

Centrix WorkSpace iQ

Centrix WorkSpace iQ is part of the **Centrix WorkSpace Suite**, an IT intelligence and aggregation platform which enables organizations to reduce the cost of delivering applications and content whether physical, virtual, hosted, or web. The WorkSpace Suite of products consists of **WorkSpace iQ**, which provides IT intelligence on application demand across the enterprise, **WorkSpace Universal** for aggregating the presentation of applications to end users and **WorkSpace Discovery**, a free of charge package delivering an end point assessment of current client hardware and software.

WorkSpace iQ obtains detailed information about the end devices currently located within the enterprise and provides an end point audit including usage of the current client hardware and software. **WorkSpace iQ** then provides intelligence on the collected data in order to produce detailed reports to provide real information designed to aid with the planning and optimization of desktop services.

In addition, **WorkSpace iQ**, aggregates application usage data from individual technology (application delivery) silos e.g. Citrix XenApp, XenServer, VMware View, Microsoft Hyper-V and local applications. **WorkSpace iQ** will leverage existing data sources such as Citrix RM and EdgeSight, Microsoft SCCM and Altiris when available, but also has the ability to discover usage data using in-built discovery services, where existing data collection methodologies are not already in place. By aggregating real usage data from all the underlying application delivery silos, **WorkSpace iQ** allows the user to centrally monitor and report on underutilized and over deployed applications and server-based computing infrastructure across the enterprise - turning data into information on actual business demand.

Transforming Desktop Services

Before deploying any new infrastructure or technology solution, it is critical to first understand who is currently using the existing service and how are they using it – what are they using, how much and for how long. Armed with this information, technology can be efficiently and effectively leveraged to provide services to users providing greater benefits with greater levels of control and agility.

There are a number of possible future modes of delivery of end-user application services including terminal services/published applications, hosted virtual desktop (HVD/VDI), application streaming and web in addition to applications hosted on the end-point device. In a simple use case, the entire desktop is transformed including all of the applications by one of the above methods – this is could work for a single user but as numbers of users increase there are a number of factors which begin to compound and generate significant challenges.

Each user may use their desktop differently, they may have different applications, have different hardware, in various locations – just lifting and shifting the desktop workload to the data centre will be costly and inefficient and is just moving the management problems of traditional desktop into the data centre. The traditional approach of physical desktops and associated software/application distribution and deployment tools, has meant that over time the users' desktop is, more often than not, overburdened with applications many of which are rarely or never used.

By performing endpoint discovery across the estate, information on how the existing service is actually being used can be gathered. There are a large number of tools and techniques available, which can be used to pull this information from the estate producing a mass of data – upon which analysis may not be entirely pertinent or useful.

However, by building demand profiles of the applications installed through monitoring, and metering the usage of those applications, it is possible to identify the appropriate mix of technical delivery mechanisms and build the business case to allow investment in desktop virtualization, hugely simplifying, streamlining and de-risking the transformation.

Centrix WorkSpace iQ gathers and reports on this detailed data from physical end-point devices at a number of levels for organizational/business units, groups or individual users, and by default, presents only the relevant information dramatically simplifying, expediting and de-risking the task of building profiles of application and resource configuration and usage.

The process would typically be as follows:

1. Deploy the Centrix agent across the user estate – extremely lightweight (~500KB) unobtrusive agent that captures the hardware configuration, deployed applications and most importantly the actual usage of the applications and devices across the existing estate. There is no charge for the agent and can therefore be deployed freely to enable the building of the all-important fact-base.
2. Data collected from the Centrix agents can be reported on at a high level using free-of-charge **WorkSpace Discovery**.
3. In order to gain the specific information needed to implement a transformation project and then ensure the infrastructure remains optimized over time, **WorkSpace iQ** would be used to reveal the detail including:
 - a. Average and peak concurrency of application usage across the estate to determine the most suitable delivery method e.g. VDI base-image vs. published applications vs. streamed on demand.
 - b. Definition of user application templates e.g. which applications are required by Finance vs. Sales etc.
 - c. Identification of unused application instances and where these can be remediated from – this usually generates significant savings around software support and maintenance and license framework negotiations that can be “claimed” by the transformation project.

Specifically, **WorkSpace iQ** provides:

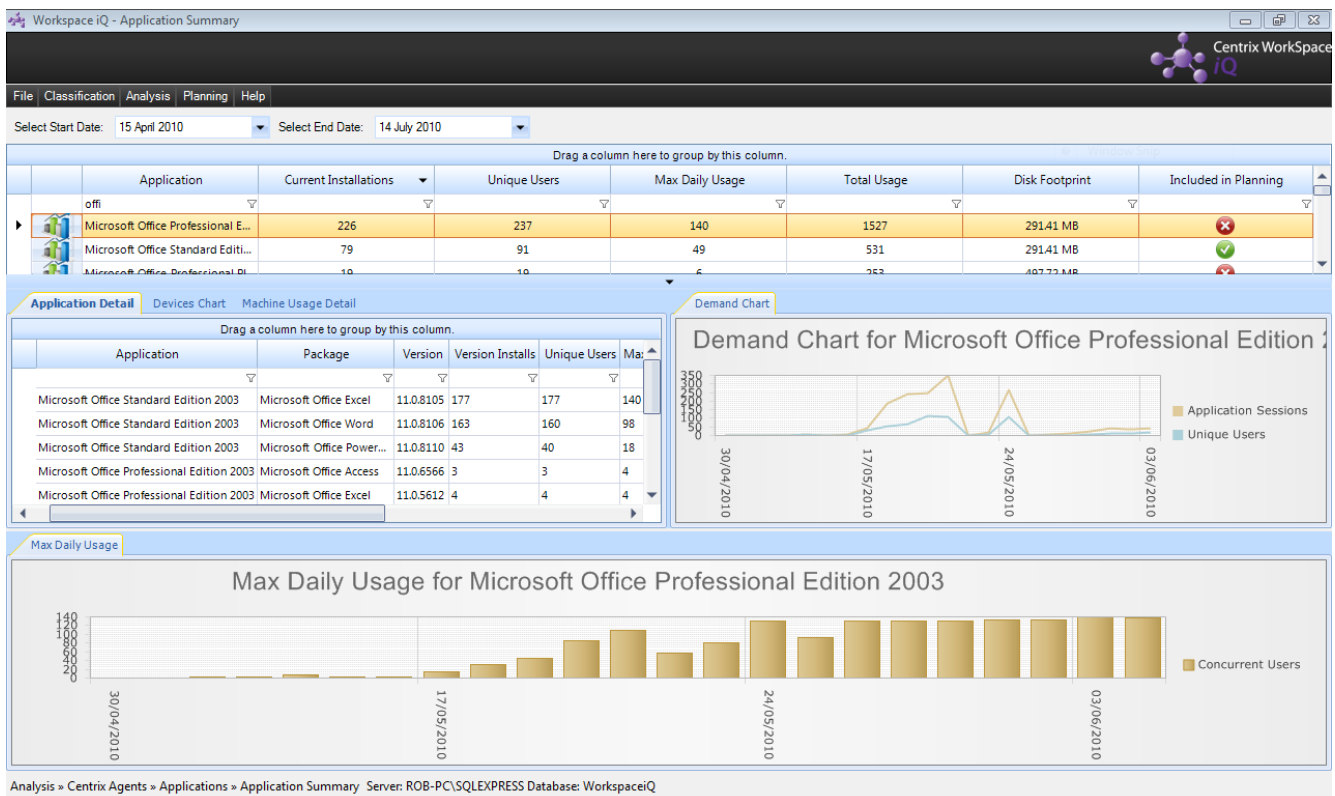
1. Demand metering and monitoring of applications, users and devices across the estate i.e. aggregating the session times (start and stop times) of applications, users and devices across virtual and local application delivery infrastructures.
2. Profiling of average and peak concurrency of application usage across the estate to inform the decision on the optimum blend of delivery infrastructure to be deployed e.g. VDI base-image vs. terminal services vs. streamed.
3. Ability to track deployed and used application instances against license entitlement and cost with respect to license model e.g. per user license, per device license, concurrent usage license, site license etc.
4. Identification of unused application instances to streamline and optimize the transformed desktop delivery infrastructure.

5. Reporting capability on the consumption of application services across the technology delivery silos to enable chargeback/cost visibility at a business group/department and user level.
6. Ability to leverage and aggregate data from existing toolsets such as Microsoft SCCM, Altiris, Citrix RM and EdgeSight etc.

Sample Screenshots from Workspace iQ

Fig 1. Application Summary

This screen shot shows the aggregated usage of a given application (in this case, Microsoft Office) from across the estate i.e. aggregated deployment and usage data from all the end-points across the estate.



The top pane shows:

- The total number of installations of this package (226 in this example).
- The total number of unique users of this package (237 in this example, indicating that there is some device sharing occurring in the environment).
- Maximum daily usage across the estate (140 in this example).
- Total number of application sessions across the reporting period (1527 in this example).
- Average disk foot print for this application (291.41MB in this example).

The middle left pane shows:

- The detail of the applications making up the package (in this case, Microsoft Office and therefore showing the components of Office including Excel, Word, PowerPoint etc).
- The total number of installations and number of unique users for each version of the application identified.

The middle right pane shows:

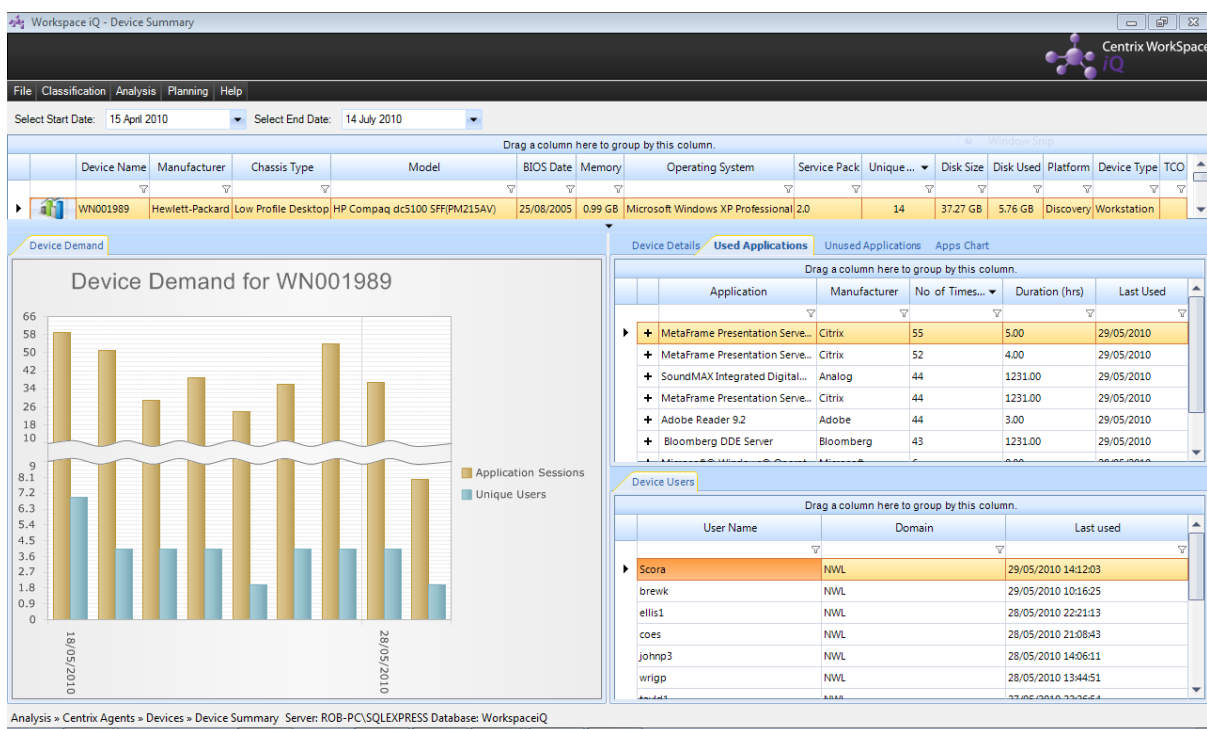
- Visual chart showing the demand profile of a given application (in this example, Microsoft Office Professional Edition) over time highlighting application sessions (based on usage of application components within that package) and the number of unique users.

The bottom pane shows:

- The daily usage profile over time of a given application (in this example, Microsoft Office Professional Edition 2003) clearly showing the concurrency demand profile and the peak number of concurrent users.

Fig 2. Device Summary

This screen shot shows the usage of a given device (in this example, an HP Compaq end-point) including applications used/unused and detail of users accessing this device.



The top pane shows details of the device including:

- Device name, manufacturer, model, BIOS date (normally a good indication of age of device), memory, disk size and space used.
- The operating system including service pack level installed on the device.
- The total number of unique users accessing this device (in this example, 14 unique users have been using the device across the reporting period).

The left pane shows:

- The demand profile of the device over time in terms of the number of unique users and the total number of application sessions.

The middle right pane shows:

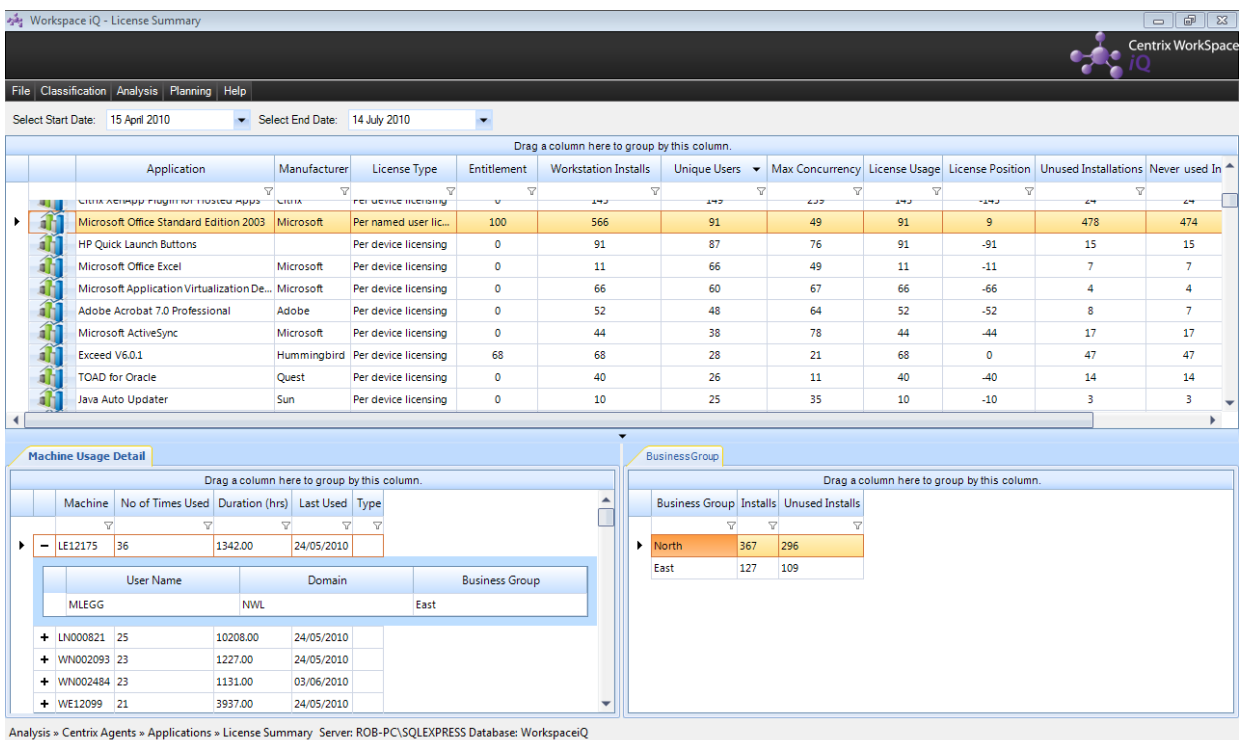
- The applications on this device that have been used during the reporting period including the total duration, the number of times used and the last used date and time of each application.
- Other tabs on this pane provide views of the unused applications on this device and further hardware and configuration details (not shown).

The bottom right pane shows:

- The details of the specific users of this device including user name, AD domain and the last date and time the device was accessed by that user.

Fig 3. License Summary

This screen shot shows the entitlement, deployment and usage information of a given application (in this example, Microsoft Office Standard Edition 2003) from across the estate.



The screenshot displays the 'License Summary' window for Microsoft Office Standard Edition 2003. The main table shows application usage across the estate, with columns for Application, Manufacturer, License Type, Entitlement, Workstation Installs, Unique Users, Max Concurrency, License Usage, License Position, Unused Installations, and Never used In.

Application	Manufacturer	License Type	Entitlement	Workstation Installs	Unique Users	Max Concurrency	License Usage	License Position	Unused Installations	Never used In
Microsoft Office Standard Edition 2003	Microsoft	Per named user lic...	100	566	91	49	91	9	478	474
HP Quick Launch Buttons		Per device licensing	0	91	87	76	91	-91	15	15
Microsoft Office Excel	Microsoft	Per device licensing	0	11	66	49	11	-11	7	7
Microsoft Application Virtualization De...	Microsoft	Per device licensing	0	66	60	67	66	-66	4	4
Adobe Acrobat 7.0 Professional	Adobe	Per device licensing	0	52	48	64	52	-52	8	7
Microsoft ActiveSync	Microsoft	Per device licensing	0	44	38	78	44	-44	17	17
Exceed V6.0.1	Hummingbird	Per device licensing	68	68	28	21	68	0	47	47
TOAD for Oracle	Quest	Per device licensing	0	40	26	11	40	-40	14	14
Java Auto Updater	Sun	Per device licensing	0	10	25	35	10	-10	3	3

The 'Machine Usage Detail' pane shows a table with columns: Machine, No of Times Used, Duration (hrs), Last Used, and Type. It lists machines like LE12175 and their usage statistics.

The 'Business Group' pane shows a table with columns: Business Group, Installs, and Unused Installs. It lists groups like North and East with their respective install counts.

The top pane shows details of the given application package (in this example, Microsoft Office Standard Edition 2003) including:

- License type e.g. per device, per user, site license etc.
- The entitlement for that package i.e. the number of licenses owned. This information would normally be entered by the user but can also be imported from most structured file (e.g. spreadsheet) or database formats.
- The total number of installations of this package deployed across the estate and the total number of unique users of that package.
- The maximum concurrency for that application during the reporting period i.e. the peak number of application sessions for that package.
- The number of licenses in use, based on deployed instances of that application.

- The resultant license position for that application of deployed versus entitlement. A positive number indicates the number of unused licenses and a negative number indicates an under-licensed position.
- The number of unused instances of that application across the estate.

The bottom left pane shows:

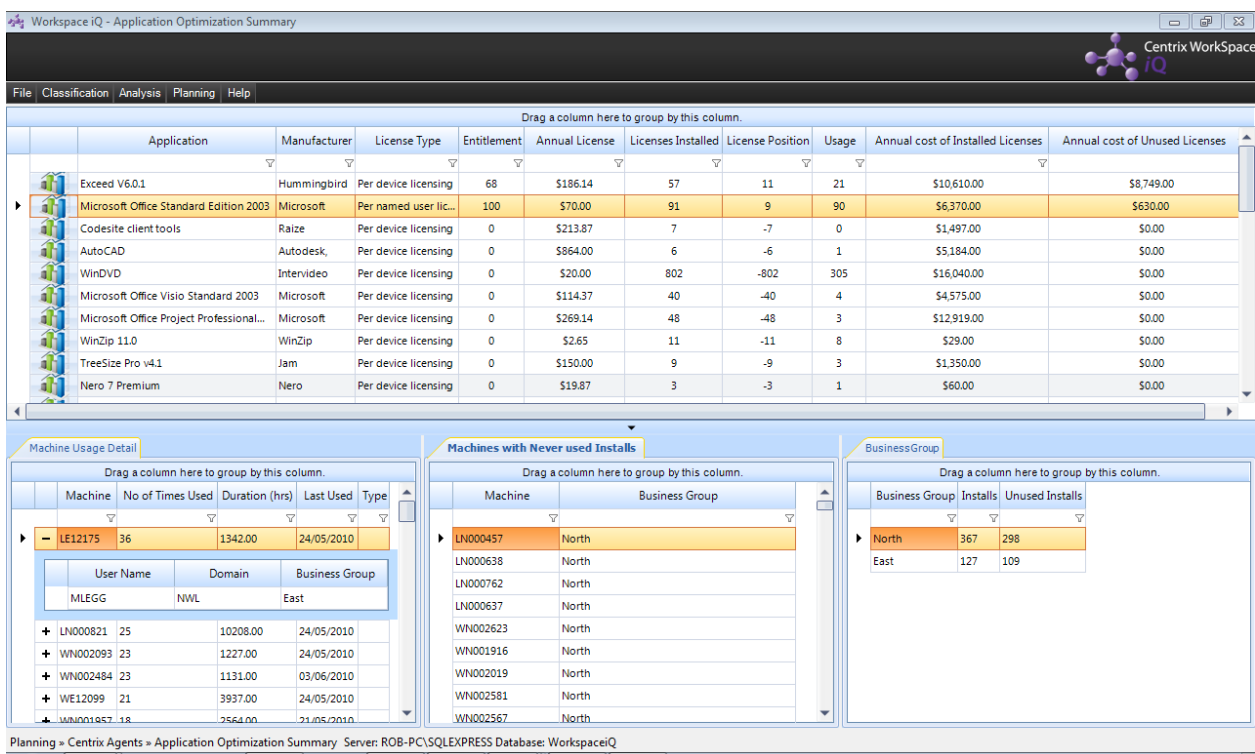
- The devices on which this application package was used during the reporting period. The detail includes number of times used, the total duration of usage and the last used date.
- Further detail of one of the devices is shown revealing the details of the user (or users) of that application package on that device including user name, AD domain and business group.

The bottom right pane shows:

- The breakdown by business group of installed and unused application instances of this package.

Fig 4. Application Optimization Summary

This screen shot shows the entitlement, license position and the monetary value based on actual usage of a given application (in this example, Microsoft Office Standard Edition 2003) from across the estate.



The top pane shows details of the given application package (in this example, Microsoft Office Standard Edition 2003) including:

- License type e.g. per device, per user, site license etc.
- The entitlement for that package i.e. the number of licenses owned. This information would normally be entered by the user but can also be imported from most structured file (e.g. spreadsheet) or database formats.
- The annual cost associated with that license (usually the annual software support and maintenance cost). This information would normally be entered by the user but can also be imported from most structured file (e.g. spreadsheet) or database formats.
- The total number of installations of this package deployed across the estate.
- The resultant license position for that application package of deployed versus entitlement. A positive number indicates the number of unused licenses and a negative number indicates an under-licensed position.
- The number of application instances actually used during the reporting period.
- The total annual cost of the installed licenses for that application across the estate.
- The total annual cost of the unused licenses for that application across the estate i.e. annual cost of unused application asset.

The bottom left pane shows:

- The devices on which this application package was used during the reporting period. The detail includes number of times used, the total duration of usage and the last used date.
- Further detail of one of the devices is shown revealing the details of the user (or users) of that application package on that device including user name, AD domain and business group.

The bottom middle pane shows:

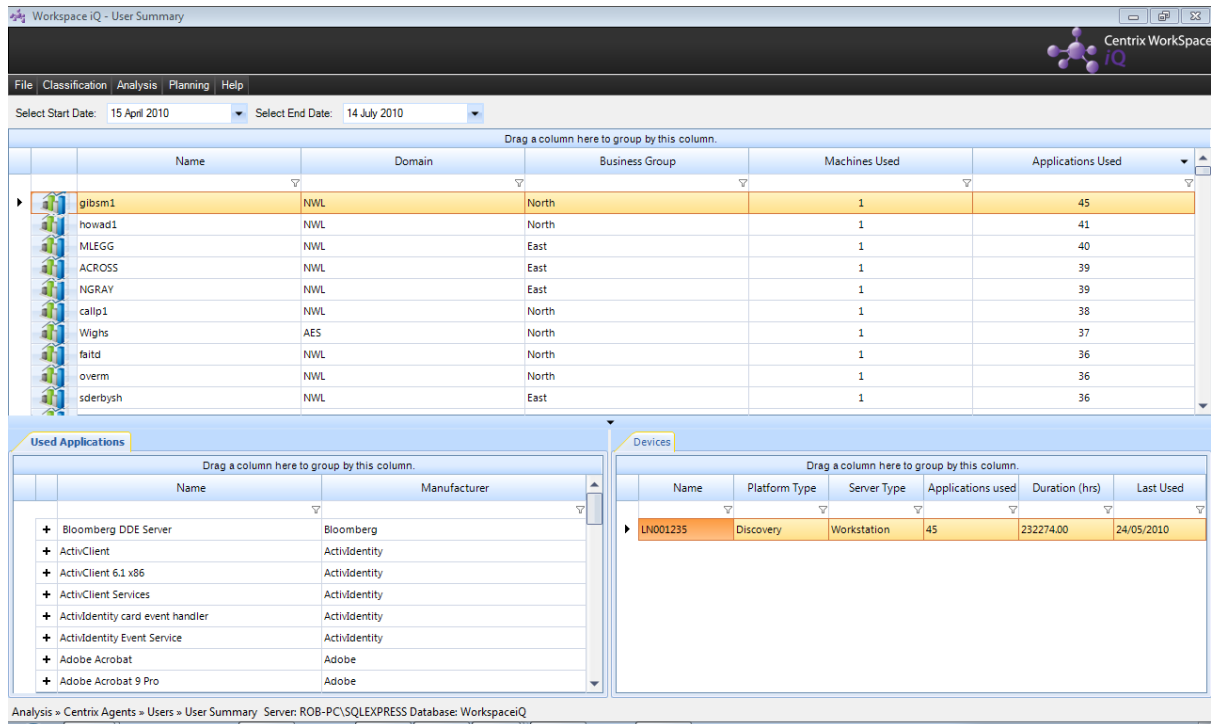
- The devices that have unused instances of this application package installed. This view provides the list of devices where these application licenses will be remediated from.

The bottom right pane shows:

- The breakdown by business group of installed and unused application instances of this package.

Fig 5. User Summary

This screen shot shows the applications and devices used by a given user.



Name	Domain	Business Group	Machines Used	Applications Used
gibsm1	NWL	North	1	45
howad1	NWL	North	1	41
MLEGG	NWL	East	1	40
ACROSS	NWL	East	1	39
NGRAY	NWL	East	1	39
callp1	NWL	North	1	38
Wighs	AES	North	1	37
faitd	NWL	North	1	36
overm	NWL	North	1	36
sderbysh	NWL	East	1	36

Name	Manufacturer
Bloomberg DDE Server	Bloomberg
ActivClient	ActivIdentity
ActivClient 6.1 x86	ActivIdentity
ActivClient Services	ActivIdentity
ActivIdentity card event handler	ActivIdentity
ActivIdentity Event Service	ActivIdentity
Adobe Acrobat	Adobe
Adobe Acrobat 9 Pro	Adobe

Name	Platform Type	Server Type	Applications used	Duration (hrs)	Last Used
LN001235	Discovery	Workstation	45	232274.00	24/05/2010

The top pane shows details of the given user including:

- User name, AD domain and business group.
- The number of devices used by this user in the reporting period.
- The number of applications used by this user in the reporting period.

The bottom left pane shows:

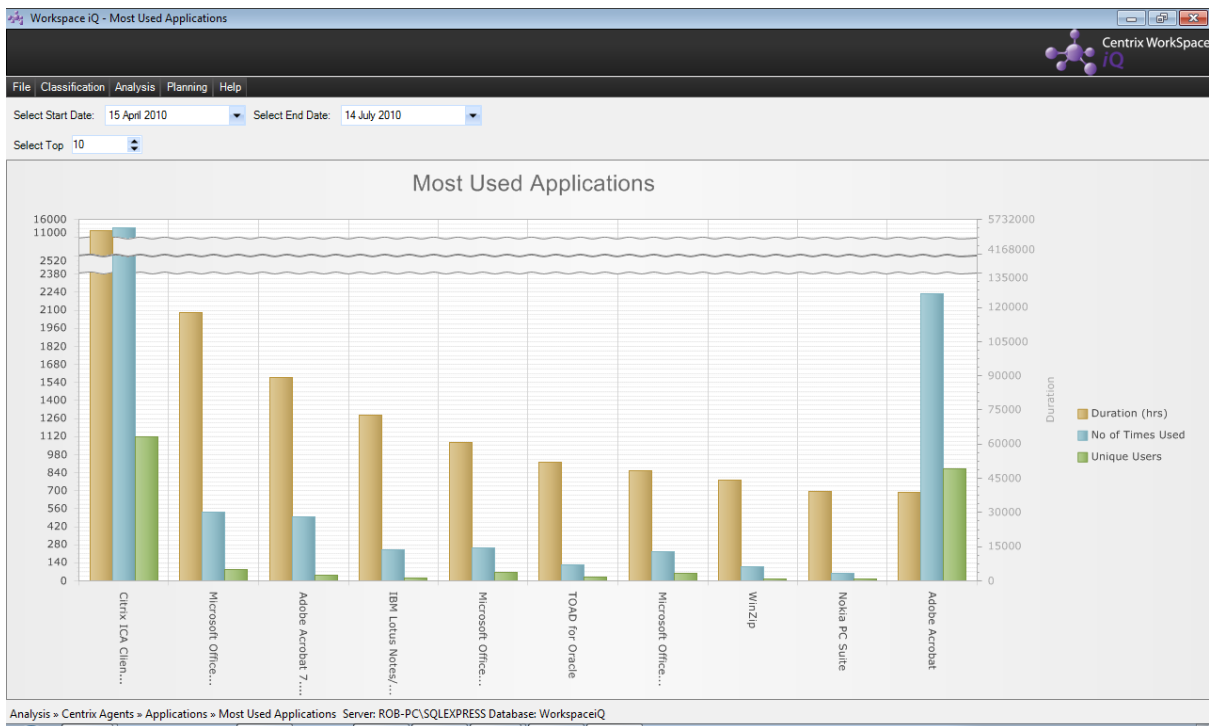
- The application packages used by this user during the reporting period.
- Further details of the components of a given application package can also be exposed in this view (not shown).

The bottom right pane shows:

- The device or devices used by that user during the reporting period.
- Details include device name, the number of applications used on that device, the total duration of usage and the date the device was last accessed by that user.

Fig 6. Most Used Applications

This screen shot shows a graphical view of a chosen number (in this example, ten) of the most used applications across the estate.



The graph shows details of a chosen number (in this example, ten) of the most used applications across the estate including:

- The total duration of usage in hours of the each application across the estate.
- The total number of times each application was used across the estate.
- The total number of unique users of each application across the estate.

(Note: the wavy lines at the top of the graph indicate a break in order to show the whole data range on one graph).

Also available is a view showing the details of a chosen number of the least used applications across the estate with the same format as the above (not shown).

Further information of WorkSpace iQ is available here:

<http://www.centrixsoftware.com/products/workspace-iq/>

Further information on Centrix Software and the WorkSpace Suite is available here:

<http://www.centrixsoftware.com>