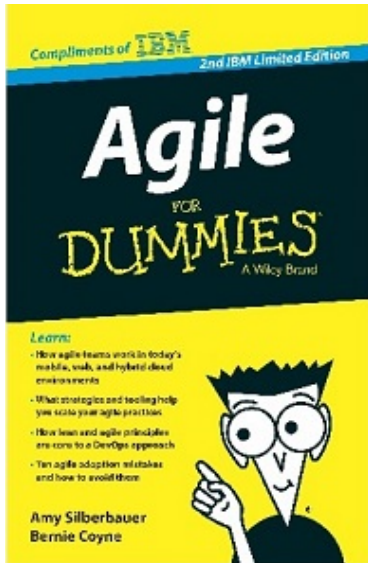
- Greater understanding of the product
 - (Everybody provides input on the design and participates in testing)
- Greater understanding of what we need and what the stakeholder (test, user, etc.) after us needs
 - (Everybody communicates efficiently and continuously)

= Higher quality of the end product



Agile resources

- IBM Lean and Agile development: ibm.com/ibm/devops/us/en/agile/
- IBM Lean and Agile case studies and additional resources: ibm.com/software/rational/agile/casestudies/



- Agile for Dummies (IBM edition) e-book: ibm.co/agilefordummies





IBM Design Thinking

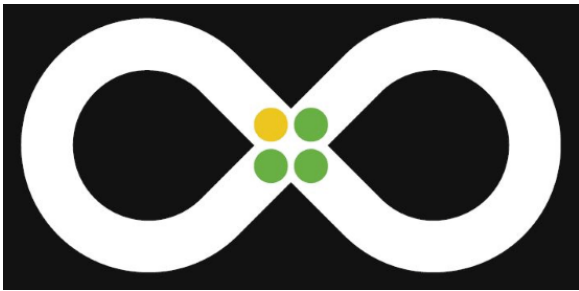
The future of information delivery

Jodi Everdon



IBM Design Thinking





The Design Loop: Human-centered outcomes at speed and scale



- **A focus on user outcomes.** There are many ways to prioritize work and define goals. If you choose to prioritize the needs of the people who will use your solution, IBM Design Thinking is for you.



- **Multidisciplinary teams.** When you need to move fast, there's no time for waterfall processes. You need a great multidisciplinary team. If you have one, you're ready to go. Otherwise, help your leadership understand the gap.



- **Everything is a prototype.** Everything—even in-market solutions. When you think of everything as just another iteration, you're empowered to bring new thinking to even the oldest problems.



Keys to IBM Design Thinking

- Three of the most important techniques for scaling design thinking to complex teams and projects:



- **Hills:** Align complex teams around a common understanding of the most important user outcomes to achieve.



- **Playbacks:** Bring your extended team and stakeholders into the loop in a safe, inclusive space to reflect on the work.



- **Sponsor Users:** Collaborate with real users to increase your speed and close the gap between your assumptions and your users' reality.



Design Thinking is everywhere

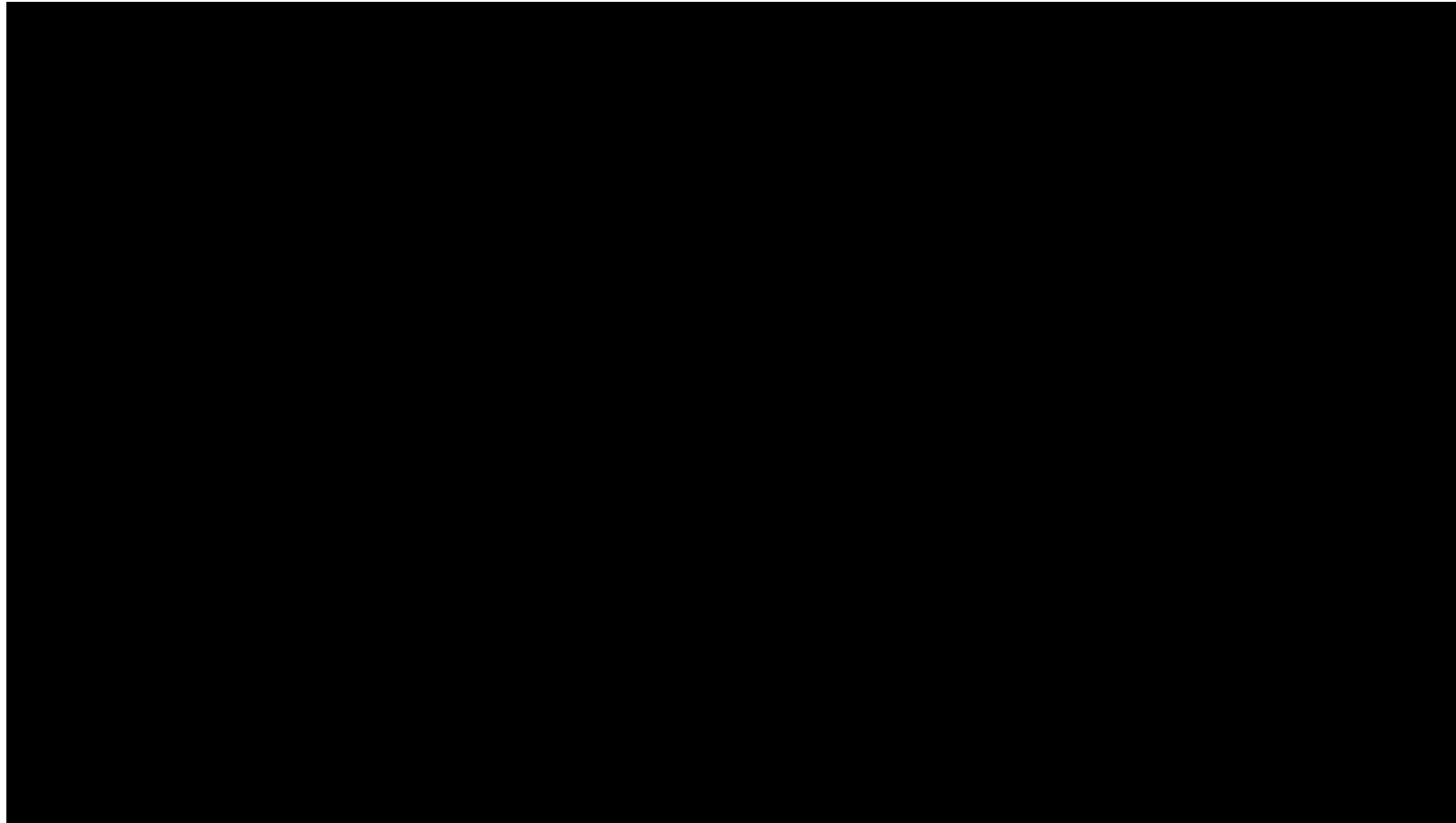
Design thinking is a necessary skill in today's business culture.

Some examples of critical applications for design thinking:

- Developing new products
- Developing new features for an existing product
- Enhancing the look and feel of a product
- Guiding strategic direction
- Solving difficult problems
- Helping decision-makers with tough choices
- Building cognitive solutions with IBM Watson using Bluemix



Mission of IBM Design Thinking



Design resources

To learn how ***IBM Design Thinking is transforming z Systems***, attend

- ***IBM Design Thinking - Transforming z Systems***, by Kirsten McDonald and Iris M. Rivera (Marist ECC, Monday, June 13th, at 3:50pm)

To learn about IBM Design Thinking from IBM and other perspectives, check out:

- **IBM Design Thinking Resources:** ibm.com/design
- **“IBM’s Design-Centered Strategy to Set Free the Squares”** - Steve Lohr, New York Times
- Design at Wired.com
- **Stanford Design School: Crash Course** dschool.stanford.edu/dgift/





IBM Knowledge Center

Geoff Smith



z/OS information challenges

- Better search – the ability to find the right information quickly and easily
- Currency – provide real time updates to large mainframe libraries
- Skills – the majority of people who work with mainframes are leaving and people new to the platform need to be productive quickly.
- Bridging the UI divide – Green Screen versus Touch Screen
 - z/OSMF Simplify and eliminate documentation
 - Workflows to simplify tasks and eliminate documentation
 - Tools



General review of IBM Knowledge Centers

- Developed to replace information centers and bring all IBM documentation under one website.
- KC flavors:
 - IBM Knowledge Center Hosted – Delivered on the Internet
 - IBM Knowledge Center Hosted - Mobile Edition
 - IBM Knowledge Center for Customer Install (Windows)
 - IBM Knowledge Center for z/OS Customer Install (z/OS V2R2 new element of z/OS)
- Differences:
 - Hosted versions leverage IBM logon to let you save searches and provide more of a personalized user experience.
 - Knowledge Center Customer Install (KCCI) provides a standalone KC but it does not include personalization functions
- IBM Knowledge Center versions:
 - The current version is 2.0: ibm.com/support/knowledgecenter/



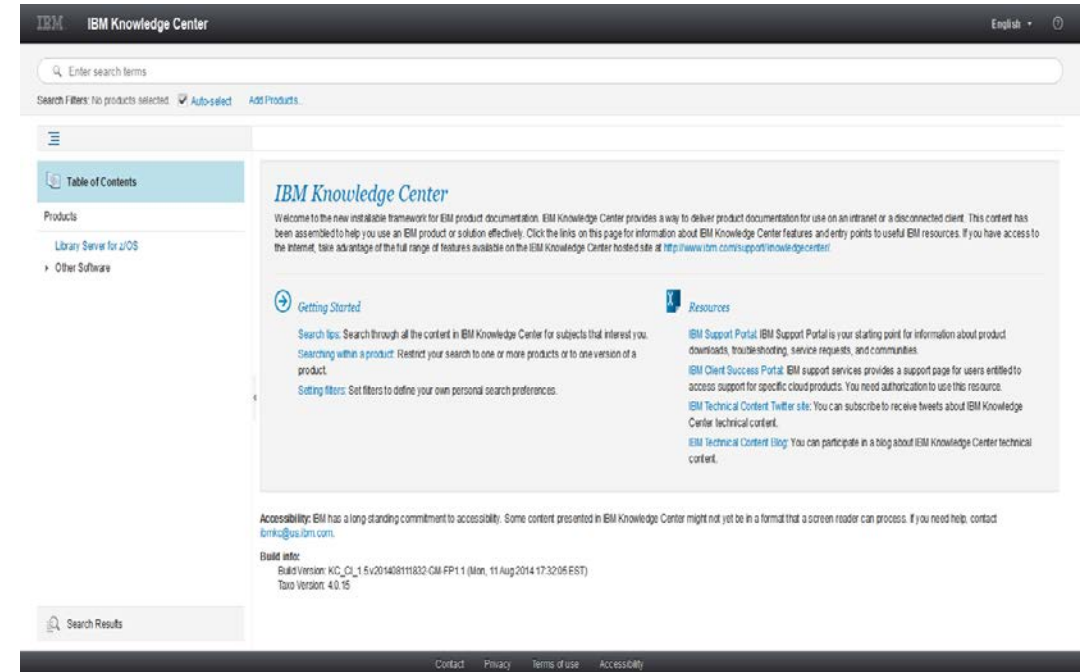
IBM Knowledge Center for z/OS (KC4z)

KC4z serves IBM product publication content to web browser clients from the z/OS server system.

KC4z provides the ability to display, navigate and search content in a manner similar to the Knowledge Center on ibm.com.

Content can be automatically added to and maintained in KC4z zFS repositories using the enhanced Softcopy Librarian tool.

By adding and maintaining content, KC4z can be made to serve product publications for many different IBM products.



Using Softcopy Librarian (SCL)

The image displays several overlapping windows from the Softcopy Librarian (SCL) application:

- Product Categories:** A window titled "Product Categories" with a search icon. It contains a list of categories matching the IBM Collection Kit CD's. The selected category is "**z/OS V2R2 Base and Features Collection** KnowledgeCenter". Other categories include "z/VSE Collection", "z/OS V2R1 Base and Features Collection", "z/VM V6R3 Collection", "z/OS V1R13 and Software Products Collection", "SMP/E V3 for z/OS Product Lib.", "z/OS V1R12 and Software Products Collection", and "z/OS V1R11 and Software Products Collection".
- Internet - z/OS V2R2 Base and Features Collection KnowledgeCenter (Sep 2015):** A window showing a table of content. The table has columns for Title, Status, Filename, Date, Size, and Files. The row shown is: z/OS V2R2 Knowledge Center, New, c2747470.zip, Oct 20, 2014, 1.73, 52.
- Repository Properties - combat:** Two instances of this window are shown. The "File types" tab is active, displaying a list of file types: BOO, BKI, BKS, PDF, XKS, **kcCONTENT**, and kcPROPERTIES. The second instance also shows "kcPROPERTIES" selected. Below the list, it specifies directories for "KC PLUGIN CONTENT" and "KC PRODUCT PROPERTIES".
- Transfer Progress:** A dialog box showing the progress of a file transfer. It includes fields for Source and Target, File number (1 of 1), Current file progress (100%), and All files progress (100%). The transfer rate is 10KB. A "Cancel" button is at the bottom.

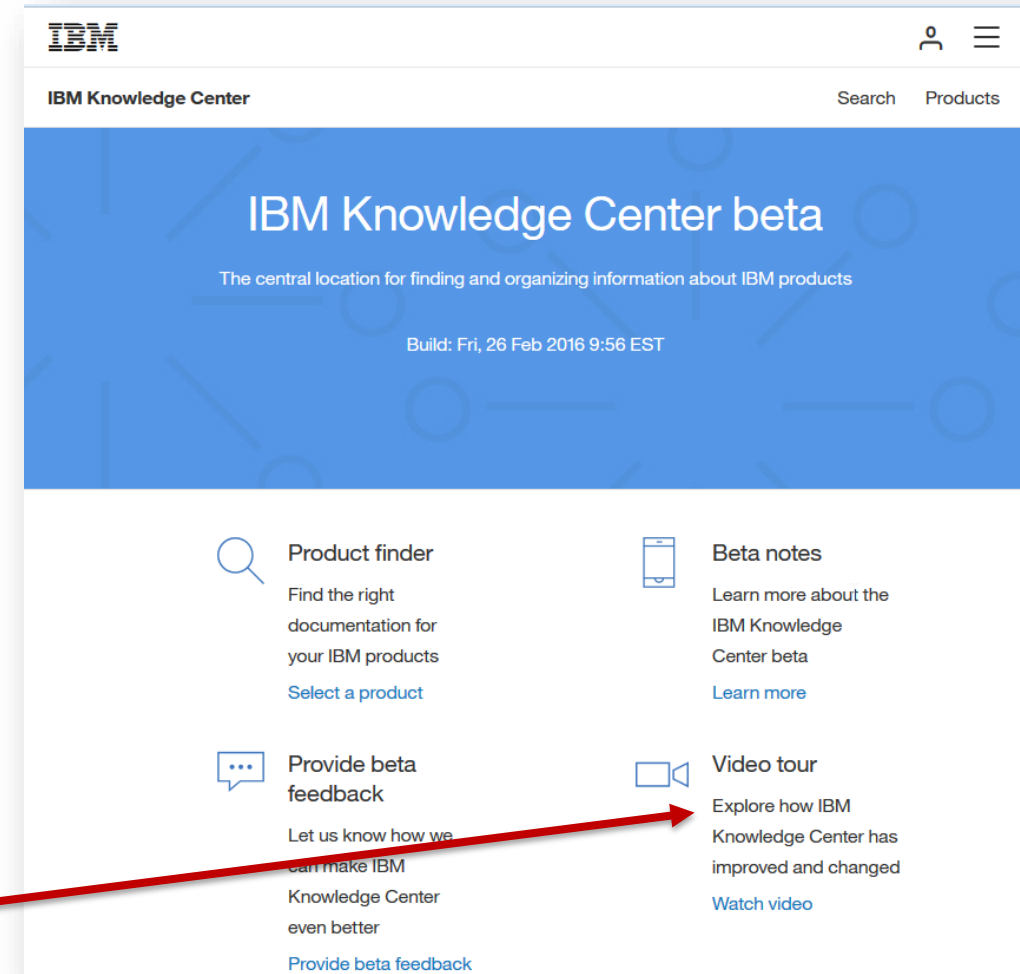


Introducing Knowledge Center 2.0

Improving search for IBM Knowledge Center 2.0

- IBM Knowledge Center 2.0 was developed using IBM Design Thinking methodology, which is an iterative process that involves customers in the design process.
- New Improved Interface – compliant with **ibm.com**
- Improved Context in Search Results
- Improved navigation throughout
- Optimized mobile Interface for smaller mobile devices that will automatically detect the device and change to optimize the display

Tip: View the Video tour for a quick overview of how to easily utilize the new features of Knowledge Center 2.0.



knowledgecenter.mybluemix.net/beta

IBM Knowledge Center improvements

Knowledge Center 1.5

- **User interface** - Too complex and confusing and not compliant with emerging standards
- **Navigation** - KC 1.5 exposed the unnecessary details of IBM's product taxonomy with the table of contents.
- **Search context** - Customers complained there wasn't enough context in search
- **Speed** - Too slow

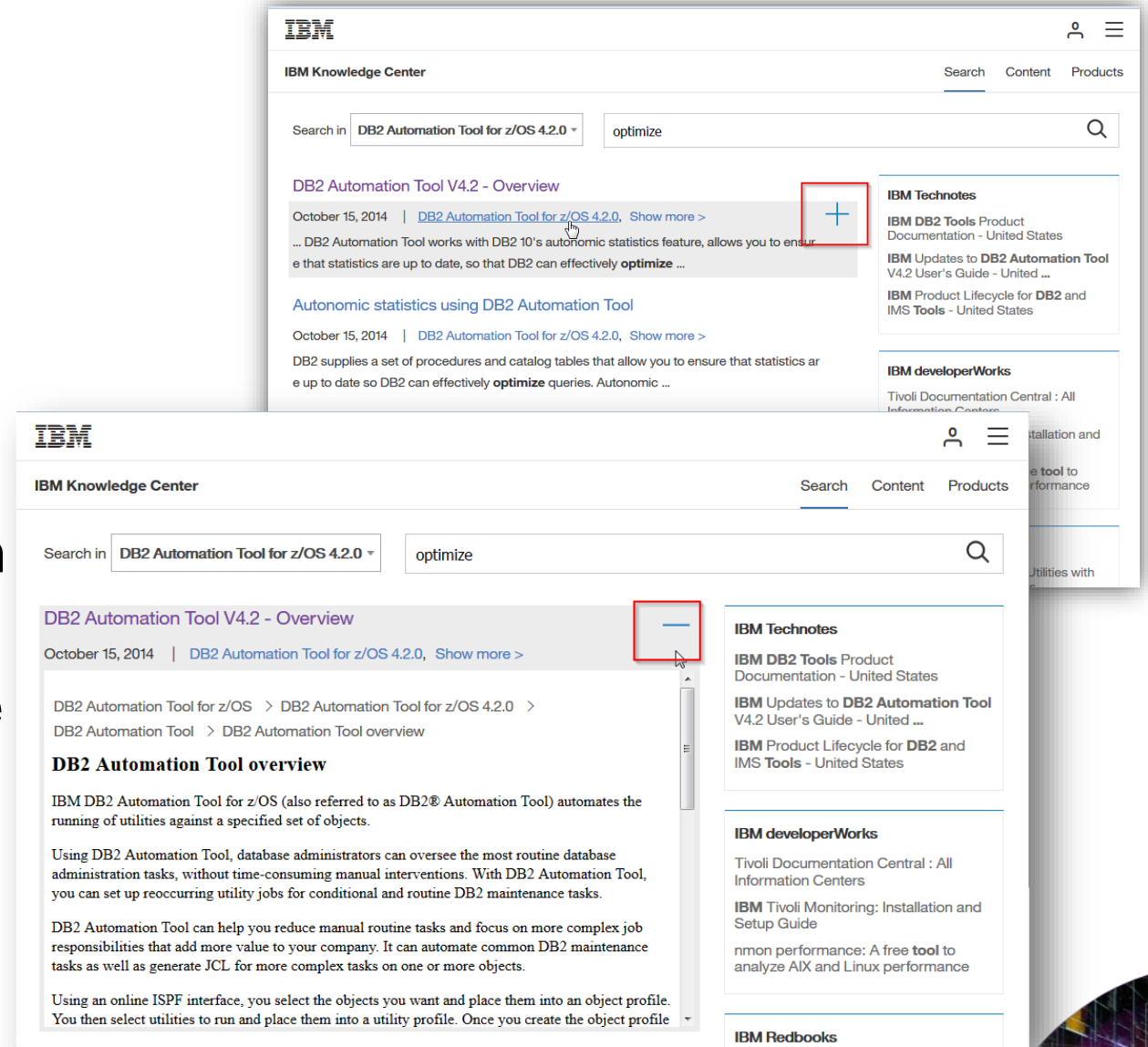
Knowledge Center 2.0

- **User interface** - Dramatically simpler. Removed function that web statistics showed customers were not using – such as “collections” and custom PDFs
- **Navigation** - Simplified by just listing the product names.
- **Search context** - Search results provide a preview function
- **Speed** - Redesigned internals dramatically improves responsiveness



Searching KC 2.0

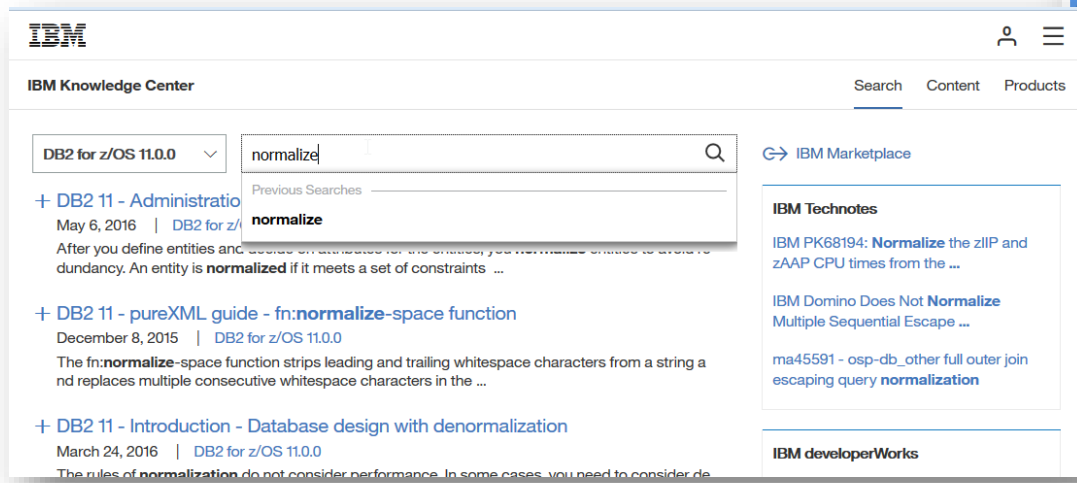
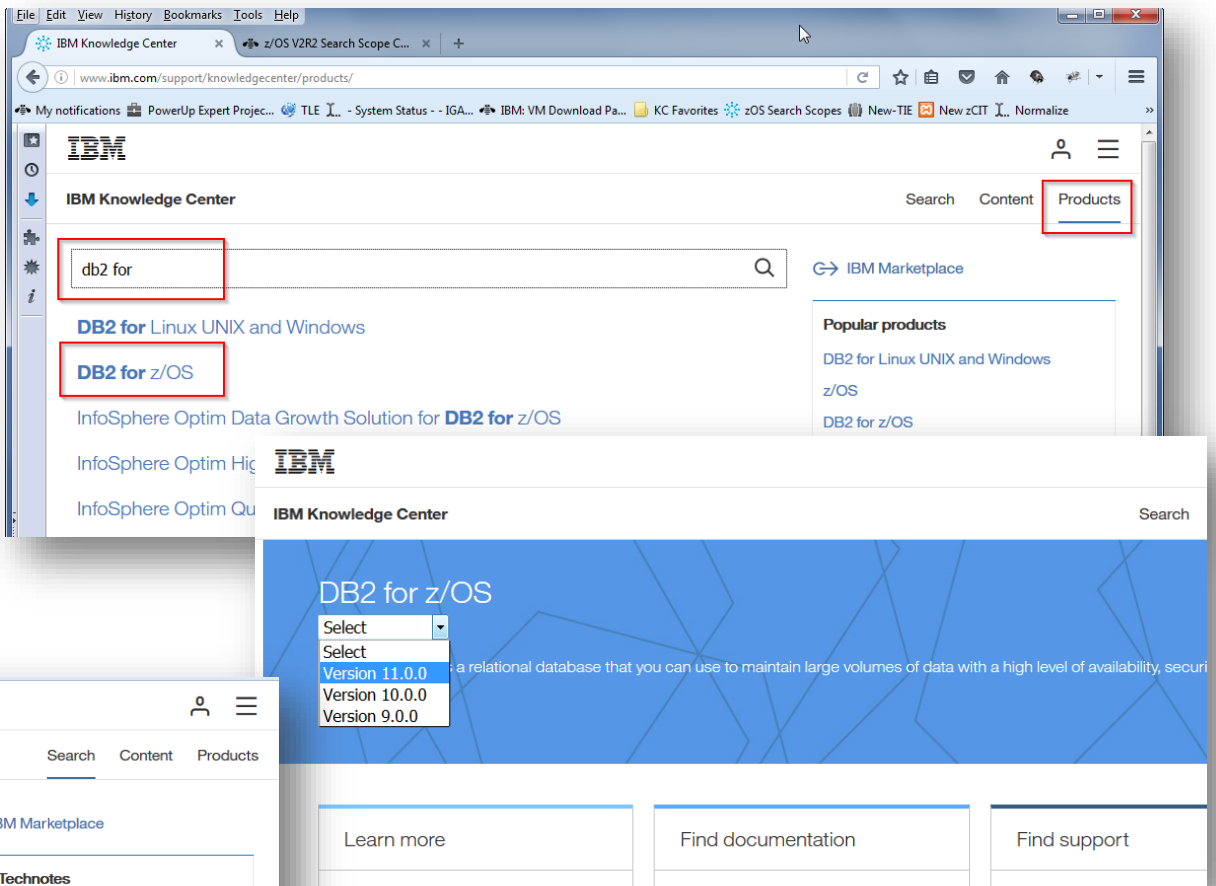
- The top complaint from users of KC 1.5 typically was ... Not enough context in search results
- New preview function lets users see their results before going to them.
- Hover over the results and a plus sign lets users preview the results
- In addition, we are requesting that the book title be added to the results to provide even more context.



Using IBM Knowledge Center 2.0

Three easy steps

1. Find your product.
Click on “Products” link and start typing the product name until it appears on the list.
2. Select the product and version you are interested in
3. Enter your search term and click search



Adobe indexed PDF collections **

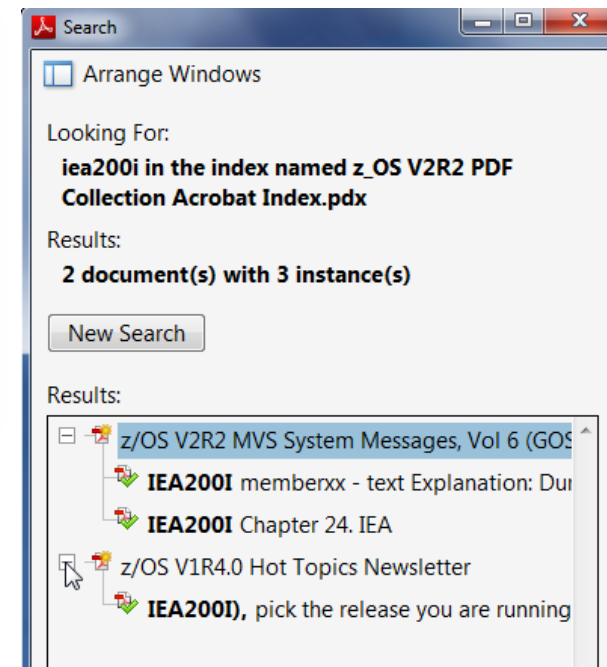
We created this deliverable based on comments from the SHARE closed door and discussion sessions.

- Our survey indicated that most customers download PDFs to create a personal repository for offline or emergency use
- Customers requested an easy way to download all PDFs at once
- Customers also wanted a search that showed the type of context they were accustomed to with BookManager.

publibfp.dhe.ibm.com/epubs/html/c2784301/c2784301.zip

**Note: We are introducing an “Adobe indexed PDF collection” which uses standard Adobe indexes. We plan to stop producing collections that use IBM’s proprietary Advanced Linguistic Search (ALS) by z/OS V2R3.

Name	Type	Compressed size	Password
z_OS V2R2 PDF Collection Acrobat Index.pdx	Adobe Acrobat Catalog In...	1 KB	No
izuz5101.pdf	Adobe Acrobat Document	770 KB	No
izuz3111.pdf	Adobe Acrobat Document	1,414 KB	No
izu27200.pdf	Adobe Acrobat Document	1,366 KB	No
izu23200.pdf	Adobe Acrobat Document	1,587 KB	No
izu22100.pdf	Adobe Acrobat Document	551 KB	No
izu21100.pdf	Adobe Acrobat Document	77 KB	No
isp2ug10.pdf	Adobe Acrobat Document	1,807 KB	No



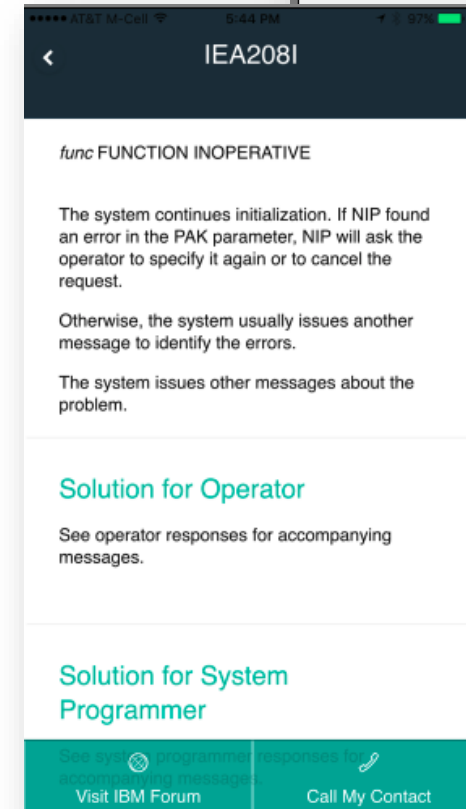
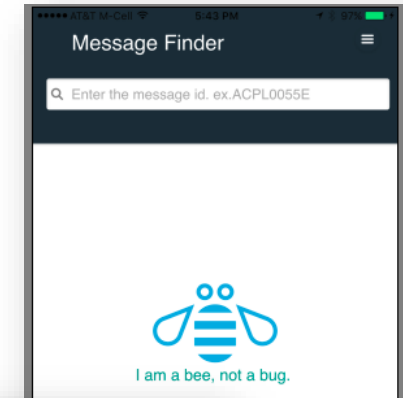
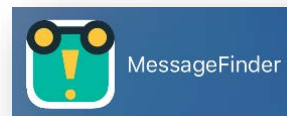
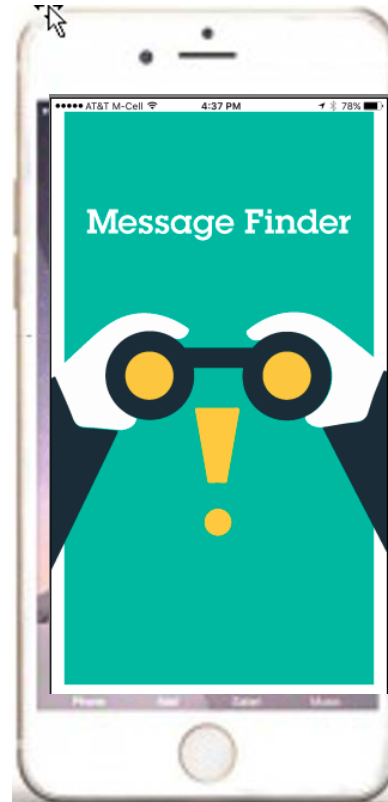
Benefits:

1. Provides standalone library
2. Provides a full text search with good context



IBM Message Buddy

- A beta of the IBM Message Buddy app is available internally today.
- It is a new message lookup facility.
- It runs on Android.
- The user will install it from Google Play.
- Once installed, the user can choose the message catalogs they download.
- The message explanations are installed on the device, so the explanation is available without an Internet connection.
- It has type-ahead so as you type a message id, the list of potential explanations appears below





IBM Watson and Cognitive Computing

Using IBM Watson to improve documentation



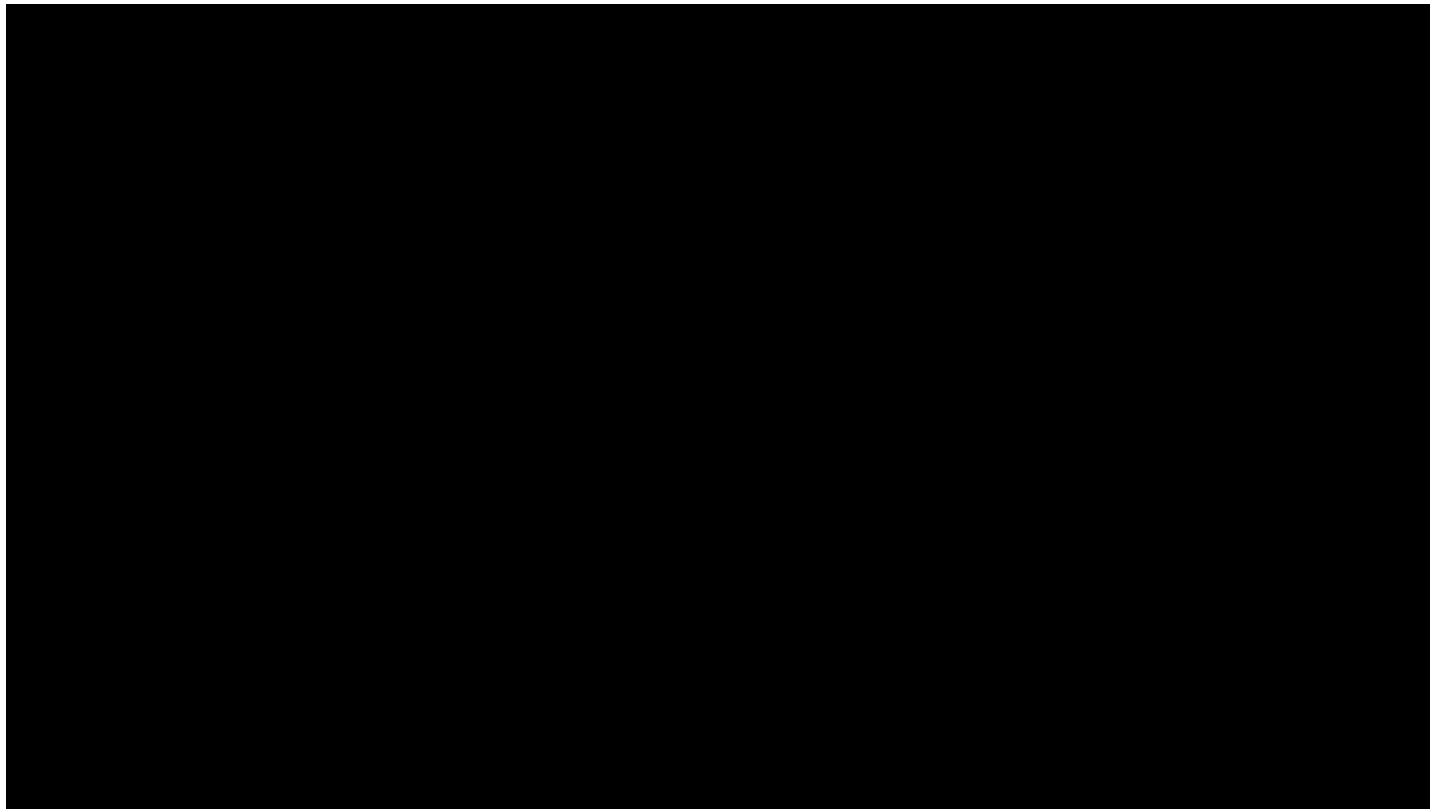
What is cognitive computing?

- Cognitive computing refers to systems that learn at scale, reason with purpose and interact with humans naturally. Rather than being explicitly programmed, they learn and reason from their interactions with us and from their experiences with their environment.
- Most current systems have been deterministic; cognitive systems are probabilistic. They generate not just answers to numerical problems, but hypotheses, reasoned arguments and recommendations about more complex and meaningful bodies of data.
- What's more, cognitive systems can make sense of the 80 percent of the world's data that computer scientists call "unstructured." This enables them to keep pace with the volume, complexity and unpredictability of information and systems in the modern world.



Overview: How IBM Watson learns

www.youtube.com/watch?v=ymUFadN_MO4



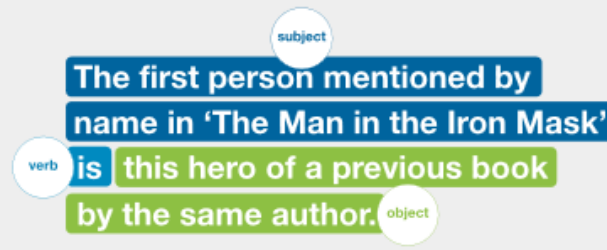
How IBM Watson works

How Watson reveals insights



Analyzes unstructured data

Uses natural language processing to understand grammar and context



Understands complex questions

Evaluates all possible meanings and determines what is being asked



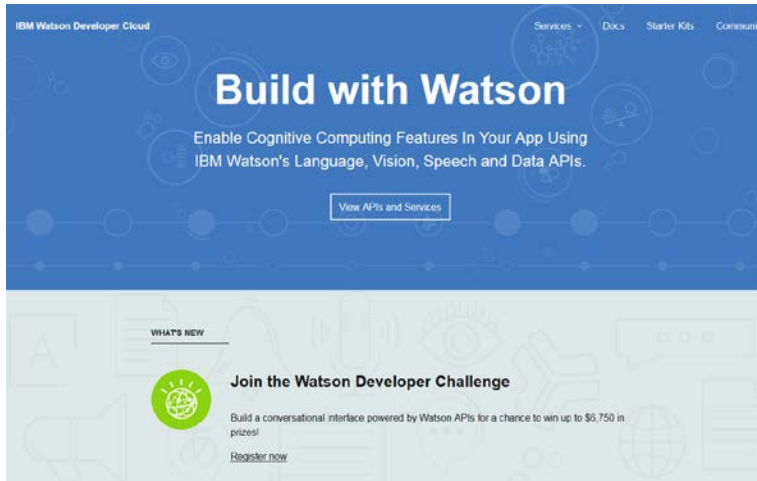
Presents answers and solutions

Based on supporting evidence and quality of information found










ibm.com/smarterplanet/us/en/ibmwatson/what-is-watson.html



Using IBM Watson APIs






Language

 AlchemyLanguage Learn more Documents	 Concept Expansion Learn more Documents	 Concept Insights Learn more Documents
 Dialog Learn more Documents	 Document Conversion Learn more Documents	 Language Translation Learn more Documents
 Natural Language Classifier Learn more Documents	 Personality Insights Learn more Documents	 Relationship Extraction Learn more Documents


Speech

 Speech to Text Learn more Documents	 Text to Speech Learn more Documents
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Vision

 AlchemyVision Learn more Documents	 Visual Insights Learn more Documents	 Visual Recognition Learn more Documents
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Data Insights

 AlchemyData News Learn more Documents	 Tradeoff Analytics Learn more Documents
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IBM Watson Bluemix: ibm.com/cloud-computing/bluemix/library



Marist and IBM Watson

The screenshot shows the Marist College website with a red header. The navigation menu includes: About Marist, Admission, Academics, Student Life, Athletics, and Community. The Marist logo is prominently displayed on the left, and a search bar is on the right. The main content area is titled "Marist/IBM Joint Study" and includes a breadcrumb trail "home > community". The page text describes the long-standing partnership between Marist College and IBM, highlighting the Joint Study program and the SDN Innovation Lab. A contact section for Geoffrey L. Brackett is also visible.

[About Marist](#) [Admission](#) [Academics](#) [Student Life](#) [Athletics](#) [Community](#)

MARIST

Community

Marist/IBM Joint Study

[FDR Presidential Library](#)

[Marist Poll](#)

[Hudson River Valley Institute](#)

[Marist Center for Sports Communication](#)

[Cary Institute of Ecosystem Studies](#)

[IDCP: Data Center Education](#)

[Marist Bureau of Economic Research](#)

Contact:

Geoffrey L. Brackett

845-575-3296



[home](#) > [community](#)

Marist/IBM Joint Study

Marist College has had a longstanding partnership with the IBM Corporation that has helped place Marist among the most technologically advanced liberal arts colleges in the country. A key component of the Marist/IBM partnership has been a long-standing Joint Study arrangement that has benefited both the College and IBM in many ways. Through the Study, IBM has been able to test concepts and applications that the company believes can be of value in the 21st century in cloud computing, analytics, education, business, cybersecurity and other fields. The Study has also helped develop a world class technology platform to support instructional, research and administrative initiatives.

The introduction of computers and computer science courses at Marist began in the mid 1960s, a time when few colleges the size of Marist had moved into this field. From the start, the approach has been that computers are a functional tool for everyone at the College as well as a scientific discipline to be mastered by those in the School of Computer Science.

The IBM/Marist Joint Study began in 1988 with the installation of a \$10 million IBM 3090 mainframe computer. Since that time, Marist has continuously worked with IBM to carryout major upgrades of its enterprise computing environment. The College's participation in the Joint Study provides the unique opportunity for Marist students, faculty, and IT staff to work collaboratively with IBM research and development staff on various emerging technology initiatives. For example, Marist and IBM have combined their resources in a Joint Study program focused on Software Defined Networking (SDN) technology. This technology is being tested in the [SDN Innovation Lab](#) housed in the Hancock Center. The SDN advancement Marist and IBM are testing will enable an IT professional to remotely access and configure network resources via a wireless device and open source network controller developed by Marist.

More recently, Marist and IBM embarked on emerging technology research projects with applications in both the business and academic worlds. These projects include data analytics, software defined networking and cloud computing. Current and planned activities provide Marist students the opportunity to work closely with faculty from many disciplines.

Related Information:

- [IBM Corporation](#)



How can you build a cognitive solution?



- Join [IBM Bluemix](https://ibm.com/cloud-computing/bluemix/library) today (ibm.com/cloud-computing/bluemix/library) without a credit card.
- Access to 2 GB of runtime and container memory to run apps.
- Unlimited IBM services, APIs, and complimentary support.





Hot Topics, Redbooks, and Communities

Other sources for z-related documentation

Rita Beisel



IBM z/OS Hot Topics

IBM z/OS Hot Topics is an annual newsletter that provides usable, hands-on, technical information about z/OS topics and features.

To check out previous editions:

ibm.com/systems/z/os/zos/library/hot-topics/hot-topics.html



IBM z Systems **Redbooks**

Redbooks address product, platform, and solution perspectives and explore the integration, implementation, and operation of realistic client scenarios.

Some examples include:

- ABCs of IBM z/OS System Programming
- IBM z13 Technical Guide
- IBM Mainframe Bits: Understanding the Platform Hardware

To see the available Redbooks for z Systems:

www.redbooks.ibm.com/portals/systemz



z-Related communities

Connect with experts, collaborate & share with peers via Communities:

- z Systems: ibm.com/systems/z/resources/community.html
- IBM Destination z: www.destinationz.org/Community.aspx
- SHARE: www.share.org/
- zNextGen: www.znextgen.org/
- IBM Academic Initiative: developer.ibm.com/academic/



z-Related contests and learning systems

- IBM Master the Mainframe contest:

ibm.com/systems/z/education/academic/masterthemainframe/index.html

- New:

- **Mainframe Contest Learning System**

IBM opened the Master the Mainframe Contest system to anyone wishing to gain extra mainframe experience in a controlled environment (Note: No prizes are awarded with participation):

ibm.com/systems/z/education/academic/masterthemainframe/contest/learning.html



Additional z-Related resources

- zFavorites: ibm.com/systems/z/os/zos/library/zfavorites/
- IBM terminology: ibm.com/software/globalization/terminology/
- IBM Publications Center: ibm.com/e-business/linkweb/publications/servlet/pbi.wss
- z Systems resources: ibm.com/systems/z/resources/index.html
- z Systems education: ibm.com/systems/z/education/index.html



z-Related Facebook pages

- IBM System z: www.facebook.com/IBMsystemz
- IBM Master the Mainframe Contest: www.facebook.com/MasterTheMainframe
- IBM Destination z: www.facebook.com/IBMDestinationz
- SHARE Inc: www.facebook.com/SHAREonSocial



z-Related LinkedIn profiles

- System z Advocates: www.linkedin.com/groups/155723/profile
- IBM z Systems Events: www.linkedin.com/groups/IBM-System-z-Events-3053018
- Mainframe Experts Network: www.linkedin.com/groups/Mainframe-Experts-Network-55779

