

September 2013 LUG Meeting

Power Systems 2013

# HMC Walker

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**IBM**





# Agenda

## Future plans

HMC Walker Introduction/Getting Started

Performance graphs

Configuration data

Future plans

## Future plans

Create suite of new iDoctor components for analyzing the entire physical system (all partitions)

Covers AIX, VIOS, IBM i using the HMC, NMON, Collection Services and more.

Will initially include the following 3 components:

- HMC Walker

- VIOS Investigator

- (and a yet to be named AIX specific component.)

Data analysis to be done using Oracle on the PC or AIX, or DB2 on IBM i.

Future goal: Graph a high-level physical system overview then drill down into LPAR specific components and data.

## Dates

Beta test will begin starting Oct 2013.

VIOS Investigator will be updated to support Oracle on the PC use by 1<sup>st</sup> quarter 2014.

HMC Walker to be generally available by 3<sup>rd</sup> quarter 2014.

AIX analysis component will be generally available by 4<sup>th</sup> quarter 2014.





# Agenda

Future plans

**HMC Walker Introduction/Getting Started**

Performance graphs

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# HMC Walker Introduction



HMC Walker is an HMC GUI that provides configuration details and performance metrics across all LPARs attached to the HMC.

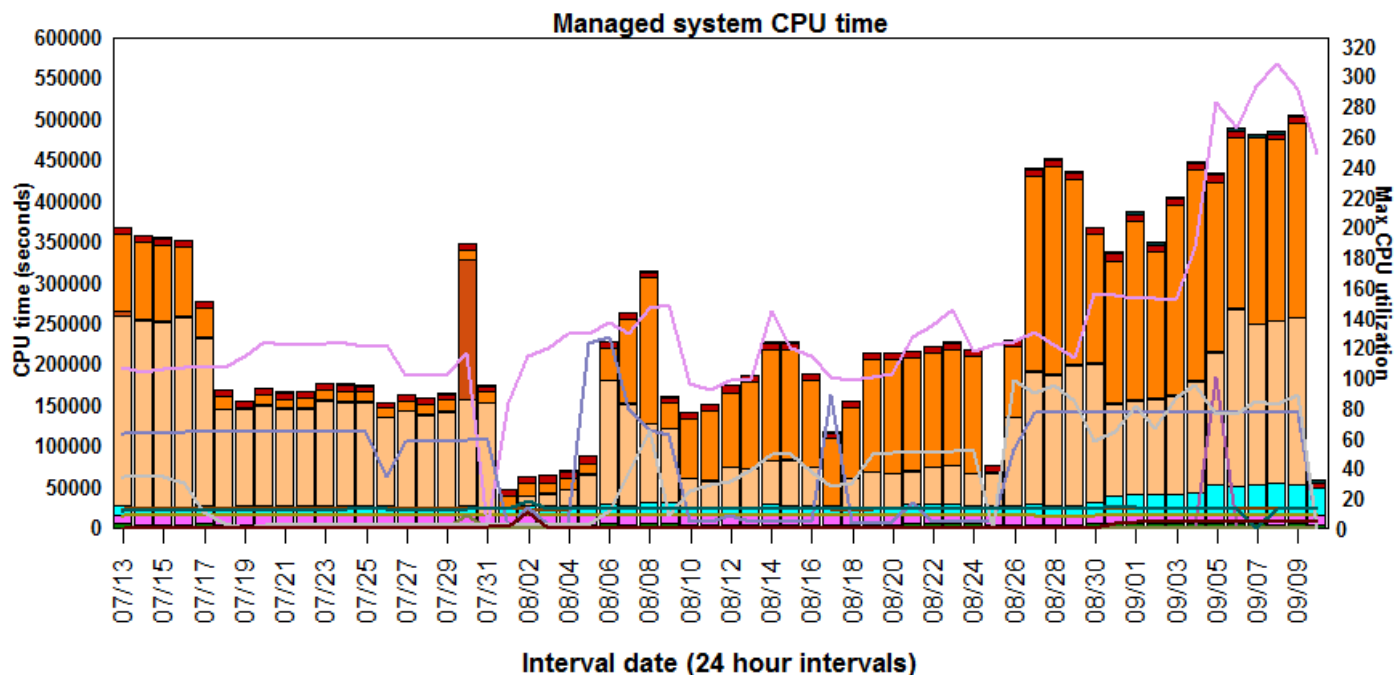
Provides CPU and memory statistics across 1 or more 'physical systems.'

Performance data for any type of LPAR can now be graphed with iDoctor using this offering.



# Managed (Physical) system CPU graph example

Shows CPU time and max LPAR CPU utilization over the last 60 days.



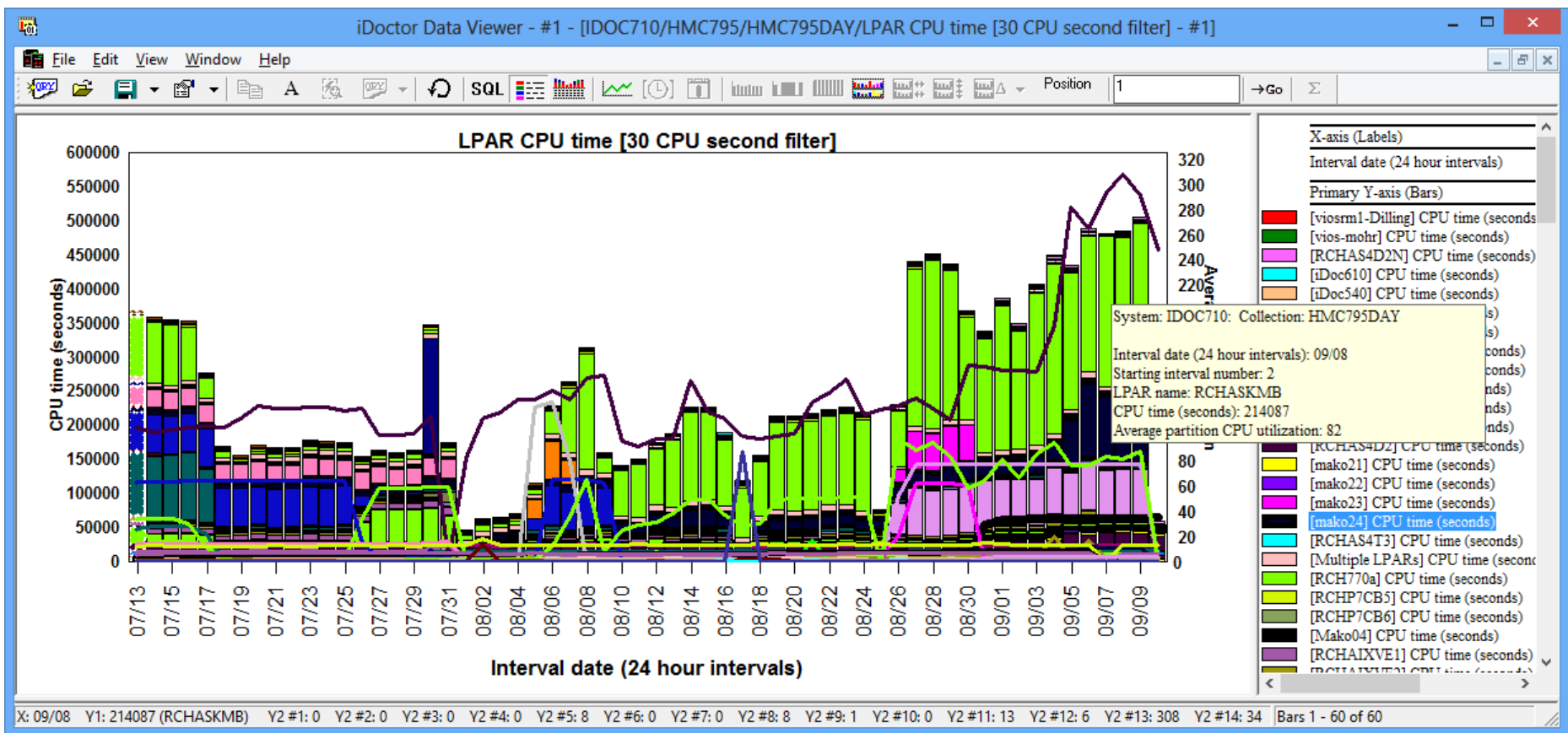
X-axis (Labels)	
Interval date (24 hour intervals)	
Primary Y-axis (Bars)	
[cs6p7] CPU time (seconds)	
[iDoctor] CPU time (seconds)	
[DOM570] CPU time (seconds)	
[LPMAKO-SN10CE9FR] CPU time (seconds)	
[MTSLPMMB] CPU time (seconds)	
[PFE795] CPU time (seconds)	
[RCHLPKMX] CPU time (seconds)	
[RCHLPMMA] CPU time (seconds)	
[RCHLPM25] CPU time (seconds)	
Secondary Y-axis (Lines)	
[cs6p7] Maximum partition CPU utilization	
[iDoctor] Maximum partition CPU utilization	
[DOM570] Maximum partition CPU utilization	
[LPMAKO-SN10CE9FR] Maximum partition CPU utilization	
[MTSLPMMB] Maximum partition CPU utilization	
[PFE795] Maximum partition CPU utilization	
[RCHLPKMX] Maximum partition CPU utilization	
[RCHLPMMA] Maximum partition CPU utilization	
[RCHLPM25] Maximum partition CPU utilization	
Flyover Fields	
Available Fields	

# LPAR CPU time graph example (ALL systems)

Same as previous except showing the LPARs instead.

This graph is showing AIX, VIOS and IBM i.

Note: 30 sec CPU filter, means LPARs that used < 30 seconds of CPU per day are bundled together.







## Beta Test Information

Currently an IBM internal component and “as-is” until released as a customer ready offering.

Contact [idoctor@us.ibm.com](mailto:idoctor@us.ibm.com) and indicate you want to beta test HMC Walker for download access and further instructions.

## Prerequisites to install on the PC

- **.NET 4.0 or higher**
  - <http://www.microsoft.com/en-us/download/details.aspx?id=30653>
  
- **Visual C++ Redistributable for Visual Studio 2012 Update 1 or higher**
  - <http://www.microsoft.com/en-us/download/details.aspx?id=30679>
  - (install the 32-bit version)
  
- **System i Access for Windows (optional)**
  - Note: Only need this if you want to analyze on an IBM i.
  - [http://www-03.ibm.com/systems/power/software/i/access/windows\\_sp.html](http://www-03.ibm.com/systems/power/software/i/access/windows_sp.html)

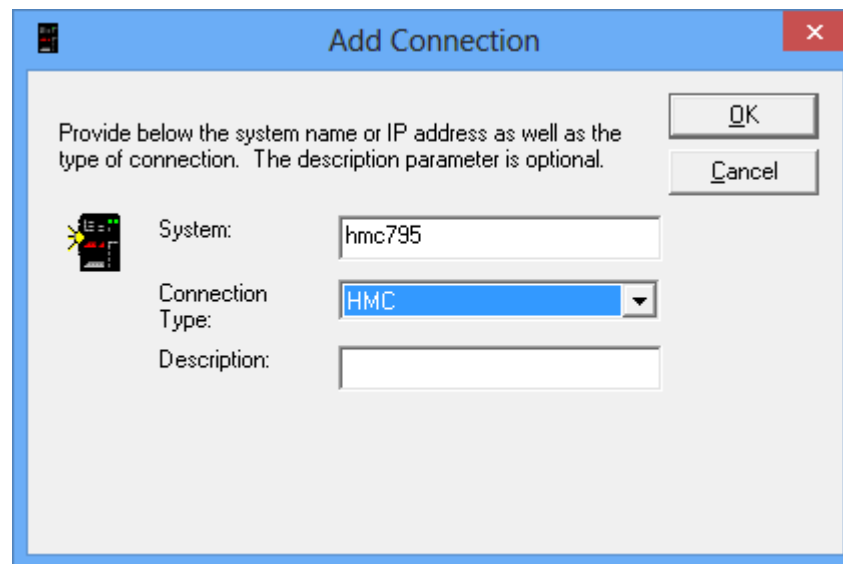
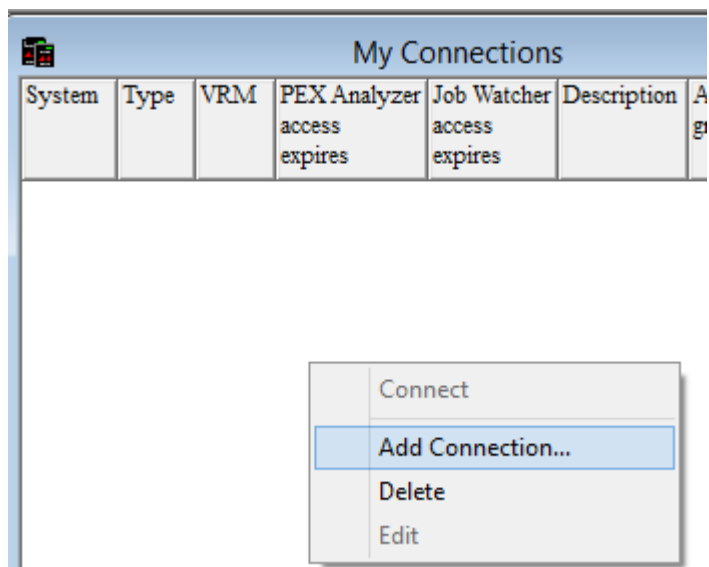
If on Windows 7 or higher System i Access for Windows will also need:  
<http://www.microsoft.com/en-us/download/details.aspx?id=26347>

Install both 32-bit and 64-bit versions of the above if you have 64-bit Windows installed.
  
- **Oracle Express edition (if desired or no IBM i available)**
  - <http://www.oracle.com/technetwork/products/express-edition/downloads/index.html>

## Create an HMC connection

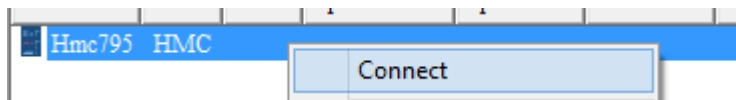
After starting the iDoctor GUI. Right-click the connections list and use the Add Connection menu.

Set the connection type to HMC and fill in the HMC name or IP address.

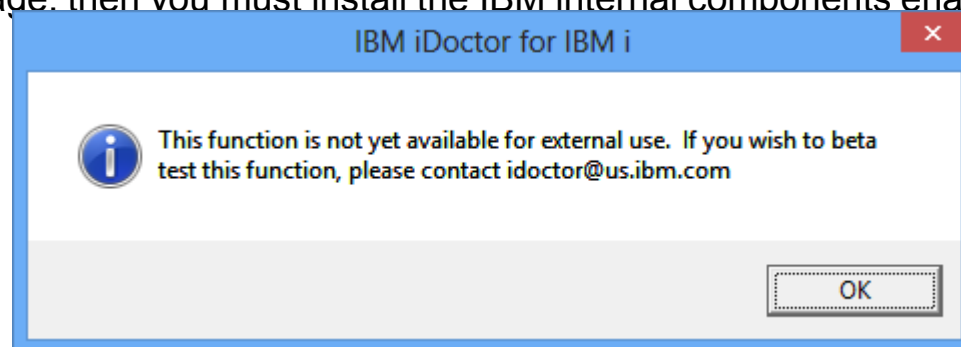


## Open (double-click) the connection

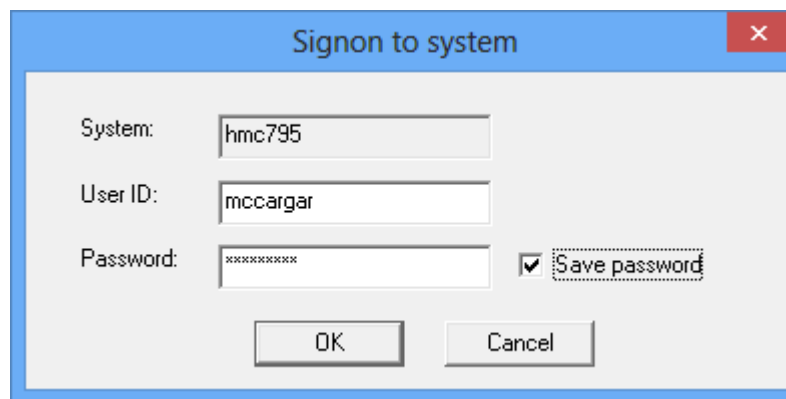
Launch the connection using the connect menu or double-click it.



If you get this message, then you must install the IBM internal components enabler (Windows registry file):



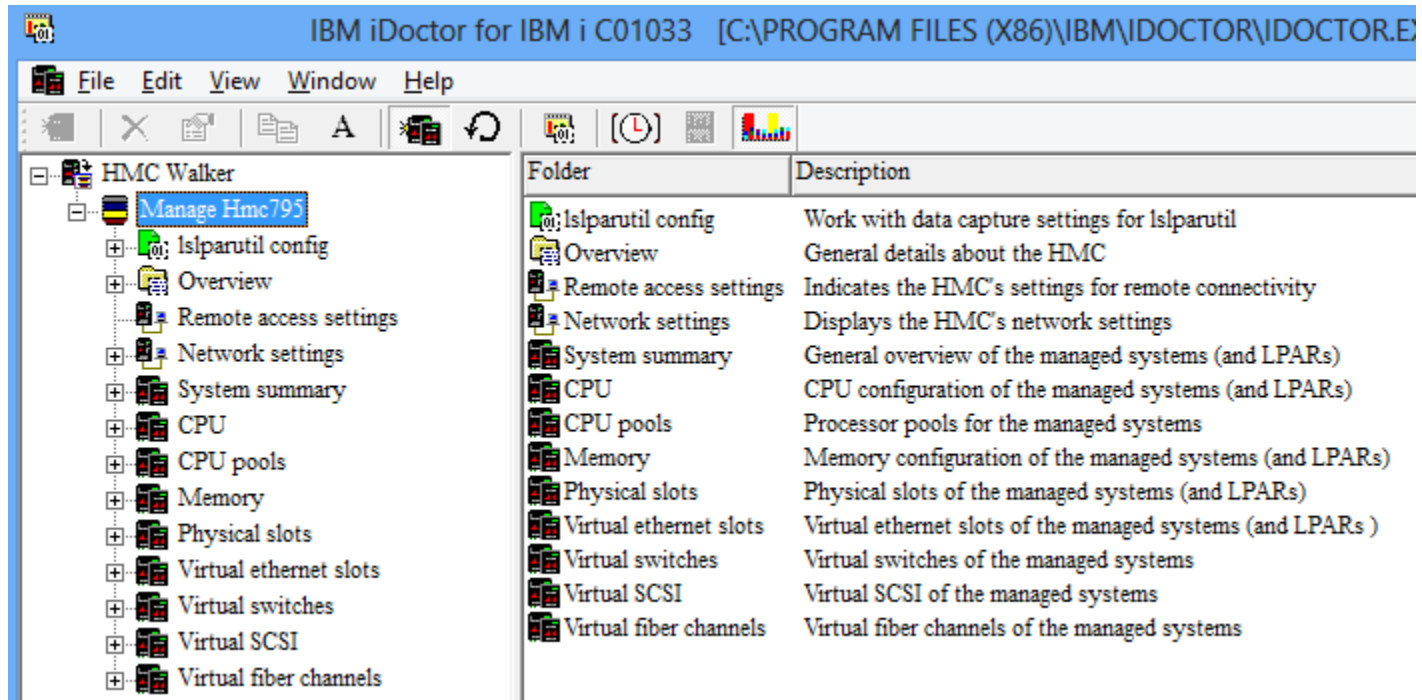
Then sign on:



# HMC Walker Component View

Initially the view will only contain options to manage/work with your HMC.

Once performance data has been captured additional views will be shown here.



Important: Right-click the HMC Walker icon and choose the “Set analysis database” menu to select where data collected by HMC Walker should be stored for analysis. (If you already have IBM i systems in your connections list you will be automatically prompted to pick one.)

## Set analysis database

DB2 on IBM i is the default. (fill in your desired IBM i system name here or select a different option.)

This screen lets you determine which type of database you want to use to analyze the HMC's configuration and performance data:

OK  
Cancel

HMC: Hmc795

Database type:

- DB2 on IBM i Generate SSH keys  
Analysis system:
- Oracle on AIX
- MS access on the PC Note: Supports configuration data only  
C:\Users\Ron\AppData\Roaming\IBM\iDoctor\iDoctorHMCUser.m Browse...
- Oracle on the PC  
Home directory:  
C:\oraclexe Browse...

User: system Password:

If you want to use Oracle on the PC, then specify where you installed it to and the user and password used when you installed Oracle.

## Generate SSH keys (if using IBM i as the DB)

The following information is shown to help you set up a secure SSH connection between the HMC and your IBM i analysis system. This is a required step if you want to use an IBM i for analysis.

In order to setup a secure SSH connection between IBM i and the HMC, please do the following steps:

1. Open a green screen session to the IBM i and sign on to the system.

2. From the CL command line run the following command:

```
> QSH
```

3. From QSH run the following commands:

```
$ cd /QIBM/ProdData/iDoctor/scripts
```

```
$ hmcKeyGen.sh <your hmc name> <your hmc user name>
```

(example: hmcKeyGen.sh hmc795 mccargar)

(when prompted with "Password:", please enter your hmc user's password)

4. Now to confirm that the SSH key generation is successful, issue the following command and you should not be prompted for a password:

```
$ ssh <your hmc user name>@<your hmc name>
```

(example: ssh mccargar@hmc795)

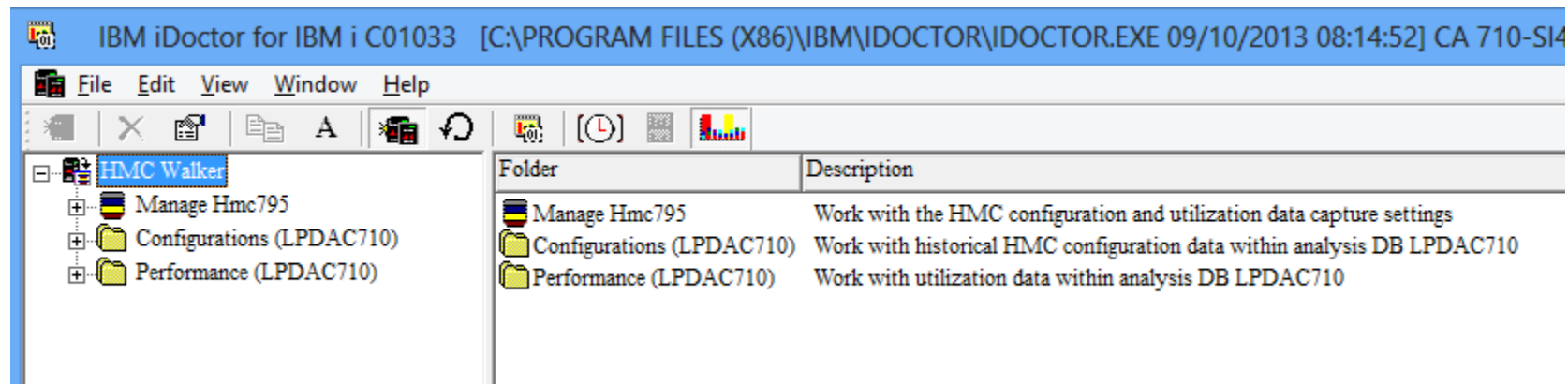
For more information please visit:

<http://www-01.ibm.com/support/docview.wss?uid=nas1315c113cf5dd9ea0862570de0062e1ce>

<http://pic.dhe.ibm.com/infocenter/powersys/v3r1m5/index.jsp?topic=%2Fp7ha1%2Fsettingupsecurecriptexecution.htm>

## HMC Walker Component View (with an IBM i DB)

If an IBM i DB is used, then 3 options are provided:



Configurations folder is historical HMC configuration data.

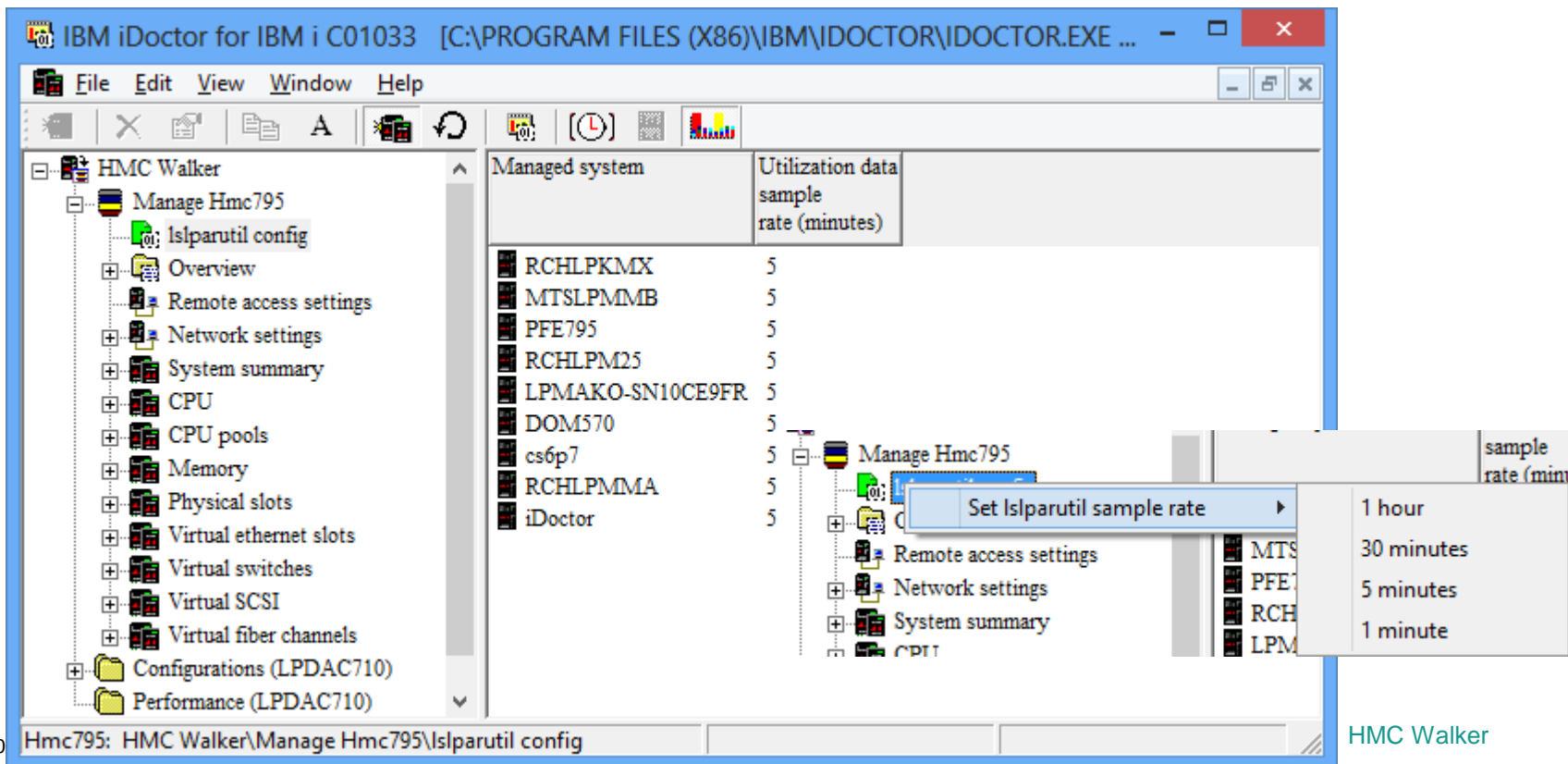
The Performance folder is IsIparutil HMC performance data previously captured and stored on the IBM i.



## Manage HMC -> Isparutil config folder

Be sure that Isparutil is configured to collect data under the Manage HMC -> Isparutil config folder. It probably is not collecting any data.

Once turned on data is automatically collected 24x7 for the desired physical systems for all LPARs on each. It's best to set the sample rate to be the same for all physical systems if you want to graph them at the same time.



Managed system	Utilization data sample rate (minutes)
RCHLPKMX	5
MTSLPMMB	5
PFE795	5
RCHLPM25	5
LPMAKO-SN10CE9FR	5
DOM570	5
cs6p7	5
RCHLPMMA	5
iDoctor	5

Set Isparutil sample rate

- 1 hour
- 30 minutes
- 5 minutes
- 1 minute

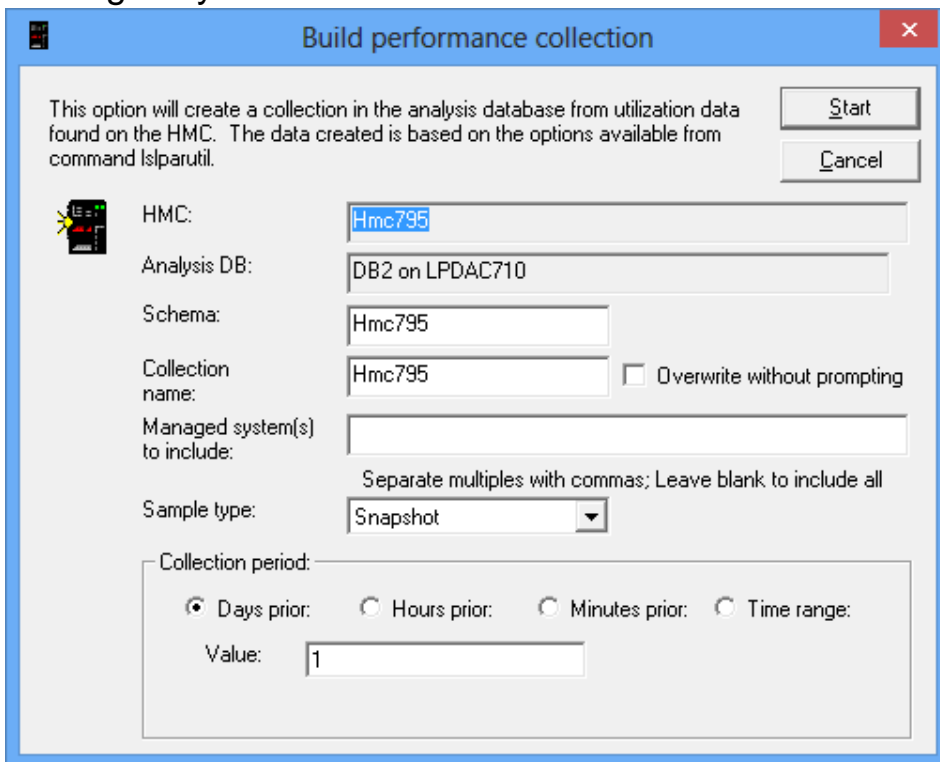
Hmc795: HMC Walker\Manage Hmc795\Isparutil config

## Collecting Isparutil data (explained)

The oldest data will be automatically removed from the HMC once the size becomes too large. Hourly events saved 2 months, daily samples saved 2 years, monthly events saved 10 years.

Capturing data works by specifying how many minutes, hours, days prior to the current time you want to capture. Options exist to also allow you to specify the desired start and end time of the collection instead.

Right-click HMC Walker and use the Build performance collection menu. You can filter on one or more managed systems if desired.



**Build performance collection**

This option will create a collection in the analysis database from utilization data found on the HMC. The data created is based on the options available from command Isparutil.

**HMC:** Hmc795

**Analysis DB:** DB2 on LPDAC710

**Schema:** Hmc795

**Collection name:** Hmc795  Overwrite without prompting

**Managed system(s) to include:**

Separate multiples with commas; Leave blank to include all

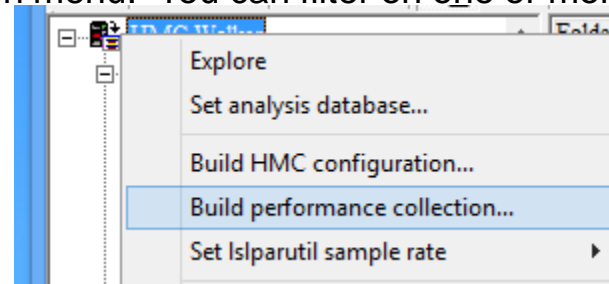
**Sample type:** Snapshot

**Collection period:**

Days prior:  Hours prior:  Minutes prior:  Time range:

Value: 1

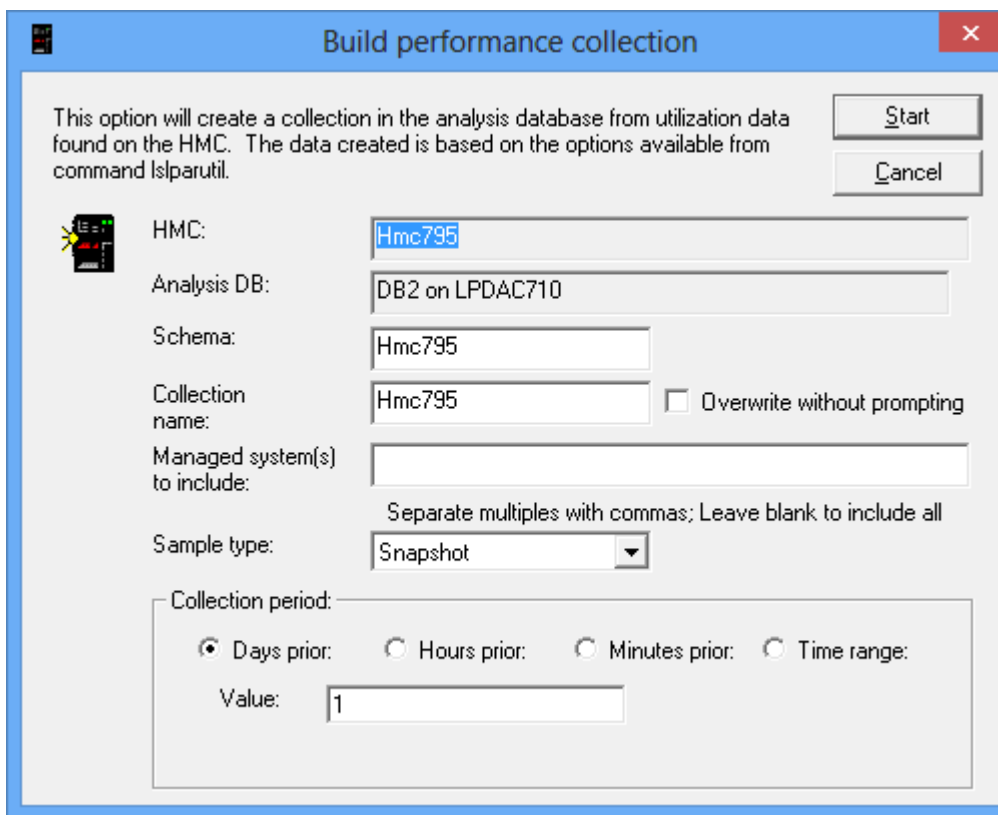
Start Cancel



## Build performance collection window

This window allows you to specify the schema (library if using IBM i), collection name and managed systems to include.

The sample type can be snapshot (whatever the sample rate is set to), hourly, daily or monthly. This lets you create graphs over longer periods of time if desired. Note: Of course if you just started collecting you will have to wait until the data exists.



This option will create a collection in the analysis database from utilization data found on the HMC. The data created is based on the options available from command lsparutil.

Start  
Cancel

HMC:

Analysis DB:

Schema:

Collection name:   Overwrite without prompting

Managed system(s) to include:

Separate multiples with commas; Leave blank to include all

Sample type:

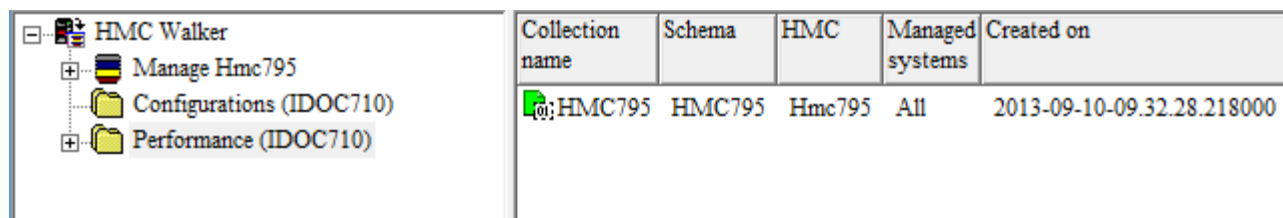
Collection period:

Days prior:  Hours prior:  Minutes prior:  Time range:

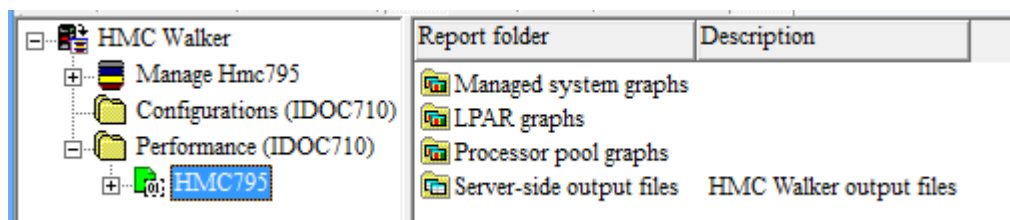
Value:

# Viewing Performance collections

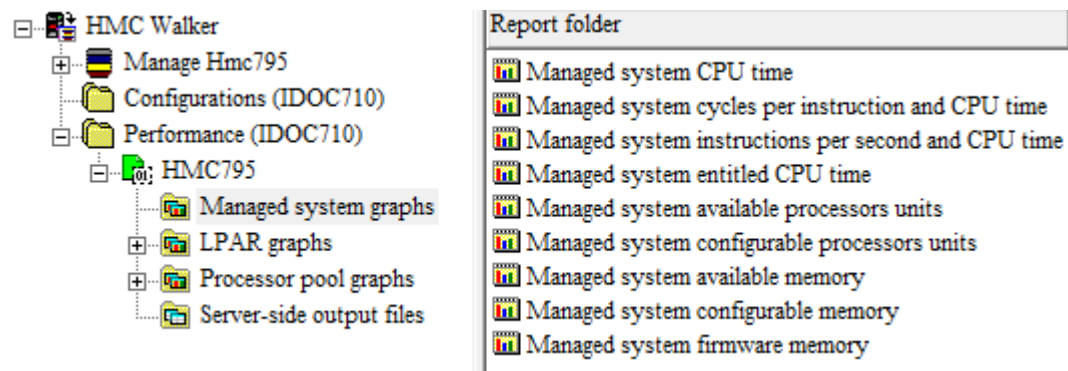
After the collection has been captured to the database, the Performance folder will display it.



Collection name	Schema	HMC	Managed systems	Created on
[@];HMC795	HMC795	Hmc795	All	2013-09-10-09.32.28.218000



Report folder	Description
Managed system graphs	
LPAR graphs	
Processor pool graphs	
Server-side output files	HMC Walker output files



Report folder
Managed system CPU time
Managed system cycles per instruction and CPU time
Managed system instructions per second and CPU time
Managed system entitled CPU time
Managed system available processors units
Managed system configurable processors units
Managed system available memory
Managed system configurable memory
Managed system firmware memory

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HMC Walker Introduction/Getting Started

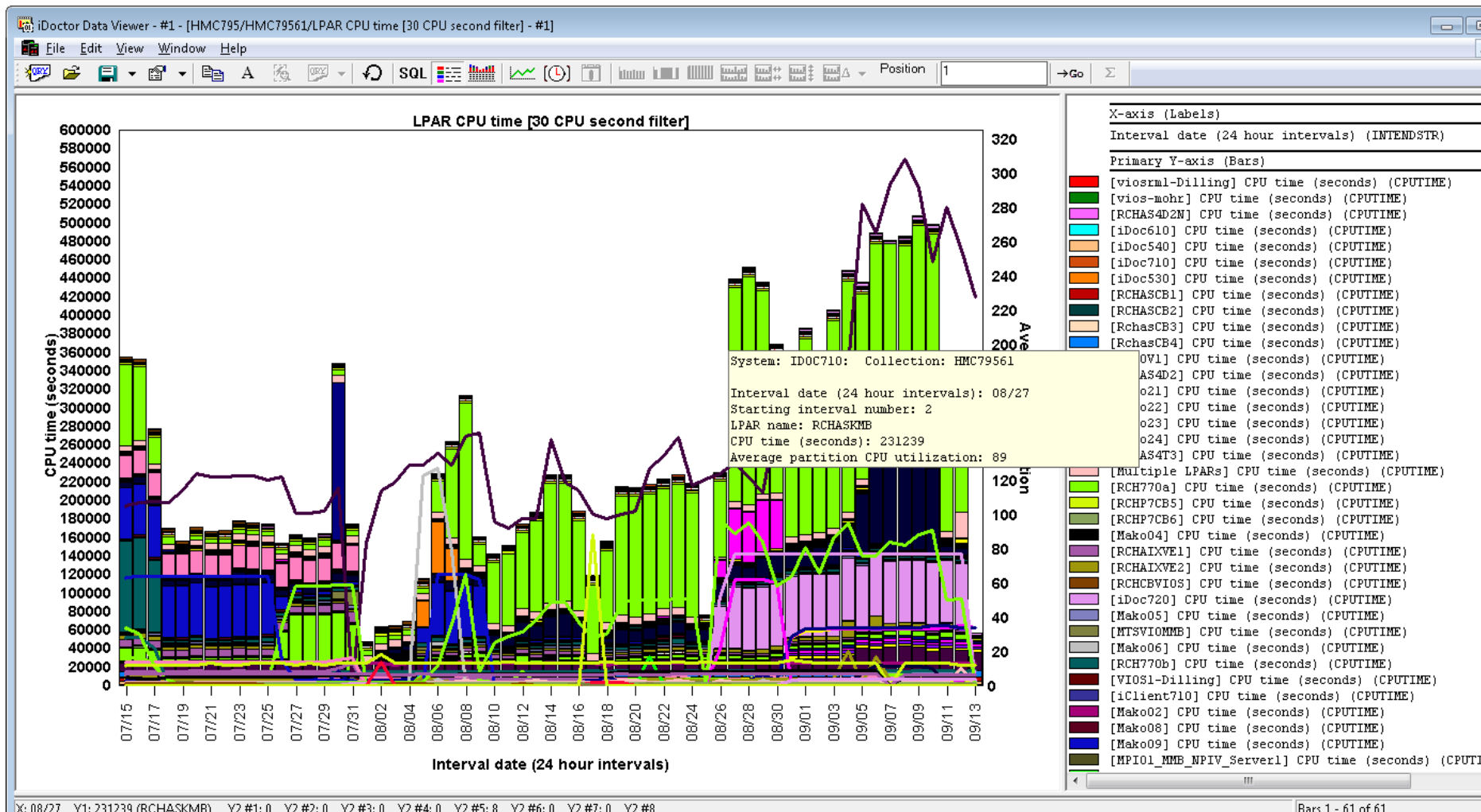
**Performance graphs**

Configuration data

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# 60 day graph example (investigate KMB)

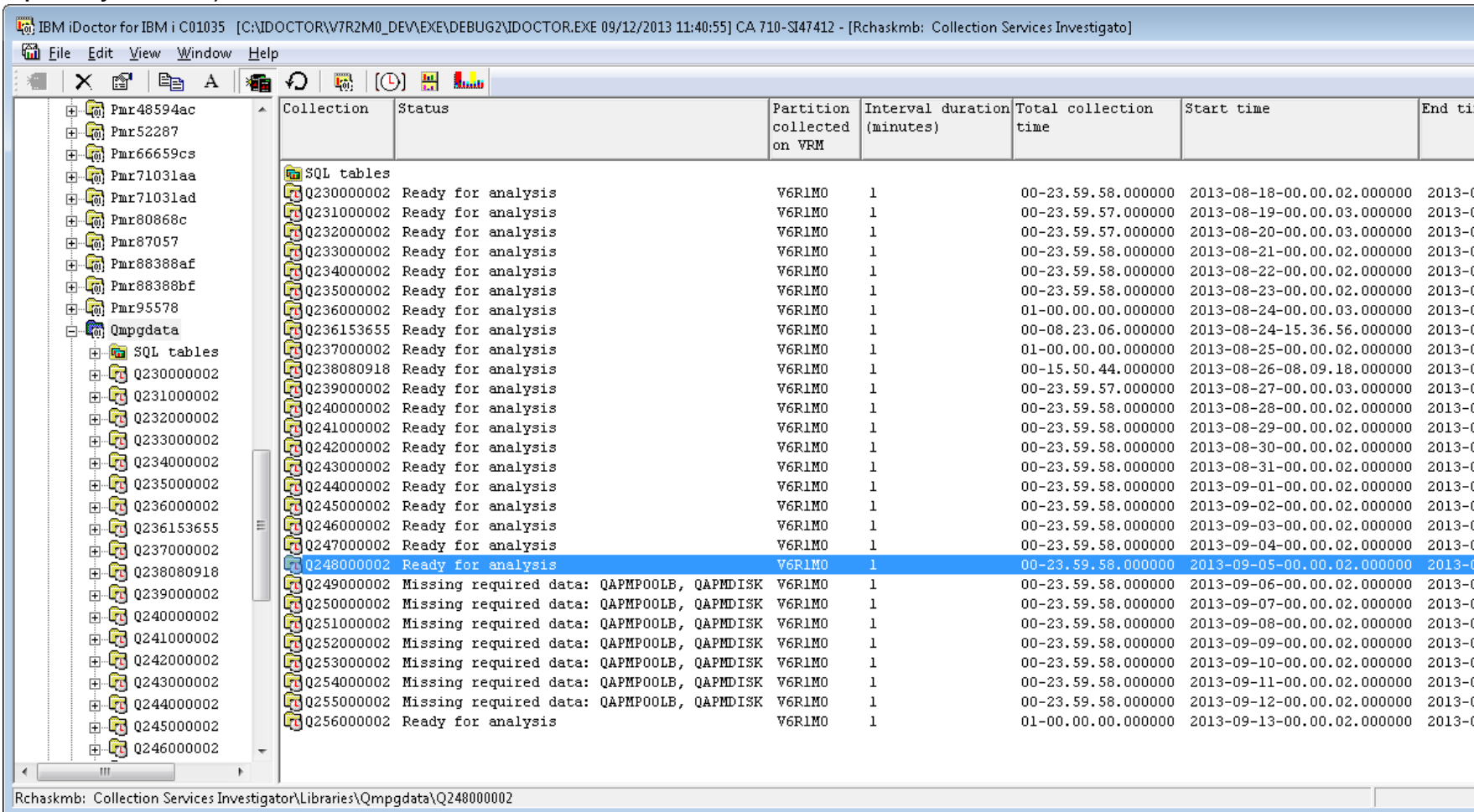
The light green in this chart represents CPU time used by LPAR rchaskmb. Because this is an IBM i LPAR we can use Collection Services Investigator (in the default CS lib) to see which jobs are burning CPU. The high CPU burn on KMB has been happening for several days.



# Available Collections on KMB

QMPGDATA is the default CS library. (See special blue icon in tree that indicates this.)

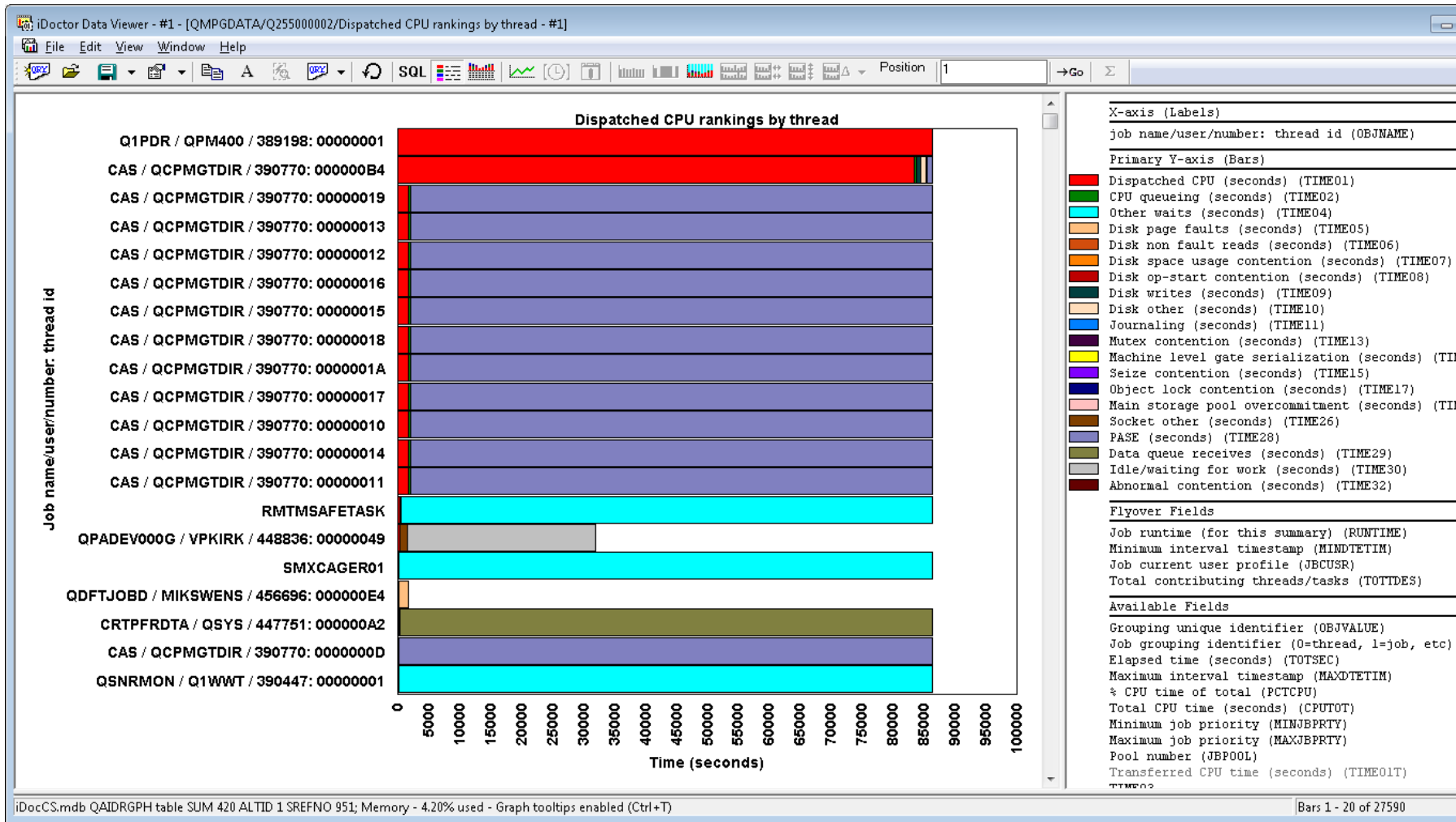
Data is from 8/18 to 9/13. Select one or more and open Wait graphs -> Dispatched CPU by thread (or CPU graphs by thread)



Collection	Status	Partition collected on VRM	Interval duration (minutes)	Total collection time	Start time	End time
SQL tables						
Q230000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-18-00.00.02.000000	2013-08-18-00.00.02.000000
Q231000002	Ready for analysis	V6R1M0	1	00-23.59.57.000000	2013-08-19-00.00.03.000000	2013-08-19-00.00.03.000000
Q232000002	Ready for analysis	V6R1M0	1	00-23.59.57.000000	2013-08-20-00.00.03.000000	2013-08-20-00.00.03.000000
Q233000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-21-00.00.02.000000	2013-08-21-00.00.02.000000
Q234000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-22-00.00.02.000000	2013-08-22-00.00.02.000000
Q235000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-23-00.00.02.000000	2013-08-23-00.00.02.000000
Q236000002	Ready for analysis	V6R1M0	1	01-00.00.00.000000	2013-08-24-00.00.03.000000	2013-08-24-00.00.03.000000
Q236153655	Ready for analysis	V6R1M0	1	00-08.23.06.000000	2013-08-24-15.36.56.000000	2013-08-24-15.36.56.000000
Q237000002	Ready for analysis	V6R1M0	1	01-00.00.00.000000	2013-08-25-00.00.02.000000	2013-08-25-00.00.02.000000
Q238080918	Ready for analysis	V6R1M0	1	00-15.50.44.000000	2013-08-26-08.09.18.000000	2013-08-26-08.09.18.000000
Q239000002	Ready for analysis	V6R1M0	1	00-23.59.57.000000	2013-08-27-00.00.03.000000	2013-08-27-00.00.03.000000
Q240000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-28-00.00.02.000000	2013-08-28-00.00.02.000000
Q241000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-29-00.00.02.000000	2013-08-29-00.00.02.000000
Q242000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-30-00.00.02.000000	2013-08-30-00.00.02.000000
Q243000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-08-31-00.00.02.000000	2013-08-31-00.00.02.000000
Q244000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-09-01-00.00.02.000000	2013-09-01-00.00.02.000000
Q245000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-09-02-00.00.02.000000	2013-09-02-00.00.02.000000
Q246000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-09-03-00.00.02.000000	2013-09-03-00.00.02.000000
Q247000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-09-04-00.00.02.000000	2013-09-04-00.00.02.000000
Q248000002	Ready for analysis	V6R1M0	1	00-23.59.58.000000	2013-09-05-00.00.02.000000	2013-09-05-00.00.02.000000
Q249000002	Missing required data: QAPMPOOLB, QAPMDISK	V6R1M0	1	00-23.59.58.000000	2013-09-06-00.00.02.000000	2013-09-06-00.00.02.000000
Q250000002	Missing required data: QAPMPOOLB, QAPMDISK	V6R1M0	1	00-23.59.58.000000	2013-09-07-00.00.02.000000	2013-09-07-00.00.02.000000
Q251000002	Missing required data: QAPMPOOLB, QAPMDISK	V6R1M0	1	00-23.59.58.000000	2013-09-08-00.00.02.000000	2013-09-08-00.00.02.000000
Q252000002	Missing required data: QAPMPOOLB, QAPMDISK	V6R1M0	1	00-23.59.58.000000	2013-09-09-00.00.02.000000	2013-09-09-00.00.02.000000
Q253000002	Missing required data: QAPMPOOLB, QAPMDISK	V6R1M0	1	00-23.59.58.000000	2013-09-10-00.00.02.000000	2013-09-10-00.00.02.000000
Q254000002	Missing required data: QAPMPOOLB, QAPMDISK	V6R1M0	1	00-23.59.58.000000	2013-09-11-00.00.02.000000	2013-09-11-00.00.02.000000
Q255000002	Missing required data: QAPMPOOLB, QAPMDISK	V6R1M0	1	00-23.59.58.000000	2013-09-12-00.00.02.000000	2013-09-12-00.00.02.000000
Q256000002	Ready for analysis	V6R1M0	1	01-00.00.00.000000	2013-09-13-00.00.02.000000	2013-09-13-00.00.02.000000

# Investigating CPU burn on Sept 12th

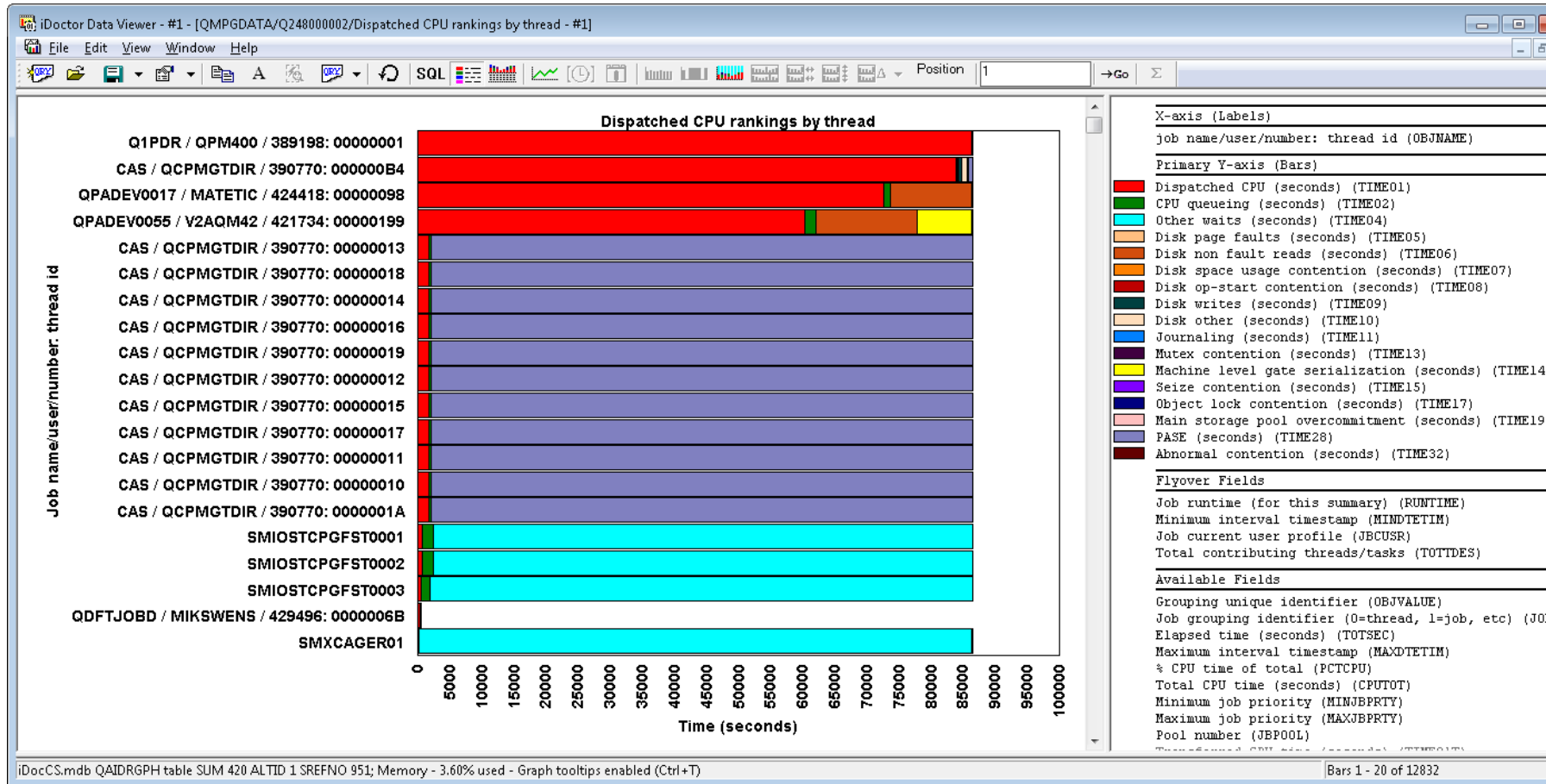
This graph on KMB within CSI for Sept 12th shows which jobs used the CPU that day and the other waits experienced.





# Investigating CPU burn on Sept 5<sup>th</sup>

The same top 2 jobs as on Sept 12<sup>th</sup> are shown.



# Top 2 jobs still running now

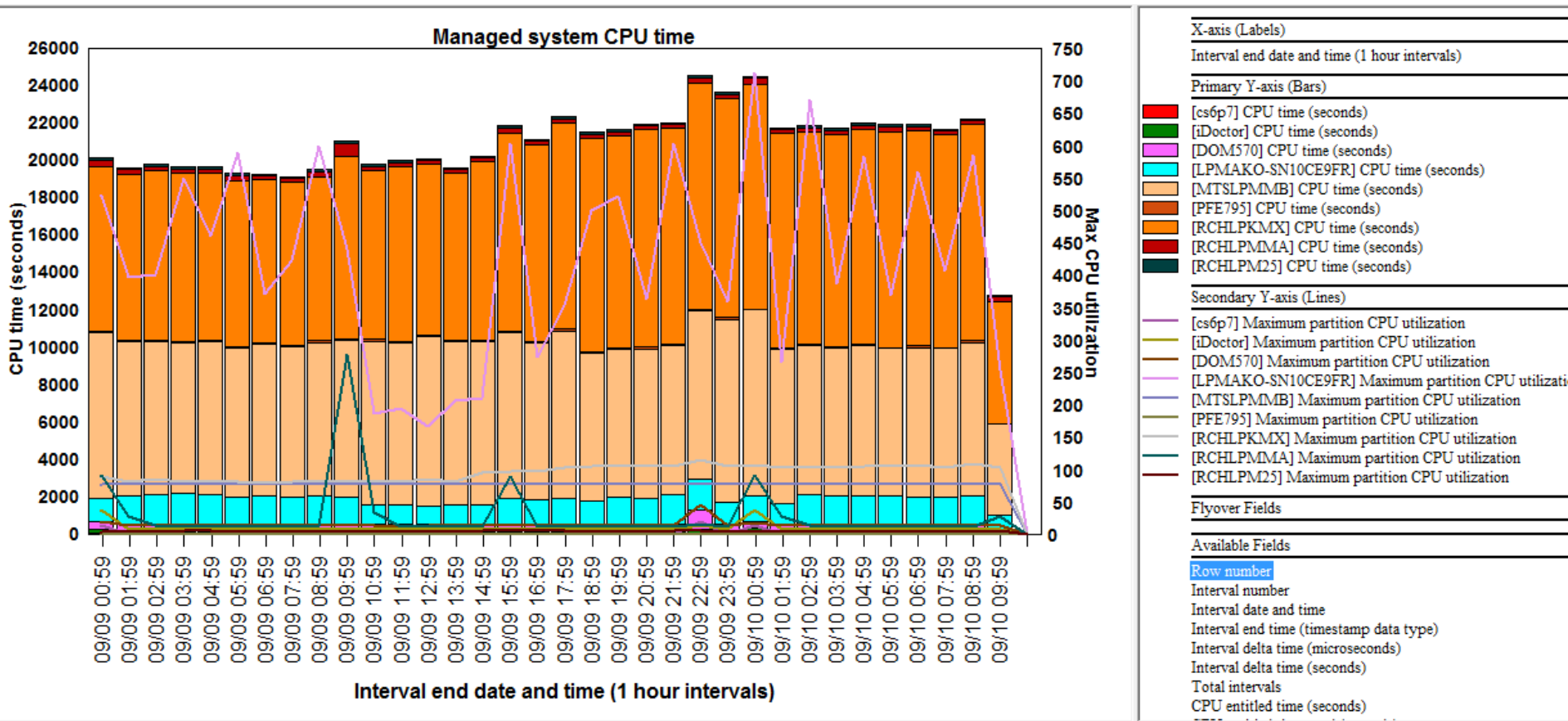
This is KMB, CSI -> Work management -> Active jobs folder. You can look at the call stack, end the job(s), view the job logs, etc.

The last column also tells us when the jobs started (Aug 25<sup>th</sup> and 26<sup>th</sup>)

Job name	Job user	Job number	Threads	Status	Current user	Type	Function	CPU %	CPU time (ms)	Run p...	Disk IO	Async IO	Sync IO	Page faults	Subsystem	Date/time job entered system
CAS	QCPMGDIR	390770	100	THDW	QCPMGDIR	Batch immed	com.ibm.lw	26.1	5,021	25	384	42	342	0	QHTTSPVR	2013-08-26-08.09.
Q1PDR	QPM400	389198	1	RUN	QPM400	Batch immed	Q1PBATCH	23.7	4,565	50	0	0	0	0	QSYSWRK	2013-08-25-00.00.
QZRCRSV	QUSER	456799	1	RUN	MCCARGAR	Batch immed - Server		.1	29	20	534	18	516	0	QUSWRK	2013-09-13-00.13.
QJVAEXEC	KENTB	390652	251	THDW	KENTB	Batch immed	com.ibm.es	0	7	25	0	0	0	0	QSYSWRK	2013-08-26-08.09.
QSNRNET	Q1WWT	390860	11	THDW	Q1WWT	Batch immed	SMRNETHND	0	5	25	0	0	0	0	Q1WWTMNM	2013-08-26-08.10.
QPADEV004M	HALLEEN	418436	1	DSPA	HALLEEN	Batch immed	XEBCDIC	0	4	20	0	0	0	0	QINTER	2013-09-03-12.41.
AMHLWISVR	QLWISVR	450274	34	THDW	QLWISVR	Batch immed	com.ibm.lw	0	3	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
AMQRMPPA	QMOM	455806	16	SEMW	QMOM	Batch immed	AMQRMPPA	0	3	25	0	0	0	0	QMOM	2013-09-12-13.45.
QNF3BIOD	QUSER	390852	8	TIMW	QUSER	Batch immed - Server		0	2	25	0	0	0	0	QSYSWRK	2013-09-10-16.58.
QSNRTRHD	Q1WWT	445723	1	TIMA	Q1WWT	Batch immed	QSNRTRHD	0	2	25	3	0	3	0	Q1WWTMNM	2013-09-11-05.31.
AMQZLAAO	QMOM	455696	20	SEMW	QMOM	Batch immed	AMQZLAAO	0	2	20	0	0	0	0	QMOM	2013-09-12-13.36.
QSRVMON	QSYS	390365	27	THDW	QSECOFR	Batch immed	ServiceMon	0	1	50	0	0	0	0	QSYSWRK	2013-08-26-08.09.
QSLPSVR	QSYS	390879	3	THDW	QSYS	Batch immed - Server	lslp-kerne	0	1	10	0	0	0	0	QSYSWRK	2013-08-26-08.10.
QUSRDIR	QDIRSRV	421896	12	SIGW	QDIRSRV	Batch immed - Server	QGLDSVR	0	1	50	0	0	0	0	QSYSWRK	2013-09-04-11.14.
QYPSJSVR	QYPSJSVR	444524	91	SIGW	QYPSJSVR	Batch immed - Server	QYPSJSVR	0	1	10	0	0	0	0	QSYSWRK	2013-09-10-16.58.
ADMIN2	QLWISVR	446517	54	THDW	QLWISVR	Batch immed	com.ibm.lw	0	1	25	0	0	0	0	QHTTSPVR	2013-09-11-10.14.
ADMIN	QLWISVR	446518	40	THDW	QLWISVR	Batch immed	com.ibm.lw	0	1	25	0	0	0	0	QHTTSPVR	2013-09-11-10.14.
ADMIN4	QWEBADMIN	446520	51	THDW	QWEBADMIN	Batch immed	com.ibm.lw	0	1	25	0	0	0	0	QHTTSPVR	2013-09-11-10.14.
ADMIN3	QLWISVR	446529	37	THDW	QLWISVR	Batch immed	com.ibm.lw	0	1	25	0	0	0	0	QHTTSPVR	2013-09-11-10.14.
BENNIE	QTMHHTTP	449175	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
AMHWAS7	QTMHHTTP	449176	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
AMHWAS7	QTMHHTTP	449186	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
CRHTST1	QTMHHTTP	449220	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
ERICSHHTP	QTMHHTTP	449221	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
LUJIMWEB	QTMHHTTP	449219	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
LTHOMASO	QTMHHTTP	449235	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
LPJHSO1	QTMHHTTP	449232	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
ERICSHHTP	QTMHHTTP	449240	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
IASP	QTMHHTTP	449243	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
AMHWAS7	QTMHHTTP	449244	47	SIGW	QTMHHTTP	Batch immed - Server	QZSRHTTP	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.
JADPDS1	QTMHHTTP	449247	1	SIGW	QTMHHTTP	Batch immed - Server	QZSRLOG	0	1	25	0	0	0	0	QHTTSPVR	2013-09-12-09.36.

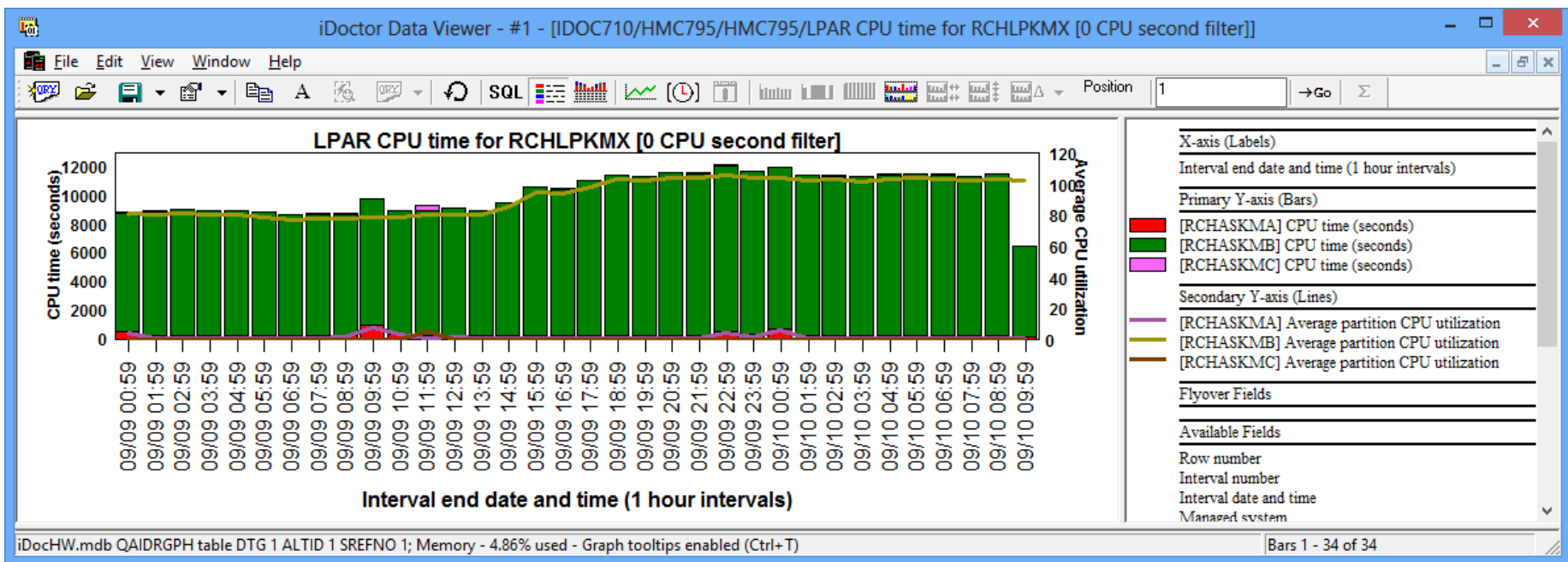
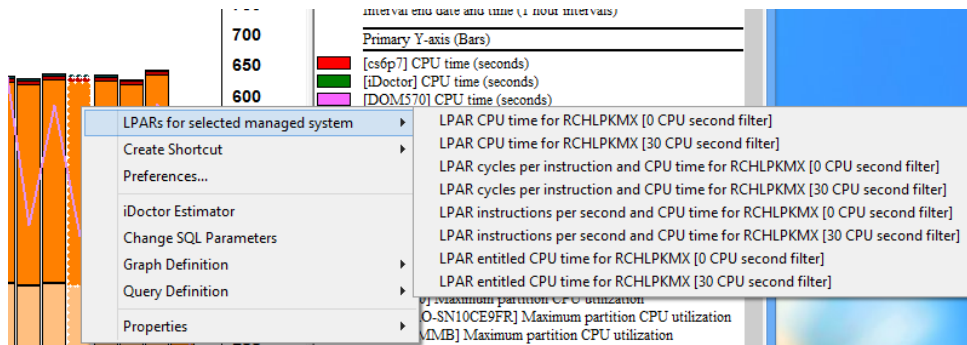
# Managed (physical) system graph example:

- Specified previous 1 day on the Build Performance Collection window which gives all of yesterday and today up to the current time.
- Use the clock icon to change the time interval size if desired (data was originally set to 5 minute intervals.)
- Select a time period or just right-click to drill down into LPARs for the selected managed system.

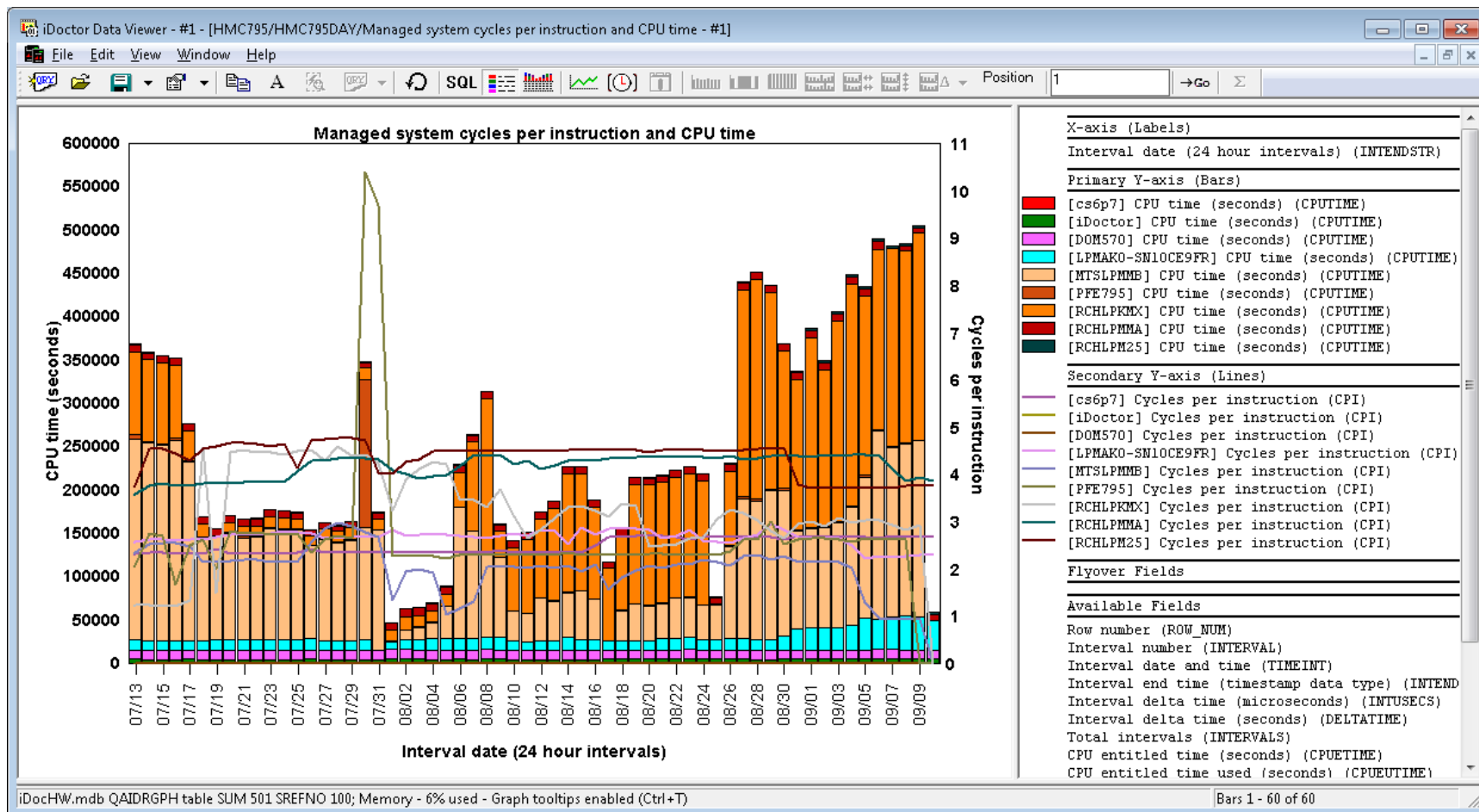


# Drill down into LPARs example

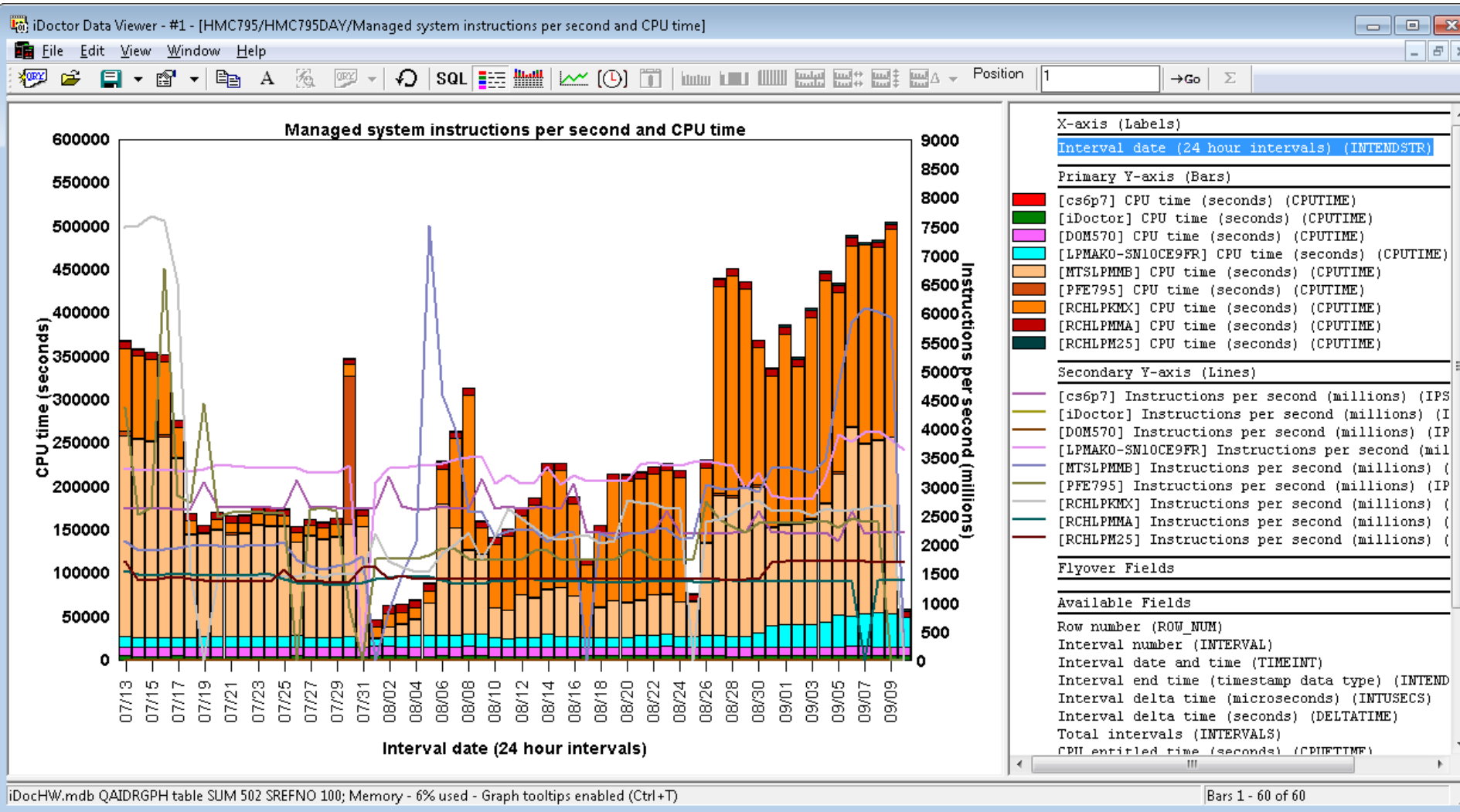
- This lets you determine which LPARs are contributing to the CPU time shown in the previous graph.



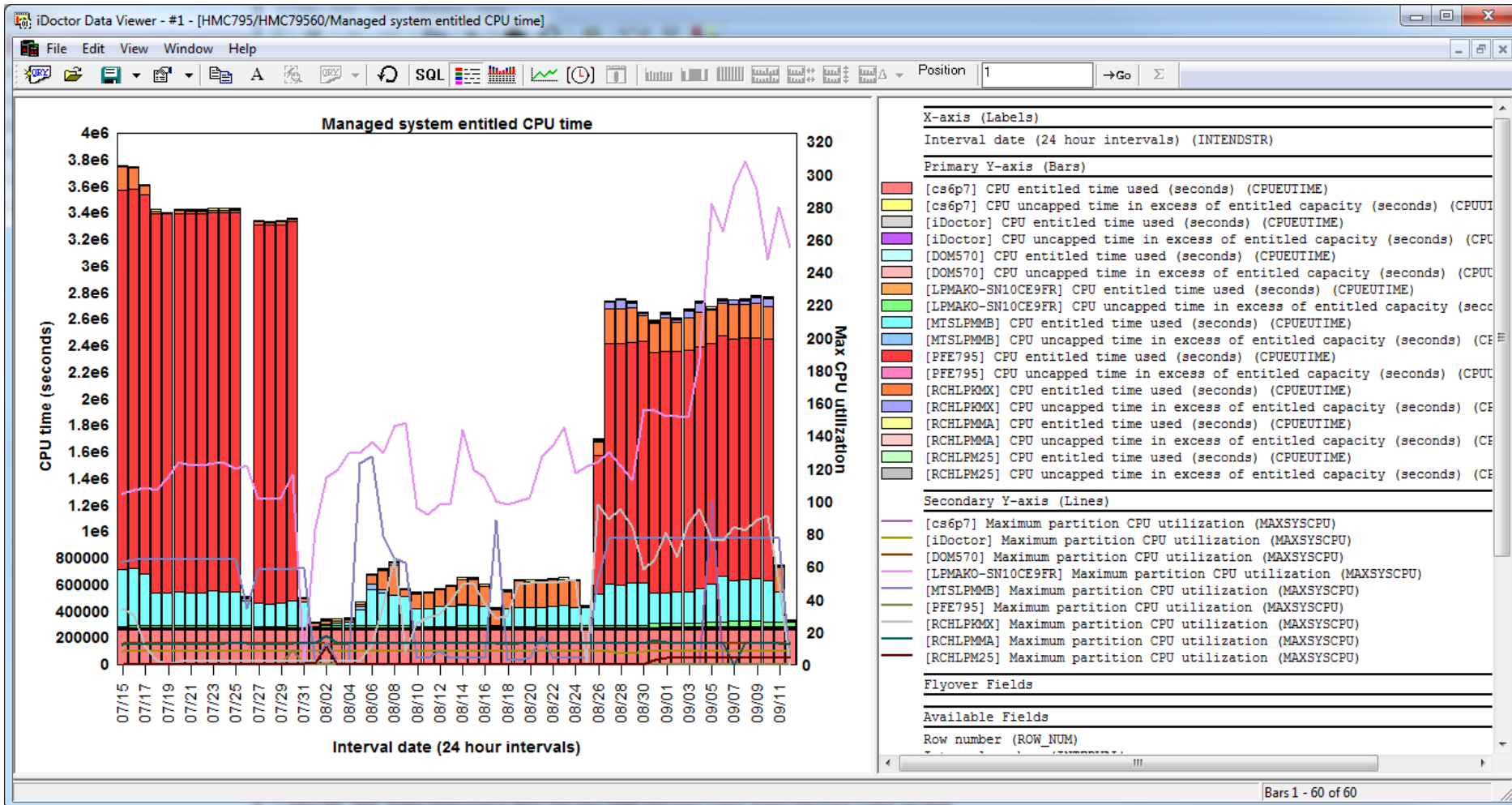
# Managed system cycles per instruction (CPI)



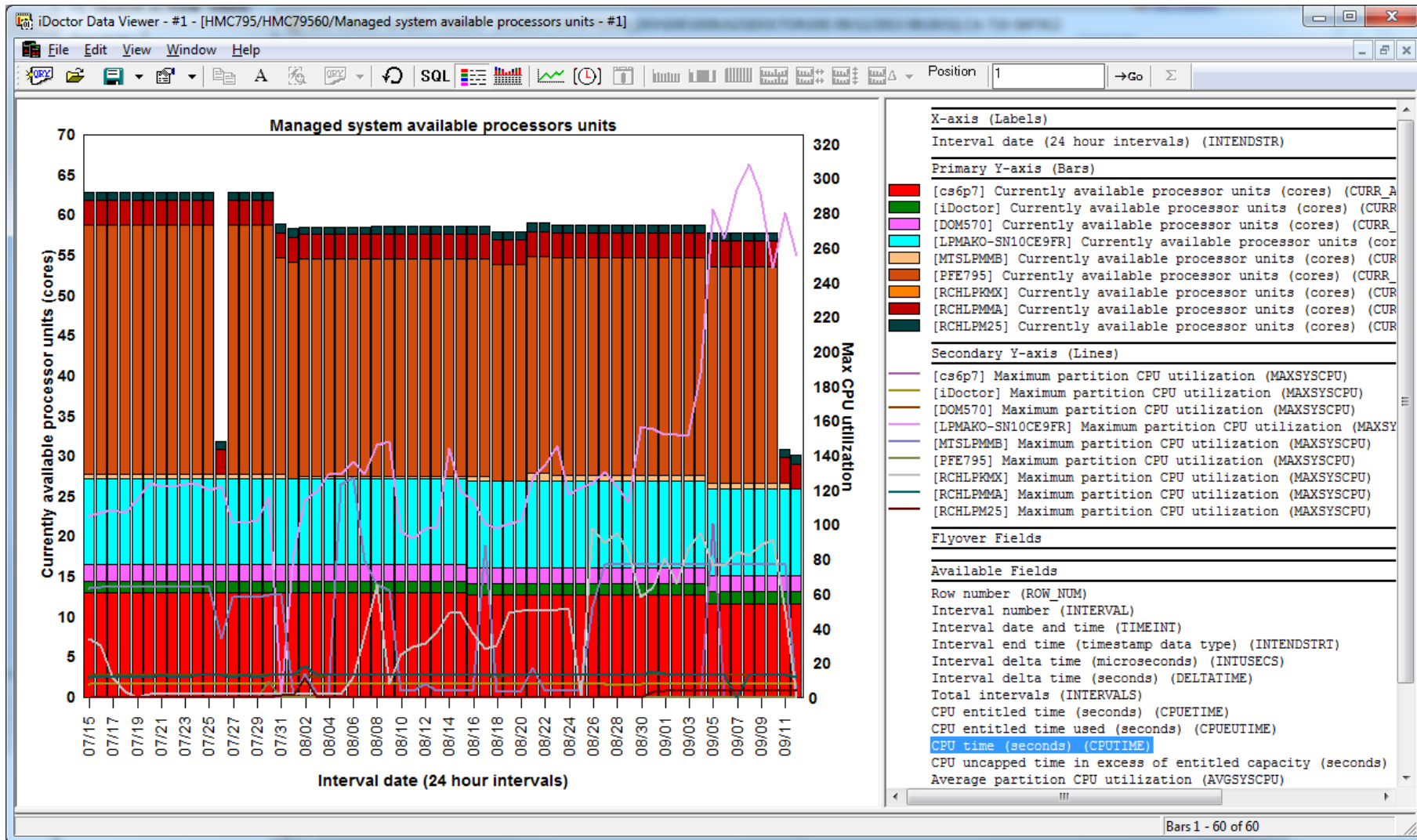
# Managed system instructions per second



# Managed system entitled CPU time

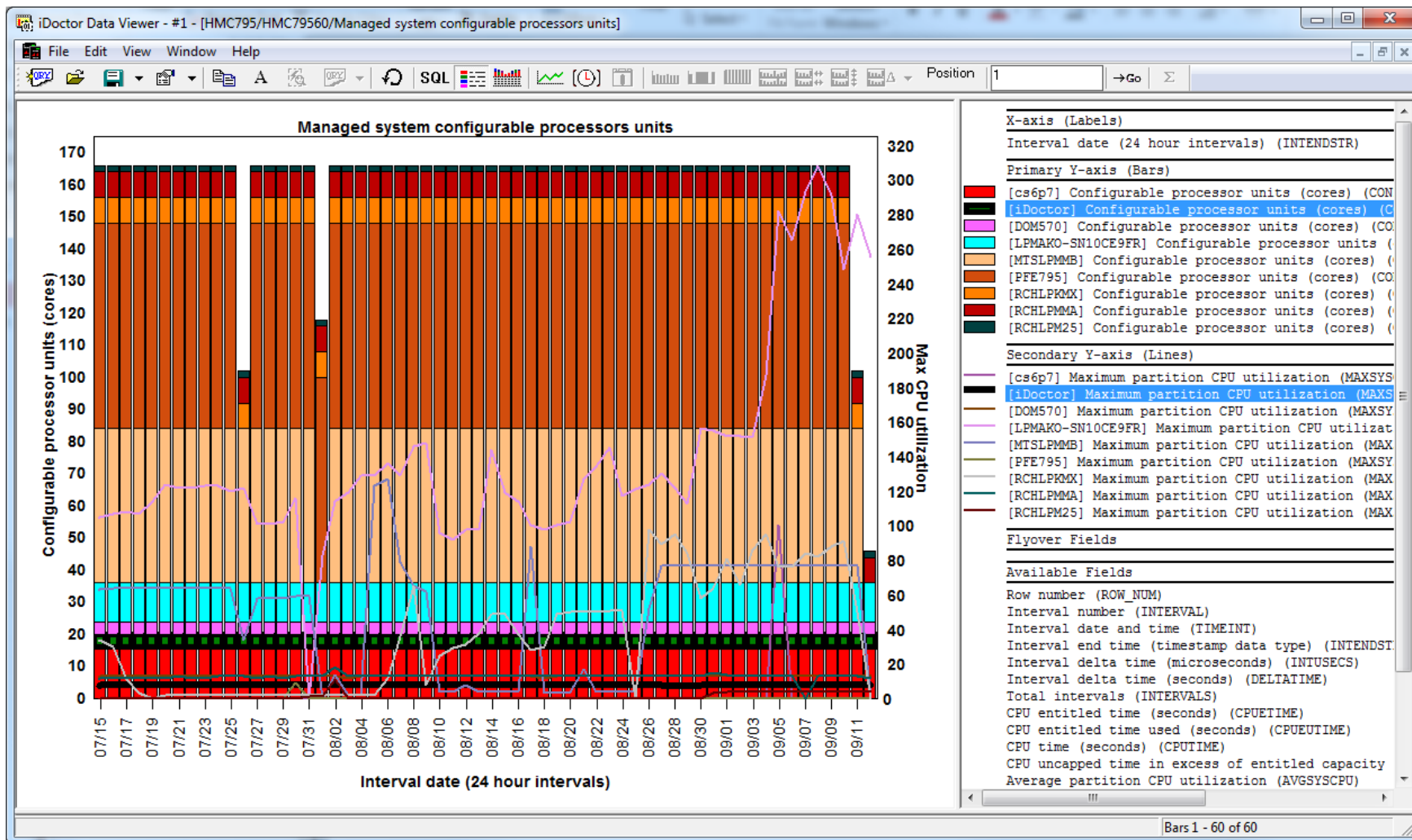


# Managed system available processor units

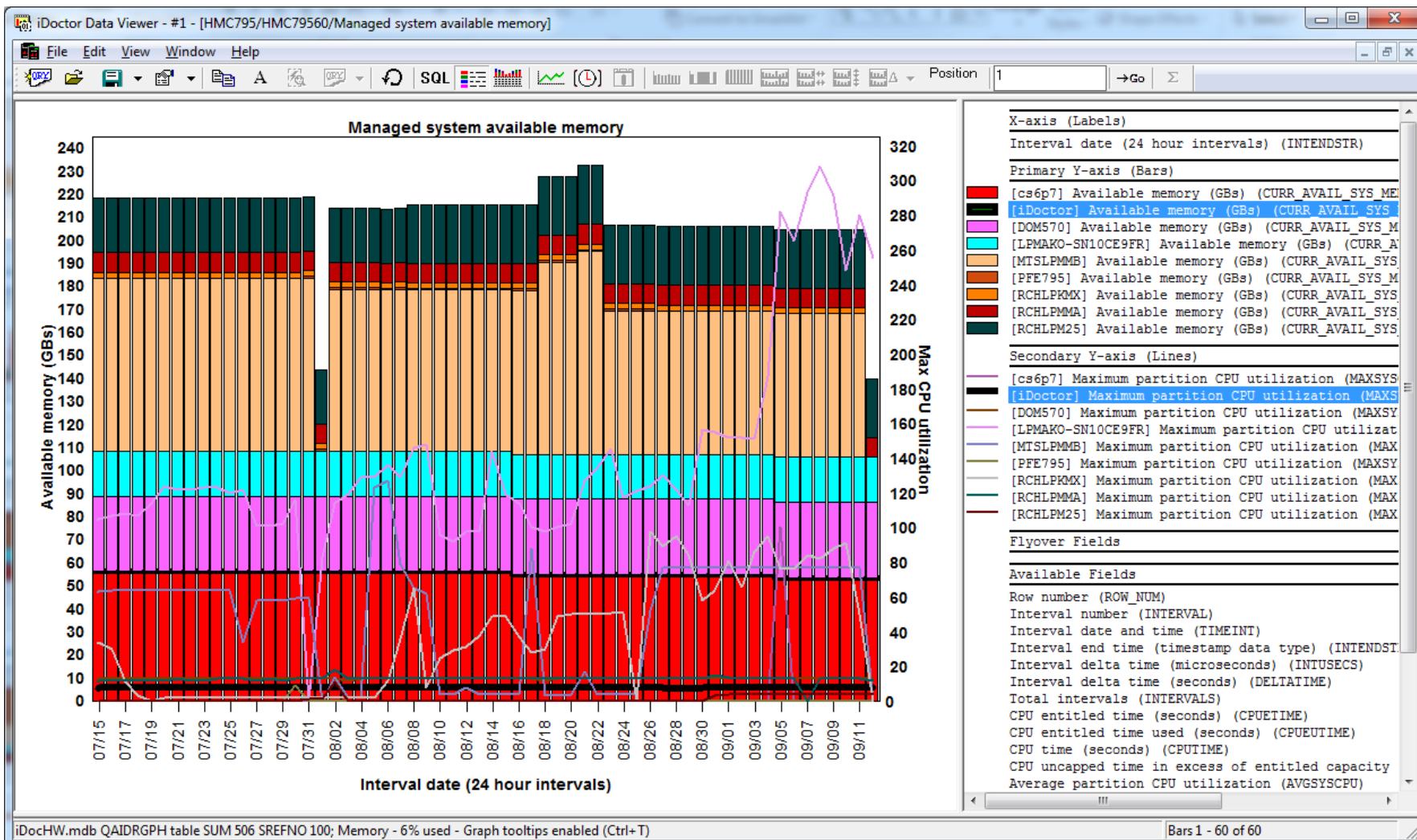




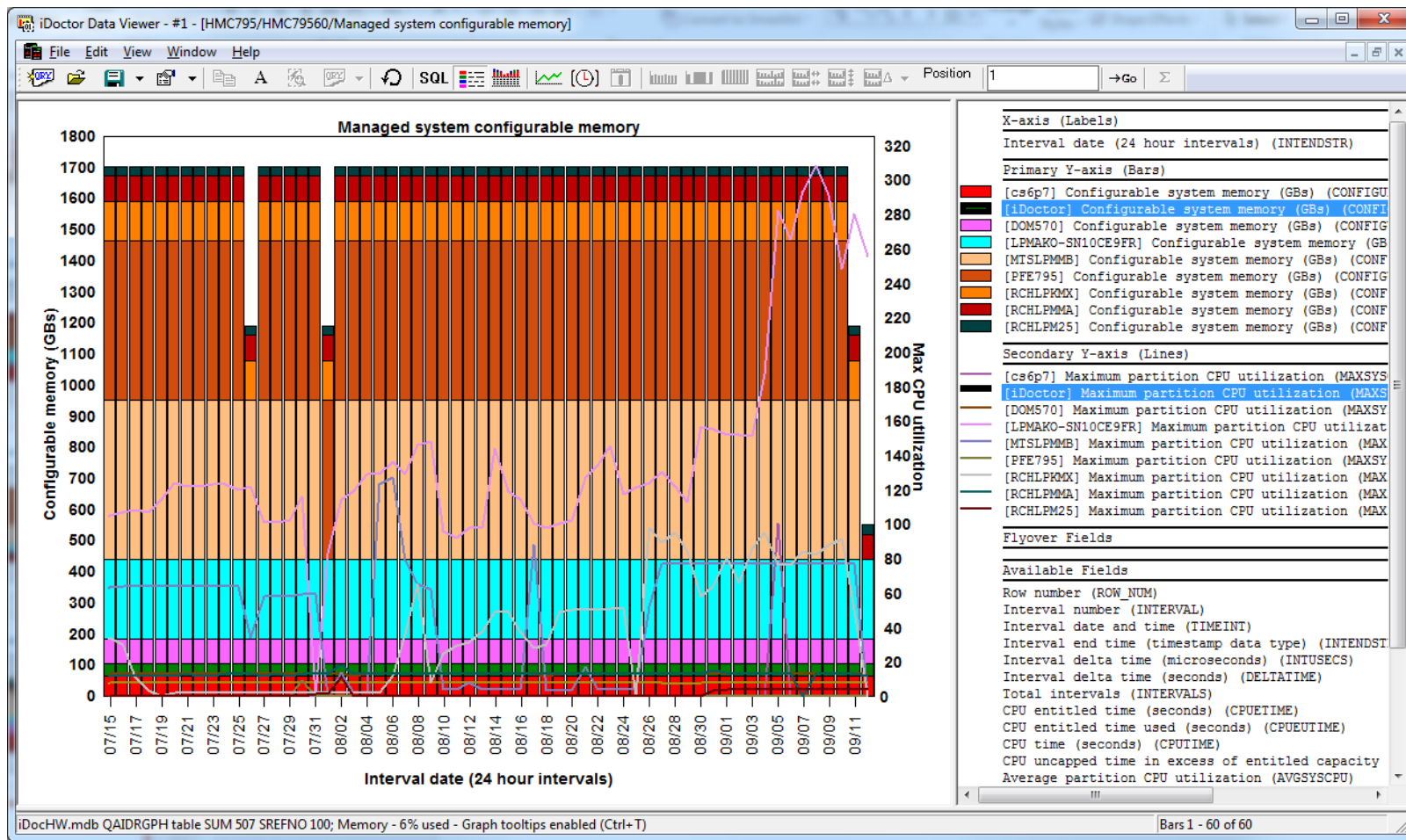
# Managed system configurable processor units



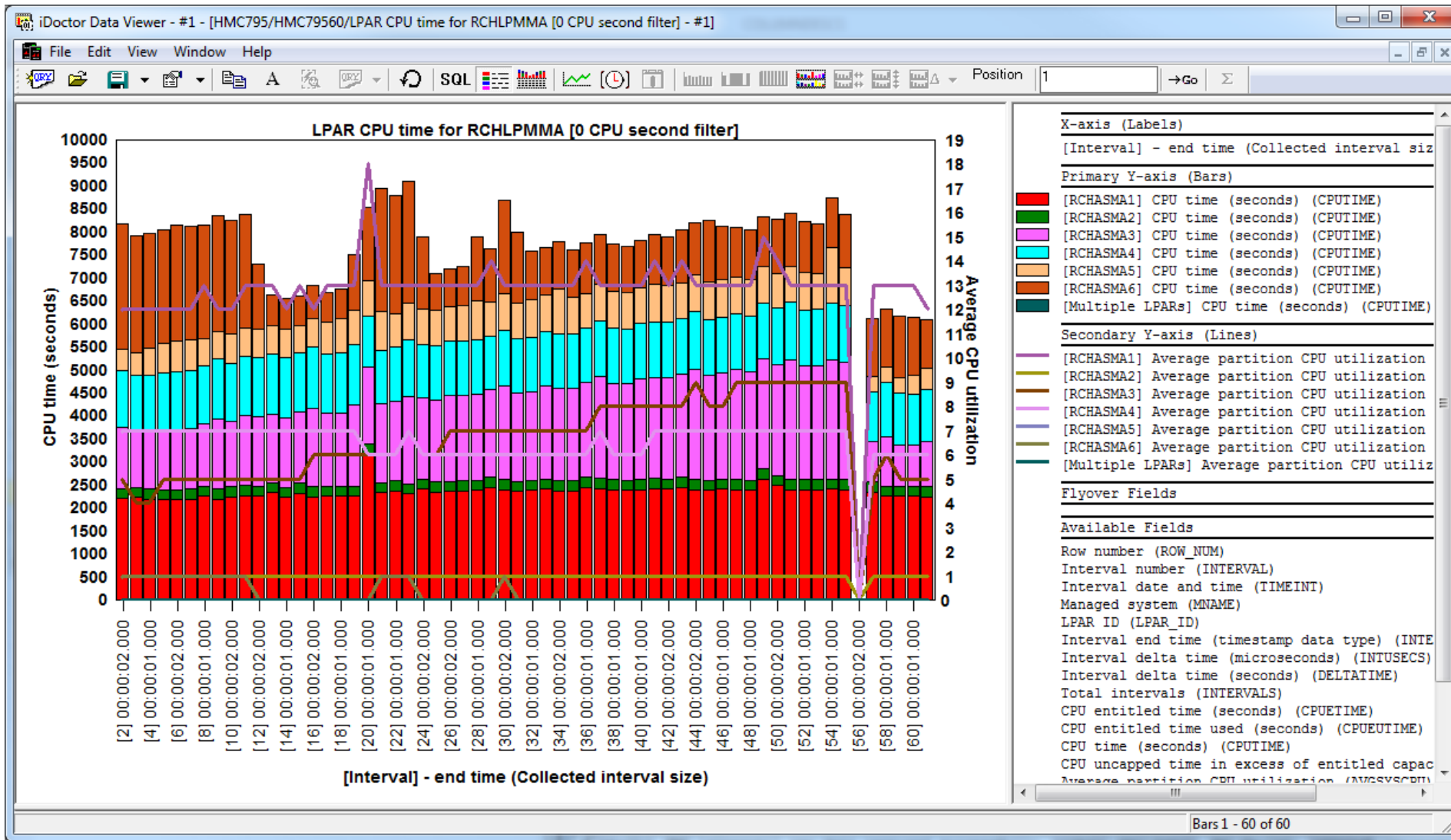
# Managed system available memory



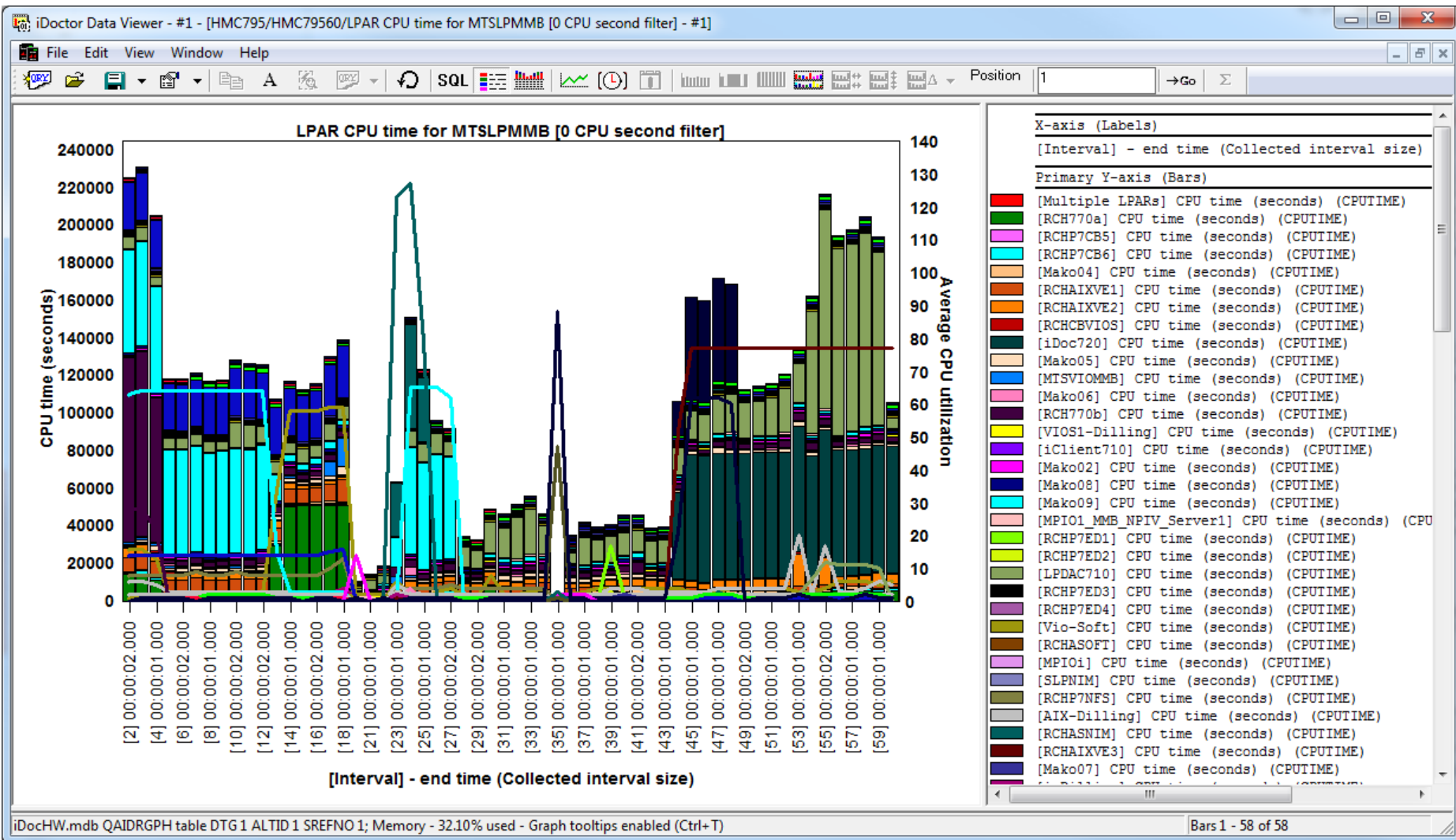
# Managed system configurable memory



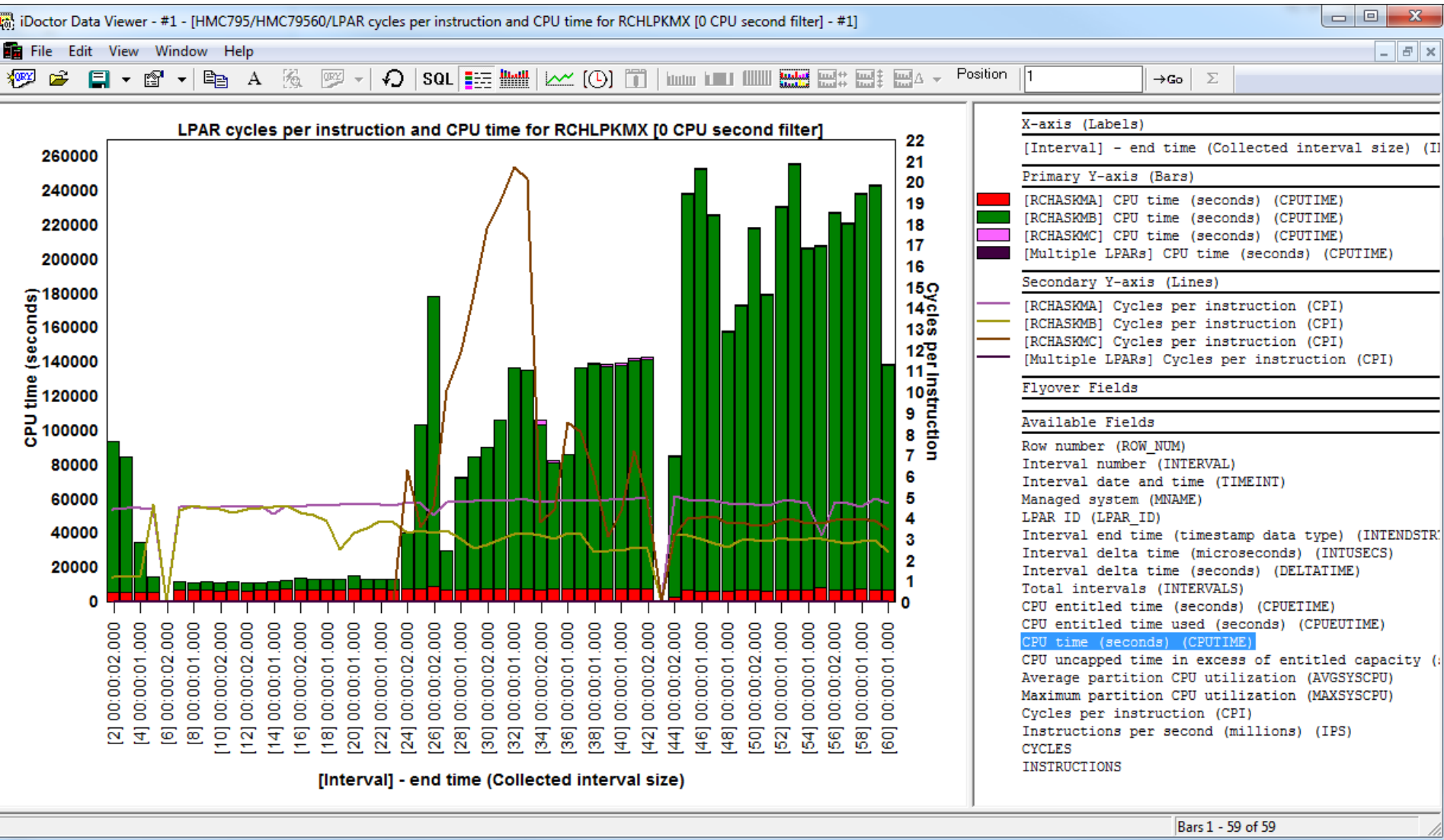
# LPAR CPU time (for a selected managed system)



# LPAR CPU time (this one has AIX, i and VIOS)



# LPAR cycles per instructions (for a managed system)



# Agenda

Future plans

HMC Walker Introduction/Getting Started

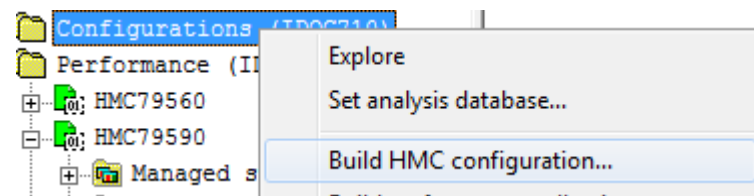
Performance graphs

**Configuration data**

Future plans

# Build configuration


Use the menu Build HMC configuration...



**Build HMC configuration**

This option will scan the desired HMC and place the results in the analysis database.

This process could take several minutes.


**HMC:**

**Analysis DB:**

**Library name:**

**Collection name:** 
 Overwrite without prompting

**Managed system(s) to include:** 
  
\*case-sensitive\*      Separate multiples with commas; Leave blank to include all

Include VIOS configuration data

Compact local DB before proceeding

Rebuild from local text files



# Configurations folder

Contains the list of configurations that have been captured and stored in the analysis DB (in this case IBM i iDoc710.)

Hmc795: HMC Walker - #1

Collection Name	Schema	HMC	Managed systems	Created on
HMC795	HMC795	HMC795	All	2013-09-12-12.01.45.505000

Folder tree: HMC Walker

- Manage Hmc795
- Configurations (IDOC710)**
- Performance (IDOC710)

HMC Walker

Folder	Description
Overview	General details about the HMC
Remote access settings	Indicates the HMC's settings for remote connectivity
Network settings	Displays the HMC's network settings
System summary	General overview of the managed systems (and LPARs)
CPU	CPU configuration of the managed systems (and LPARs)
CPU pools	Processor pools for the managed systems
Memory	Memory configuration of the managed systems (and LPARs)
Physical slots	Physical slots of the managed systems (and LPARs)
Virtual ethernet slots	Virtual ethernet slots of the managed systems (and LPARs)
Virtual switches	Virtual switches of the managed systems
Virtual SCSI	Virtual SCSI of the managed systems
Virtual fiber channels	Virtual fiber channels of the managed systems
System summary - customizable	Advanced details for the managed systems (and LPARs)

Folder tree: HMC Walker

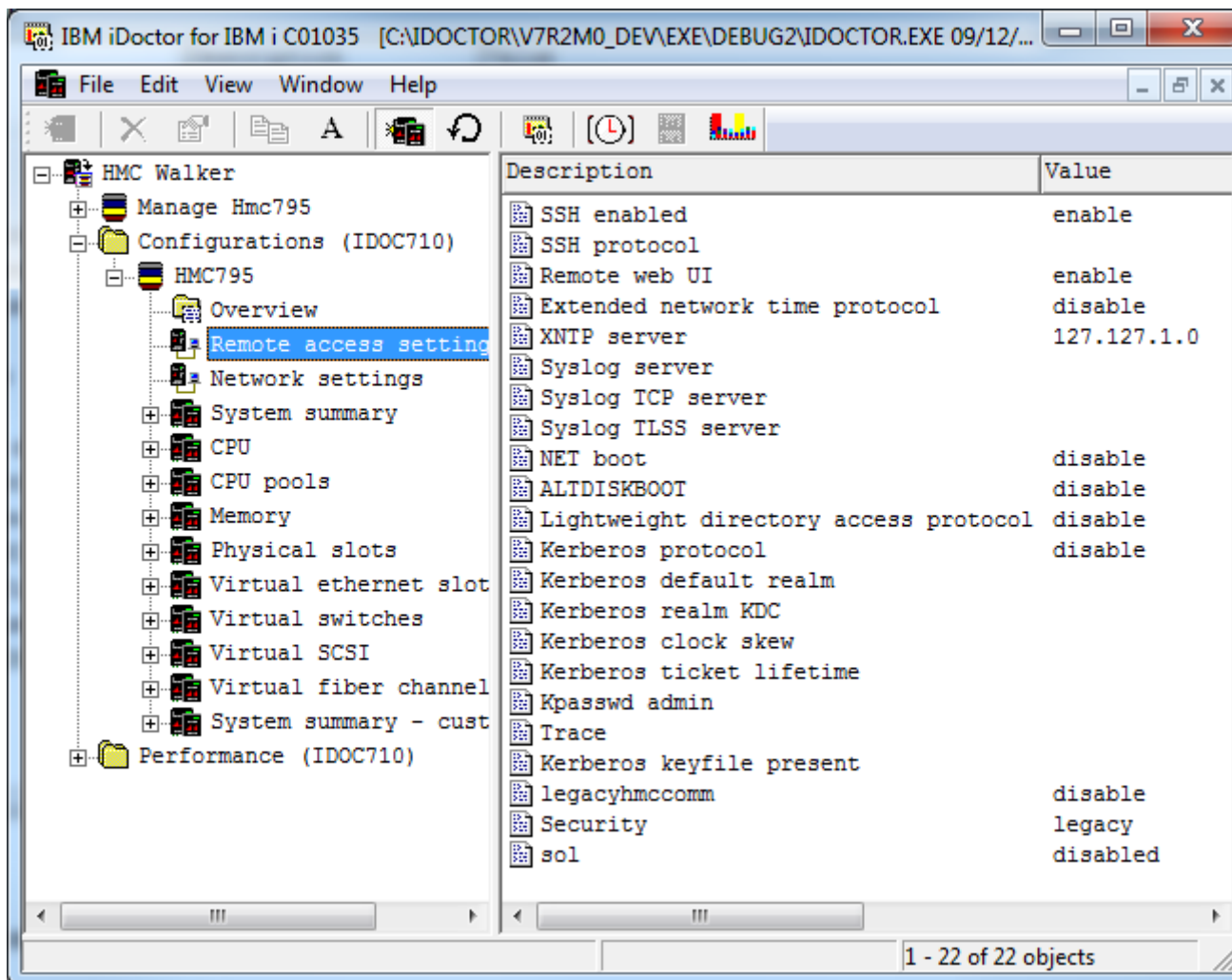
- Manage Hmc795
- Configurations (IDOC710)
  - HMC795**
- Performance (IDOC710)

# Overview example

c795: HMC Walker - #1

HMC Walker	Description	Value
Manage Hmc795	HMC	HMC795
Configurations (IDOC710)	User	
HMC795	Created on	2013-09-12-12.02.26.370252
Overview	iDoctor build	C01035
Remote access setting	Version info	Version: 7    Release: 7.7.0    Service Pack: 2    HMC Build level 20130503.1
Network settings	Base version	V7R7.7.0
System summary	Fixes	
CPU	BIOS	D6E148BUS-1.08
CPU pools	Locale	en_US
Memory	Vital product data	*FC ????????
Physical slots		*VC 20.0
Virtual ethernet slot		*N2 Thu Sep 12 12:03:37 CDT 2013
Virtual switches		*FC ????????
Virtual SCSI		*DS Hardware Management Console
Virtual fiber channel		*TM 7042-CR6
System summary - cust		*SE 101D45C
Performance (IDOC710)		*MN IBM
		*PN Unknown
		*SZ 4194029568
		*OS Embedded Operating Systems
		*NA 9.5.69.12
		*FC ????????
		*DS Platform Firmware
		*RM V7R7.7.0.2

# Remote access settings

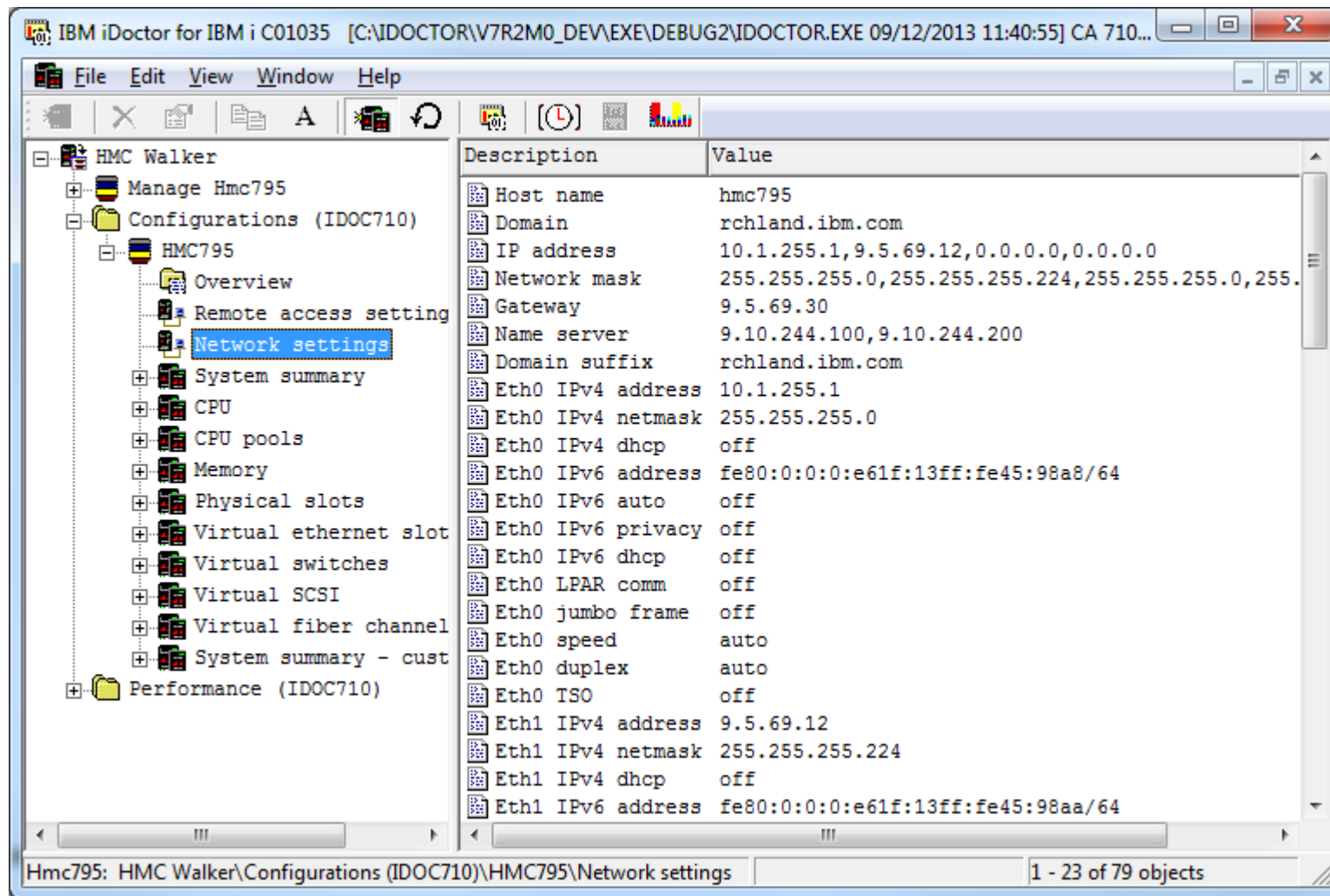


The screenshot shows the IBM iDoctor application window for IBM i C01035. The left pane displays a tree view of system components, with 'Remote access setting' selected under the 'HMC795' configuration. The right pane displays a table of settings for this configuration.

Description	Value
SSH enabled	enable
SSH protocol	
Remote web UI	enable
Extended network time protocol	disable
XNTP server	127.127.1.0
Syslog server	
Syslog TCP server	
Syslog TLSS server	
NET boot	disable
ALTDISKBOOT	disable
Lightweight directory access protocol	disable
Kerberos protocol	disable
Kerberos default realm	
Kerberos realm KDC	
Kerberos clock skew	
Kerberos ticket lifetime	
Kpasswd admin	
Trace	
Kerberos keyfile present	
legacyhmccomm	disable
Security	legacy
sol	disabled

1 - 22 of 22 objects

# Network settings



The screenshot shows the IBM iDoctor application window. The left pane displays a tree view of system configurations, with 'Network settings' selected under the 'HMC795' configuration. The right pane displays a table of network settings for the selected configuration.

Description	Value
Host name	hmc795
Domain	rchland.ibm.com
IP address	10.1.255.1,9.5.69.12,0.0.0.0,0.0.0.0
Network mask	255.255.255.0,255.255.255.224,255.255.255.0,255.
Gateway	9.5.69.30
Name server	9.10.244.100,9.10.244.200
Domain suffix	rchland.ibm.com
Eth0 IPv4 address	10.1.255.1
Eth0 IPv4 netmask	255.255.255.0
Eth0 IPv4 dhcp	off
Eth0 IPv6 address	fe80:0:0:0:e61f:13ff:fe45:98aa8/64
Eth0 IPv6 auto	off
Eth0 IPv6 privacy	off
Eth0 IPv6 dhcp	off
Eth0 LPAR comm	off
Eth0 jumbo frame	off
Eth0 speed	auto
Eth0 duplex	auto
Eth0 TSO	off
Eth1 IPv4 address	9.5.69.12
Eth1 IPv4 netmask	255.255.255.224
Eth1 IPv4 dhcp	off
Eth1 IPv6 address	fe80:0:0:0:e61f:13ff:fe45:98aa/64

The status bar at the bottom of the window indicates the current path: Hmc795: HMC Walker\Configurations (IDOC710)\HMC795\Network settings and shows 1 - 23 of 79 objects.

# (Physical) system summary

IBM iDoctor for IBM i C01035 [C:\IDOCTOR\I\V7R2M0\_DEV\EXE\DEBUG2\IDOCTOR.EXE 09/12/2013 11:40:55] CA 710-SI47412 - [Hmc795: HMC Walker - #1]

File Edit View Window Help

HMC Walker

- Manage Hmc795
- Configurations (IDOC710)
  - HMC795
    - Overview
    - Remote access sett:
    - Network settings
    - System summary**
    - CPU
    - CPU pools
    - Memory
    - Physical slots
    - Virtual ethernet s:
    - Virtual switches
    - Virtual SCSI

Name	Status	Type-Model	Serial	Configurable processor units (cores)	Currently available processor units (cores)	Active memory (GBs)	Available memory (MBs)	IP address	IP address 2
cs6p7	Operating	8205-E6B	102CC5P	16.0	11.7	64	53.75	9.5.66.57	
iDoctor	Operating	9406-570	104658D	4.0	1.5	40	0	10.1.255.9	
DOM570	Operating	9406-570	106160F	4.0	2.0	80	32.75	10.1.255.4	
LPMako-SN10CE9FR	Operating	8205-E6C	10CE9FR	12.0	10.7	256	19.50	10.1.255.14	
MISLPMMB	Operating	9117-MMB	102709P	48.0	0.75	512	62.25	10.1.255.15	10.1.255.1
PFE795	Operating	9119-FHB	026BB46	64.0	27.0	512	0	10.1.255.8	10.1.255.7
RCHLPKMX	Operating	9117-MMA	106EE90	8.0	0.0	128	2.50	10.1.255.19	10.1.255.1
RCHLPMMA	Operating	9117-MMA	10F774D	8.0	3.2	80	8.50	10.1.255.2	10.1.255.3
RCHLPM25	Operating	9408-M25	102FBF2	2.0	1.0	32	25.50	10.1.255.17	
10.1.255.12	No Connection	9406-595	1030M7M			0	0	10.1.255.13	10.1.255.1
10.1.255.23	No Connection	8202-E4C	0637DAT			0	0	10.1.255.23	
All LPARs	View data for all LPARs								

Hmc795: HMC Walker\Configurations (IDOC710)\HMC795\System summary

# System summary -> All LPARs view

DOCTOR\W7R2M0\_DEV\EXE\DEBUG2\DOCTOR.EXE 09/12/2013 11:40:55] CA 710-SI47412 - [Hmc795: HMC Walker - #1]

Name	Managed system	Status	LPAR ID	Environ...	Processing units	Current memory (MBs)	Uncapped weight	OS Version	Serial number	Processor compatibility mode	Current profile	Allow perf collection?
i-Dilling	cs6p7	Running	41	IBM i	0.3	1	0	OS/400 V7R1M0 410 0	102CC5P	POWER7	lanconsole	0
iClient710	MTSLPMMB	Not Activated	22	IBM i	0.0	0	0	Unknown	102709P	POWER7	iClient710	0
iDoc530	iDoctor	Running	9	IBM i	0.5	5	128	OS/400 V5R3M5 690 0	104658D		RT_iDoc530N	1
iDoc540	iDoctor	Running	7	IBM i	0.5	8	128	OS/400 V5R4M5 1200 0	104658D		RT_iDoc540N	1
iDoc610	iDoctor	Running	6	IBM i	0.5	8	128	OS/400 V6R1M0 400 0	104658D		RT_iDoc610N	1
iDoc710	iDoctor	Running	8	IBM i	0.5	5	0	OS/400 V7R1M0 410 0	104658D		RT_iDocEDUN2	1
iDoc720	MTSLPMMB	Running	16	IBM i	1.0	5.25	128	OS/400 V7R2M0 2880 0	102709P	POWER7	RT_iDoc720	0
iHost710	MTSLPMMB	Not Activated	6	IBM i	0.1	2.25	0	Unknown	102709P	POWER7	iHost710	0
mako21	LPMako-SN10CE9FR	Running	21	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER6+	pmako21	0
mako22	LPMako-SN10CE9FR	Running	22	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER6+	pmako22	0
mako23	LPMako-SN10CE9FR	Running	23	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER6+	pmako23	0
mako24	LPMako-SN10CE9FR	Running	24	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER6+	pmako24	0
mako25	LPMako-SN10CE9FR	Not Activated	25	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER7	pmako25	0
mako26	LPMako-SN10CE9FR	Not Activated	26	AIX/Linux	0.1	8	0	Unknown	10CE9FR	POWER7	pmako26	0
mako27	LPMako-SN10CE9FR	Not Activated	27	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER7	pmako27	0
mako28	LPMako-SN10CE9FR	Not Activated	28	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER7	pmako28	0
mako29	LPMako-SN10CE9FR	Not Activated	29	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER7	pmako29	0
mako30	LPMako-SN10CE9FR	Not Activated	30	AIX/Linux	0.1	8	128	Unknown	10CE9FR	POWER7	pmako30	0
test2	RCHLPM25	Not Activated	6	IBM i	0.0	.25	0	Unknown	102FBF2	POWER6	test2	0
vconsole	cs6p7	Not Activated	5	IBM i		1.25		Unknown	102CC5P	POWER7	vconsole	1
vios-mohr	cs6p7	Running	2	VIOS		2.25		VIOS 2.2.2.0	102CC5P	POWER7	edith	0
viosrml-Dilling	cs6p7	Running	1	VIOS		4		VIOS 2.2.2.1	102CC5P	POWER7	viosrml	0
AIX-Dilling	MTSLPMMB	Running	37	AIX/Linux	0.2	1	0	AIX 7.1 7100-01-03-1207	102709P	POWER6	AIX-Dilling	0
AJHAS1	MTSLPMMB	Not Activated	50	IBM i	1.0	12.25	0	Unknown	102709P	POWER7	AJHAS1	0
Dave FlexSystem Aix	MTSLPMMB	Not Activated	40	AIX/Linux	0.1	2.25	0	Unknown	102709P	POWER7	Dave FlexSystem Aix	0
DOM770	MTSLPMMB	Running	7	IBM i	1.0	50	128	OS/400 V6R1M1 190 0	102709P	POWER7	RT_DOM770	0
FHBVIOS1	PFE795	Running	3	VIOS	4.0	2.25	0	VIOS 2.2.1.5	026BB46	POWER7	FHBVIOS1	0
HAS1	MTSLPMMB	Running	42	IBM i	1.0	4.25	0	OS/400 V7R1M0 410 0	102709P	POWER7	Has1	0
LC-SYS38A	PFE795	Running	1	IBM i		384		OS/400 V6R1M1 190 0	026BB46	POWER7	PLC-SYS38A	1
LC-SYS38B	PFE795	Not Activated	2	IBM i		92.25		Unknown	026BB46	POWER7	PLC-SYS38B	1
LPDAC710	MTSLPMMB	Running	3	IBM i	10.0	50	128	OS/400 V7R1M0 410 0	102709P	POWER7	RT_LPDAC710	1
Mako01	MTSLPMMB	Running	9	AIX/Linux	1.0	4	128	Unknown	102709P	POWER7	RT_mako01	0
Mako02	MTSLPMMB	Running	23	AIX/Linux	1.0	4.25	128	Unknown	102709P	POWER7	RT_Mako02	0
Mako03	MTSLPMMB	Not Activated	8	AIX/Linux	1.0	4	128	Unknown	102709P	POWER7	RT_Mako03	0
Mako04	MTSLPMMB	Running	12	AIX/Linux	1.0	4	128	Unknown	102709P	POWER7	RT_Mako04	0

DOCT0710\HMC795\System summary\All LPARs 1 - 13 of 82 objects

# System summary LPARs for managed system iDoctor

IBM iDoctor for IBM i C01035 [C:\IDOCTOR\W7R2M0\_DEV\EXE\DEBUG2\IDOCTOR.EXE 09/12/2013 11:40:55] CA 710-SI47412 - [Hmc795: HMC Walker - #1]

File Edit View Window Help

Remote access sett...  
 Network settings  
 System summary  
 cs6p7  
 iDoctor  
 DOM570  
 LPMako-SN10CE9FF  
 MTSLPMMB  
 PFE795  
 RCHLPKMX  
 RCHLPMA  
 RCHLPM25  
 10.1.255.12  
 10.1.255.23  
 All LPARs

Name	Managed system	Status	LPAR ID	Env...	Processing units	Current memory (MBs)	Uncapped weight	OS Version	Serial number	Processor compatibility mode	Current profile	Allow pe collecti
iDoc530	iDoctor	Running	9	IBM i	0.5	5	128	OS/400 V5R3M5 690 0	104658D		RT_iDoc530N	1
iDoc540	iDoctor	Running	7	IBM i	0.5	8	128	OS/400 V5R4M5 1200 0	104658D		RT_iDoc540N	1
iDoc610	iDoctor	Running	6	IBM i	0.5	8	128	OS/400 V6R1M0 400 0	104658D		RT_iDoc610N	1
iDoc710	iDoctor	Running	8	IBM i	0.5	5	0	OS/400 V7R1M0 410 0	104658D		RT_iDocEDUN2	1
RCHAS4D2N	iDoctor	Running	5	IBM i	0.5	12	192	OS/400 V6R1M1 190 0	104658D		RT_RCHAS4D2	1

1 - 5 of 5

# Launch iDoctor components for a selected LPAR (IBM i)

Use the Connect menu to use iDoctor IBM i specific components

Name	Managed system	Status	LPAR ID	Env...	Processing units	Current memory (MBs)	Uncapped weight	OS
iDoc530	iDoctor	Running	9	IBM i	0.5	5	128	OS,
iDoc540	iDoctor	Running	7	IBM i	0.5	8	128	OS,
iDoc610	iDoctor	Running	6	IBM i	0.5	8	128	OS,
iDoc710	iDoctor	Running	8	IBM i	0.5	5	0	OS,
RCHAS4D2N	iDoctor	Running	5	IBM i	0			OS,

**iDoctor Components**

Use this interface to work with the IBM iDoctor for IBM i components on your system. You may also apply access codes to your system that were given to you by IBM service to authorize use to a component.

Connected to system iDoc710 with user MCCARGAR Change User

Component list for system iDoc710:

Component	Build Date	Expires	Status
Job Watcher	08/07/13	Never	Available
Collection Services Investigator	08/07/13	Never	Available
Disk Watcher	08/07/13	Never	Available
Plan Cache Analyzer	08/07/13	Never	Available
PEX-Analyzer	08/07/13	10/10/13	Available
VIOS Investigator	08/07/13		Available
iDoctor FTP GUI	08/07/13		Available
Must Gather Tools	09/03/13		Available
Data Explorer	08/07/13		Available
Memory Watcher	08/07/13		Available

Close window after clicking Launch

To authorize use for a component, enter the access code below:

Access code:   System serial:



# Launch VIOS Investigator for a VIOS

Use the Connect menu to start VIOS Investigator on a selected VIOS

System	Model	State	Serial	Platform	Version	IP	Port	OS	Release
MAKOV1	LPMako-SN10CE9FR	Running	1	VIOS	0.1	128	128	VIOS	2.2.1.4
RCHAS4D2	LPMako-SN10CE9FR	Running	2	IBM i	0.1			00 V6R1M1	190
RCHAS4T3	LPMako-SN10CE9FR	Running	3	IBM i	0.1			00 V6R1M1	190

- Connect
- Record Quick View

9.5.65.35: VIOSInvestigator - #1

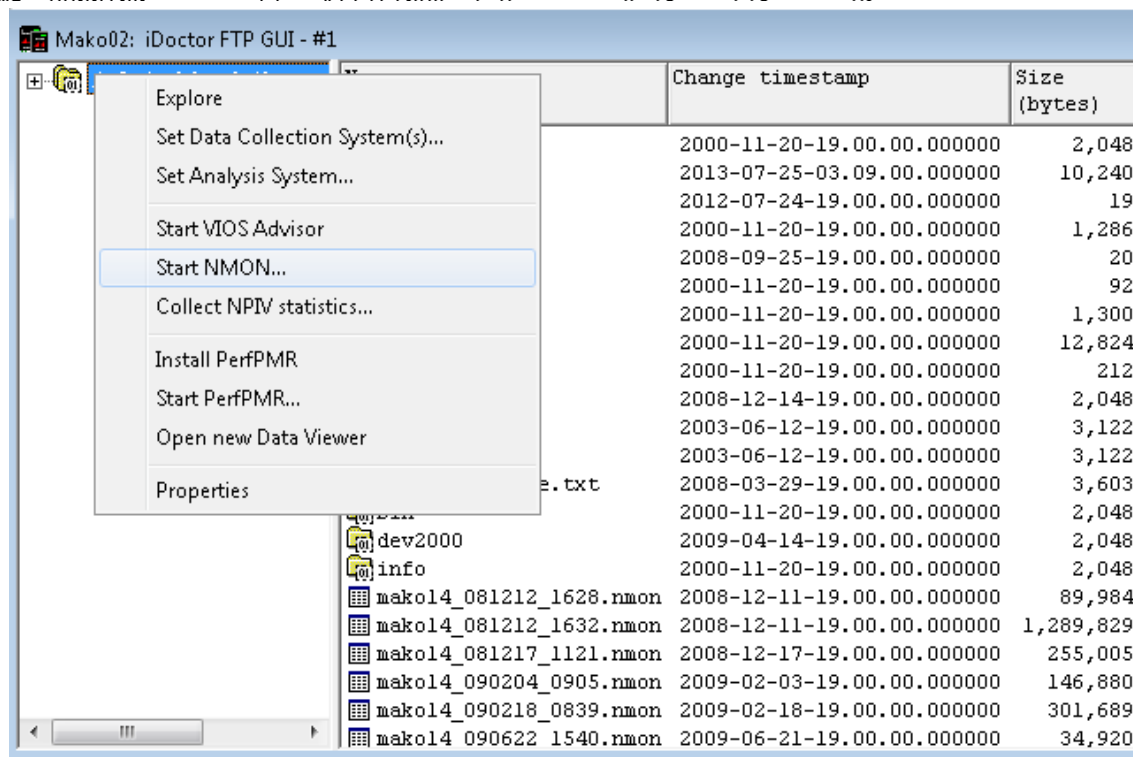
Name	Change timestamp
FTP site (/home/padmin/)	Work with the directories on 9.5.65.35 using FTP
Configuration summary	Various details about the system's configuration
Data Collection (9.5.65.35)	Contains the options for collecting data to store on the desired system
IFS repository (Idoc610)	Options for working with VIOS Investigator data found in the IFS on system Idoc610
Disk mappings (Idoc610)	Available disk mappings found on system Idoc610. These describe VIOS
Libraries (Idoc610)	Libraries containing VIOS Investigator collections (filterable)
/tmp/idoctor/	Work with the iDoctor build directory

# Launch AIX specific analysis functions for a selected LPAR

Use the Connect menu to launch the FTP GUI on an AIX partition.

The functions in the menu shown below are part of VIOS Investigator and will be integrated into an AIX component (in development.)

LPAR Name	Type	Status	CPU	OS	Version
Mako02	MTSLPMMB	Running	23	AIX/Linux	1.0
Mako03	MTSLPMMB	Not Activated	8	AIX/Linux	1.0
Mako04	MTSLPMMB	Running	12	AIX/Linux	1.0
Mako05	MTSLPMMB	Running	17	AIX/Linux	1.0



The screenshot shows the VIOS Investigator interface. A context menu is open over the 'Mako02' LPAR entry. The menu items are:

- Explore
- Set Data Collection System(s)...
- Set Analysis System...
- Start VIOS Advisor
- Start NMON...
- Collect NPV statistics...
- Install PerfPMR
- Start PerfPMR...
- Open new Data Viewer
- Properties

The background shows a table with columns for 'Change timestamp' and 'Size (bytes)'. The table contains several rows of data, including files like 'dev2000', 'info', and various 'nmon' files.

File Name	Change timestamp	Size (bytes)
dev2000	2000-11-20-19.00.00.000000	2,048
info	2013-07-25-03.09.00.000000	10,240
makol4_081212_1628.nmon	2012-07-24-19.00.00.000000	19
makol4_081212_1632.nmon	2000-11-20-19.00.00.000000	1,286
makol4_081217_1121.nmon	2008-09-25-19.00.00.000000	20
makol4_090204_0905.nmon	2000-11-20-19.00.00.000000	92
makol4_090218_0839.nmon	2000-11-20-19.00.00.000000	1,300
makol4_090622_1540.nmon	2000-11-20-19.00.00.000000	12,824
	2000-11-20-19.00.00.000000	212
	2008-12-14-19.00.00.000000	2,048
	2003-06-12-19.00.00.000000	3,122
	2003-06-12-19.00.00.000000	3,122
	2008-03-29-19.00.00.000000	3,603
	2000-11-20-19.00.00.000000	2,048
	2009-04-14-19.00.00.000000	2,048
	2000-11-20-19.00.00.000000	2,048
	2008-12-11-19.00.00.000000	89,984
	2008-12-11-19.00.00.000000	1,289,829
	2008-12-17-19.00.00.000000	255,005
	2009-02-03-19.00.00.000000	146,880
	2009-02-18-19.00.00.000000	301,689
	2009-06-21-19.00.00.000000	34,920

# LPAR additional details

Network settings

System summary

- cs6p7
- iDoctor
  - iDoc530
  - iDoc540
  - iDoc610**
  - iDoc710
  - RCHAS4D2N
- DOM570
- LPMako-SN10CE9FF
- MTSLPMMB
- PFE795
- RCHLPKMX

Name	iDoc610
LPAR ID	6
Environment	os400
Status	Running
OS Version	OS/400 V6R1M0 400 0
Serial number	104658D6
Current profile	RT_iDoc610N
Electronic error reporting	
Suspend capable	
Allow perf collection?	1
CPU	
Memory	
Slots	
Virtual adapters	
Advanced	

iDoc610

- CPU**
- Memory
- Slots
- Virtual ad
- Advanced
- iDoc710
- RCHAS4D2N
- DOM570
- .PMAKO-SN10CE9FF
- ITSLPMMB
- 'FE795

Description	Value
Name	iDoc610
Processor mode	shared
Minimum virtual processors	1
Assigned virtual processors	2
Maximum virtual processors	8
Minimum entitled processor units (cores)	0.1
Processing units	0.5
Maximum entitled processor units (cores)	4.0
Uncapped weight	128
Shared mode	uncap
Shared processor pool name	
Processor compatibility mode	

# More LPAR info (slots, adapters, etc)

IBM iDoctor for IBM i C01035 [C:\DOCTOR\W7R2M0\_DEV\EXE\DEBUG2\DOCTOR.EXE 09/12/2013 11:40:55] CA 710-SI47412 - [Hmc795: HMC Walker - #1]

File Edit View Window Help

Location	Description	Bus ID	Pool ID	Feature codes	PCI vendor ID	PCI device ID	PCI subsystem vendor ID	PCI subsystem device ID
U0595.001.104344C-CB1-C01	PCI I/O Processor	17	none	none	0000	0000	0000	0000
U0595.001.104344C-CB1-C02	PCI Fibre Channel Tape Controller	17	none	2787,5704,626,625,625	10DF	F980	10DF	F980
U0595.001.104344C-CB1-C03	PCI Ultra4 SCSI Disk Controller	17	none	2780,627,627	1014	0180	1014	0264
U0595.001.104344C-CB1-C04	SCSI bus controller	17	none	none	1014	0180	1014	02BC
U7879.001.DQDLTNI-P1-C5	PCI 10/100/1000Mbps Ethernet UTP 2-port	2	none	5706,643,643	8086	1079	1014	0289

Hmc795: HMC Walker\Configurations (IDOC710)\HMC795\System summary\iDoctor\iDoc610\Slots 1 - 5 of 5 objects

Adapter type	Slot	Remote LPAR ID	Remote LPAR name	Remote slot	Port VLAN ID	Re...	IEEE 802.1q compatible	Additional VLAN IDs	Trunk priority	MAC address
Ethernet	2				1	0	0		0	D6D4E0006002
Ethernet	3				2	0	0		0	D6D4E0006003
Server SCSI	6	any				0				
Server SCSI	5	any				0				
Server SCSI	4	any				0				

# CPU configuration

For all managed systems

Walker	Name	Status	Active processor units (cores)	Configurable processor units (cores)	Deconfigured processor units (cores)	Currently available processor units (cores)	Pending available processor units (cores)	Compatibility modes
Manage Hmc795	cs6p7	Operating	16.0	16.0	0	11.7	11.7	default,POWER6,POWER6+
Configurations (IDOC710)	iDoctor	Operating	4.0	4.0	0	1.5	1.5	
HMC795	DOM570	Operating	4.0	4.0	0	2.0	2.0	
Overview	LPMako-SN10CE9FR	Operating	12.0	12.0	0	10.7	10.7	default,POWER6,POWER6+
Remote access sett:	MTSLPMMB	Operating	48.0	48.0	0	0.75	0.75	default,POWER6,POWER6+
Network settings	PFE795	Operating	64.0	64.0	0	27.0	27.0	default,POWER6,POWER6+
System summary	RCHLPKMX	Operating	8.0	8.0	0	0.0	0.0	default,POWER6_enhance
CPU	RCHLPMMA	Operating	8.0	8.0	0	3.2	3.2	default,POWER6_enhance
cs6p7	RCHLPM25	Operating	2.0	2.0	0	1.0	1.0	default,POWER6_enhance
iDoctor	10.1.255.12	No Connection						
DOM570	10.1.255.23	No Connection						
LPMako-SN10CE9FF	All LPARs	View data for all LPARs						
MTSLPMMB								

## LPARs for managed system iDoctor

Name	Managed system	Status	LPAR ID	Env...	Processor mode	Minimum virtual processors	Assigned virtual processors	Maximum virtual processors	Minimum entitled processor units (cores)	Processing units	Maximum entitled processor units (cores)	Uncapped weight
iDoc530	iDoctor	Running	9	IBM i	shared	1	2	8	0.1	0.5	4.0	128
iDoc540	iDoctor	Running	7	IBM i	shared	1	2	8	0.1	0.5	4.0	128
iDoc610	iDoctor	Running	6	IBM i	shared	1	2	8	0.1	0.5	4.0	128
iDoc710	iDoctor	Running	8	IBM i	shared	1	2	8	0.1	0.5	4.0	0
RCHAS4D2N	iDoctor	Running	5	IBM i	shared	1	2	8	0.1	0.5	4.0	192

# Memory configuration

For all managed systems

Name	Status	Installed memory (MBs)	Active memory (GBs)	Deconfigured memory (MBs)	Available memory (MBs)	Pending avail memory (MBs)	Firmware memory (MBs)	Memory region size (MBs)	Software act mem exp capable
cs6p7	Operating	65536	64	0	53.75	55040	1792	256	1
iDoctor	Operating	49152	40	8192	0	0	2048	256	0
DOM570	Operating	81920	80	0	32.75	33536	2304	256	0
LPMako-SN10CE9FR	Operating	262144	256	0	19.50	19968	8704	256	0
MTSLPMMB	Operating	524288	512	0	62.25	63744	20224	256	0
PFE795	Operating	524288	512	0	0	0	34304	256	0
RCHLPKMX	Operating	131072	128	0	2.50	2560	8704	256	0
RCHLPMA	Operating	81920	80	0	8.50	8704	3584	32	0
RCHLPM25	Operating	32768	32	0	25.50	26112	1280	256	0
10.1.255.12	No Connection		0		0				
10.1.255.23	No Connection		0		0				
All LPARs	View data for all LPARs								

## LPARs for managed system iDoctor

Name	Managed system	Status	LPAR ID	Env...	Mode	Current min memory (MBs)	Current memory (MBs)	Current max memory (MBs)	Pending min memory (MBs)	Pending memory (MBs)	Pending max memory (MBs)	Running min memory (MBs)	Running memory (MBs)	RMC IP address
iDoc530	iDoctor	Running	9	IBM i	ded	1024	5	12288	1024	5120	12288	1024	5120	
iDoc540	iDoctor	Running	7	IBM i	ded	1024	8	12288	1024	8192	12288	1024	8192	
iDoc610	iDoctor	Running	6	IBM i	ded	1024	8	12288	1024	8192	12288	1536	8192	
iDoc710	iDoctor	Running	8	IBM i	ded	1024	5	12288	1024	5120	12288	1792	5120	
RCHAS4D2N	iDoctor	Running	5	IBM i	ded	1024	12	20480	1024	12288	20480	1024	12288	

# Agenda

Future plans

HMC Walker Introduction/Getting Started

Performance graphs

Configuration data

**Future plans**

## Possible future enhancements

Support Oracle on AIX as an analysis DB option

Add an option to automatically pull HMC statistics down to the analysis DB.

Tie the IBM i analysis components (Collection Services, Job Watcher) into HMC Walker using appropriate and easy to use drill down options.

***Example: CPU high for LPAR X so provide menus to open CSI graphs for that system and time period and look at the jobs responsible.***

Create Monitors (24x7) collection of NMON data on AIX/VIOS

Create a disk mapping for multiple VIOS at once.

***Your feedback and usage will help make these tools a success!***





# Questions?