

# *ULC-Webcast: Application Insights*

Einwahldaten:

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Zugangscode: 157-337-093

*12. Juli 2017 um 10:00 Uhr*

# Herzlich Willkommen zu unserem Webcast

ApplicationInsights – Deep Dive

Dresden, den 12.07.2017

Moderation



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✓ **Wie sieht die Zukunft meiner Anwendungen aus?**

- Modernisierung / Webfähigkeit / mobile
- Transformation -> SharePoint / Office 365
- Wohin? Cloud, on-Prem oder hybrid?
- Ist-Analyse -> Was für Kosten?

✓ **Was kostet mich der nächste Schritt?**

- Kann ich Datenbanken selektieren?
- Welche Datenbanken bleiben unangetastet?

✓ **Warum ApplicationInsights nutzen?**

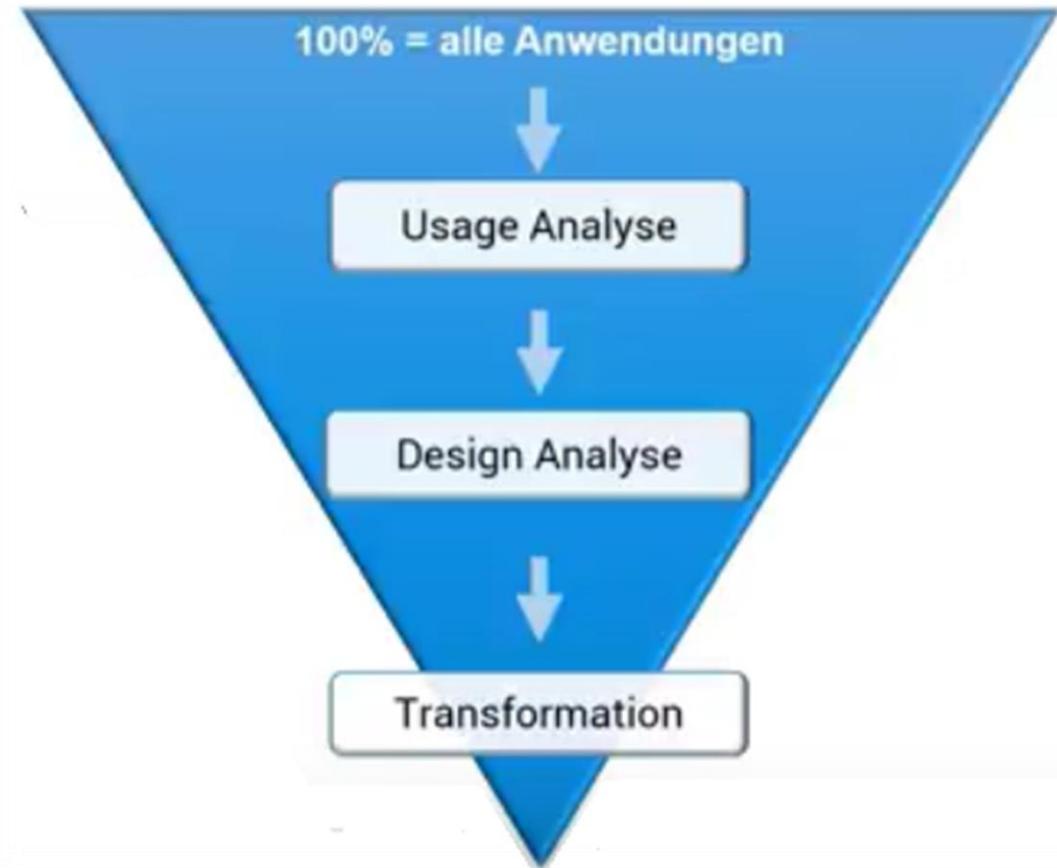
- Lizenzierung (für Wartungskunden der IBM ein Jahr kostenfrei -> ABER)
- Was ist das ABER?
- Reicht mir ein Tool?

## ✓ Usage Analyse

- Welche Datenbanken werden genutzt?
- Wie werden Datenbanken genutzt?
- Wie greifen Anwender auf Datenbanken zu?
- Wer nutzt welche Datenbanken?

## ✓ Design Analyse

- Source Code verstehen
- Ähnlichkeiten identifizieren
- Abhängigkeiten aufdecken
- Roadblocks erkennen



Einblick in unsere TestLab...

Jetzt geht es los!



Various options to navigate database  
Inventory, Usage and Design

Total number of database instances (mail, system, nab, mail-in & apps)

Focus databases are all mail-in and application instances

Total number of analyzed designs for focus dbs

100% if all Focus Dbs covered through value packages

AI Application Insights™

OVERVIEW  
Status Dashboard  
Environment Overview  
Inventory

CATALOG

USAGE

DESIGN

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English (US) config

Total number of person documents in NAB/DA

- Exceptional: 4
- Very High: 24
- High: 44
- Medium: 73
- Low: 100
- Very Low: 110
- Not Analyzed: 39



## OVERVIEW



Overview Environment Overview

Status Dashboard

Environment Overview

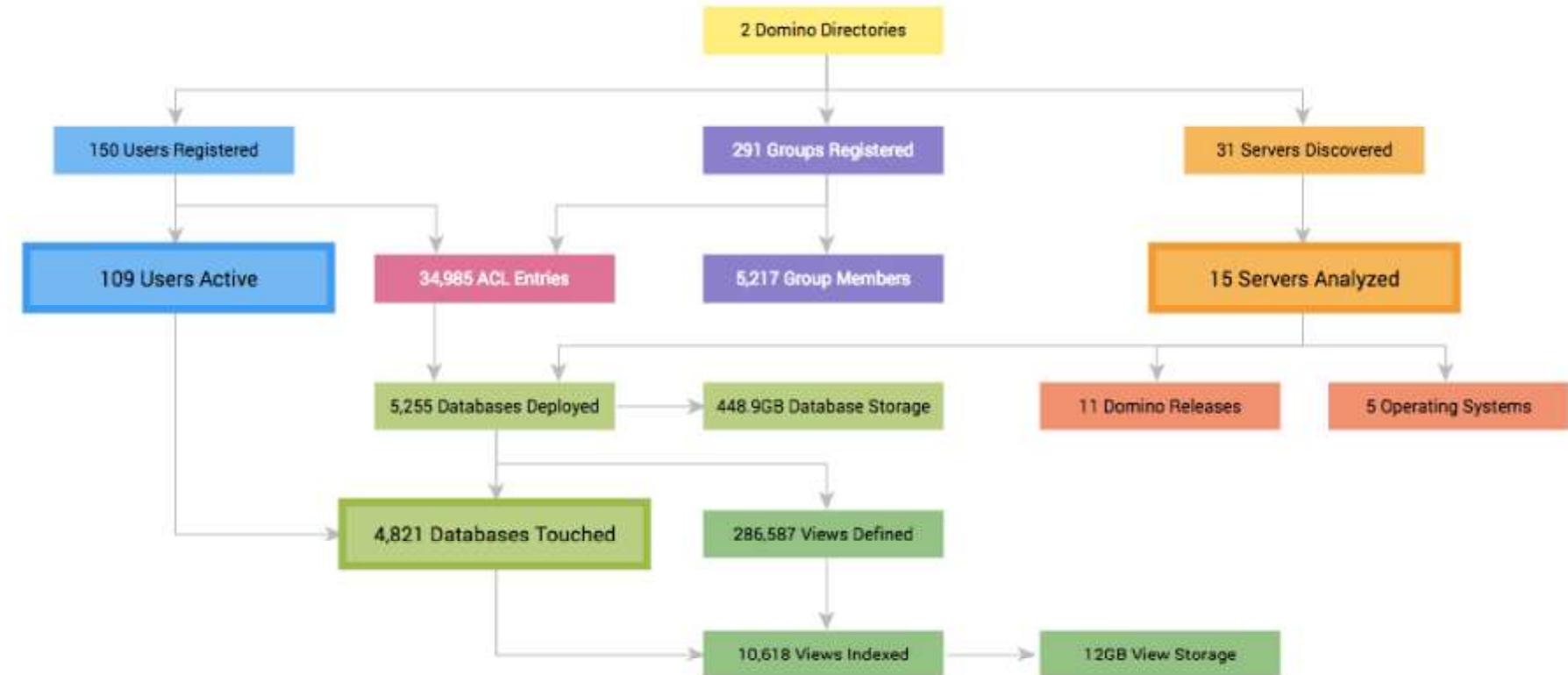
Inventory

## CATALOG

## USAGE

## DESIGN

## Environment Overview

CODE ANALYSIS  
COMPLETE ✓ 673 ▲ 56



English (US) ▾ config

OVERVIEW



Status Dashboard

Environment Overview

Inventory

CATALOG

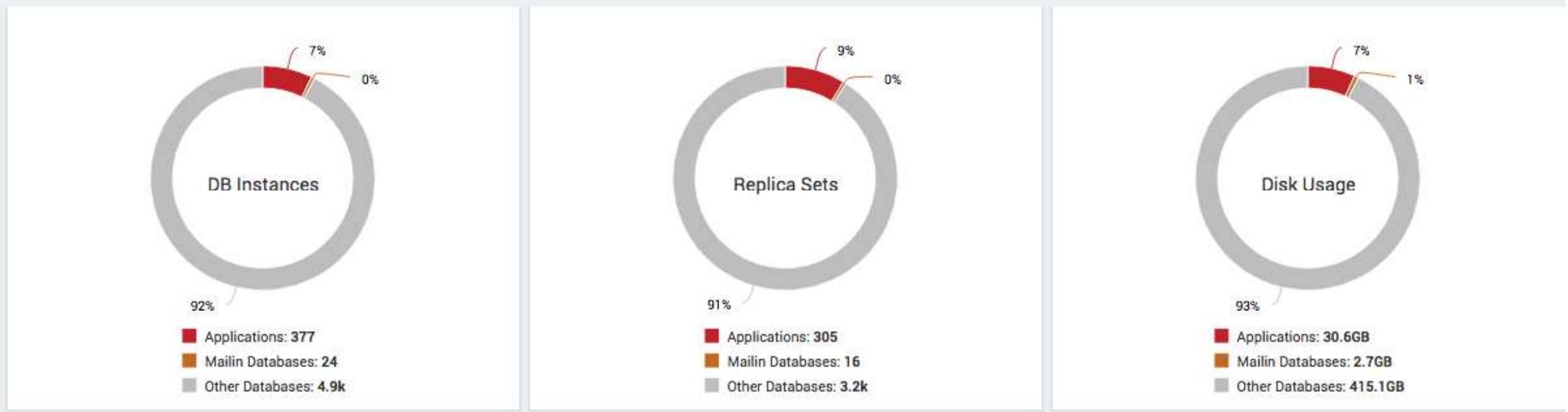
USAGE

DESIGN

Inventory

CODE ANALYSIS  
COMPLETE

STATUS  
✓ 382 ⚠ 34



Database Type	Databases			Database Storage			Unique Replicas		
	Discovered	Used	%	Discovered	Used	%	Discovered	Used	%
Application	377	347	92.0%	30.6GB	28.0GB	91.5%	305	292	95.7%
Mailin DB	24	24	100.0%	2.7GB	2.7GB	100.0%	16	16	100.0%
Orphaned User Mail	2,064	34	1.6%	46.8GB	5.3GB	11.3%	2,042	27	1.3%
System DB	2,516	1,050	41.7%	175.1GB	95.0GB	54.3%	1,014	653	64.4%
User Mail	210	163	77.6%	184.7GB	182.0GB	98.5%	118	97	82.2%
Mailbox	18	7	38.9%	6.4GB	122.3MB	1.9%	18	7	38.9%
Directory	46	37	80.4%	2.1GB	2.0GB	94.2%	20	18	90.0%

Various columns for investigating and sorting application landscape

Filtering of Focus databases

Different column sets



ApplicationInsights™

OVERVIEW

CATALOG

USAGE

DESIGN

Catalog

Show 16 entries

Filter:

Servername:

Filename:

Show all

Application  
System Databases  
Mailin Databases  
User Mailfile  
Server Mailbox  
Domino Director  
Orphan/Archive

Template

Last Access

Usage Rank

Show all

Insignificant  
Very Low  
Low  
Medium  
High  
Very High  
Exceptional  
Not Analyzed

Complexity rating

Title	Servername	Filename	DB Type	Template	Last Access	Usage Rank	Impact Score
Contacts	marduk/panagenda	crm/contacts.nsf	■ Application	-	2017-03-21	13	Exceptional
Workflow Control	marduk/panagenda	crm/gewfcontrol.nsf	■ Application	-	2017-03-21	16	Medium
Office	marduk/panagenda	crm/office.nsf	■ Application	-	2017-03-21	18	High
Organization	marduk/panagenda	crm/georgia.nsf	■ Application	-	2017-03-21	24	Very High
LatencySummary GL - stefan	cronus/panagenda	test/latency_stefan.nsf	■ Application	-	2014-10-06	29	Very Low
Marketing	marduk/panagenda	crm/marketing.nsf	■ Application	-	2017-03-21	31	Not Analyzed
Opportunity	marduk/panagenda	crm/geopportunity.nsf	■ Application	-	2017-03-20	38	Very High
Database Settings (DBSet)	marduk/panagenda	gedbset.nsf	■ Application	-	2017-03-21	40	High
TravellerMonitor	kanan/tokra	travmon.nsf	■ Application	-	2017-02-08	52	Low
TravellerMonitor	moloc/panagenda	test/travelermonitor.nsf	■ Application	-	2014-08-23	61	Low
time tracking	cronus/panagenda	panagenda/time_tracking.nsf	■ Application	-	2017-03-21	66	Low
GrpCalendar Internal V4.5	cronus/panagenda	grpcal/wegrpcalinternal.nsf	■ Application	-	2017-03-20	67	High

# Applications sorted by Usage



Which applications are used the most?

A red arrow points from the question "Which applications are used the most?" down to the "Usage" column header in the table.

Title	Users Active 90d	U Access Days 90d	Sessions Client 90d	Sessions Web 90d	SW (Mobile) 90d	Users Active All	U Access Days All	Sessions Client All	Sessions Web All	SW (Mobile) All
Contacts	34	0	64,002	0	0	46	0	954,473	0	0
Workflow Control	16	0	34,576	0	0	30	0	558,140	0	0
Office	29	0	30,836	0	0	42	0	430,145	0	0
Organization	27	0	19,276	0	0	41	0	310,606	0	0
LatencySummary GL - stefan	2	0	1,249	0	0	10	0	258,825	0	0
Marketing	15	0	13,599	0	0	31	0	225,470	0	0
Opportunity	20	0	9,011	0	0	33	0	128,438	0	0
Database Settings (DBSet)	29	0	11,742	0	0	42	0	121,639	0	0
TravelerMonitor	2	0	3	0	0	9	0	75,384	0	0
TravelerMonitor	1	0	4	0	0	3	0	56,205	0	0
time tracking	45	0	3,124	0	0	59	3	44,326	3	0
GrpCalendar Internal V4.5	25	0	704	0	0	58	0	41,161	0	0

# Application Instance Details



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English (US) ▾ ⌂ ⌂ ⌂ config

OVERVIEW

CATALOG

USAGE

Sessions vs. Complexity

Web vs. Client Usage

Notes Client Usage

Web Browser Usage

DESIGN

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## Instance Details

Office (Application)

CRM/office.nsf on marduk/panagenda  
Replica ID: C12576C8:0030793E

Active User

29

Last 90 days

Web/Client Usage

Pure Client

Last 90 days

Usage Rank

19

Last 90 days

Design Rank

43

Last 90 days

Design Complexity is

HIGH

compared to all analyzed databases



Focus

Application

Usage

Design Complexity

Design Insights

Database

Replication

Access Control List

Size

11GB

Application Information

Title	Office
Servername	marduk/panagenda
Administrationserver	CN=marduk/O=panagenda
Filename	CRM/office.nsf
Replica ID	C12576C8:0030793E
Type	Application
Database has Fulltext Index	✗

Times and Dates

Created on	Fri, Feb 12, 2010 3:49 AM
Last Modification on	Tue, Mar 21, 2017 6:04 AM
Design modified on	Mon, Mar 20, 2017 6:26 AM
Catalog Document modified on	Mon, Mar 20, 2017 8:01 PM
Log Document modified on	Tue, Mar 21, 2017 12:02 AM

Miscellaneous Application Information

List in Catalog	✓
Catalog Categories	GEDYS IntraWare 7
Include in MultiDB Indexing	✗

Application Design Template Information

Templatename	
Design Templatename	901-00-00 7.2 SR1 DE

Where is this application replicated to?  
Who has access?



Database is in license scope

# What is the user activity, sessions and data transfer volume?



**Application Insights™**

OVERVIEW    Usage    Instance Details

**Instance Details**

**Office (Application)**  
CRM/office.net on marduk/panagenda  
Replica ID: C12576C8:0000793E

Active User: 29 (Last 90 days)

Web/Client Usage: Pure Client (Last 90 days)

Usage Rank: 19 (Last 90 days)

Design Rank: 43 (Last 90 days)

Design Complexity is HIGH compared to all analyzed databases

**Focus**

Application    Usage    Design Complexity    Design Insights

**Sum of Unique Users with Activity per Day**  
Client und Web

Time Period	Activity
All Time	14k
Last 12 months	4k
Last 90 days	954
Last 30 days	245
Last 7 days	0

Activity

Users

**Active Users**  
Client and Web

Time Period	Users
All Time	42
Last 12 months	34
Last 90 days	29
Last 30 days	23
Last 7 days	0

**Data Transfer**  
Client and Web

Time Period	Data Transfer
All Time	208GB
Last 12 months	72GB
Last 90 days	17GB
Last 30 days	4GB
Last 7 days	0B

Datentransfer

**Sessions**  
Client and Web

Time Period	Sessions
All Time	430k
Last 12 months	141k
Last 90 days	31k
Last 30 days	7k
Last 7 days	0

Sessions

Users Web    Users Client

Sessions Web    Sessions Client

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# What are the types and amounts of design elements?



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**OVERVIEW**

**CATALOG**

**USAGE**

Sessions vs. Complexity

Web vs. Client Usage

Notes Client Usage

Web Browser Usage

**DESIGN**

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**Office (Application)**  
CRM/office.nsf on marduk/panagenda  
Replica ID: C12576C8:0030793E

Active User **29**  
Last 90 days

Web/Client Usage **Pure Client**  
Last 90 days

Usage Rank **19**  
Last 90 days

Design Rank **43**  
Last 90 days

Design Complexity is **HIGH**  
compared to all analyzed databases

Focus

Application Usage Design Complexity Design Insights

**Views (119)**

	LOC	Views	#
Java	0	0	-
JavaScript	0	0	-
LotusScript	800	83	9.6
Lotus Formula	46,685	119	392.3

	#
Actions	3,327
Simple Actions	-
Shared Actions	1,875

	#
Columns	965
Elements	119
Elements Containing Formula	119
Elements Containing Lotus Script	83

# Where are the lines of code that need mitigation?



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OVERVIEW    Usage / Instance Details

CATALOG

USAGE

- Sessions vs. Complexity
- Web vs. Client Usage
- Notes Client Usage
- Web Browser Usage

DESIGN

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## Instance Details

Office (Application)  
CRM/office.nsf on marduk/panagenda  
Replica ID: C12576C8:0030793E

Active User	Web/Client Usage	Usage Rank	Design Rank	Design Complexity is
29 Last 90 days	Pure Client Last 90 days	19 Last 90 days	43 Last 90 days	HIGH compared to all analyzed databases

Focus

Application   Usage   Design Complexity   Design Insights

### Web Design

- Pro: Formulas 6 elements found
- Con: Code not supported on the web 388 elements found
- Con: LS Buttons and ActionHotSpots 138 elements found
- Con: Code interacting with Notes client UI 268 elements found

### Mail dependencies

### Specific code findings

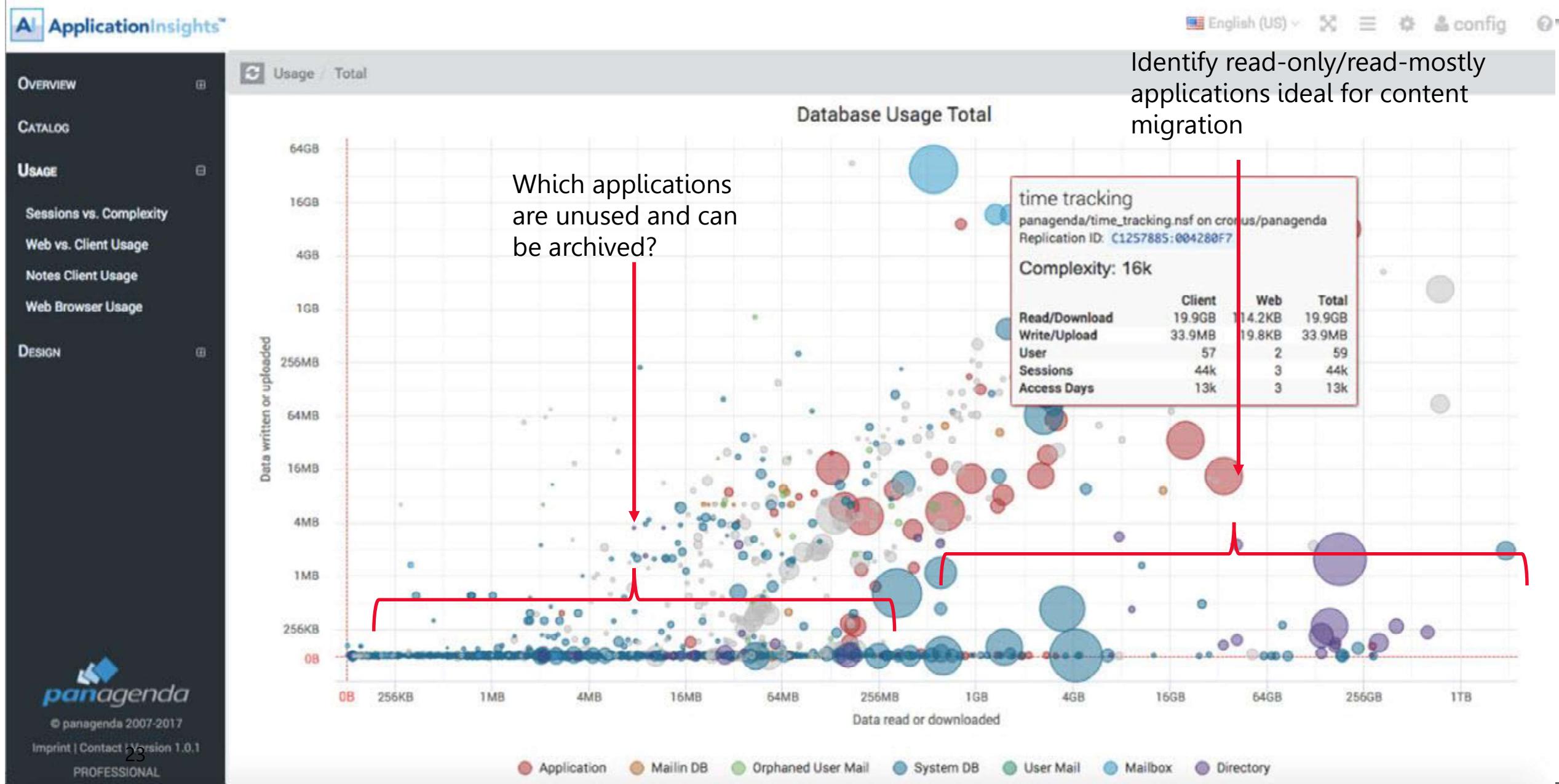
### Operating System Dependencies

- External C Calls 3 elements found
  - </> scriptlibrary:panRoutines  
scriptlibrary:panRoutines  
– Found in 3 other Application(s)
  - </> agent:(WORKFLOW: Visualisation)  
agent:(WORKFLOW: Visualisation)  
– Found in 6 other Application(s)

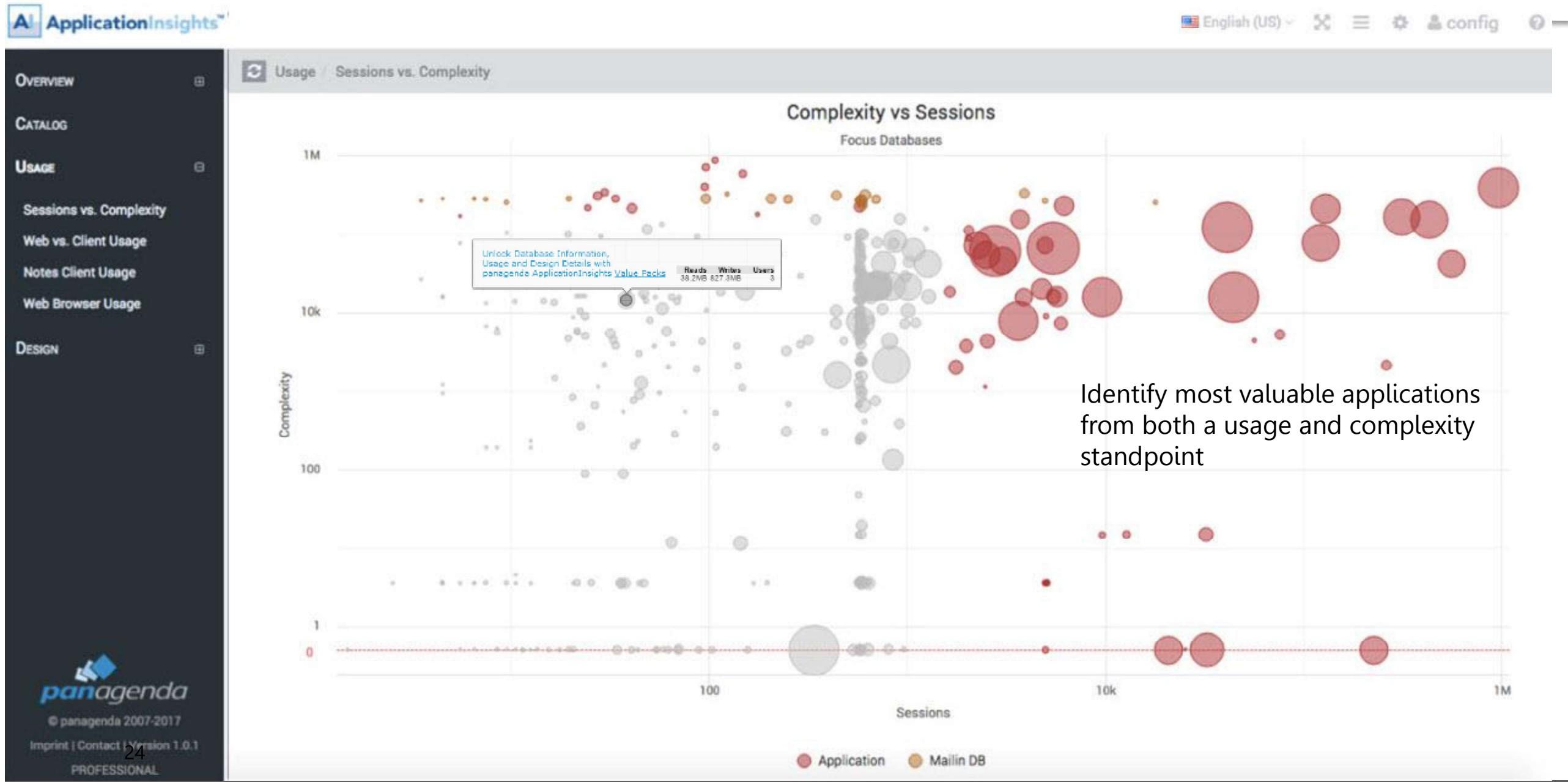
```
<< Previous Next >>
20 y := @Right(@Text(@Year(@Today)); 2);
21 sTicketNo := @Subset(@Unique(@DbColumn("", "", "(LUTicketNo"); 1)); 1);
22 oTicket := @If(sTicketNo = ""; y + "00001"; @Left(@Right(sTicketNo; 7 + LenPostF); 7))
23 nTicket := @If(@Left(oTicket; 2) = y; @Text(@TextToNumber(oTicket) + 1); y + @Right(c
24 @If(@IsError(nTicket); pref + "-" + y + "00001" + postf; pref + "-" + nTicket + postf)
25
26 Declare Function NSFFormulaCompile Lib "nnotes.dll" ( _
27 ByVal FormulaName As Long,
28 ByVal FormulaNameLength As Integer,
29 ByVal FormulaText As LMBCS String,
30 ByVal FormulaTextLength As Integer,
31 rthFormula As Long,
32 retFormulaLength As Integer,
33 retCompileError As Integer,
34 retCompileErrorLine As Integer,
35 retCompileErrorColumn As Integer,
36 retCompileErrorOffset As Integer,
37 retCompileErrorLength As Integer
38 ) As Integer
39
40 Declare Sub OSMemFree Lib "nnotes.dll" (ByVal hHandle As Long)
41
```

Database is in license scope

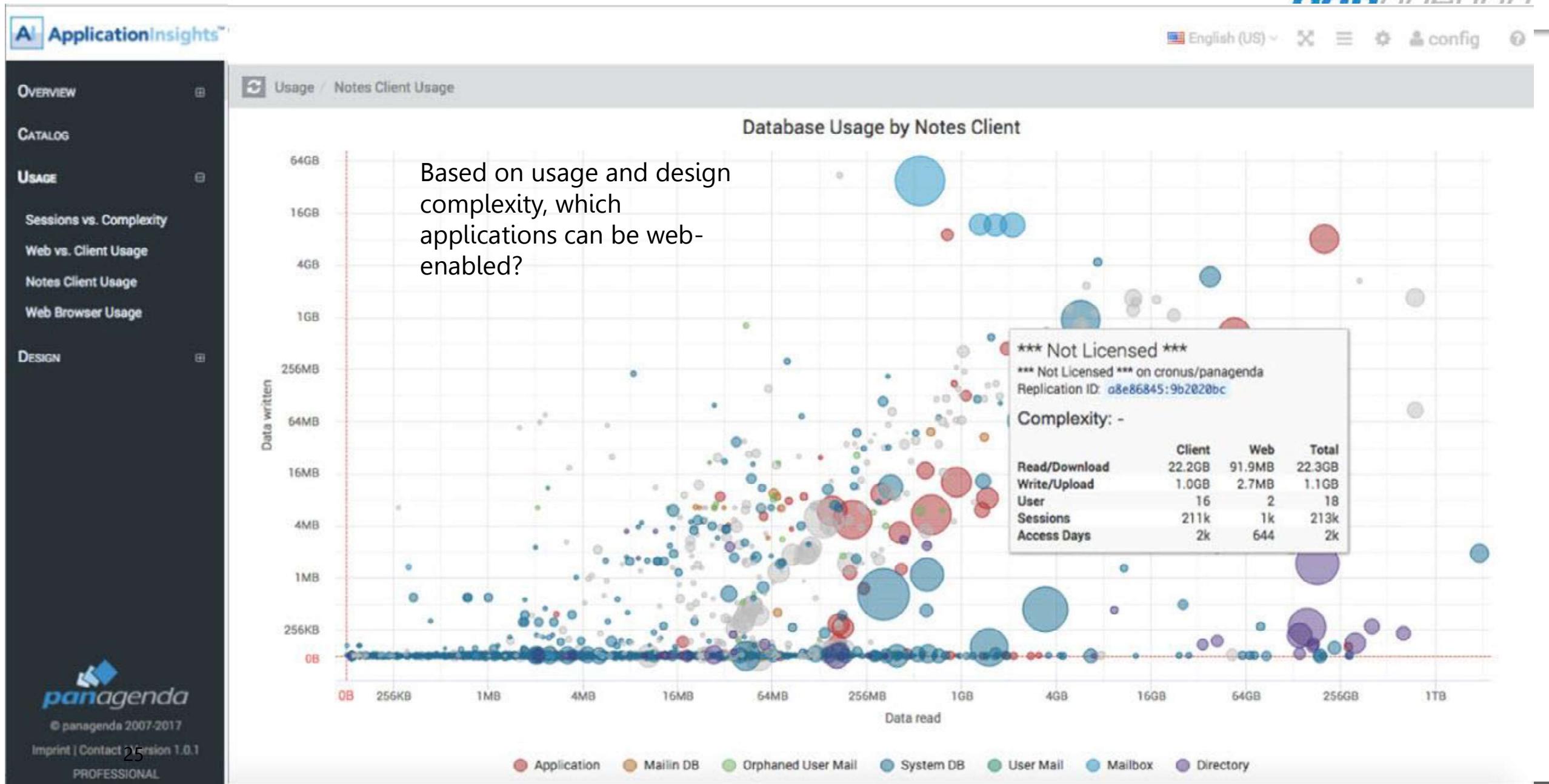
# Which applications are worth investing in?



# Are the most used applications also the most complex?



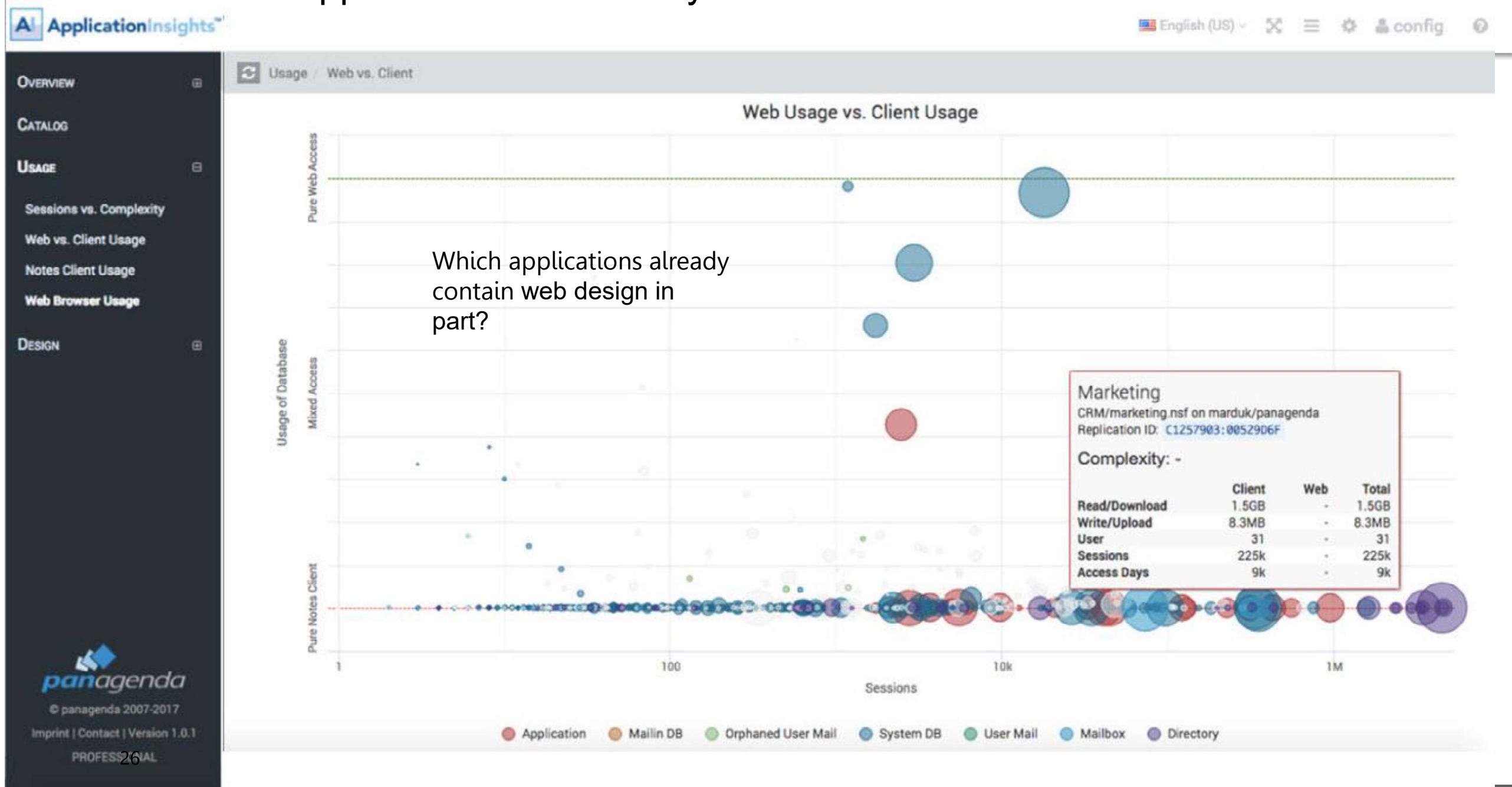
# Which applications are used by Notes rich clients?



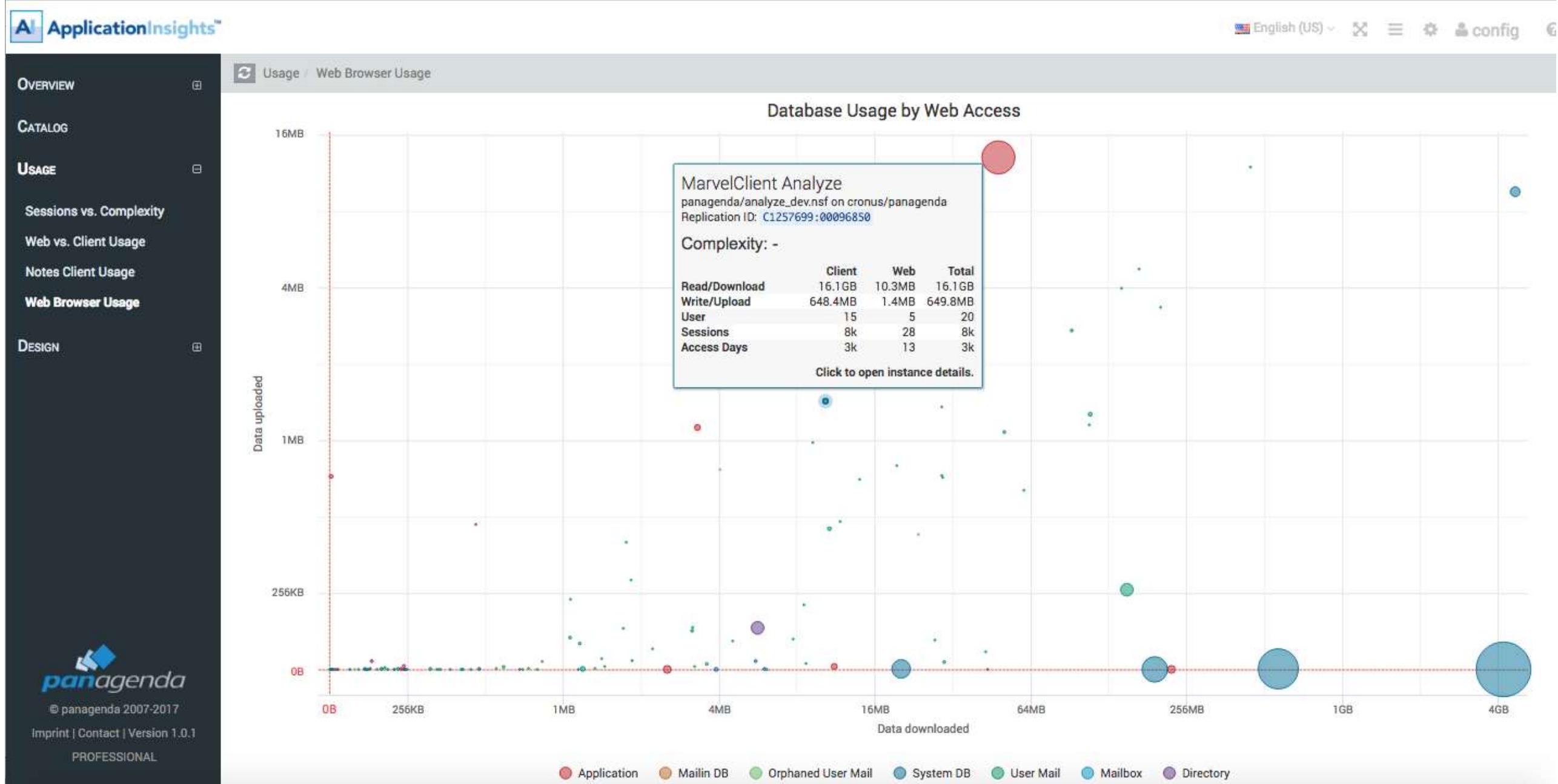
# Which applications are used by Notes rich clients vs Browsers?



English (US) config



# Which applications are used via web access only?



# What kind of code is inside our applications?



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OVERVIEW CATALOG USAGE DESIGN Complexity Insights

English (US) config

CODE ANALYSIS COMPLETE STATUS ✓ 362 🔍 34

## Complexity

Analyzed Designs of 362 Focus DBs

Lines Of Code 8,933,945 Lines Analyzed

Average Complexity Index 51k

Highest Complexity Index 847k

Which applications contain lots of investment?

Coding Languages Used in Focus DBs

Language	Percentage
Formula	46%
LotusScript	49%
JavaScript	1%
Java	4%

Design Elements vs Lines of Code

Used in Focus DBs

Element	Lines of Code
Views	14k
Forms	10k
Agents	8k
Subforms	6k
Script Libraries	4k
Pages	3k
Framesets	2k
Shared Fields	2k
Folders	1k
Outlines	963
Shared Columns	310
Shared Actions	251
Database Scripts	198
Weservice Providers	29
Weservice Consumers	8

Applications that share a lot of design similarity with other apps, make investment worth while

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# Which applications contain a lot of investment?



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OVERVIEW CATALOG USAGE DESIGN Complexity Insights

CODE ANALYSIS COMPLETE STATUS ✓ 362 ▲ 34

## Complexity

Analyzed Designs of **362** Focus DBs

Lines Of Code **8,933,945** Lines Analyzed

Average Complexity Index **51k**

Highest Complexity Index **847k**

Complexity Index of Focus DBs  
Impact Level High, Very High and Exceptional

Complexity

Databases

About this data

CRM/contacts.nsf on marduk.panagenda  
Replica ID: C325NC6H8E9M3T69

**Contacts** (Application)  
Complexity Index: 397,715  
Impact Exceptional  
CRM/contacts.nsf on marduk.panagenda  
Replica ID: C325NC6H8E9M3T69

# What code complexity and dependencies exist?



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OVERVIEW CATALOG USAGE DESIGN Complexity Insights

Analyzed for Insights 297 Focus DBs

Found Insights in 297 Focus DBs

Total Number of different Findings 5k

Highest Insight Score 174k Total Insight Severity

Number of code findings not compatible with web or mobile interfaces?

Con: Code Not Supported On The Web

Con: Code Interacting With Notes Client UI

Con: Ls Buttons And Actionhotspots

Pro: Javascript And Html Tags

Pro: Formulas

Paper Printing

Pro: Domino Commands

Pro: Agent Redirection

Ran: Ls Buttons And Actionhotspots Without Code

Occurrences Of Other Product Names

Number of code findings that have mail / OS or other dependencies?

Design Insights by Ruleset and Finding

Use Of Script Libraries

Working With Notes Inl

Working With Rich Text

Hardcoded Filenames

Java Imports

Old Code

Special Lotuscript Inclusions

Working With Xml

Beep

Pro: LotusScript Function Call

Mail Send

Mail Recipient Fields

Addressbook Fields

Working With Document Links

Addressbook Related Code

Mime Related Code

Mail Send And Sign

Todo / Tasks Related Code

Operating System Dependencies 477 findings

Working With Files

External C Calls

Working With Other Programs

Working With Ole

Working With Directories

Dependencies On Other Databases 416 findings

Possible Dependencies On Other Databases

Definite Dependencies On Other Databases

Special Interfaces 170 findings

Instant Messaging

Non-domino @commands

Working With Custom Data

Working With Doc And Similar

The dashboard displays several sections of findings:

- Left Column:** Shows findings categorized by product or context, such as "Web Design" (1347 findings), "Mail Dependencies" (870 findings), and "Operating System Dependencies" (477 findings).
- Right Column:** Shows findings categorized by dependency type, such as "Use Of Script Libraries", "Working With Notes Inl", and "Working With Files".
- Central Area:** Shows findings categorized by specific code elements like "Mail Send", "Addressbook Fields", and "Mime Related Code".
- Annotations:** Three red arrows point from the left column to the right column, highlighting the relationship between specific findings and their corresponding dependency types.