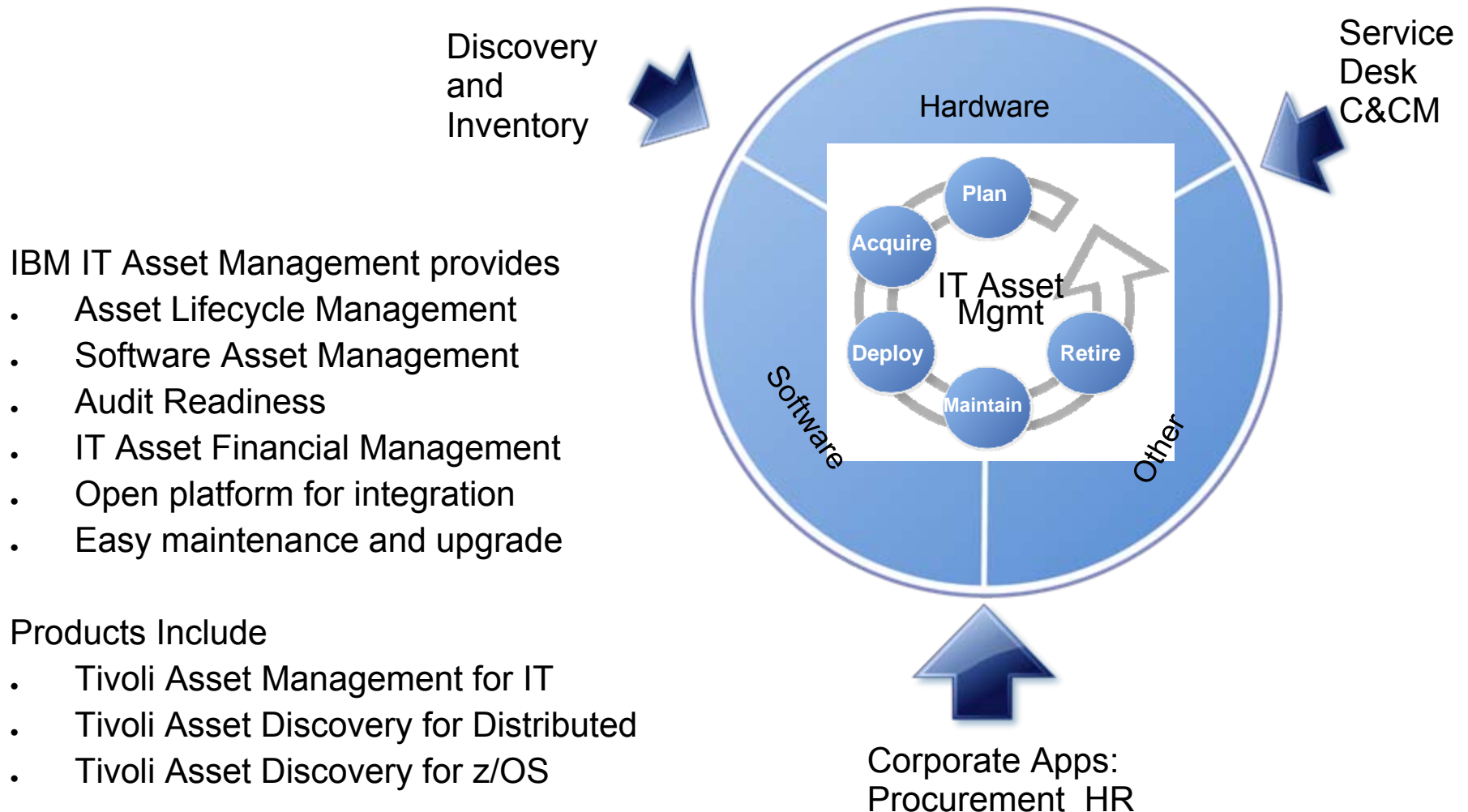


How to reduce redundant Software

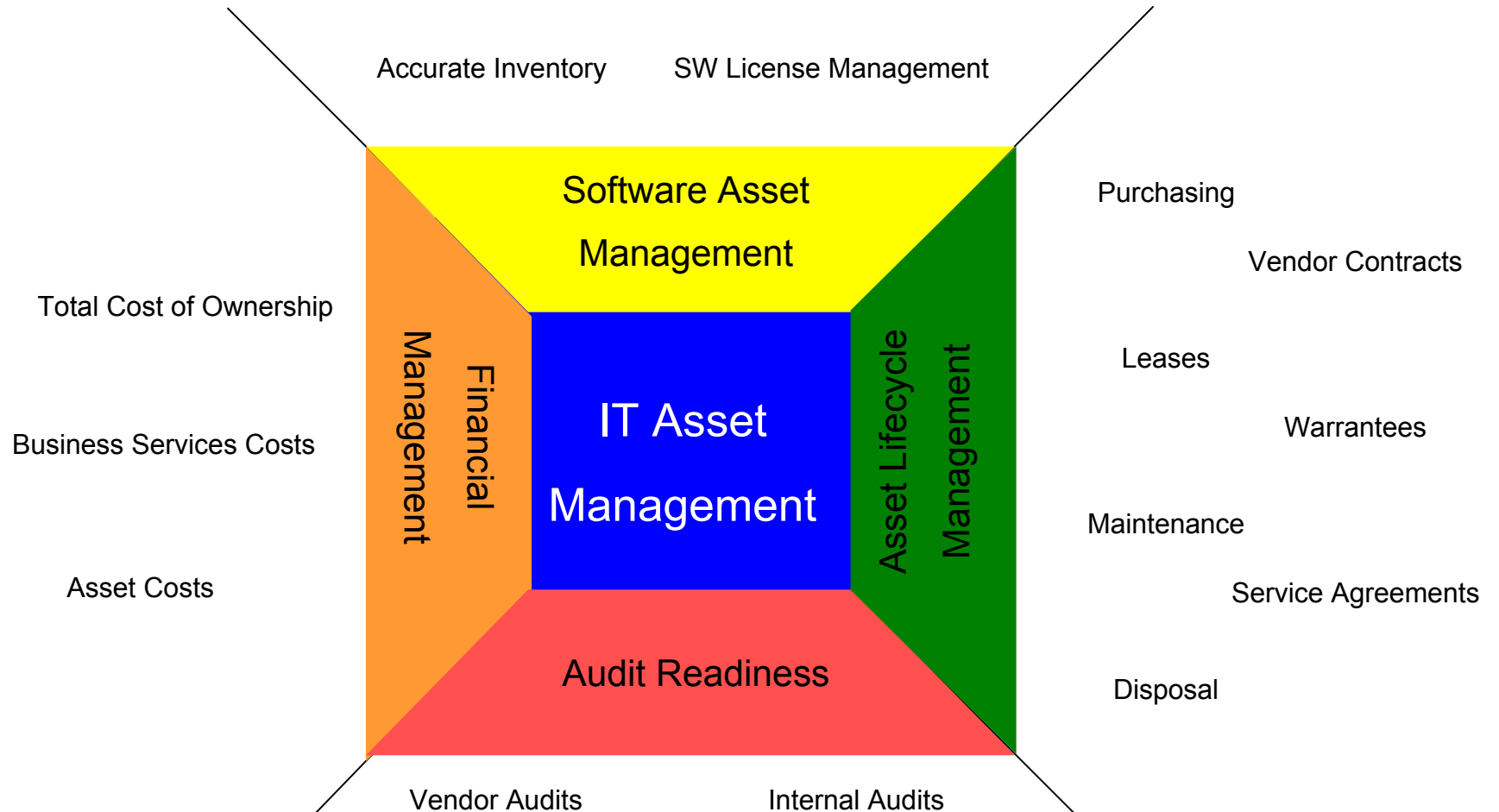
Fabio Riva

fabio.riva@it.ibm.com

IT Asset Management Overview



IT Asset Management Business Priorities



Software Asset Management

Business Need

- Understand and control:
 - Purchased software contracts, agreements and license entitlements
 - Deployed SW inventory, software usage and associated HW environment

Business Drivers

- Identification and reduction of no and low use software
- Comply with Sarbanes-Oxley Section 404
- Vendor / Application Portfolio Rationalization
- Strong vendor contract negotiation leverage
- Leverage new technologies without increasing business expense or risk
 - Multi-core processors
 - Virtual machines
 - Cloud computing

Business Value Delivered

- Reduce software budget
- Mitigate audit risk

Main Questions:

- Am I using the software that I have deployed?
- Are my contracts and purchase agreements efficient?
- When do my leases, warranties and support agreements expire?

IBM Products:

- Tivoli Asset Management for IT
- Tivoli Asset Discovery for Distributed
- Tivoli Asset Discovery for z/OS)

Asset Lifecycle Management

Business Need

- Improve visibility and control of all IT assets through their lifecycle
- Obtain accurate asset data to enable appropriate and timely action across the business

Business Drivers

- Simplify purchasing and contract management
- Improve planning capability
- Improve asset utilization by extending it's life
- Improve employee/customer service
- Optimize energy efficiency of assets

Business Value Delivered

- Reduce IT asset cost through visibility and control
- Increase time-to-value with ITAM best practices
- Maximize lifetime productive value of assets
- Improve efficiency through role drive UI and workflow
- Better IT service that meets increasing business demand

Main Questions:

- Do I know what assets I own?
- Where are they located?
- Are we tracking IMAC's?
- Are assets being maintained and is maintenance being done properly?
- Am I abiding by corporate and governmental procedures and standards?

IBM Products:

- Tivoli Asset Management for IT

IT Financial Management

Business Need

- Visibility and control over IT operating and capital costs
- Reduce Total Cost of Ownership of IT assets
- Understand IT costs to determine line of business, product and service profitability

Business Drivers

- Optimize the lifetime value of mission critical assets
- Financial Management approval of shared technology investments (e.g. virtualization)
- Chargeback for business services delivered (e.g. Cloud Computing)
- Reduce costs through utilization of energy efficient assets

Business Value Delivered

- Align IT spending with business objectives
- Increase Return on Assets
- Lower infrastructure costs

Main Questions:

- What are my asset costs? TCO?
 - By Asset
 - By Department
 - By Individual
- How much do my contracts cost?
- Can we allocate costs fairly and effectively?

IBM Products:

- Tivoli Asset Management for IT
- Tivoli Usage and Accounting Manager
- Tivoli Decision Support for z/OS

Audit Readiness

Business Need

- Be prepared for software audits 24x7
- Understand licenses and their relationship to contracts
- Accurate information about software inventory and usage in both distributed and mainframe environments

Business Drivers

- Reduce business risk due to vendor-specific software audits
- Support requirements of internal audits
- One solution for all vendors, contract and license types
- Centralized management of all contracts, licenses and inventory for all vendors

Business Value Delivered

- Cost avoidance of unplanned license compliance penalties
- Reduce costs to conduct internal / vendor audits

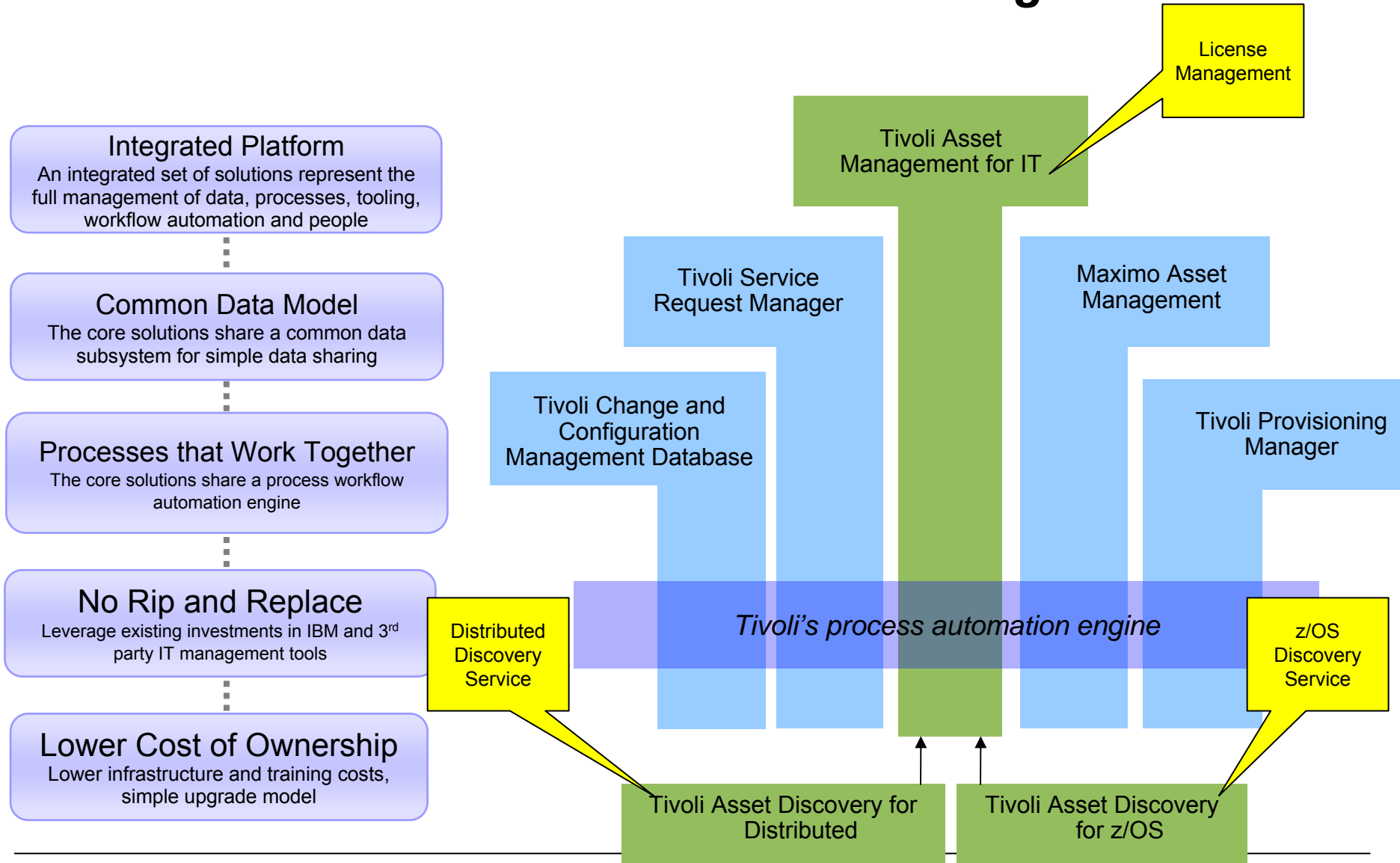
Main Questions:

- What am I entitled to?
- What's deployed in my environment?
- Am I over or under purchased?

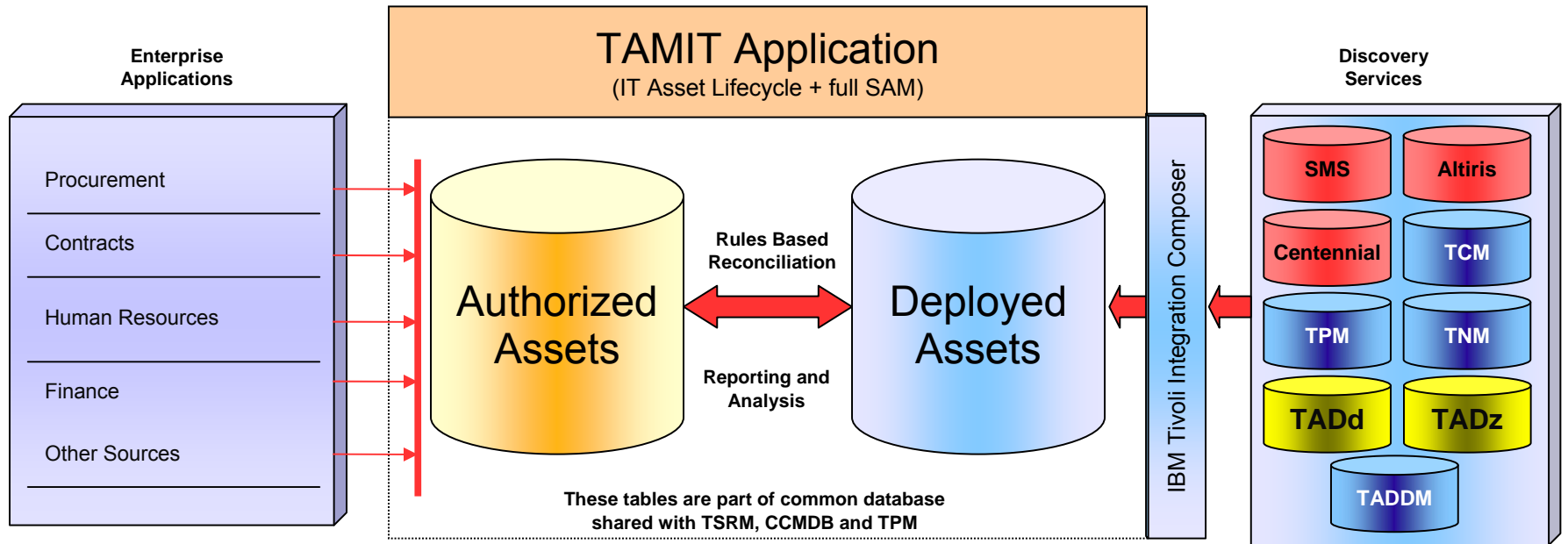
IBM Products:

- Tivoli Asset Management for IT
- Tivoli Asset Discovery for Distributed
- Tivoli Asset Discovery for z/OS

Unified solution for Asset and Service Management



Tivoli Asset Management for IT



Tivoli Asset Management for IT (TAMIT) - Capabilities

Contract Management



- Contract Terms & Conditions
- Notifications
- Software Contracts
- Software License Management

Procurement



- Procure based on standards
- Create and route purchase orders
- Use catalogs
- Integrate with ERP systems

Financial Management



- Purchase/Lease Cost Tracking
- Work/Service Cost Tracking
- Total Cost of Ownership

Asset Discovery



- Desktop Discovery
- Server Discovery
- Software License Usage (Distributed & z/OS)
- Deep Network Device Discovery
- Storage Device Discovery

Asset Management



- Software Asset Management
- Hardware Asset tracking
- Installs, moves, adds, changes
- Reconciliation/Audit
- Extend beyond IT (data center facilities, power, etc.)

IT Asset Management

Work Management



- Work planning and scheduling
- Skills, labor, and inventory management
- Service plans and cost management

Service Management



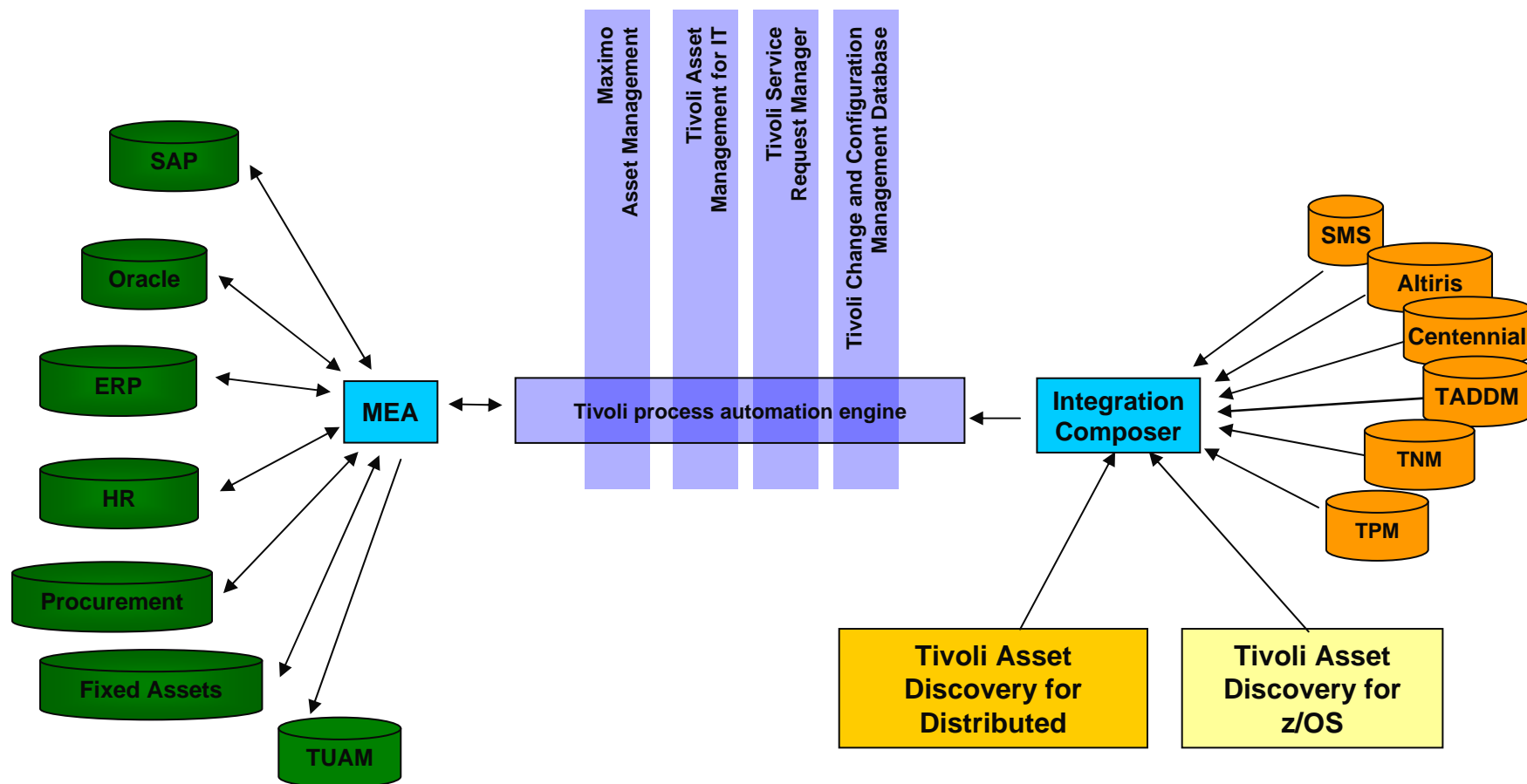
- Tivoli CCMDB
- Support service desk with asset configuration data
- Service Impact Management

Easy Configuration



- UI, dashboards, KPIs, reports
- Process workflows with alerts & escalations
- New applications

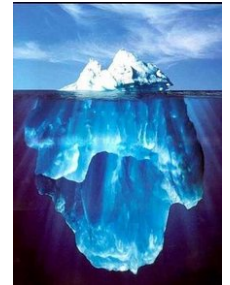
TAMIT Interfaces



Scenarios

Asset management for IT

- Tivoli Asset Management for IT e.g. contacts, financial, procurement, lifecycle
- Product inventory verification
- Audit trail of product use in a z/OS environment



Get the best value from your z/OS software budget

Understanding product usage trends is extremely important for contract renewal negotiations

- Which products should be included in an Enterprise License Agreement (ELA)
- Product LPAR capacity restricted licenses
- Assess what would be impacted by a competitive product replacement

Consolidate product versions

Consolidate similar products e.g. inherited from company mergers

Consolidate product machine/system coverage

Sub-capacity license optimization

Prove to management that your budget is fully utilized to avoid funding cuts or justify increases



Reduce unexpected outages from z/OS asset upgrades

See who would be impacted by an upgrade

See which products a job is using

See where different maintenance levels are deployed

See what needs to be replicated to Disaster Recovery systems



TADz Product Evolution

Tivoli Asset Discovery for z/OS (TADz) v7.5

- Released in 2Q 2011
- Optimised Dorana foundation
- Better “out of the box” discovery quality
- Easier deployment
- Faster performance
- TCR with Cognos
- New Analyzer component
 - Interactive: PC Browser direct to z/OS based Analyzer
 - Batch: Generate spreadsheets via batch job

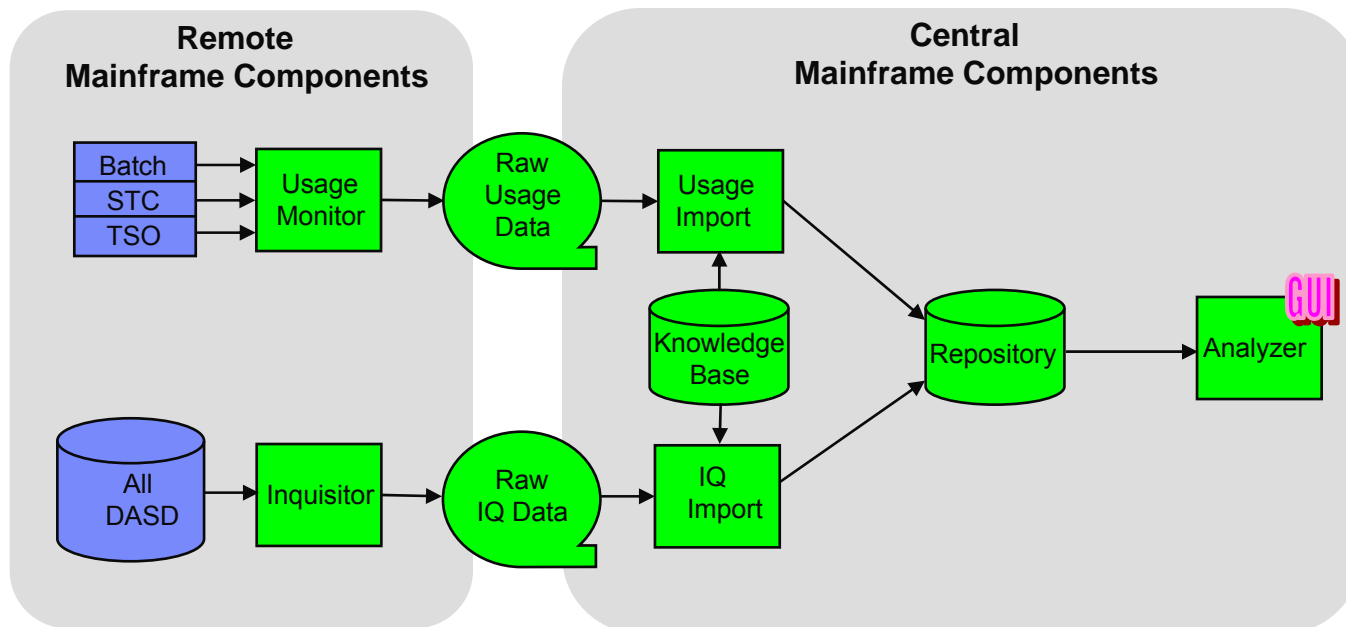
Tivoli Asset Discovery for z/OS (TADz) v7.2

- Released in 3Q 2009
- Based on Dorana acquisition with best of TLCMz added
- Significantly better “out of the box” discovery quality than TLCMz
- DB2 for z/OS database, Tivoli Common Reporting (TCR) with BIRT
- Bolt-on integration with Tivoli Asset Management for IT (TAMIT)
- 10% PMRs about discovery quality, 80% PMRs about deployment

Tivoli License Compliance for z/OS (TLCMz)

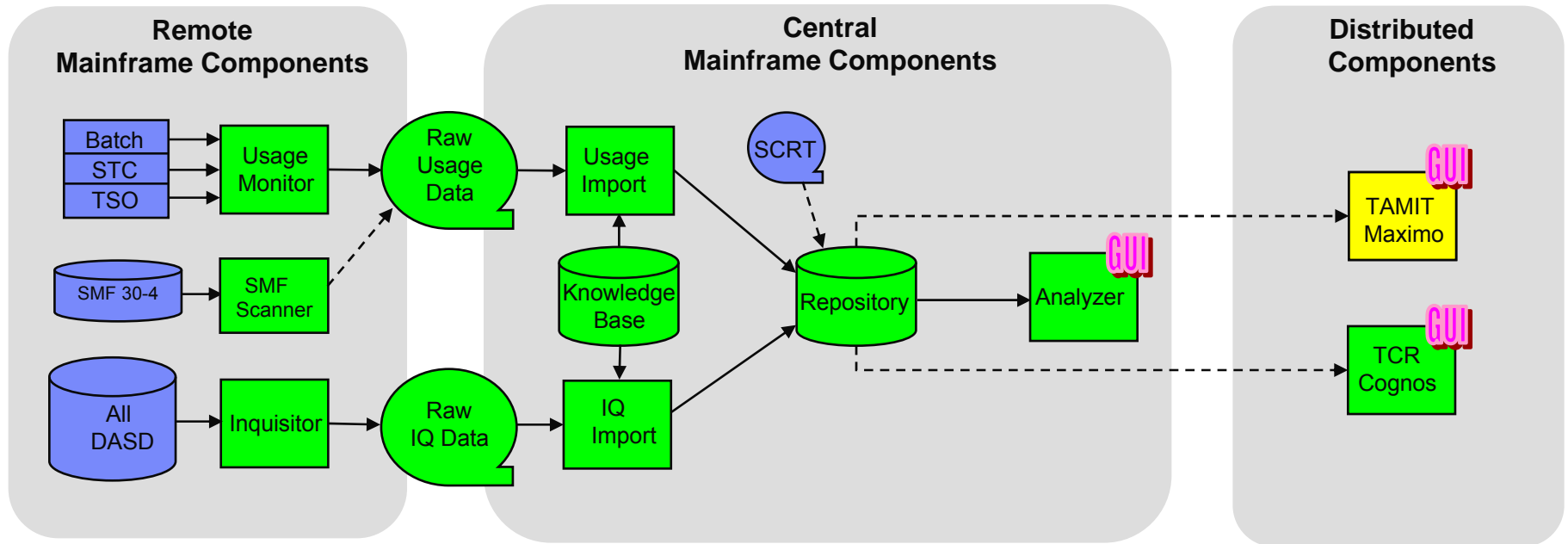
- Based on Isogon SoftAudit acquisition
- End of Service is likely to be announced in 2011
- No middleware pre-reqs, Proprietary database
- 90% PMRs about discovery quality

TADz 7.5 Core Architecture



- TADz uses DB2 for z/OS on a central z/OS
 - One DB2 subsystem with one or more repository databases
 - Designed to keep overhead on production (remote) LPARs as low as possible
- z/OS based TADz Analyzer:
 - No pre-reqs on any middleware or config e.g. Websphere and Java are not required
 - Interactive analysis from your PC Browser (IE, Firefox) directly to the z/OS based TADz Analyzer running as a batch job or Started Task. Easy download to Excel.
 - Batch reporting - Run a batch job to generate spreadsheets

TADz 7.5 Extended Architecture



- Optionally scan SMF 30 records for historical usage that has occurred before TADz has been deployed
 - Subset of data that Usage Monitor collects but great for quick time to value
- Optionally import Sub-Capacity Reporting Tool (SCRT) data
 - Combines with TADz collected data to show trends and details, enabling you to better optimize sub-capacity license charges
- Optionally integrate TADz with Tivoli Asset Management for IT (TAMIT)
 - TAMIT provides License contract management, Financial management, Lifecycle management etc
 - Bolt-on integration. No changes required for TADz. Just point TAMIT to the TADz database !
- Optionally deploy TCR Cognos for custom reporting
 - Packaged for free with TADz
 - This is particularly good when you want a report that combines TADz data with other data sources

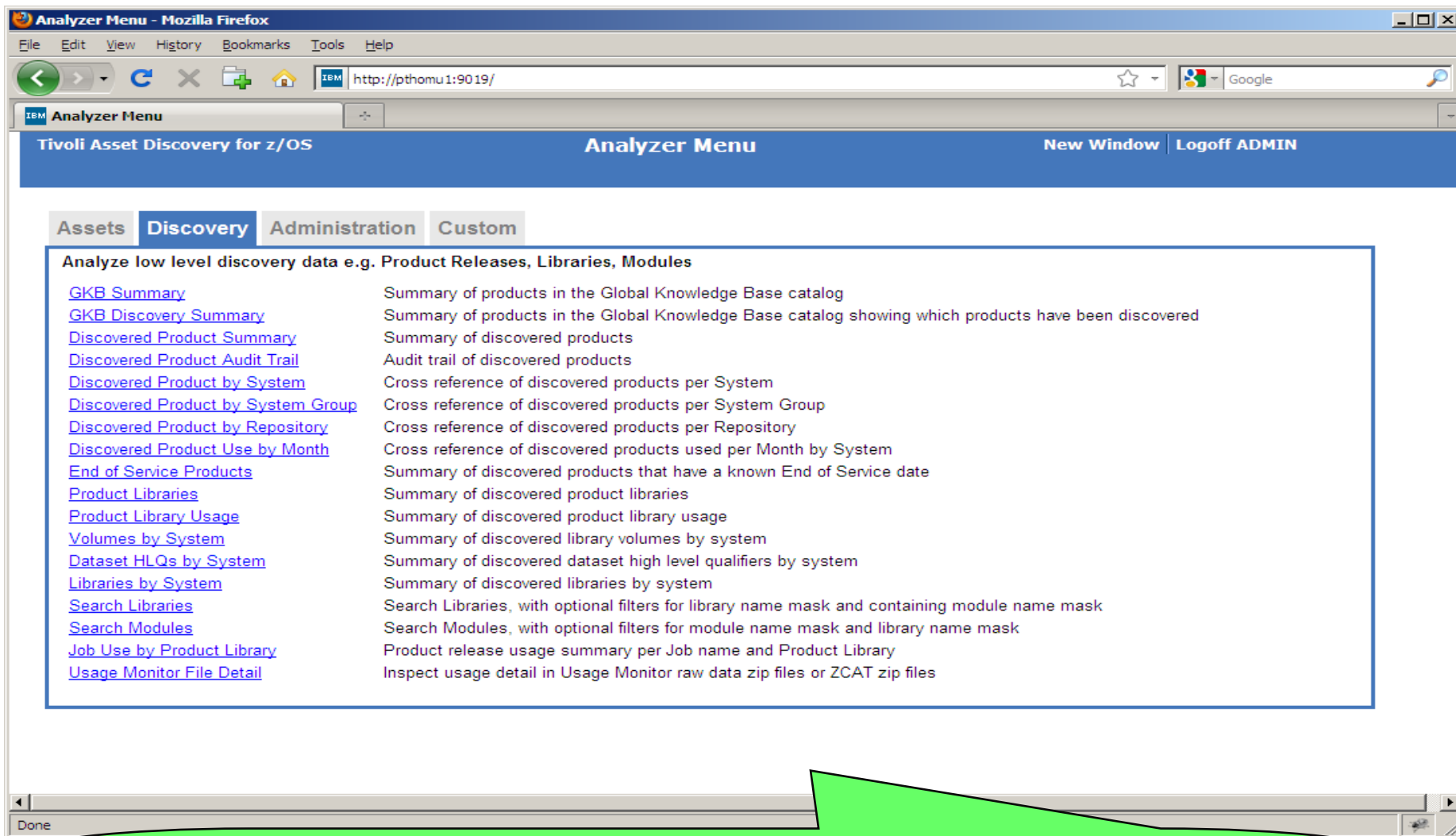
PC Browser direct to z/OS based TADz Analyser

Assets | Discovery | Administration | Custom

Analyze high level aggregated data e.g. Product Versions

Machine Inventory	System z Machine inventory summary
Product Inventory	Product version inventory summary
Product Audit Trail	Product version audit trail
Product by System	Cross reference of product versions per System
Product by Sysplex	Cross reference of product versions per Sysplex
Product by System Group	Cross reference of product versions per System Group
Product by Repository	Cross reference of product versions per Repository
Vendor Use by Month	Cross reference of vendor products used per Month by System
Product Use by Month	Cross reference of product versions used per Month by System
Product Use Trend	Product version usage trend chart
Product Use by Machine	Cross reference of product versions used per Machine
Product Use by Machine MSU	Cross reference of product versions by Machine MSU capacity
Search User Ids	Search product version usage details for user ids
Search Job Names	Search product version usage details for job names
Search Job Account Codes	Search product version usage details for job account codes

- Asset reports are good for people who reconcile z/OS product licenses
- See what product versions are being used, when, where and by who.



Analyze low level discovery data e.g. Product Releases, Libraries, Modules

GKB Summary	Summary of products in the Global Knowledge Base catalog
GKB Discovery Summary	Summary of products in the Global Knowledge Base catalog showing which products have been discovered
Discovered Product Summary	Summary of discovered products
Discovered Product Audit Trail	Audit trail of discovered products
Discovered Product by System	Cross reference of discovered products per System
Discovered Product by System Group	Cross reference of discovered products per System Group
Discovered Product by Repository	Cross reference of discovered products per Repository
Discovered Product Use by Month	Cross reference of discovered products used per Month by System
End of Service Products	Summary of discovered products that have a known End of Service date
Product Libraries	Summary of discovered product libraries
Product Library Usage	Summary of discovered product library usage
Volumes by System	Summary of discovered library volumes by system
Dataset HLQs by System	Summary of discovered dataset high level qualifiers by system
Libraries by System	Summary of discovered libraries by system
Search Libraries	Search Libraries, with optional filters for library name mask and containing module name mask
Search Modules	Search Modules, with optional filters for module name mask and library name mask
Job Use by Product Library	Product release usage summary per Job name and Product Library
Usage Monitor File Detail	Inspect usage detail in Usage Monitor raw data zip files or ZCAT zip files

- Discovery reports are good for people who support z/OS systems
- See what product releases, libraries and modules are being used, when, where and by who.

The screenshot shows a web browser window titled "Analyzer Menu - Mozilla Firefox" with the URL "http://pthomu1:9019/". The application header includes "Tivoli Asset Discovery for z/OS", "Analyzer Menu", and "Logoff ADMIN". The "Administration" tab is selected, displaying a list of tasks and their descriptions:

Administration tasks and trouble shooting	
Define Repository Name	Define the Repository name, which is shown in the report header and Repository selection parameter
Define System Groups	Define System Groups, which are used in the Product by System Group report
Libraries with unknown modules	Libraries with modules that have not been identified to a product release
LKB Summary	Summary of products in the Local Knowledge Base catalog
Database Statistics	Database statistics, including space used.
SQL Select Query	Ad hoc SQL Select query
Support	Tivoli Asset Discovery for z/OS Support Portal
Download GKB	Download the latest Global Knowledge Base from IBM Fix Central

DB2 Subsystem is DE91
Analyzer Build Level is v7.5 D108 2011-02-01

Report Parameters

Product Libraries - Parameters - Mozilla Firefox

File Edit View History Bookmarks Tools Help

http://pthomu1.au.ibm.com:9000/disc_product_libraries_parms.htm?repschema=SIDEMO

Product Libraries - Parameters CSS Reference HTML option tag

Tivoli Asset Discovery for z/OS DEMO Corporation - Perth Product Libraries - Parameters New Window Home

Library name search criteria [?]:

Volume search criteria [?]:

Vendor [?]:

- All Vendors
- Allen Systems Group
- Applied Expert Systems Inc.
- Australian Systems Engineering
- BMC Software
- CA, Inc.
- Chicago Soft
- Compuware Corporation

Product Release [?]:

- All Product Releases
- Allen Systems Group - ASG-Alliance
- Allen Systems Group - ASG-AutoChange
- Allen Systems Group - ASG-Bridge
- Allen Systems Group - ASG-Encore
- Allen Systems Group - ASG-Estimate
- Allen Systems Group - ASG-ESW
- Allen Systems Group - ASG-Insight

Show Product Release Options:

Exclude Unknown Releases:

Result row limit:

Output format:

Submit

Done

- Optional filter parameters
- Click Submit to run the report

High Level Summary Reports with easy hyperlinks to details

Product Inventory - Mozilla Firefox

http://pthomu1:9009/asset/product_inventory?repschema=SIDEMO&system=&vendor=&product=&outfmt=

Product Inventory

Tivoli Asset Discovery for z/OS
DEMO Corporation - Perth

Product Inventory

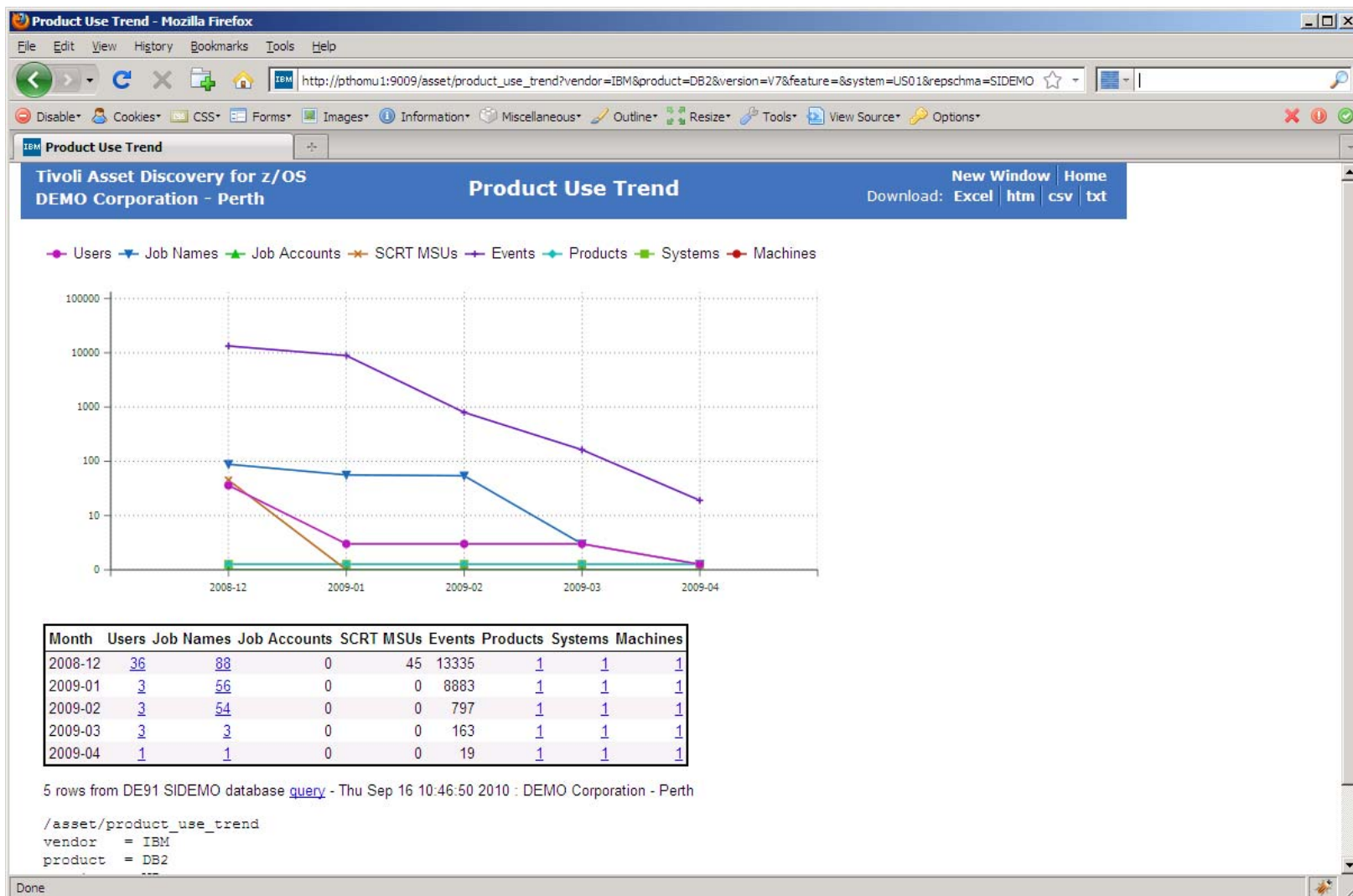
Download: Excel htm csv txt

Vendor	Product	Version	PID	S&S PID	First Observed	Last Used	Systems	Machines
Allen Systems Group	ASG-Alliance	V7			2009-04		0	0
Allen Systems Group	ASG-AutoChange	V7			2009-04		0	0
Allen Systems Group	ASG-Bridge	V7			2009-04		0	0
Allen Systems Group	ASG-Encore	V7			2009-04		0	0
Allen Systems Group	ASG-Estimate	V7			2009-04		0	0
Allen Systems Group	ASG-Insight	V7			2009-04	2009-05	1	1
Allen Systems Group	ASG-JOB/SCAN	V7			2009-04	2009-05	1	1
Allen Systems Group	ASG-Recap	V7			2009-04		0	0
Allen Systems Group	ASG-SmartDoc	V7			2009-04		0	0
Allen Systems Group	ASG-SmartEdit	V7			2009-04	2009-03	1	1
Allen Systems Group	ASG-SmartTest	V7			2009-04	2009-05	2	1
Applied Expert Systems Inc.	CleverTCP/IP	V7			2009-04	2009-05	2	2
Australian Systems Engineering	ISPZIP	V1			2009-04	2009-05	3	2
BMC Software	APPTUNE for DB2	V5			2009-04	2009-04	3	2
BMC Software	APPTUNE for DB2	V6			2009-04	2009-05	3	2
BMC Software	BMCDN for DB2	V2			2009-04	2009-05	2	2
BMC Software	CATALOG MANAGER for DB2	V8			2009-04	2009-05	3	2
BMC Software	CATALOG MANAGER for DB2	V9			2009-04	2009-05	3	2
BMC Software	CHANGE MANAGER for DB2	V8			2009-04	2009-05	3	2
BMC Software	CHECK PLUS for DB2	V8			2009-04	2008-12	3	2
BMC Software	CHECK PLUS for DB2	V9			2009-04		3	2
BMC Software	CMF MONITOR	V5			2009-04	2009-04	3	2
BMC Software	COPY PLUS for DB2	V7			2009-04	2009-05	3	2
BMC Software	COPY PLUS for DB2	V8			2009-04	2009-05	3	2
BMC Software	CROSS-SYSTEM IMAGE MANAGER	V1			2009-04		3	2
BMC Software	DASD Manager Plus for DB2	V8			2009-04	2009-05	3	2
BMC Software	DATA ACCELERATOR Compression	V1			2009-04		0	0
BMC Software	DATA PACKER for DB2	V3			2009-04		0	0
BMC Software	Database Administration for DB2	V4			2009-04	2009-05	3	2
BMC Software	EXTENDED BUFFER MANAGER for DB2	V5			2009-04	2009-05	3	2
BMC Software	High-speed Apply Engine	V4			2009-04	2009-05	3	2

Done

Hyperlinks to drill down for more details

Trend Charts



Crosstab reports

Product Use by System - Mozilla Firefox

http://pthomu1.au.ibm.com:9000/product_use_system?repschma=SIDEMO&system=&vendor=&product=&oi

Product Use by System

Tivoli Asset Discovery for z/OS
DEMO Corporation - Perth

Product Use by System

New Window Home
Download: Excel htm csv txt

Crosstab Grid

Vendor	Product	Version	System				
			AU01	AU02	US01	US02	US03
Allen Systems Group	ASG-Insight	V7			2009-05		
	ASG-JOB/SCAN	V7			2009-05		
	ASG-SmartEdit	V7			2009-03		
	ASG-SmartTest	V7			2009-05	2009-05	
Applied Expert Systems Inc.	CleverTCP/IP	V7	2009-05			2009-05	
Australian Systems Engineering	ISPZIP	V1	2009-05		2009-05	2009-04	
BMC Software	APPTUNE for DB2	V5	2009-04		2009-04	2009-04	
		V6	2009-05		2009-05	2009-05	
	BMCDNS for DB2	V2	2009-05		2009-04	2008-12	
	CATALOG MANAGER for DB2	V8	2009-05		2009-05	2009-05	
		V9	2009-05		2009-05	2009-05	
	CHANGE MANAGER for DB2	V8	2009-05		2009-05	2009-04	
	CHECK PLUS for DB2	V8			2008-12		
	CMF MONITOR	V5	2009-04				
	COPY PLUS for DB2	V7	2009-05		2009-04	2009-05	
		V8	2009-05		2009-05	2009-05	
	DASD Manager Plus for DB2	V8	2009-05		2009-05	2009-05	
	Database Administration for DB2	V4	2009-05		2009-05	2009-05	
	EXTENDED BUFFER MANAGER for DB2	V5	2009-05		2009-05	2009-05	
	High-speed Apply Engine	V4	2009-05		2009-04	2009-05	
	V8	2009-05		2009-05	2009-05		
LOADPLUS for DB2	V8	2009-05		2009-04	2009-05		

- Crosstabs are great for highlighting differences at a high level
- Hyperlinks to drill down for more details

Color coded trend reports

Product Use By Month - Mozilla Firefox

http://pthomu1:9009/asset/product_use_month?repschema=SIDEMO&metric=EVENT&months=&system=&vendor=IBM&product=&=&ol

Product Use By Month

Tivoli Asset Discovery for z/OS
DEMO Corporation - Perth

Product Use By Month

New Window Home
Download: Excel htm csv txt

Aqua highlight % increase from previous month

Yellow highlight % drop from previous month

Red highlight % drop from previous month

Product	Sysplex	System	Month / Events				
			2008-12	2009-01	2009-02	2009-03	2009-04
IBM - ACF/SSP V4	USPLEX	US01			7		
IBM - Candle Command Centre V1	AUPLEX	AU01	2	3			1
	USPLEX	US01		13	2	4	
		US02		2			
IBM - CICS TS V3	AUPLEX	AU01	207101	210190	200964	224408	219819
		AU02	43502	43071	39034	45805	43100
	USPLEX	US01	783345	765877	738373	849694	807618
IBM - CICS VSAM Recovery V4		US02	232226	225185	207565	234042	242689
	AUPLEX	AU01	7595	7590	6855	7595	7320
	USPLEX	US02	3720	3720	3360	3715	3580
IBM - DB2 Utilities Suite V8	AUPLEX	AU01	63364	61306	57750	66808	61348
	USPLEX	US01	248388	223888	228020	271824	232064
		US02	87248	87192	70406	95004	86100
IBM - DB2 V7	AUPLEX	AU01	2856				
	USPLEX	US01	13335	8883	797	163	19
		US02	2368				
IBM - DB2 V8	AUPLEX	AU01	762041	719032	800085	946443	1225978
	USPLEX	US01	1115449	1853842	1391005	1705842	2592883
		US02	420571	343631	477026	550835	732138
IBM - DCF Document Composition Fac V1	AUPLEX	AU01	1071	1047	1032	1122	1032

Done

- At a glance see which hyperlink is worth clicking to see a trend chart and details

Exporting the reports to a spreadsheet

The screenshot shows a Mozilla Firefox browser window displaying a report from 'Tivoli Asset Discovery for z/OS DEMO Corporation - Perth'. The report title is 'Product Use by System'. A dialog box titled 'Opening product_use_system.xls' is open, showing options to 'Open with' Microsoft Excel (default) or 'Save File'. The report table below contains the following data:

Vendor	Product	Version	System					
			Δ1101	Δ1102	11S01	11S02	US03	
Allen Systems Group	ASG-Insight							
	ASG-JOB/SCAN							
	ASG-SmartEdit							
	ASG-SmartTest							
Applied Expert Systems Inc.	CleverTCP/IP							
Australian Systems Engineering	ISPZIP							
BMC Software	APPTUNE for DB2							
	BMCDSN for DB2							
	CATALOG MANAGE							
	CHANGE MANAGE							
	CHECK PLUS for DI							
	CMF MONITOR	V5	2009-04					
	COPY PLUS for DB2	V7	2009-05		2009-04	2009-05		
		V8	2009-05		2009-05	2009-05		
	DASD Manager Plus for DB2	V8	2009-05		2009-05	2009-05		
	Database Administration for DB2	V4	2009-05		2009-05	2009-05		
EXTENDED BUFFER MANAGER for DB2	V5	2009-05		2009-05	2009-05			
High-speed Apply Engine		V4	2009-05		2009-04	2009-05		
		V8	2009-05		2009-05	2009-05		
LOADPLUS for DB2	V8	2009-05		2009-04	2009-05			

■ All reports can be exported to Excel, HTM file, CSV file or TXT file

Spreadsheets have a filter bar

The screenshot shows a Microsoft Excel spreadsheet titled "audit_trail-L.xls [Read-Only]". The spreadsheet has columns labeled A through J. A filter bar is visible above the data rows, with dropdown arrows for each column header. The data rows contain information about various systems, including Vendor, Product, Version, PID, Sysplex, System, Machine, Status, Discovered Date, and Un-install Date.

Vendor	Product	Version	PID	Sysplex	Systc	Machine	Status	Discovered Date	Un-install Date
Allen Systems Group	ASG-Alliance	V7		AUPLEX	AU01	2094 F484E	(All)	2009-04-01	
Allen Systems Group	ASG-Alliance	V7		AUPLEX	AU02	2094 F484E	(Top 10...)	2009-04-01	
Allen Systems Group	ASG-Alliance	V7		USPLEX	US01	2084 97CD6	(Custom...)	2009-04-01	
Allen Systems Group	ASG-Alliance	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Alliance	V7		USPLEX	US02	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-AutoChange	V7		AUPLEX	AU01	2094 F484E	Installed & Used (last)	2009-04-01	
Allen Systems Group	ASG-AutoChange	V7		AUPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-AutoChange	V7		USPLEX	US01	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-AutoChange	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Bridge	V7		AUPLEX	AU01	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Bridge	V7		AUPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Bridge	V7		USPLEX	US01	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Bridge	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		AUPLEX	AU01	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		AUPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		USPLEX	US01	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		USPLEX	AU01	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		USPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		USPLEX	US01	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Encore	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Estimate	V7		AUPLEX	AU01	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Estimate	V7		AUPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Estimate	V7		USPLEX	US01	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Estimate	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Insight	V7		AUPLEX	AU01	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Insight	V7		AUPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Insight	V7		USPLEX	US01	2084 97CD6	Installed & Used (last)	2009-04-01	
Allen Systems Group	ASG-Insight	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-Insight	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-Insight	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-Insight	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-Insight	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		AUPLEX	AU01	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		AUPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US01	2084 97CD6	Installed & Used (last)	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US01	2084 97CD6	Installed & Used (history)	2009-04-01	
Allen Systems Group	ASG-JOB/SCAN	V7		USPLEX	US02	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Recap	V7		AUPLEX	AU01	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Recap	V7		AUPLEX	AU02	2094 F484E	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Recap	V7		USPLEX	US01	2084 97CD6	Installed & Not used	2009-04-01	
Allen Systems Group	ASG-Recap	V7		USPLEX	US01	2084 97CD6	Installed & Not used	2009-04-01	

All Analyzer reports can also be run via z/OS batch job

Vendor	Product	Version	PID	S&S	PID	Feature	EID	Discovered	Installed	Systems	Last	Used	Systems	Machines	Used
Chicago Soft	MVS/Quick-Ref	V6				BASE		2009-04-01	4		2009-05	4		2	
Compuware Corporation	Abend-AID for CICS	V5				BASE		2009-04-01	4		2009-05	4		2	
Compuware Corporation	Abend-AID for CICS	V5				CICS TS 1.3 Support		2009-04-01	4		2009-05	4		2	
Compuware Corporation	Abend-AID for CICS	V5				CICS TS 2.2 Support		2009-04-01	4		2009-05	4		2	
Compuware Corporation	Abend-AID for CICS	V5				CICS TS 2.3 Support		2009-04-01	4		2009-05	4		2	
Compuware Corporation	Abend-AID for CICS	V5				CICS TS 3.1 Support		2009-04-01	4		2009-05	4		2	
Compuware Corporation	Abend-AID for CICS	V5				CICS TS 3.2 Support		2009-04-01	4		2009-05	4		2	
Compuware Corporation	CICS Abend-AID/FX for DB2	V4				BASE		2009-04-01	4					0	
Compuware Corporation	File-AID/MVS	V8				BASE		2009-04-01	4		2009-05	4		2	
Compuware Corporation	File-AID/MVS	V9				BASE		2009-04-01	4		2009-05	4		2	
Compuware Corporation	Host Communications Interface	V2				BASE		2009-04-01	4		2009-05	4		2	
Compuware Corporation	XPEDITER/DevEnterprise	V4				BASE		2009-04-01	4		2009-05	4		2	
Delta Software	ADSpplus	V5				BASE		2009-04-01	4					0	

13 rows from database query - DE91 09:23:35 2011-04-13

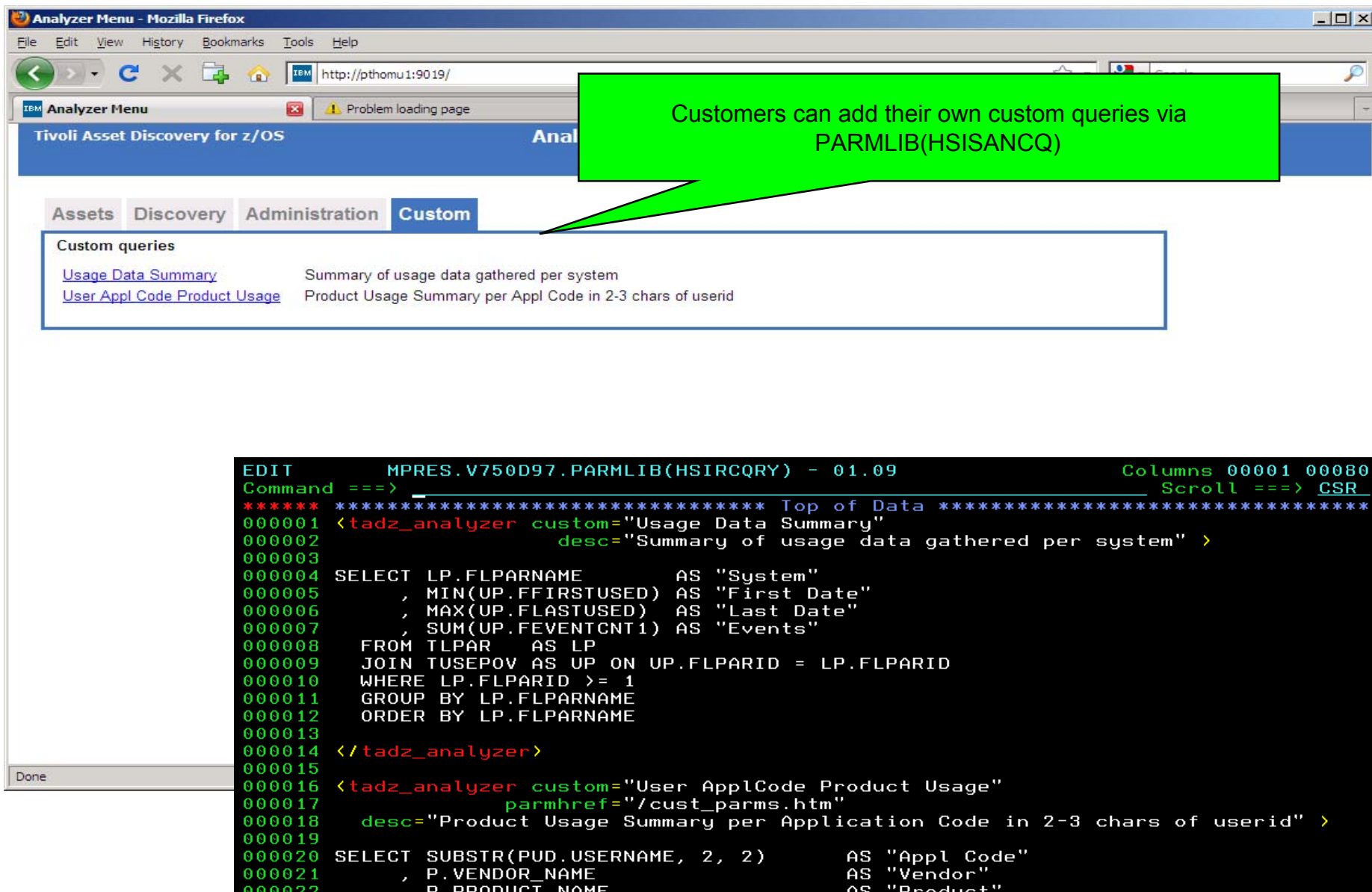
```

/asset/product_inventory
vendor      = Chicago Soft
vendor      = Compuware Corporation
vendor      = Delta Software
showfeature = on
repository  = SIDEMO
    
```

```

EDIT MPRES.V750D120.MP120.JCLLIB(HSISANLB) - 01.02
Command ==>
***** Top of Data *****
000001 //HSISANLB JOB (),'TADz Analyzer-Batch',REGION=0M,
000002 // CLASS=A,MSGCLASS=X,MSGLEVEL=(1,1),NOTIFY=&SYSUID
000003 /**
000004 //*****
000005 /**
000006 /** TADz Analyzer batch mode job
000007 /**
000008 //*****
000009 /**
000010 // SET OUTFMT=TXT
000011 /** SET OUTFMT=XLS
000012 /** SET OUTFMT=CSV
000013 /** SET OUTFMT=HTM
000014 /**
000015 // SET OUTDSN=&SYSUID..TADZANLZ.&OUTFMT Output dsn
000016 /**
000017 //ALLOC EXEC PGM=IEFBR14
000018 //OUTDSN DD DISP=(MOD,CATLG),DSN=&OUTDSN,
000019 // DCB=(DSORG=PS,RECFM=VB,LRECL=1000,BLKSIZE=0),
000020 // UNIT=SYSALLDA,SPACE=(CYL,(5,10))
000021 /**
000022 //ANALYZER EXEC PGM=HSICANLZ
000023 //STEPLIB DD DISP=SHR,DSN=HSIDEV.V720.D120.SHSIMOD1
000024 // DD DISP=SHR,DSN=DB2V910.DE91.SDSNEXIT
000025 // DD DISP=SHR,DSN=DB2.V910.SDSNLOAD
000026 // DD DISP=SHR,DSN=CEE.SCEERUN
000027 // DD DISP=SHR,DSN=CBC.SCLBDLL
000028 //SYSPRINT DD SYSOUT=*,HOLD=YES,LRECL=500
000029 //HSIANL1 DD DISP=SHR,DSN=HSIDEV.V720.D120.SHSIANL1
000030 //HSIANL2 DD DISP=SHR,DSN=HSIDEV.V720.D120.SHSIANL2
000031 //DSNA0INI DD DISP=SHR,
000032 // DSN=MPRES.V750D120.MP120.PARMLIB(HSISCLI)
000033 //HSICUST DD DISP=SHR,
000034 // DSN=MPRES.V750D120.MP120.PARMLIB(HSISANCQ)
000035 //TPARAM DD DUMMY
000036 //OUTPUT1 DD DISP=OLD,DSN=&OUTDSN
000037 //SYSIN DD *
000038 /asset/product_inventory
000039 vendor = Chicago Soft
000040 vendor = Compuware Corporation
000041 vendor = Delta Software
000042 showfeature = on
000043 repository = SIDEMO
000044 /*
***** Bottom of Data *****
    
```

- Batch report syntax is shown at the bottom of each report for easy cut & paste into batch SYSIN deck
- Batch is good for automation and intensive searches



The screenshot shows the Tivoli Asset Discovery for z/OS web interface in a Mozilla Firefox browser. The browser address bar shows `http://pthomu1:9019/`. The page title is "Analyzer Menu" and the main heading is "Tivoli Asset Discovery for z/OS". The navigation tabs include "Assets", "Discovery", "Administration", and "Custom". The "Custom" tab is active, showing a section for "Custom queries". Two queries are listed:

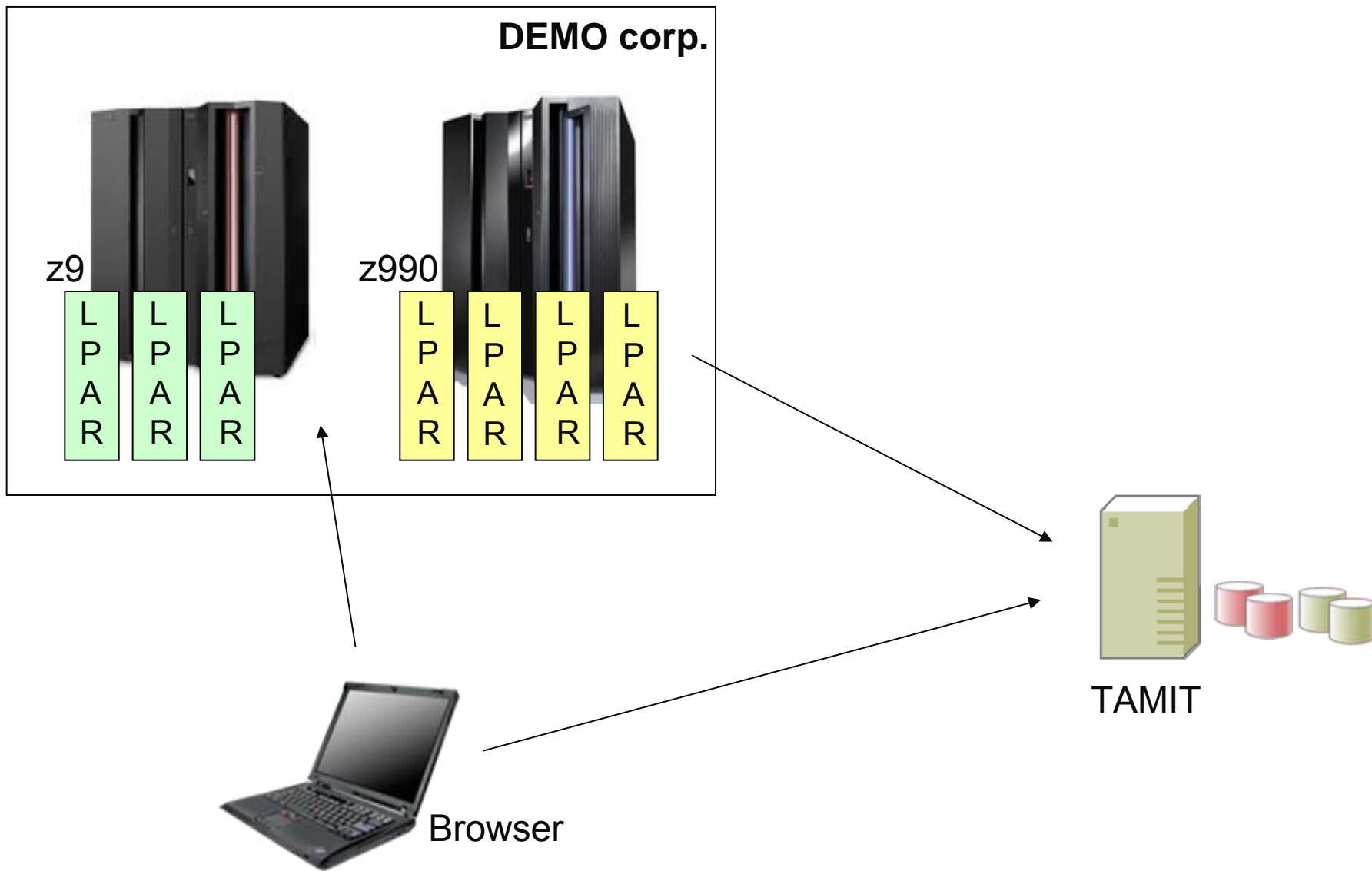
- [Usage Data Summary](#): Summary of usage data gathered per system
- [User Appl Code Product Usage](#): Product Usage Summary per Appl Code in 2-3 chars of userid

A green callout box points to the "Custom" tab with the text: "Customers can add their own custom queries via PARMLIB(HSISANCCQ)".

```

EDIT          MPRES.V750D97.PARMLIB(HSIRCQRY) - 01.09          Columns 00001 00080
Command ==>
***** ***** Top of Data *****
000001 <tadz_analyzer custom="Usage Data Summary"
000002         desc="Summary of usage data gathered per system" >
000003
000004 SELECT LP.FLPARNAME          AS "System"
000005         , MIN(UP.FFIRSTUSED) AS "First Date"
000006         , MAX(UP.FLASTUSED)  AS "Last Date"
000007         , SUM(UP.FEVENTCNT1) AS "Events"
000008 FROM TLPAR          AS LP
000009 JOIN TUSEPOV AS UP ON UP.FLPARID = LP.FLPARID
000010 WHERE LP.FLPARID >= 1
000011 GROUP BY LP.FLPARNAME
000012 ORDER BY LP.FLPARNAME
000013
000014 </tadz_analyzer>
000015
000016 <tadz_analyzer custom="User ApplCode Product Usage"
000017         parmhref="/cust_parms.htm"
000018         desc="Product Usage Summary per Application Code in 2-3 chars of userid" >
000019
000020 SELECT SUBSTR(PUD.USERNAME, 2, 2) AS "Appl Code"
000021         , P.VENDOR_NAME          AS "Vendor"
000022         , P.PRODUCT_NAME         AS "Product"
  
```

A sample compliance report regarding one product



Tivoli Asset Discovery for z/OS
Demo Corporation

Machine Inventory

HW Type	HW Model	HW Plant	HW Serial	HW Name	Type	LPAR Number	LPAR Name	Max MSU	Max SCRT-MSU	Systems
2084	B16	83	97CD6	CECDKLR	HW			352		
2084	B16	83	97CD6	CECDKLR	LPAR	5	LPDKLR05	352		AU01
2084	B16	83	97CD6	CECDKLR	LPAR	6	LPDKLR06	352		AU02
2084	B16	83	97CD6	CECDKLR	LPAR	9	LPDKLR09	352		AU03
2094	S08	51	F484E	CECTNMC	HW			363		
2094	S08	51	F484E	CECTNMC	LPAR	3	LPTNMC03	363		US01
2094	S08	51	F484E	CECTNMC	LPAR	4	LPTNMC04	363		US02
2094	S08	51	F484E	CECTNMC	LPAR	7	LPTNMC07	363		US03
2094	S08	51	F484F	CECTNMC	LPAR	8	LPTNMC08	363		US04

9 rows from database query - [DSNA](#) 14:32:14 2011-11-27

```

/asset/machine_inventory
showlpars = on
repository = TADZDEMO
null      = TADZDEMO
    
```

Tivoli Asset Discovery for z/OS **Discovered Product by System** Parameters | New Window
 Download: Excel | htm | cs

Crosstab Grid

Vendor	Product Release Name	Release	PID	Asset Version	System / Discovered Installed				
					AU01	AU02	US01	US02	US03
IBM	IBM Tivoli Omegamon XE DB2 Performance Expert	4.1.0	5655-Q07	V4	2011-05-02	2011-05-02	2011-05-02	2011-05-02	2011-05-02
		4.2.0	5655-Q07	V4	2011-05-02	2011-05-02	2011-05-02	2011-05-02	2011-05-02

10 rows from database query - [DB10](#) 21:36:22 2011-11-27

```

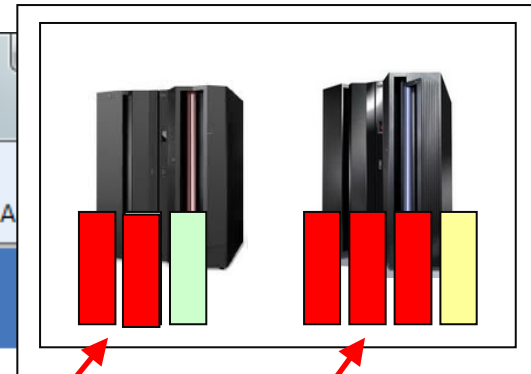
/disc/product_system
metric      = DISCINST
vendor      = IBM
prodrel     = IBM Tivoli Omegamon XE DB2 Performance Expert
outlimit    = 1000
repository  = DM75TADZ
null       = DM75TADZ
  
```

HW Type	HW Model	HW Plant	HW Serial	HW Name	Type	LPAR Number	LPAR Name	Max MSU	Max SCRT-MSU	Systems
2084	B16	83	97CD6	CECDKLR	HW			352		
2084	B16	83	97CD6	CECDKLR	LPAR	5	LPDKLR05	352		AU01
2084	B16	83	97CD6	CECDKLR	LPAR	6	LPDKLR06	352		AU02
2084	B16	83	97CD6	CECDKLR	LPAR	9	LPDKLR09	352		AU03
2094	S08	51	F484E	CECTNMC	HW			363		
2094	S08	51	F484E	CECTNMC	LPAR	3	LPTNMC03	363		US01
2094	S08	51	F484E	CECTNMC	LPAR	4	LPTNMC04	363		US02
2094	S08	51	F484E	CECTNMC	LPAR	7	LPTNMC07	363		US03
2094	S08	51	F484E	CECTNMC	LPAR	8	LPTNMC08	363		US04

9 rows from database query - [DSNA](#) 14:32:14 2011-11-27

```

/asset/machine_inventory
showlpars = on
repository = TADZDEMO
null      = TADZDEMO
    
```



The screenshot shows the IBM Tivoli Licenses web application interface. The browser address bar shows the URL `http://192.168.1...`. The application title is "Licenses". The navigation menu includes "Bollettini: (0)", "Vai a", "Report", "Centro di Controllo", "Profilo", "Disconnetti", and "Guida".

The main content area displays details for a specific license:

- License:** 1003
- License Name:** Licenza Omegamon
- Serial Number:** (empty)
- Vendor:** IBM
- License Key:** Licenza OMEGAMON XE for DB2 PE
- Type:** ICA
- Status:** ACTIVE
- Platform:** MAINFRAME
- Organization:** IBMTEC
- GL Account:** (empty)
- Responsible Party:** (empty)
- Allegati:** (empty)

The **Scope** section includes the following details:

- Scope:** ENTERPRISE
- Capacity:** 500
- Allocated Capacity:** 0,00
- License Term:** INSTALLED
- Capacity Unit:** MSUS
- Available Capacity:** 500,00
- Is Sub-Capacity?:**
- Start Date:** 25/11/11
- Core Multiplier Group:** (empty)
- License Charge Period:** DAILY
- Terminate Date:** (empty)

The **Associated Products** section shows a table with the following data:

Software	Version	Release	Role	Platform	Deleted	Manufacturer
OMEGAMON XE for DB2 PE V4.2	4		SOFTWAREPRODUCT	MAINFRAME	<input type="checkbox"/>	IBM

Compliance report

Report

Pagina di 1

Tivoli. software IBM®

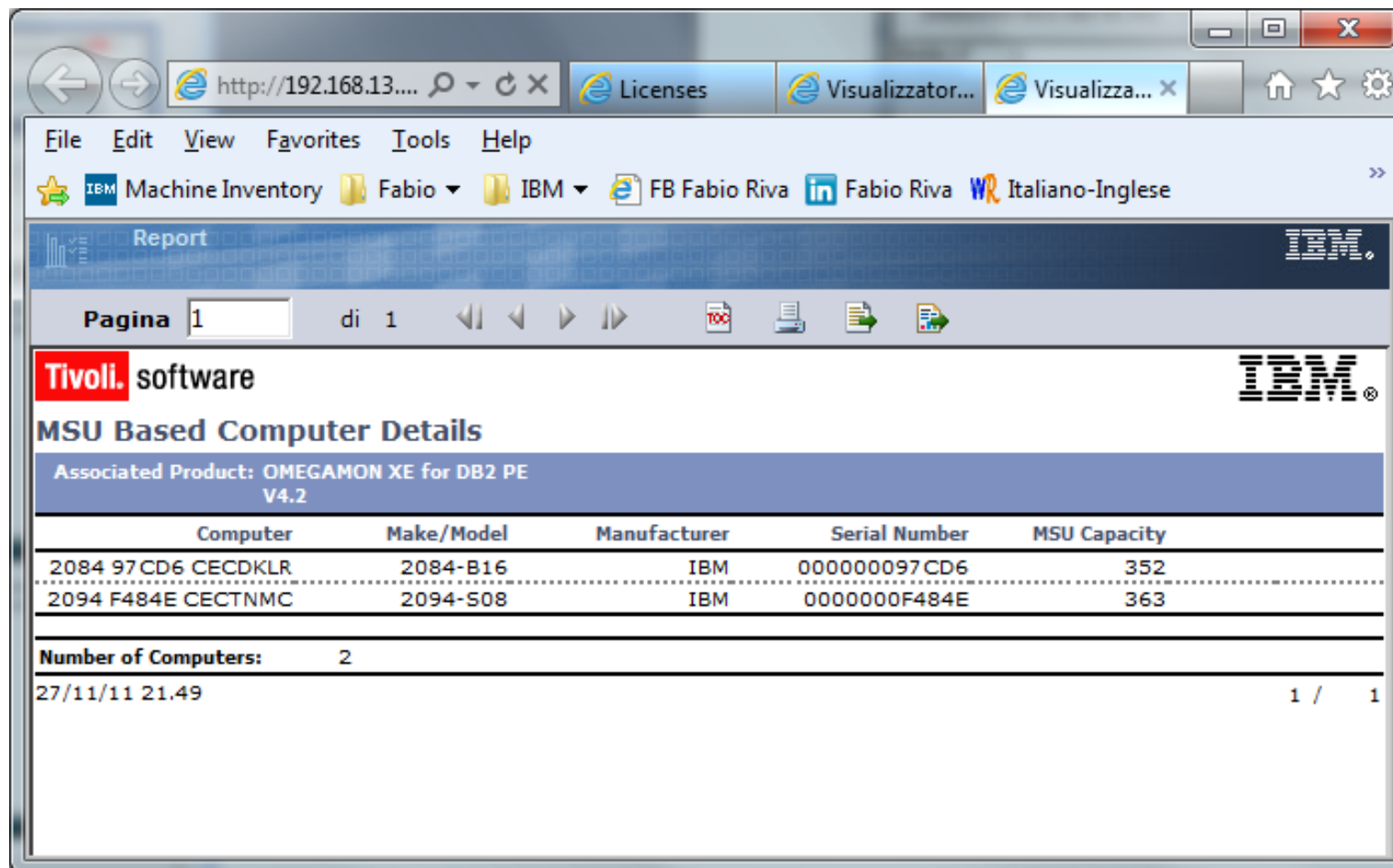
MSU Based License Audit Report

Associated Product	Version	Release	Total License Capacity	Discovered Capacity	Variance
OMEGAMON XE for DB2 PE V4.2	4		500	715	-215

Number of Products: 1

27/11/11 21.48 1 / 1

Details on software usage



The screenshot shows a web browser window with the following details:

- Address bar: <http://192.168.13...>
- Browser tabs: Licenses, Visualizzator..., Visualizza...
- Menu bar: File, Edit, View, Favorites, Tools, Help
- Navigation bar: IBM Machine Inventory, Fabio, IBM, FB Fabio Riva, Fabio Riva, Italiano-Inglese
- Report title: Report
- Page navigation: Pagina 1 di 1
- Header: Tivoli software (left), IBM (right)
- Section: **MSU Based Computer Details**
- Associated Product: OMEGAMON XE for DB2 PE V4.2
- Table with 5 columns: Computer, Make/Model, Manufacturer, Serial Number, MSU Capacity
- Summary: Number of Computers: 2
- Footer: 27/11/11 21.49 (left), 1 / 1 (right)

Computer	Make/Model	Manufacturer	Serial Number	MSU Capacity
2084 97CD6 CECDKLR	2084-B16	IBM	000000097CD6	352
2094 F484E CECTNMC	2094-S08	IBM	0000000F484E	363

Machine Inventory

Tivoli Asset Discovery for z/OS
Demo Corporation

HW Type	HW Model	HW Plant	HW Serial	HW Name	Type	LPAR Number	LPAR Name	Max MSU	Max SCRT-MSU	Systems
2084	B16	83	97CD6	CECDKLR	HW			352		
2084	B16	83	97CD6	CECDKLR	LPAR	5	LPDKLR05	352		AU01
2084	B16	83	97CD6	CECDKLR	LPAR	6	LPDKLR06	352		AU02
2084	B16	83	97CD6	CECDKLR	LPAR	9	LPDKLR09	352		AU03
2094	S08	51	F484E	CECTNMC	HW			363		
2094	S08	51	F484E	CECTNMC	LPAR	3	LPTNMC03	363		US01
2094	S08	51	F484E	CECTNMC	LPAR	4	LPTNMC04	363		US02
2094	S08	51	F484E	CECTNMC	LPAR	7	LPTNMC07	363		US03
2094	S08	51	F484E	CECTNMC	LPAR	8	LPTNMC08	363		US04

9 rows from database query - [DSNA](#) 14:32:14 2011-11-27

```

/asset/machine_inventory
showlpars = on
repository = TADZDEMO
null      = TADZDEMO
    
```

352+
363=
715

Questions?





Fabio Riva

fabio.riva@it.ibm.com

Tel. 02.596.29347