zSeries Server Consolidation Sizing Tools

SCON (Server Consolidation Tool)

SURF (Server Utilization Reduction Facility)

Tool	Description
SCON	Multiple sizing options based on peak and/or average utilization for each server
SURF	Extends the functionality of SCON by analyzing actual utilization reports

Tools available at http://w3-03.ibm.com/support/americas/wsc/SizingTCOTools.html

Marty Deitch

MDEITCH@VICOMINFINITY.COM

EditPad Lite - [C:\SURFDEMO\njros1ud1019.txt]

File Edit Search Block Convert Options View Help

njros1ud1019.txt

```
modelname IBM,7029-6C3
2 CPUs@1.2GHz

---------------------------------------------- Day 1

System Configuration: lcpu=2

00:00:01    %usr    %sys    %wio   %idle
00:05:01       6       8       6      79
00:10:01       3       4       3      90
00:15:01       4       4       1      91
00:20:01       3       4       2      90
00:25:01       6       7       2      85
00:30:01       3       4       2      91
00:35:01       3       4       1      92
00:40:01       3       4       1      91
00:45:01       7       8       2      82
00:50:01       3       4       1      91
00:55:01       4       4       2      90
01:00:01       4       4       1      91
01:05:01       6       7       2      85
01:10:01       3       4       1      92
01:15:01       3       4       1      92
01:20:01       4       4       1      91
01:25:01       7       7       3      83
01:30:01       3       4       1      92
01:35:01       3       4       1      92
01:40:01       7       6      12      76
01:45:01       7      12      17      64
01:50:01       3       4       1      92
01:55:01       4       4       1      90
02:00:02       4       5       6      84
```

2: 1 Insert C:\SURFDEMO\njros1ud1019.txt

- [scon.123]

e Range Sheet Window Help

'BladeCenter HS12 Celeron 445 1.86GHz 512KB (1ch/1co)

SVRinputs | DELL | FJS | HPQ | **IBM** | SUN | UserDef | WKLDscalar | SVRwklds | SVRcoc | CPUsummary | CPUutilization

ns

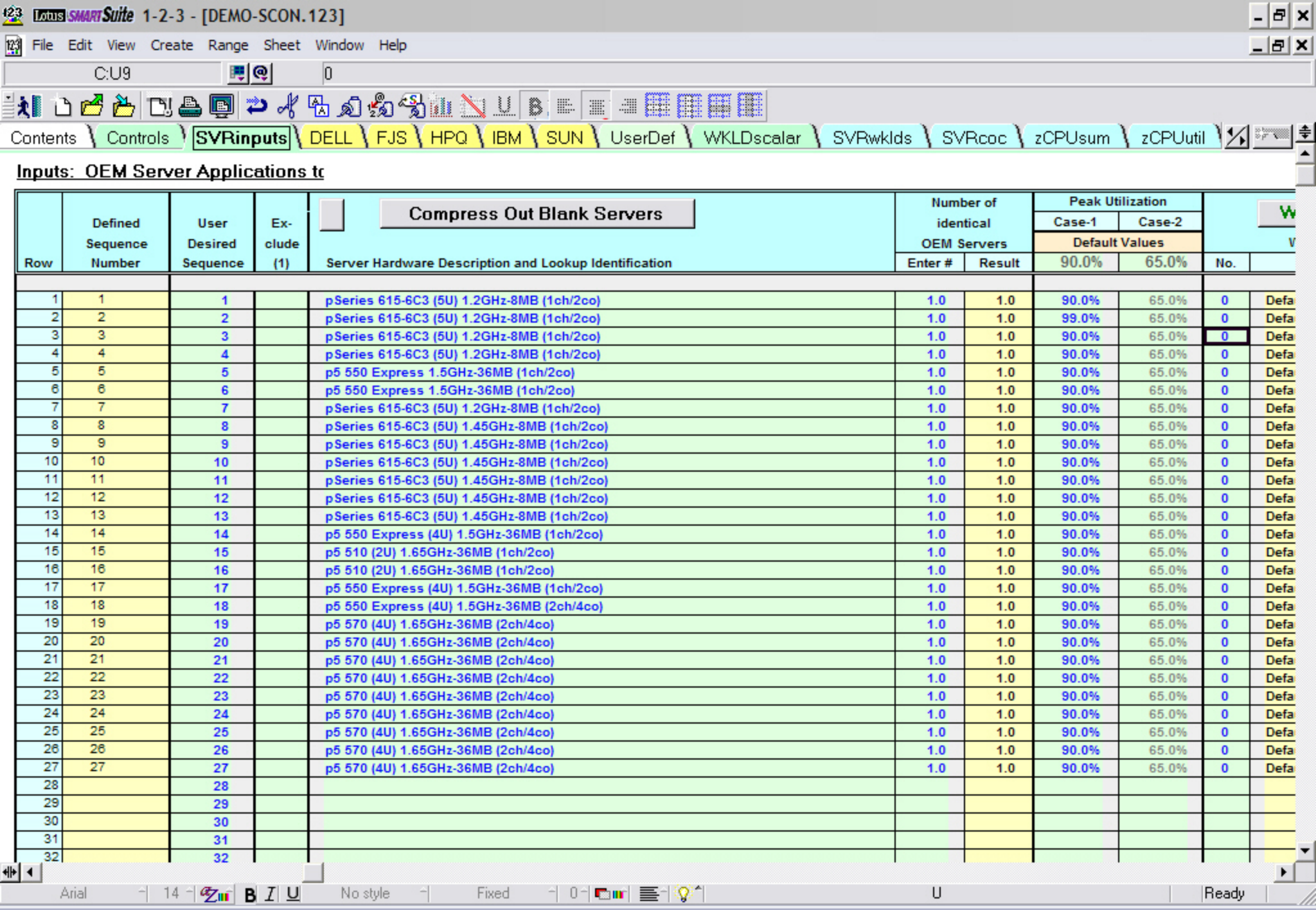
v2009C08 -

servers to add
ent for this serv

Add Server to Table

Ideas data obtained 04/27/2009

rvers (count = 2,102)	IBM IA-64 Servers (count = 62)	IBM RISC Servers (count = 1,075)
n single desired server and click ADD button		
Celeron 445 1.86GHz 512KB (1ch/1co)	xSeries 380 (7U) 800 ItaniumMHz 4MB (1ch/1co)	AS/400 400-2130 50MHz-0MB (1ch/1co)
Core 2 E6305 Dual Core 1.86GHz 2MB (1ch/2co)	xSeries 380 (7U) 800 ItaniumMHz 4MB (2ch/2co)	AS/400 400-2131 77MHz-12KB (1ch/1co)
Core 2 E6405 Dual Core 2.13GHz 2MB (1ch/2co)	xSeries 380 (7U) 800 ItaniumMHz 4MB (3ch/3co)	AS/400 400-2132 80MHz-0MB (1ch/1co)
Xeon L5420 Quad Core 2.5GHz (1ch/4co)	xSeries 380 (7U) 800 ItaniumMHz 4MB (4ch/4co)	AS/400 400-2133 80MHz-0MB (1ch/1co)
Xeon E3113 Dual Core 3.0GHz 6MB (1ch/2co)	xSeries 380 (7U) Itanium 733MHz 2MB (1ch/1co)	AS/400 40S-2109 80MHz-0MB (1ch/1co)
Xeon X3323 Quad Core 2.5GHz 6MB (1ch/4co)	xSeries 380 (7U) Itanium 733MHz 2MB (2ch/2co)	AS/400 40S-2110 80MHz-0MB (1ch/1co)
Xeon X3353 Quad Core 2.66GHz (1ch/4co)	xSeries 380 (7U) Itanium 733MHz 2MB (3ch/3co)	AS/400 500-2140 77MHz-12KB (1ch/1co)
Xeon X3363 Quad Core 2.83GHz (1ch/4co)	xSeries 380 (7U) Itanium 733MHz 2MB (4ch/4co)	AS/400 500-2141 77MHz-12KB (1ch/1co)
Xeon 2.0GHz 512KB (1ch/1co)	xSeries 382 (2U) Itanium 2 1.4GHz 1.5MB (2ch/2co)	AS/400 500-2142 77MHz-12KB (1ch/1co)
Xeon 2.0GHz 512KB (2ch/2co)	xSeries 382 (2U) Itanium 2 1.5GHz 6MB (2ch/2co)	AS/400 50S-2111 77MHz-12KB (1ch/1co)
Xeon 2.4GHz 512KB (1ch/1co)	xSeries 450 (4U) Itanium 2 1.0GHz 1.5MB (2ch/2co)	AS/400 50S-2112 77MHz-12KB (1ch/1co)
Xeon 2.4GHz 512KB (2ch/2co)	xSeries 450 (4U) Itanium 2 1.0GHz 1.5MB (3ch/3co)	AS/400 50S-2120 77MHz-12KB (1ch/1co)
Xeon 2.6GHz 512KB (1ch/1co)	xSeries 450 (4U) Itanium 2 1.0GHz 1.5MB (4ch/4co)	AS/400 50S-2121 154MHz-12KB (1ch/1co)
Xeon 2.6GHz 512KB (2ch/2co)	xSeries 450 (4U) Itanium 2 1.0GHz 3MB (2ch/2co)	AS/400 50S-2122 154MHz-12KB (1ch/1co)
Xeon 2.8GHz 512KB (1ch/1co)	xSeries 450 (4U) Itanium 2 1.0GHz 3MB (3ch/3co)	AS/400 510-2143 77MHz-1MB (1ch/1co)
Xeon 2.8GHz 512KB (2ch/2co)	xSeries 450 (4U) Itanium 2 1.0GHz 3MB (4ch/4co)	AS/400 510-2144 154MHz-1MB (1ch/1co)
(7981) Xeon Dual Core (LV) 1.67GHz 2MB (1ch/2c	xSeries 450 (4U) Itanium 2 1.3GHz 3MB (1ch/1co)	AS/400 530-2150 154MHz-0MB (1ch/1co)
(7981) Xeon Dual Core (LV) 1.67GHz 2MB (2ch/4c	xSeries 450 (4U) Itanium 2 1.3GHz 3MB (2ch/2co)	AS/400 530-2151 154MHz-0MB (1ch/1co)
(7981) Xeon Dual Core (LV) 2.0GHz 2MB (1ch/2co)	xSeries 450 (4U) Itanium 2 1.3GHz 3MB (3ch/3co)	AS/400 530-2152 154MHz-0MB (2ch/2co)
(7981) Xeon Dual Core (LV) 2.0GHz 2MB (2ch/4co)	xSeries 450 (4U) Itanium 2 1.3GHz 3MB (4ch/4co)	AS/400 530-2153 154MHz-0MB (4ch/4co)
(8832) Xeon 2.8B GHz 512KB (1ch/1co)	xSeries 450 (4U) Itanium 2 1.4GHz 4MB (2ch/2co)	AS/400 530-2162 182MHz-0MB (4ch/4co)
(8832) Xeon 2.8B GHz 512KB (2ch/2co)	xSeries 450 (4U) Itanium 2 1.4GHz 4MB (3ch/3co)	AS/400 53S-2154 154MHz-0MB (1ch/1co)
(8832) Xeon 3.06GHz 512KB (1ch/1co)	xSeries 450 (4U) Itanium 2 1.4GHz 4MB (4ch/4co)	AS/400 53S-2155 154MHz-0MB (2ch/2co)
(8832) Xeon 3.06GHz 512KB (2ch/2co)	xSeries 450 (4U) Itanium 2 1.5GHz 6MB (2ch/2co)	AS/400 53S-2156 154MHz-0MB (4ch/4co)
(8832) Xeon 3.06GHz 1MB (1ch/1co)	xSeries 450 (4U) Itanium 2 1.5GHz 6MB (3ch/3co)	AS/400 53S-2157 182MHz-0MB (4ch/4co)
(8832) Xeon 3.06GHz 1MB (2ch/2co)	xSeries 450 (4U) Itanium 2 1.5GHz 6MB (4ch/4co)	AS/400e 150-2269 80MHz-0MB (1ch/1co)
(8832) Xeon 3.2GHz 1MB (1ch/1co)	xSeries 450 (4U) Itanium 2 900MHz 1.5MB (1ch/1co)	AS/400e 150-2270 80MHz-0MB (1ch/1co)
(8832) Xeon 3.2GHz 1MB (2ch/2co)	xSeries 450 (4U) Itanium 2 900MHz 1.5MB (2ch/2co)	AS/400e 170-2159 200MHz-0MB (1ch/1co)
(8832) Xeon 3.2GHz 2MB (1ch/1co)	xSeries 450 (4U) Itanium 2 900MHz 1.5MB (3ch/3co)	AS/400e 170-2160 200MHz-0MB (1ch/1co)
(8832) Xeon 3.2GHz 2MB (2ch/2co)	xSeries 450 (4U) Itanium 2 900MHz 1.5MB (4ch/4co)	AS/400e 170-2164 200MHz-0MB (1ch/1co)
(8843) Xeon EM64T (LV) 2.8GHz 1MB (1ch/1co)	xSeries 455 (4U) Itanium 2 1.3GHz 3MB (1ch/1co)	AS/400e 170-2176 175MHz-0MB (1ch/1co)


Lotus SMARTSuite 1-2-3 - [DEMO-SCON.123]
File Edit View Create Range Sheet Window Help
C:U9
0
Contents Controls SVRinputs DELL FJS HPQ IBM SUN UserDef WKLDscalar SVRwklds SVRcoc zCPUsum zCPUutil
Inputs: OEM Server Applications tc
Compress Out Blank Servers
Row
Defined Sequence Number
User Desired Sequence
Ex-clude (1)
Server Hardware Description and Lookup Identification
Number of identical OEM Servers
Enter #
Result
Peak Utilization
Case-1
Case-2
Default Values
90.0%
65.0%
No.
1 1 1 pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
2 2 2 pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co) 1.0 1.0 99.0% 65.0% 0 Defa
3 3 3 pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
4 4 4 pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
5 5 5 p5 550 Express 1.5GHz-36MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
6 6 6 p5 550 Express 1.5GHz-36MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
7 7 7 pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
8 8 8 pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
9 9 9 pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
10 10 10 pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
11 11 11 pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
12 12 12 pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
13 13 13 pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
14 14 14 p5 550 Express (4U) 1.5GHz-36MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
15 15 15 p5 510 (2U) 1.65GHz-36MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
16 16 16 p5 510 (2U) 1.65GHz-36MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
17 17 17 p5 550 Express (4U) 1.5GHz-36MB (1ch/2co) 1.0 1.0 90.0% 65.0% 0 Defa
18 18 18 p5 550 Express (4U) 1.5GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
19 19 19 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
20 20 20 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
21 21 21 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
22 22 22 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
23 23 23 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
24 24 24 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
25 25 25 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
26 26 26 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
27 27 27 p5 570 (4U) 1.65GHz-36MB (2ch/4co) 1.0 1.0 90.0% 65.0% 0 Defa
28 28
29 29
30 30
31 31
32 32
Arial 14 B I U No style Fixed 0 U Ready

Lotus SMARTSuite 1-2-3

File Edit View Create Range Sheet Window Help

J:G6 2

DEMO-SCON.123

Contents | Controls | SVRinputs | DELL | FJS | HPQ | IBM | SUN | UserDef | WKLDscalar | SVRwklds | SVRcoc | zCPUsum

Workload Scalar Assignments

SEP-2007C18 10/10/2007

Server Workloads		Answers to Questions 1 = Min 2 = Avg 3 = Max					
No.	Description	Q1	Q2	Q3	Q4	Q5	Q6
0	Default (Mixed)	2	2	2	2	2	2
1	CPU Intensive	1	1	1	1	1	1
2	Mixed	2	2	2	2	2	2
3	I/O Intensive	3	3	3	3	3	3
4	Webserving						
5	HTTP Server, General Useage	1	1	1	3	2	2
6	HTTP Server / Static Files	1	2	1	1	2	1
7	HTTP Server / JSPs	2	2	3	1	2	3
8	HTTP Server / EJBs	2	2	1	1	2	1
9	HTTP Server / CGIs	1	1	1	1	2	1
10	HTTP Server, Heavy Graphics	2	1	1	1	2	1
11	FTP	3	3	3	3	2	3
12	Web Application Server (WAS, WebLogic)						
13	WAS: Substantial Java Application	2	2	1	1	2	1
14	WAS: Little Java Content	2	2	3	1	2	1
15	Mail server						
16	Mail: Domino NRPC (Notes)	3	3	3	3	2	1
17	Mail: SMTP	1	2	1	1	2	1
18	Mail: SAMS	2	2	3	1	2	3
19	Mail: POP	3	3	3	3	3	3
20	Mail: IMAP	2	2	3	1	2	3
21	Print Serving						
22	File/Print Serving (Samba)	3	3	3	3	2	3
23	File/Print Serving (Samba)	3	3	3	3	3	3
24	Network Print Serving	2	2	3	1	2	3
25	OLTP data base Application	2	2	2	2	2	2
26	ISP	2	2	2	2	2	2
27	BI Data Base						
28	BI -Simple Query	1	2	2	2	2	2

How Workload Scalar Works

This is intended to show how the scaler is determined. No inputs or results are transferred to ot
These iputs represent tht answer each of the 6 questions for each Linux/UNIX application on th
Enter a value (1, 2, or 3) in each of the 6 user setting boxes below, representing the applicatio

UNIX/Linux	Best for	IBM Mainframe
2.0	1.0	0.5
1	2	3

User Setting				Weighting Factor
3	1. Number of Concurrent Users / Jobs			1
	[ ] 10's of Users, Few Jobs	[ ] 100's of Users, 10's of Jobs	[X] 1000's of Users, 100's of Jobs	
1	2. User / Job Execution Characteristics and Priority			1
	[X] Similar	[ ] Nominal	[ ] Diverse	
2	3. Throughput is Gated by			1
	[ ] CPU Resource Contention	[X] Neither	[ ] I/O Resource Contention	
2	4. Address Reference Patterns are			1
	[ ] Tight	[X] Nominal	[ ] Wide	
2	5. Workload Programming Model is			1
	[ ] Dynamic Process	[X] Static Process, Single Thread	[ ] Multi-Thread	
2	6. Affinity of Users / Jobs to Data			1
	[ ] High, Partitioned Data	[X] Nominal	[ ] Low, Shared Data	
				6

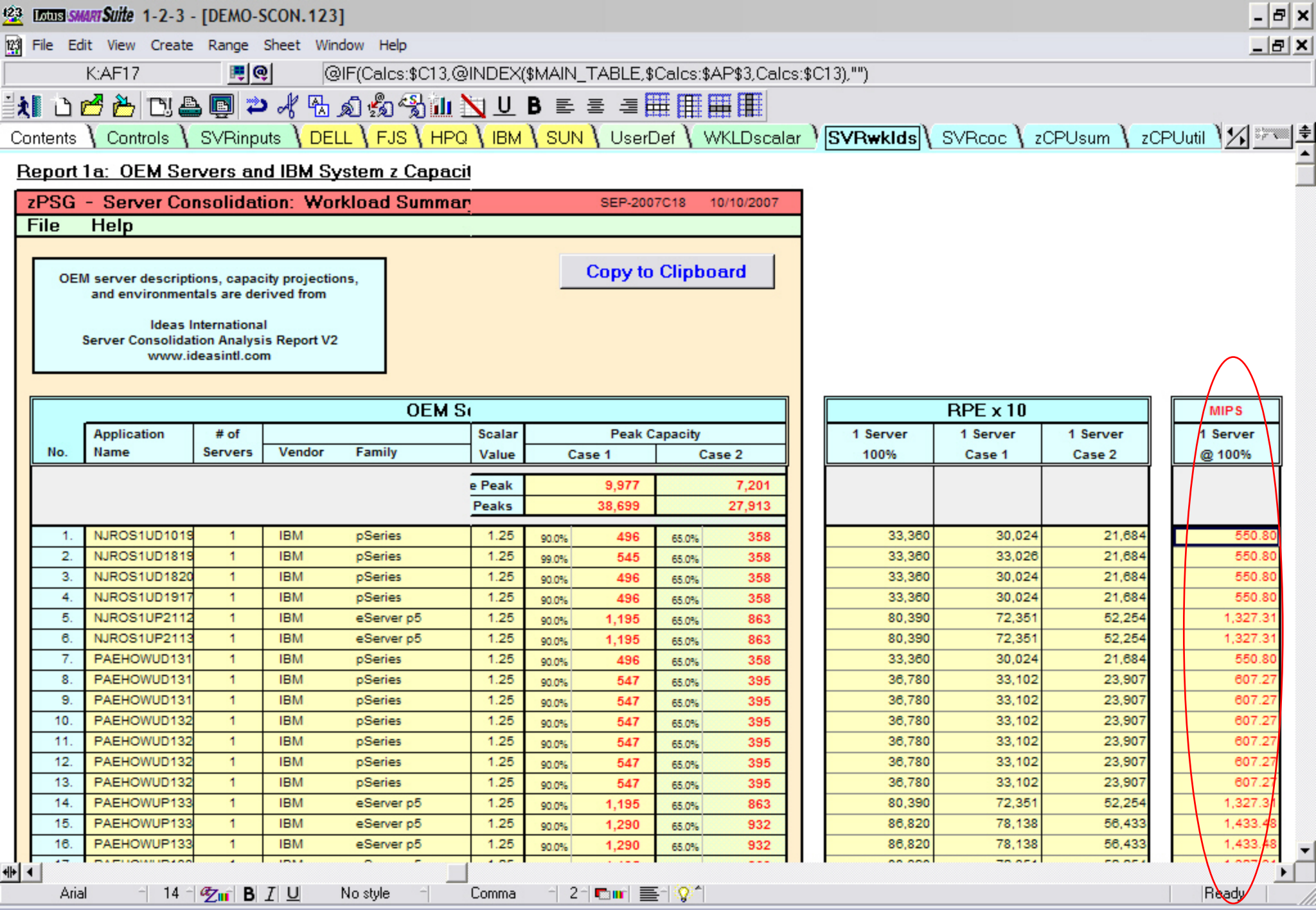
Untitled1...

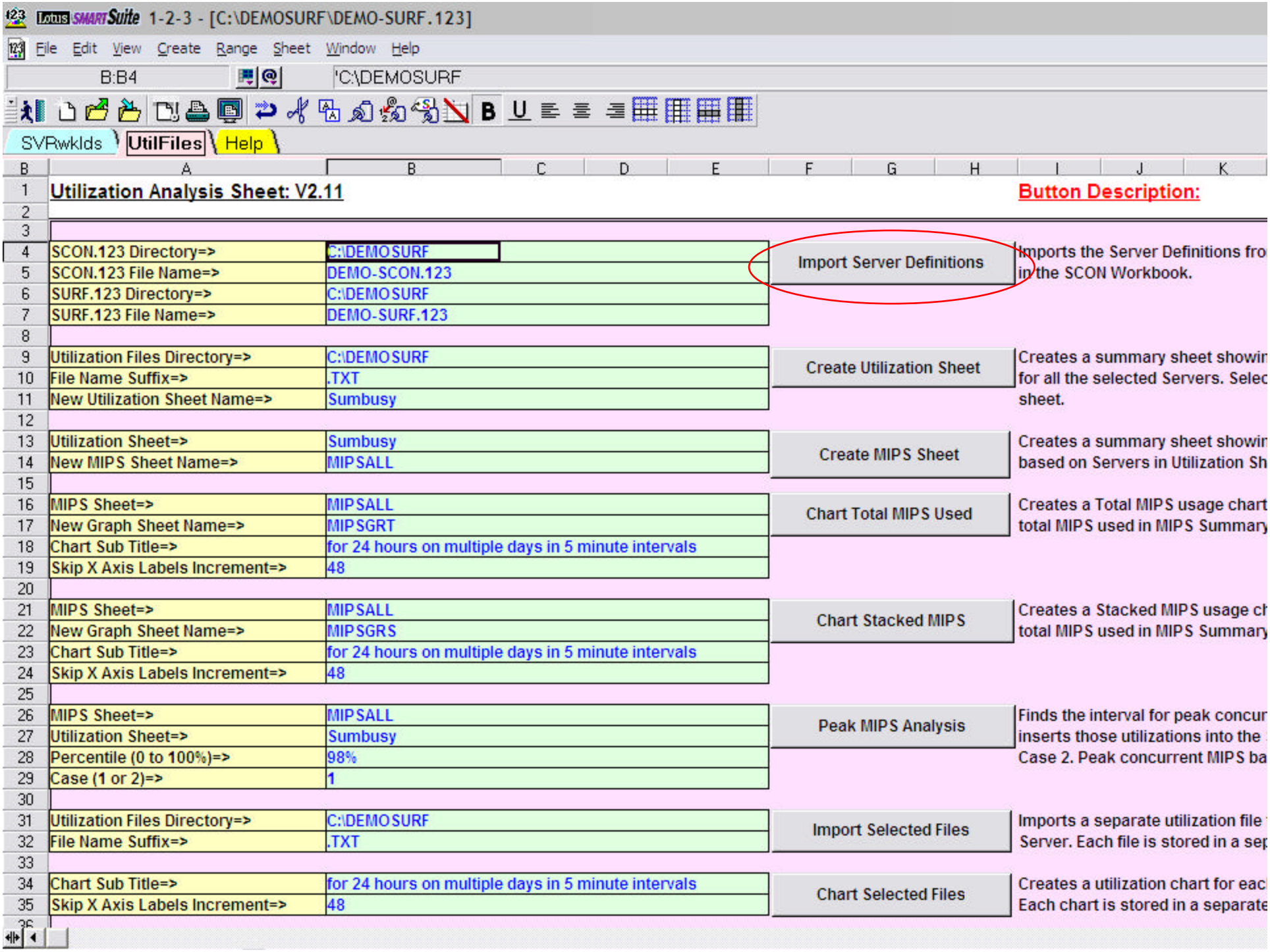
Arial 14 B I U No style General PR Ready

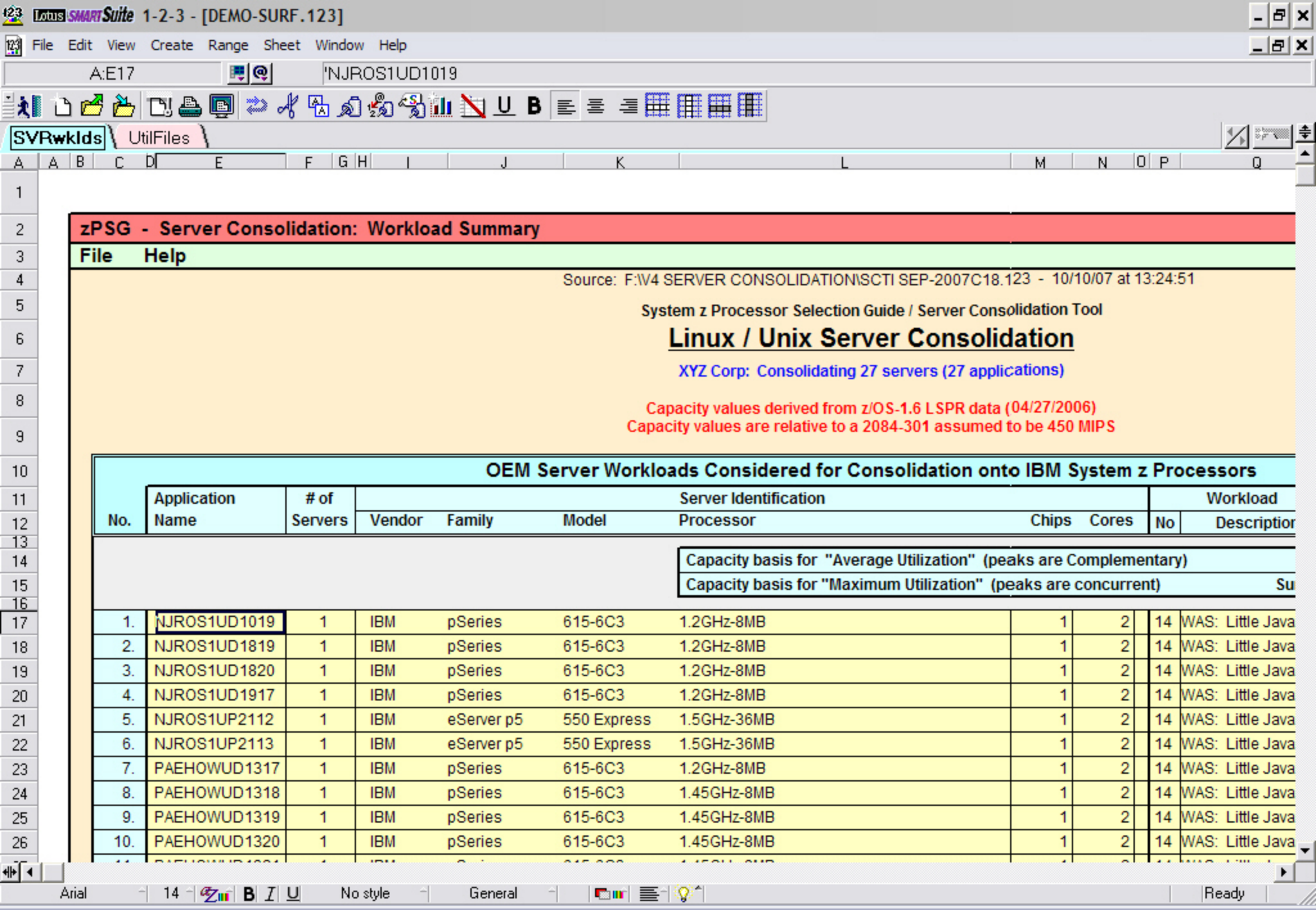
Inputs: OEM Server Applications tated

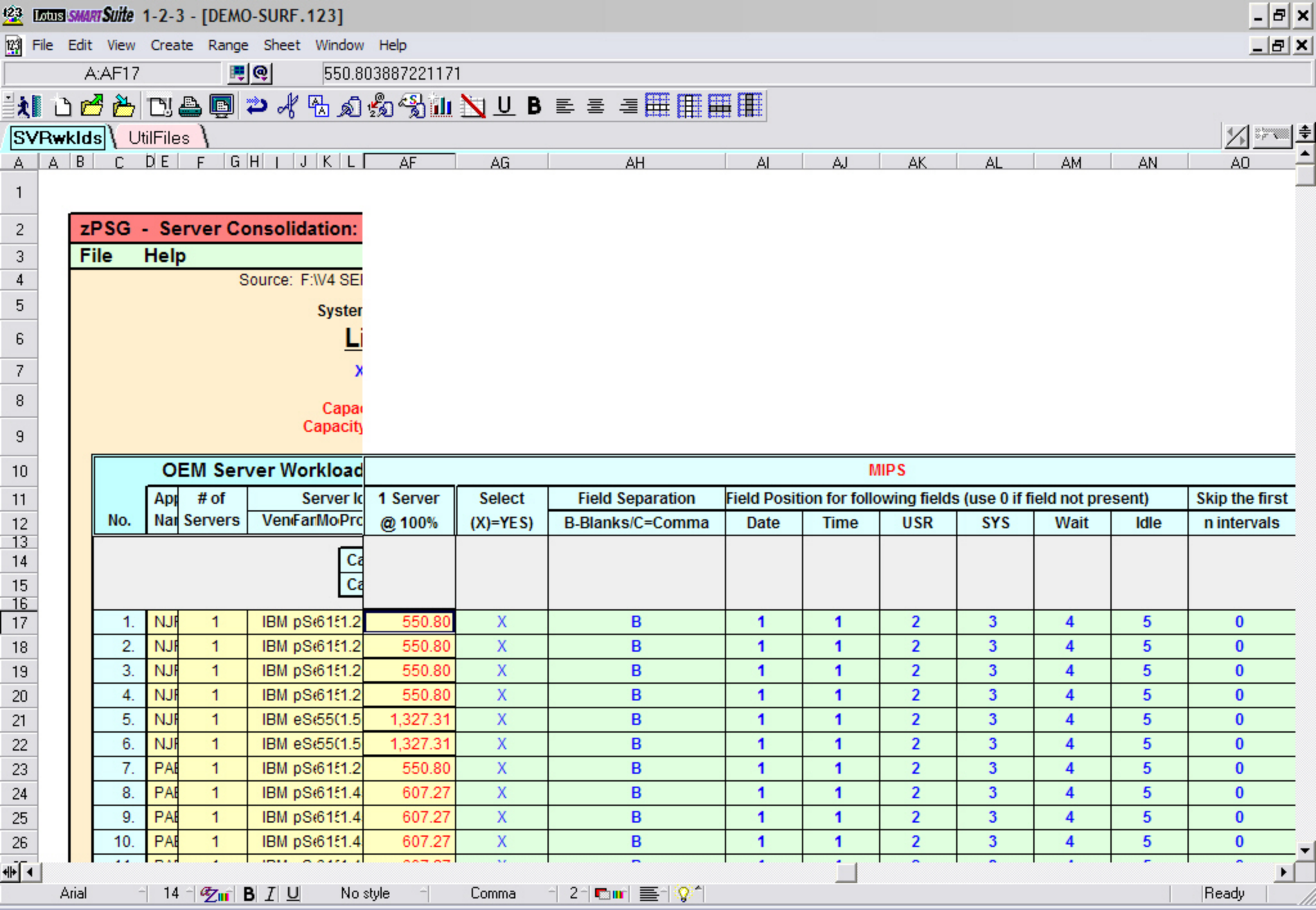
SEP-2007C18 10/10/

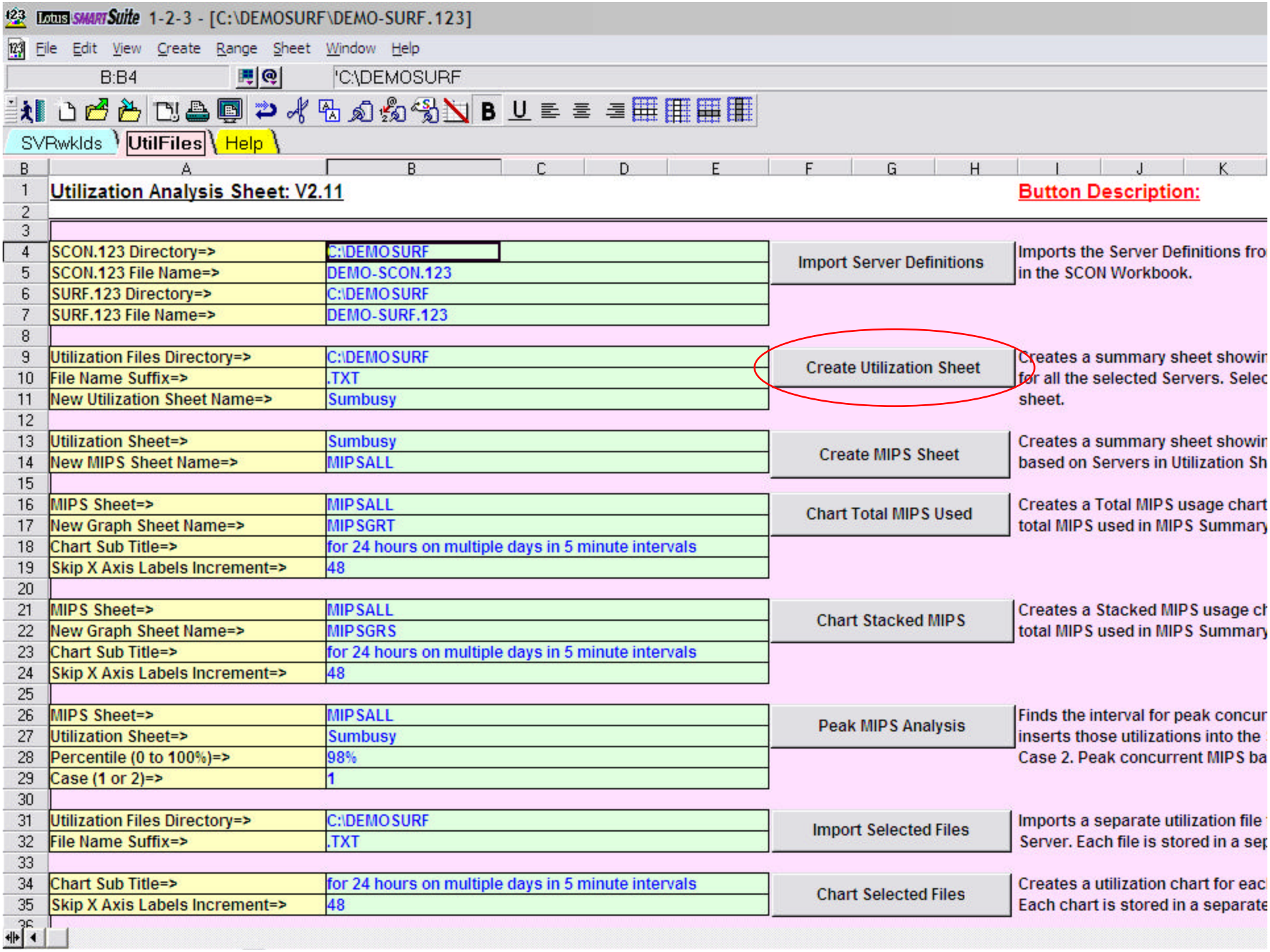
Row	Defined Sequence Number	User Desired Sequence	Ex-clude (1)	Vndr	Server Hardware Description and Lookup Identification	Number of identical OEM Servers Enter #	Number of identical OEM Servers Result	Peak Utilization Case-1 Default Values 90.0%	Peak Utilization Case-2 Default Values 65.0%	Workload Scalar Workload Assignment No.	Workload Scalar Workload Assignment Description
1	1	1		IBM	pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
2	2	2		IBM	pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co)	1.0	1.0	99.0%	65.0%	14	WAS: Little Java Content
3	3	3		IBM	pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
4	4	4		IBM	pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
5	5	5		IBM	p5 550 Express 1.5GHz-36MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
6	6	6		IBM	p5 550 Express 1.5GHz-36MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
7	7	7		IBM	pSeries 615-6C3 (5U) 1.2GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
8	8	8		IBM	pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
9	9	9		IBM	pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
10	10	10		IBM	pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
11	11	11		IBM	pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
12	12	12		IBM	pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
13	13	13		IBM	pSeries 615-6C3 (5U) 1.45GHz-8MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
14	14	14		IBM	p5 550 Express (4U) 1.5GHz-36MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
15	15	15		IBM	p5 510 (2U) 1.65GHz-36MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
16	16	16		IBM	p5 510 (2U) 1.65GHz-36MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
17	17	17		IBM	p5 550 Express (4U) 1.5GHz-36MB (1ch/2co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
18	18	18		IBM	p5 550 Express (4U) 1.5GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
19	19	19		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
20	20	20		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
21	21	21		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
22	22	22		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
23	23	23		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
24	24	24		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
25	25	25		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
26	26	26		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
27	27	27		IBM	p5 570 (4U) 1.65GHz-36MB (2ch/4co)	1.0	1.0	90.0%	65.0%	14	WAS: Little Java Content
28		28									
29		29									
30		30									
31		31									
32		32									


Lotus SMARTSuite 1-2-3 - [DEMO-SCON.123]
File Edit View Create Range Sheet Window Help
K:AF17
@IF(Calcs:$C13,@INDEX($MAIN_TABLE,$Calcs:$AP$3,Calcs:$C13),"")
Contents Controls SVRinputs DELL FJS HPQ IBM SUN UserDef WKLDscalar SVRwklds SVRcoc zCPUsum zCPUutil
Report 1a: OEM Servers and IBM System z Capacit
zPSG - Server Consolidation: Workload Summar
SEP-2007C18 10/10/2007
File Help
OEM server descriptions, capacity projections, and environmentals are derived from
Ideas International
Server Consolidation Analysis Report V2
www.ideasintl.com
Copy to Clipboard
OEM S
RPE x 10
MIPS
No. Application Name # of Servers Vendor Family Scalar Value Peak Capacity Case 1 Case 2
1 Server 100% 1 Server Case 1 1 Server Case 2 1 Server @ 100%
e Peak 9,977 7,201
Peaks 38,699 27,913
1. NJROS1UD1019 1 IBM pSeries 1.25 90.0% 496 65.0% 358 33,360 30,024 21,684 550.80
2. NJROS1UD1819 1 IBM pSeries 1.25 99.0% 545 65.0% 358 33,360 33,026 21,684 550.80
3. NJROS1UD1820 1 IBM pSeries 1.25 90.0% 496 65.0% 358 33,360 30,024 21,684 550.80
4. NJROS1UD1917 1 IBM pSeries 1.25 90.0% 496 65.0% 358 33,360 30,024 21,684 550.80
5. NJROS1UP2112 1 IBM eServer p5 1.25 90.0% 1,195 65.0% 863 80,390 72,351 52,254 1,327.31
6. NJROS1UP2113 1 IBM eServer p5 1.25 90.0% 1,195 65.0% 863 80,390 72,351 52,254 1,327.31
7. PAEHOWUD131 1 IBM pSeries 1.25 90.0% 496 65.0% 358 33,360 30,024 21,684 550.80
8. PAEHOWUD131 1 IBM pSeries 1.25 90.0% 547 65.0% 395 36,780 33,102 23,907 607.27
9. PAEHOWUD131 1 IBM pSeries 1.25 90.0% 547 65.0% 395 36,780 33,102 23,907 607.27
10. PAEHOWUD132 1 IBM pSeries 1.25 90.0% 547 65.0% 395 36,780 33,102 23,907 607.27
11. PAEHOWUD132 1 IBM pSeries 1.25 90.0% 547 65.0% 395 36,780 33,102 23,907 607.27
12. PAEHOWUD132 1 IBM pSeries 1.25 90.0% 547 65.0% 395 36,780 33,102 23,907 607.27
13. PAEHOWUD132 1 IBM pSeries 1.25 90.0% 547 65.0% 395 36,780 33,102 23,907 607.27
14. PAEHOWUP133 1 IBM eServer p5 1.25 90.0% 1,195 65.0% 863 80,390 72,351 52,254 1,327.31
15. PAEHOWUP133 1 IBM eServer p5 1.25 90.0% 1,290 65.0% 932 86,820 78,138 56,433 1,433.48
16. PAEHOWUP133 1 IBM eServer p5 1.25 90.0% 1,290 65.0% 932 86,820 78,138 56,433 1,433.48
Arial 14 B I U No style Comma 2 Ready


Lotus SMARTSuite 1-2-3 - [C:\DEMOSURF\DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
B:B4
'C:\DEMOSURF
SVPwklds
UtilFiles
Help
Utilization Analysis Sheet: V2.11
Button Description:
SCON.123 Directory=> C:\DEMOSURF
SCON.123 File Name=> DEMO-SCON.123
SURF.123 Directory=> C:\DEMOSURF
SURF.123 File Name=> DEMO-SURF.123
Import Server Definitions
Imports the Server Definitions fro
in the SCON Workbook.
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
New Utilization Sheet Name=> Sumbusy
Create Utilization Sheet
Creates a summary sheet showir
for all the selected Servers. Selec
sheet.
Utilization Sheet=> Sumbusy
New MIPS Sheet Name=> MIPSALL
Create MIPS Sheet
Creates a summary sheet showir
based on Servers in Utilization Sh
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRT
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Total MIPS Used
Creates a Total MIPS usage chart
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRS
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Stacked MIPS
Creates a Stacked MIPS usage ch
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
Utilization Sheet=> Sumbusy
Percentile (0 to 100%)=> 98%
Case (1 or 2)=> 1
Peak MIPS Analysis
Finds the interval for peak concur
inserts those utilizations into the
Case 2. Peak concurrent MIPS ba
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
Import Selected Files
Imports a separate utilization file
Server. Each file is stored in a sep
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Selected Files
Creates a utilization chart for eac
Each chart is stored in a separate


Lotus SMARTSuite 1-2-3 - [DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
A:E17
'NJROS1UD1019
SVRwkIds
UtilFiles
zPSG - Server Consolidation: Workload Summary
File Help
Source: F:\V4 SERVER CONSOLIDATION\SCTI SEP-2007C18.123 - 10/10/07 at 13:24:51
System z Processor Selection Guide / Server Consolidation Tool
Linux / Unix Server Consolidation
XYZ Corp: Consolidating 27 servers (27 applications)
Capacity values derived from z/OS-1.6 LSPR data (04/27/2006)
Capacity values are relative to a 2084-301 assumed to be 450 MIPS
OEM Server Workloads Considered for Consolidation onto IBM System z Processors
No. | Application Name | # of Servers | Server Identification: Vendor | Family | Model | Processor | Chips | Cores | Workload: No | Description
Capacity basis for "Average Utilization" (peaks are Complementary)
Capacity basis for "Maximum Utilization" (peaks are concurrent)
1. NJROS1UD1019 1 IBM pSeries 615-6C3 1.2GHz-8MB 1 2 14 WAS: Little Java
2. NJROS1UD1819 1 IBM pSeries 615-6C3 1.2GHz-8MB 1 2 14 WAS: Little Java
3. NJROS1UD1820 1 IBM pSeries 615-6C3 1.2GHz-8MB 1 2 14 WAS: Little Java
4. NJROS1UD1917 1 IBM pSeries 615-6C3 1.2GHz-8MB 1 2 14 WAS: Little Java
5. NJROS1UP2112 1 IBM eServer p5 550 Express 1.5GHz-36MB 1 2 14 WAS: Little Java
6. NJROS1UP2113 1 IBM eServer p5 550 Express 1.5GHz-36MB 1 2 14 WAS: Little Java
7. PAEHOWUD1317 1 IBM pSeries 615-6C3 1.2GHz-8MB 1 2 14 WAS: Little Java
8. PAEHOWUD1318 1 IBM pSeries 615-6C3 1.45GHz-8MB 1 2 14 WAS: Little Java
9. PAEHOWUD1319 1 IBM pSeries 615-6C3 1.45GHz-8MB 1 2 14 WAS: Little Java
10. PAEHOWUD1320 1 IBM pSeries 615-6C3 1.45GHz-8MB 1 2 14 WAS: Little Java
Arial 14 No style General Ready


Lotus SMARTSuite 1-2-3 - [DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
A:AF17
550.803887221171
SVRwkIds
UtilFiles
zPSG - Server Consolidation:
File Help
Source: F:\V4 SEI
Syster
Li
X
Capa
Capacity
OEM Server Workload
MIPS
No.
App Nar
# of Servers
Server Id
VendFarMoPrc
1 Server @ 100%
Select (X)=YES)
Field Separation
B-Blanks/C=Comma
Field Position for following fields (use 0 if field not present)
Date
Time
USR
SYS
Wait
Idle
Skip the first n intervals
1. NJF 1 IBM pSe61e1.2 550.80 X B 1 1 2 3 4 5 0
2. NJF 1 IBM pSe61e1.2 550.80 X B 1 1 2 3 4 5 0
3. NJF 1 IBM pSe61e1.2 550.80 X B 1 1 2 3 4 5 0
4. NJF 1 IBM pSe61e1.2 550.80 X B 1 1 2 3 4 5 0
5. NJF 1 IBM eSe55(1.5 1,327.31 X B 1 1 2 3 4 5 0
6. NJF 1 IBM eSe55(1.5 1,327.31 X B 1 1 2 3 4 5 0
7. PAE 1 IBM pSe61e1.2 550.80 X B 1 1 2 3 4 5 0
8. PAE 1 IBM pSe61e1.4 607.27 X B 1 1 2 3 4 5 0
9. PAE 1 IBM pSe61e1.4 607.27 X B 1 1 2 3 4 5 0
10. PAE 1 IBM pSe61e1.4 607.27 X B 1 1 2 3 4 5 0
Arial 14 No style Comma 2 Ready


Lotus SMARTSuite 1-2-3 - [C:\DEMOSURF\DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
B:B4
'C:\DEMOSURF
SVPwklds
UtilFiles
Help
Utilization Analysis Sheet: V2.11
Button Description:
SCON.123 Directory=> C:\DEMOSURF
SCON.123 File Name=> DEMO-SCON.123
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Utilization Files Directory=> C:\DEMOSURF
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New Utilization Sheet Name=> Sumbusy
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Create MIPS Sheet
Creates a summary sheet showir
based on Servers in Utilization Sh
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRT
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Total MIPS Used
Creates a Total MIPS usage chart
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRS
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Stacked MIPS
Creates a Stacked MIPS usage ch
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
Utilization Sheet=> Sumbusy
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Finds the interval for peak concur
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Case 2. Peak concurrent MIPS ba
Utilization Files Directory=> C:\DEMOSURF
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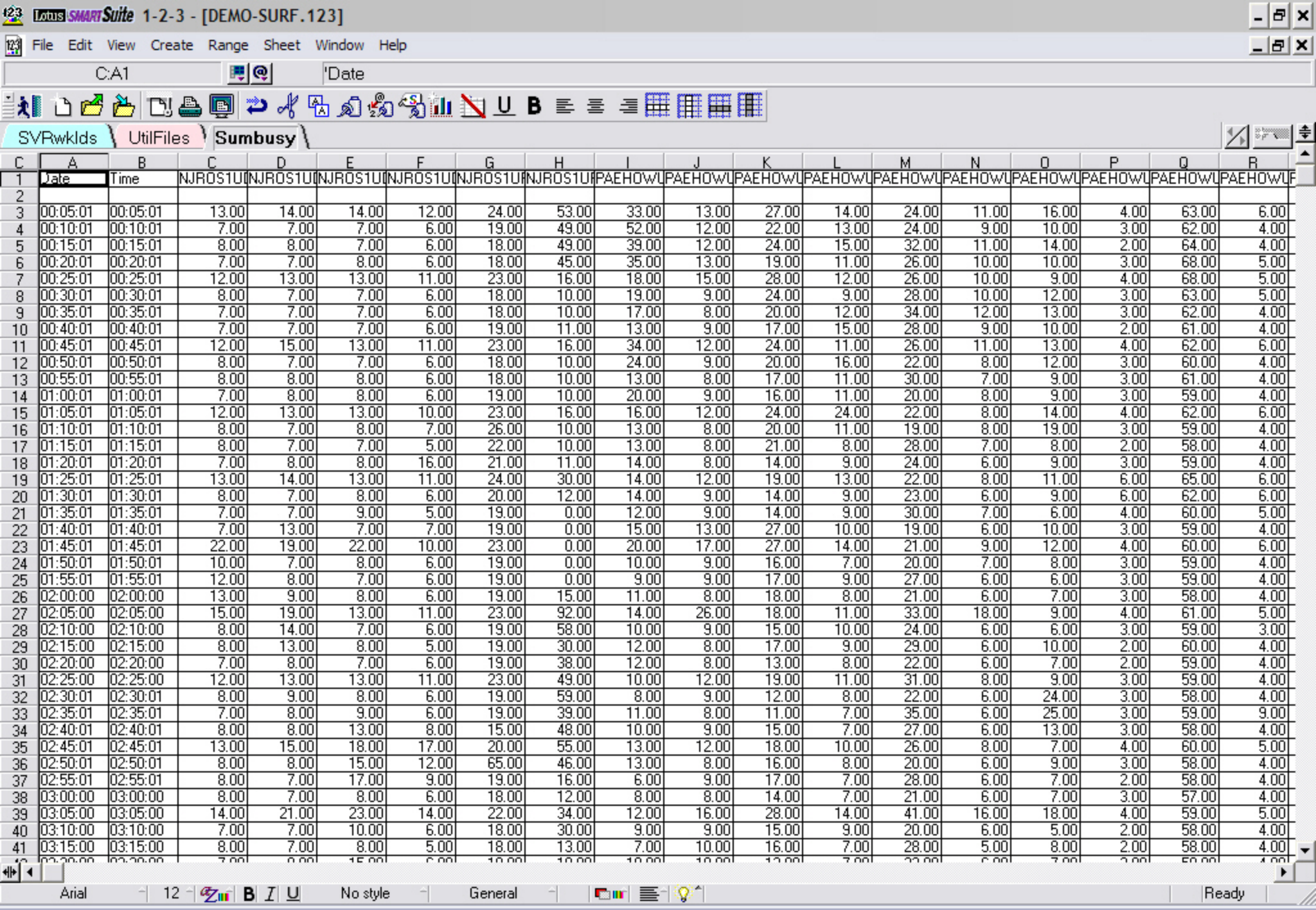
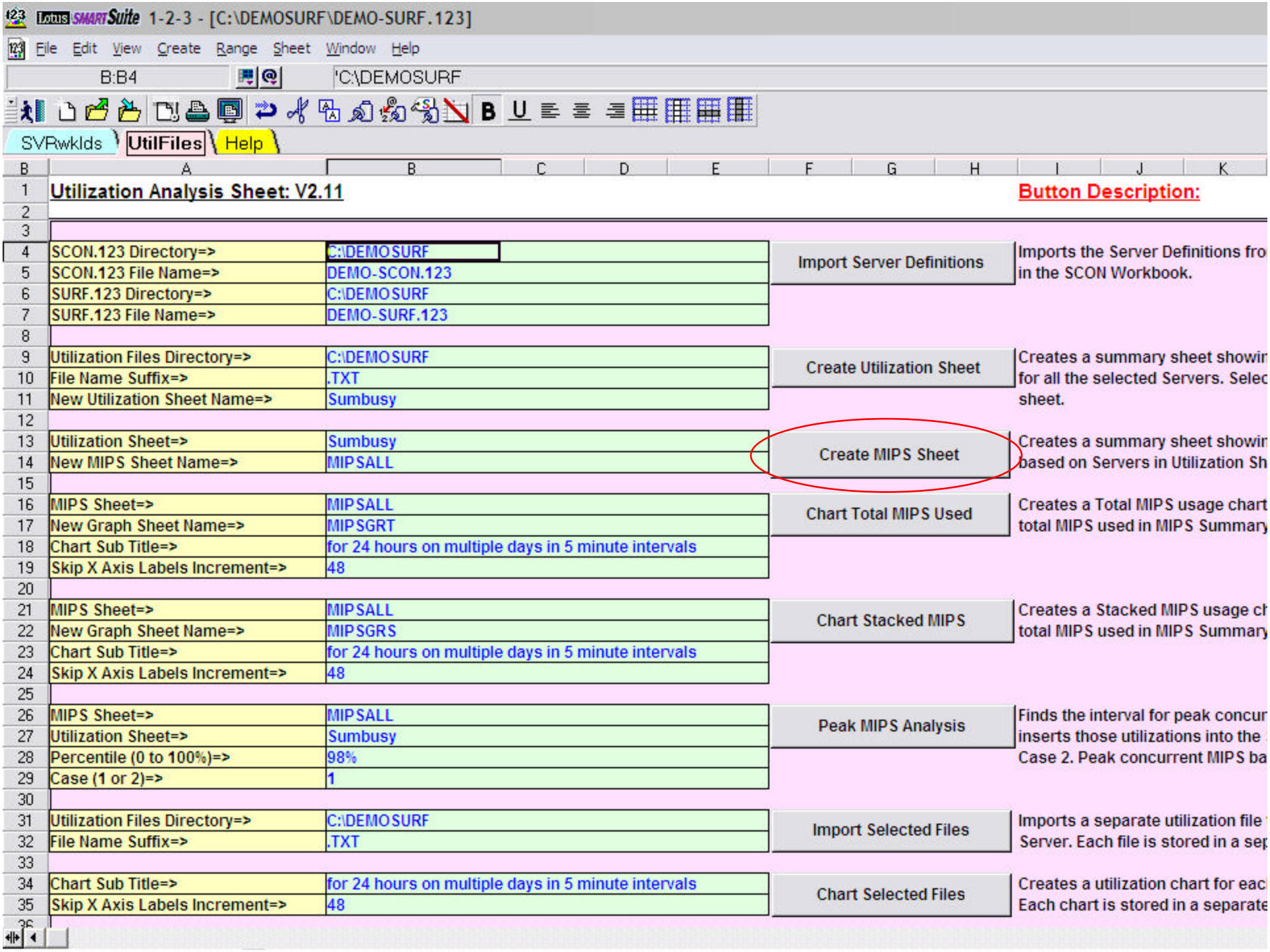
Skip X Axis Labels Increment=> 48
Chart Selected Files
Creates a utilization chart for eac
Each chart is stored in a separate



	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Date	Time	NJROS1UI	NJROS1UI	NJROS1UI	NJROS1UI	NJROS1UI	NJROS1UI	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL
2																		
3	00:05:01	00:05:01	13.00	14.00	14.00	12.00	24.00	53.00	33.00	13.00	27.00	14.00	24.00	11.00	16.00	4.00	63.00	6.00
4	00:10:01	00:10:01	7.00	7.00	7.00	6.00	19.00	49.00	52.00	12.00	22.00	13.00	24.00	9.00	10.00	3.00	62.00	4.00
5	00:15:01	00:15:01	8.00	8.00	7.00	6.00	18.00	49.00	39.00	12.00	24.00	15.00	32.00	11.00	14.00	2.00	64.00	4.00
6	00:20:01	00:20:01	7.00	7.00	8.00	6.00	18.00	45.00	35.00	13.00	19.00	11.00	26.00	10.00	10.00	3.00	68.00	5.00
7	00:25:01	00:25:01	12.00	13.00	13.00	11.00	23.00	16.00	18.00	15.00	28.00	12.00	26.00	10.00	9.00	4.00	68.00	5.00
8	00:30:01	00:30:01	8.00	7.00	7.00	6.00	18.00	10.00	19.00	9.00	24.00	9.00	28.00	10.00	12.00	3.00	63.00	5.00
9	00:35:01	00:35:01	7.00	7.00	7.00	6.00	18.00	10.00	17.00	8.00	20.00	12.00	34.00	12.00	13.00	3.00	62.00	4.00
10	00:40:01	00:40:01	7.00	7.00	7.00	6.00	19.00	11.00	13.00	9.00	17.00	15.00	28.00	9.00	10.00	2.00	61.00	4.00
11	00:45:01	00:45:01	12.00	15.00	13.00	11.00	23.00	16.00	34.00	12.00	24.00	11.00	26.00	11.00	13.00	4.00	62.00	6.00
12	00:50:01	00:50:01	8.00	7.00	7.00	6.00	18.00	10.00	24.00	9.00	20.00	16.00	22.00	8.00	12.00	3.00	60.00	4.00
13	00:55:01	00:55:01	8.00	8.00	8.00	6.00	18.00	10.00	13.00	8.00	17.00	11.00	30.00	7.00	9.00	3.00	61.00	4.00
14	01:00:01	01:00:01	7.00	8.00	8.00	6.00	19.00	10.00	20.00	9.00	16.00	11.00	20.00	8.00	9.00	3.00	59.00	4.00
15	01:05:01	01:05:01	12.00	13.00	13.00	10.00	23.00	16.00	16.00	12.00	24.00	24.00	22.00	8.00	14.00	4.00	62.00	6.00
16	01:10:01	01:10:01	8.00	7.00	8.00	7.00	26.00	10.00	13.00	8.00	20.00	11.00	19.00	8.00	19.00	3.00	59.00	4.00
17	01:15:01	01:15:01	8.00	7.00	7.00	5.00	22.00	10.00	13.00	8.00	21.00	8.00	28.00	7.00	8.00	2.00	58.00	4.00
18	01:20:01	01:20:01	7.00	8.00	8.00	16.00	21.00	11.00	14.00	8.00	14.00	9.00	24.00	6.00	9.00	3.00	59.00	4.00
19	01:25:01	01:25:01	13.00	14.00	13.00	11.00	24.00	30.00	14.00	12.00	19.00	13.00	22.00	8.00	11.00	6.00	65.00	6.00
20	01:30:01	01:30:01	8.00	7.00	8.00	6.00	20.00	12.00	14.00	9.00	14.00	9.00	23.00	6.00	9.00	6.00	62.00	6.00
21	01:35:01	01:35:01	7.00	7.00	9.00	5.00	19.00	0.00	12.00	9.00	14.00	9.00	30.00	7.00	6.00	4.00	60.00	5.00
22	01:40:01	01:40:01	7.00	13.00	7.00	7.00	19.00	0.00	15.00	13.00	27.00	10.00	19.00	6.00	10.00	3.00	59.00	4.00
23	01:45:01	01:45:01	22.00	19.00	22.00	10.00	23.00	0.00	20.00	17.00	27.00	14.00	21.00	9.00	12.00	4.00	60.00	6.00
24	01:50:01	01:50:01	10.00	7.00	8.00	6.00	19.00	0.00	10.00	9.00	16.00	7.00	20.00	7.00	8.00	3.00	59.00	4.00
25	01:55:01	01:55:01	12.00	8.00	7.00	6.00	19.00	0.00	9.00	9.00	17.00	9.00	27.00	6.00	6.00	3.00	59.00	4.00
26	02:00:00	02:00:00	13.00	9.00	8.00	6.00	19.00	15.00	11.00	8.00	18.00	8.00	21.00	6.00	7.00	3.00	58.00	4.00
27	02:05:00	02:05:00	15.00	19.00	13.00	11.00	23.00	92.00	14.00	26.00	18.00	11.00	33.00	18.00	9.00	4.00	61.00	5.00
28	02:10:00	02:10:00	8.00	14.00	7.00	6.00	19.00	58.00	10.00	9.00	15.00	10.00	24.00	6.00	6.00	3.00	59.00	3.00
29	02:15:00	02:15:00	8.00	13.00	8.00	5.00	19.00	30.00	12.00	8.00	17.00	9.00	29.00	6.00	10.00	2.00	60.00	4.00
30	02:20:00	02:20:00	7.00	8.00	7.00	6.00	19.00	38.00	12.00	8.00	13.00	8.00	22.00	6.00	7.00	2.00	59.00	4.00
31	02:25:00	02:25:00	12.00	13.00	13.00	11.00	23.00	49.00	10.00	12.00	19.00	11.00	31.00	8.00	9.00	3.00	59.00	4.00
32	02:30:01	02:30:01	8.00	9.00	8.00	6.00	19.00	59.00	8.00	9.00	12.00	8.00	22.00	6.00	24.00	3.00	58.00	4.00
33	02:35:01	02:35:01	7.00	8.00	9.00	6.00	19.00	39.00	11.00	8.00	11.00	7.00	35.00	6.00	25.00	3.00	59.00	9.00
34	02:40:01	02:40:01	8.00	8.00	13.00	8.00	15.00	48.00	10.00	9.00	15.00	7.00	27.00	6.00	13.00	3.00	58.00	4.00
35	02:45:01	02:45:01	13.00	15.00	18.00	17.00	20.00	55.00	13.00	12.00	18.00	10.00	26.00	8.00	7.00	4.00	60.00	5.00
36	02:50:01	02:50:01	8.00	8.00	15.00	12.00	65.00	46.00	13.00	8.00	16.00	8.00	20.00	6.00	9.00	3.00	58.00	4.00
37	02:55:01	02:55:01	8.00	7.00	17.00	9.00	19.00	16.00	6.00	9.00	17.00	7.00	28.00	6.00	7.00	2.00	58.00	4.00
38	03:00:00	03:00:00	8.00	7.00	8.00	6.00	18.00	12.00	8.00	8.00	14.00	7.00	21.00	6.00	7.00	3.00	57.00	4.00
39	03:05:00	03:05:00	14.00	21.00	23.00	14.00	22.00	34.00	12.00	16.00	28.00	14.00	41.00	16.00	18.00	4.00	59.00	5.00
40	03:10:00	03:10:00	7.00	7.00	10.00	6.00	18.00	30.00	9.00	9.00	15.00	9.00	20.00	6.00	5.00	2.00	58.00	4.00
41	03:15:00	03:15:00	8.00	7.00	8.00	5.00	18.00	13.00	7.00	10.00	16.00	7.00	28.00	5.00	8.00	2.00	58.00	4.00


Lotus SMARTSuite 1-2-3 - [C:\DEMOSURF\DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
B:B4
'C:\DEMOSURF
SVPwklds
UtilFiles
Help
Utilization Analysis Sheet: V2.11
Button Description:
SCON.123 Directory=> C:\DEMOSURF
SCON.123 File Name=> DEMO-SCON.123
SURF.123 Directory=> C:\DEMOSURF
SURF.123 File Name=> DEMO-SURF.123
Import Server Definitions
Imports the Server Definitions fro
in the SCON Workbook.
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
New Utilization Sheet Name=> Sumbusy
Create Utilization Sheet
Creates a summary sheet showir
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sheet.
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Create MIPS Sheet
Creates a summary sheet showir
based on Servers in Utilization Sh
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRT
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Total MIPS Used
Creates a Total MIPS usage chart
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRS
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Stacked MIPS
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MIPS Sheet=> MIPSALL
Utilization Sheet=> Sumbusy
Percentile (0 to 100%)=> 98%
Case (1 or 2)=> 1
Peak MIPS Analysis
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Case 2. Peak concurrent MIPS ba
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
Import Selected Files
Imports a separate utilization file
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Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Selected Files
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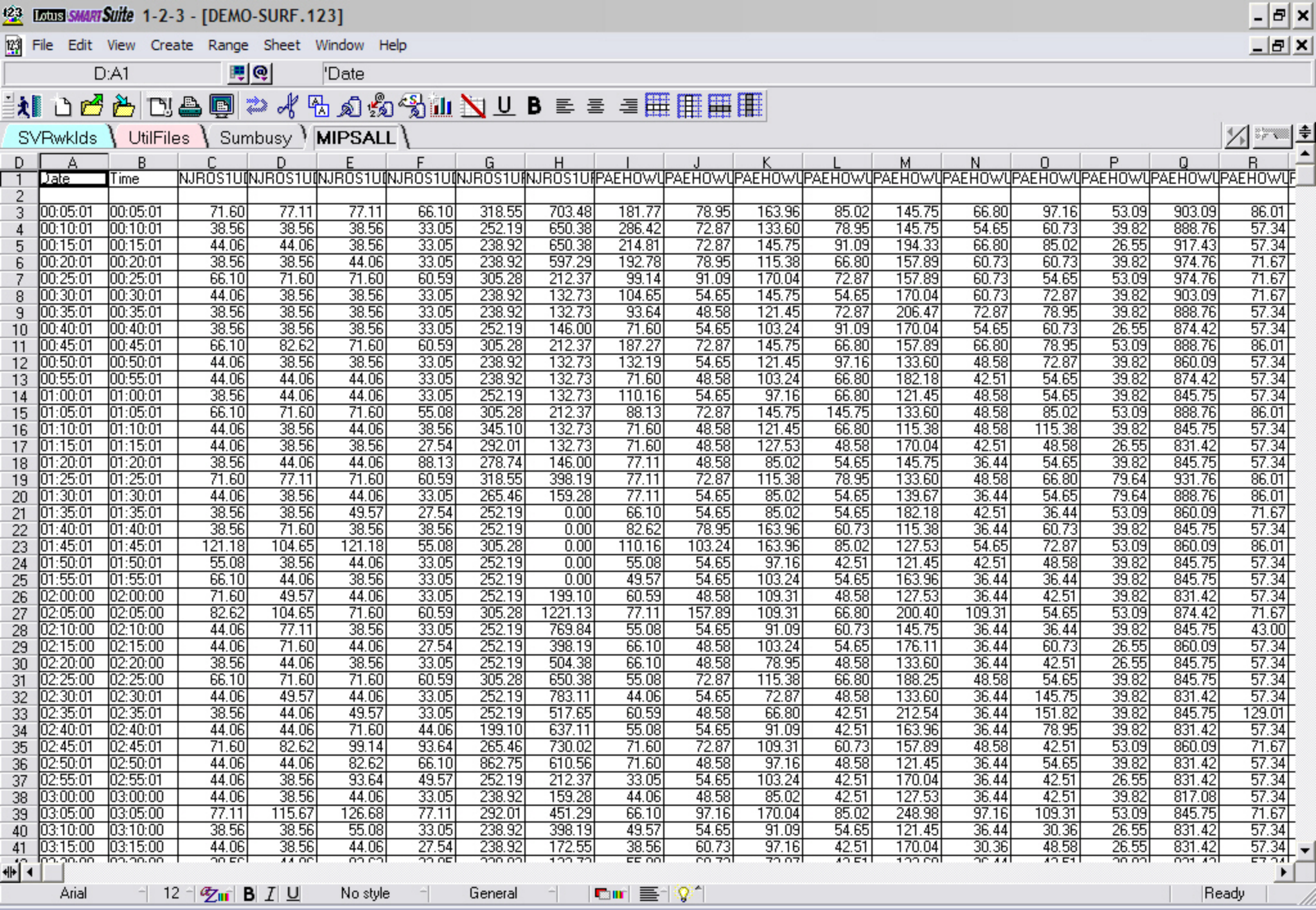
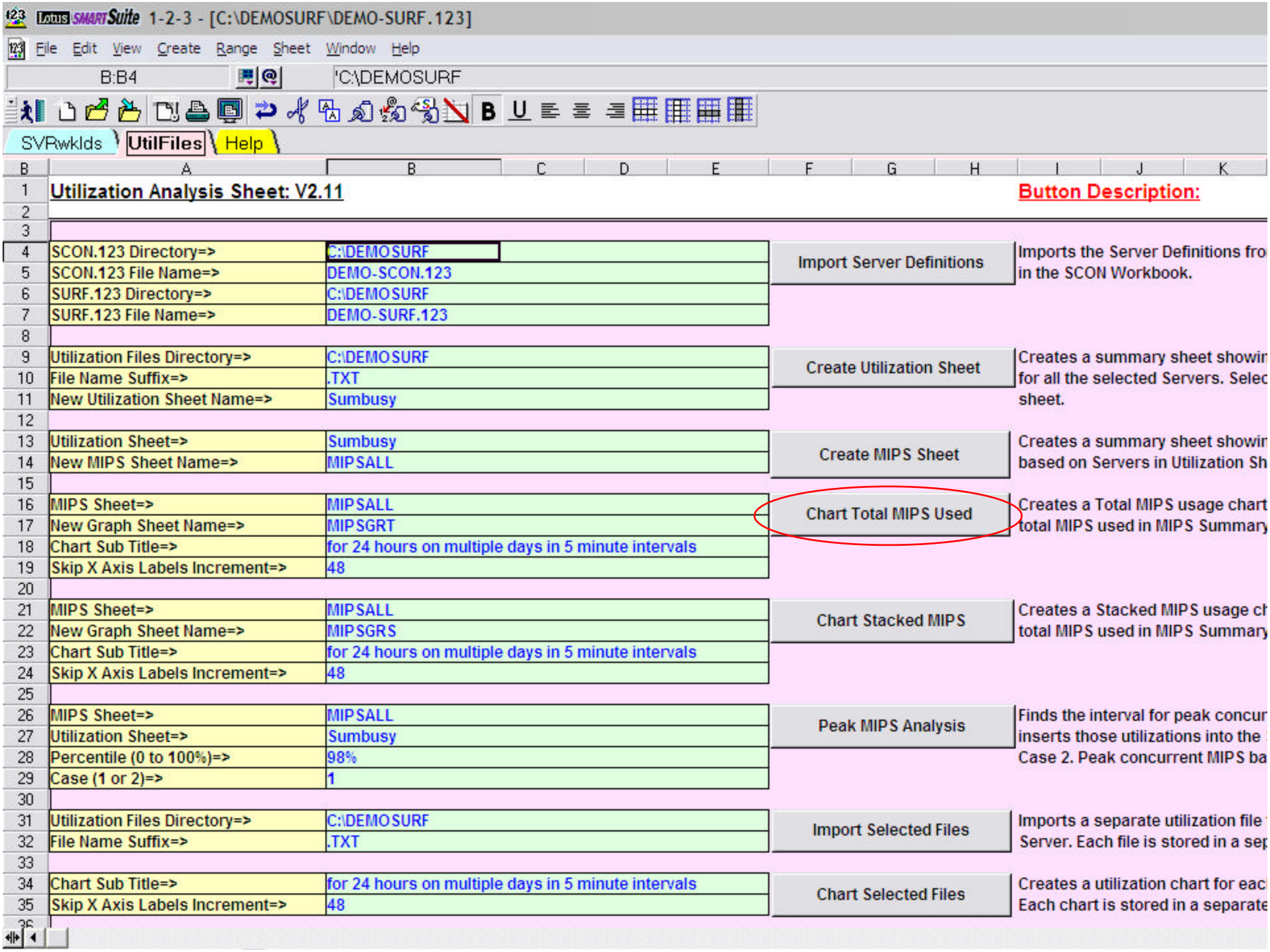
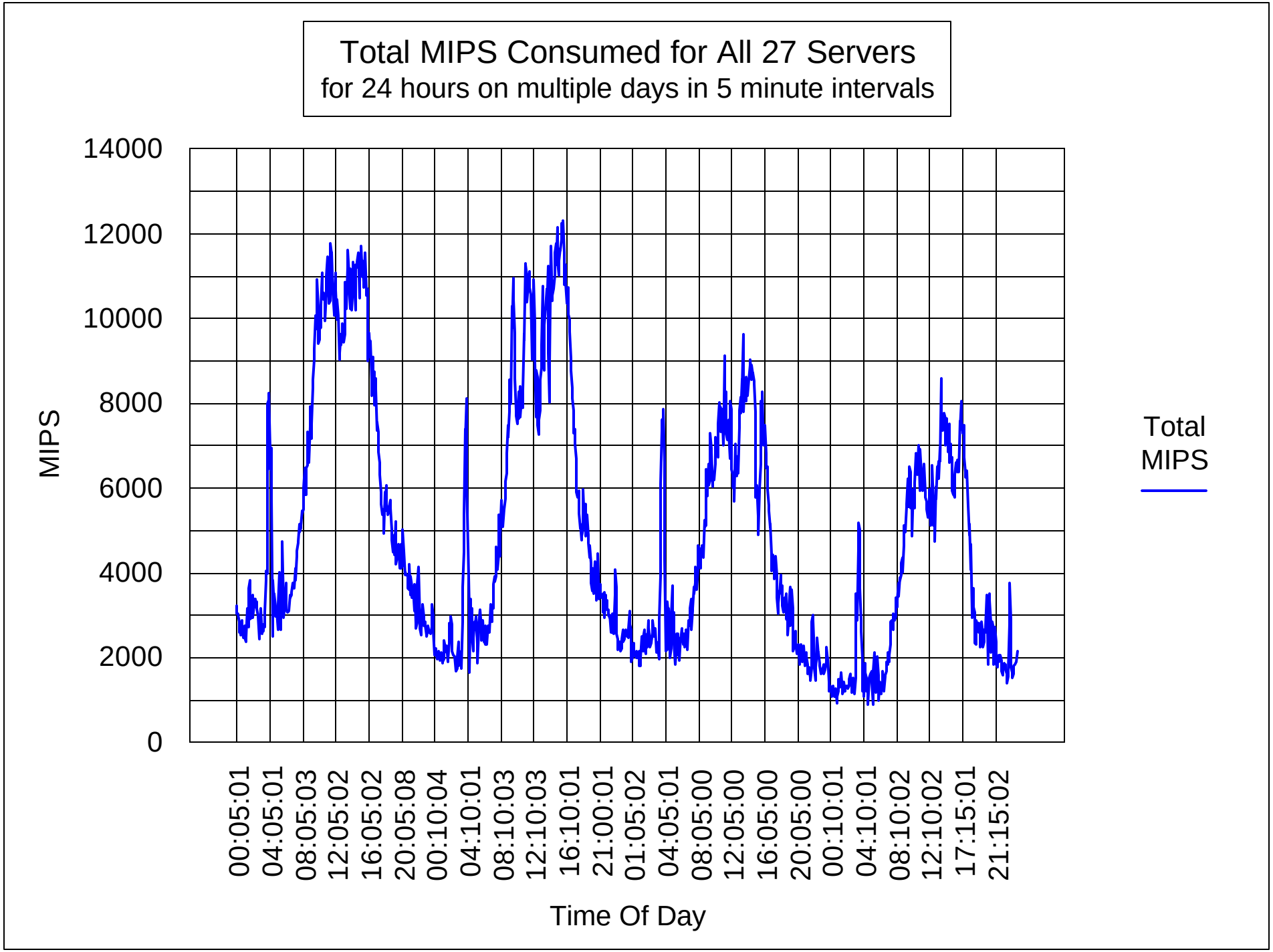
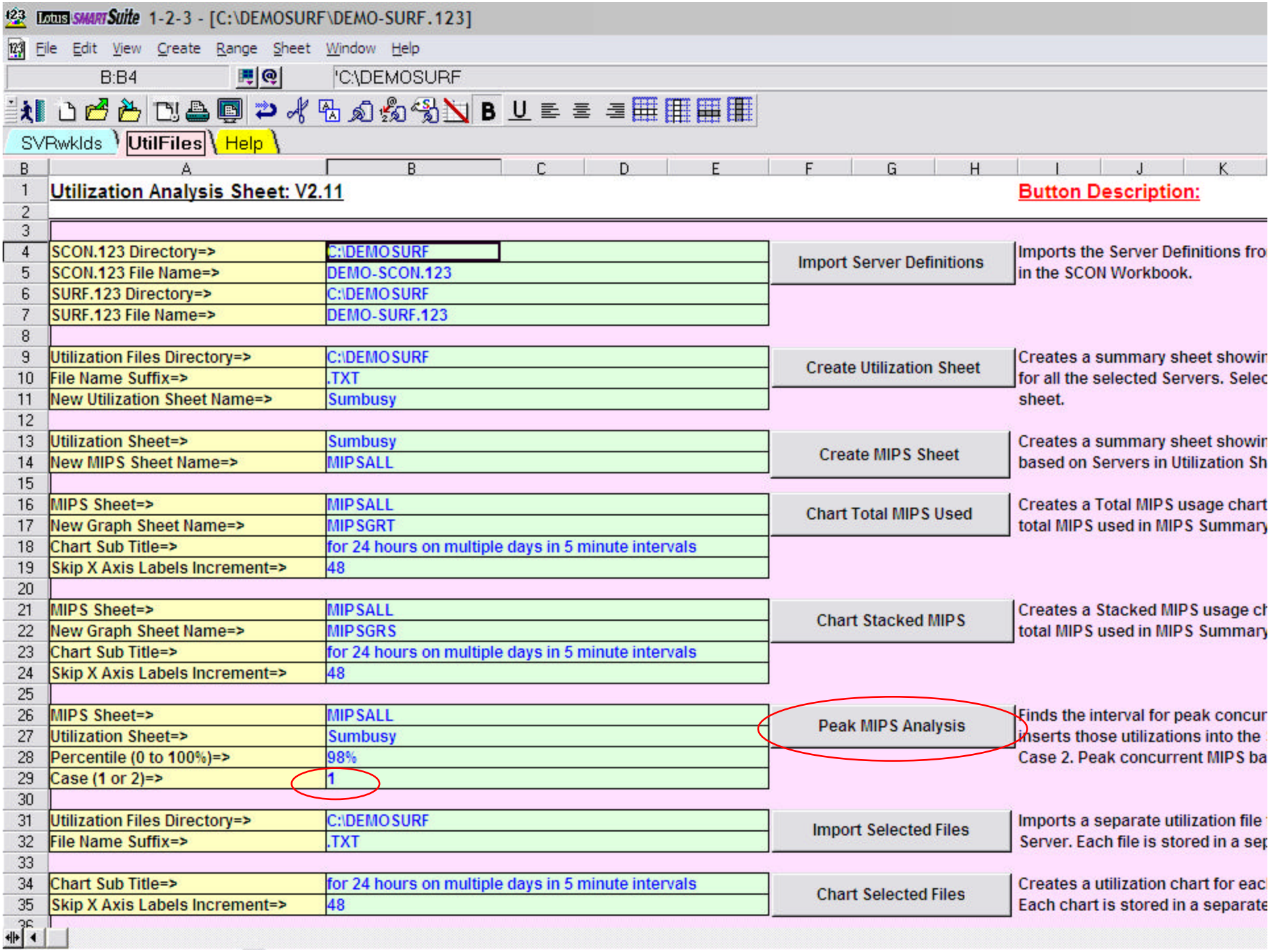
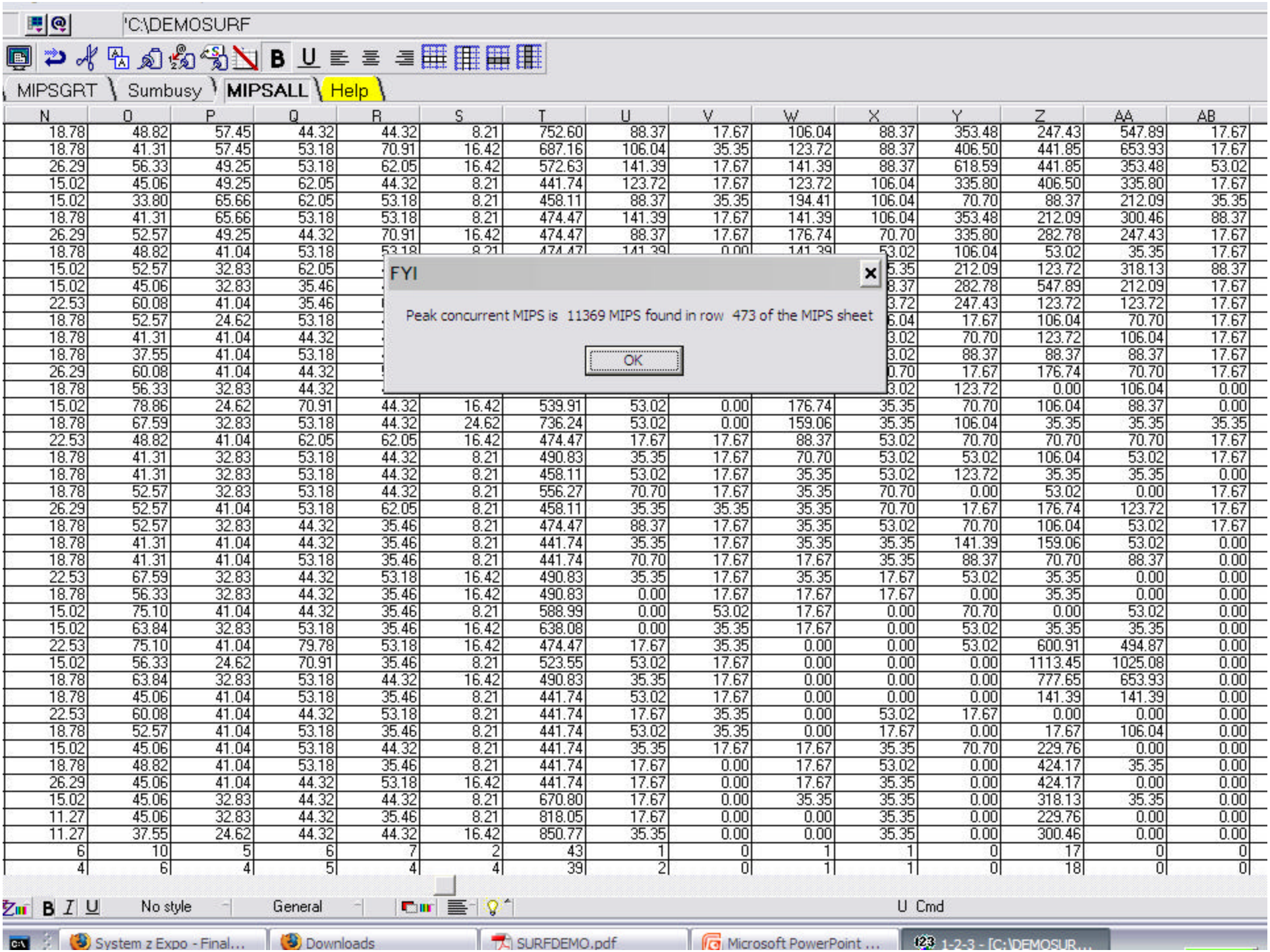


	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R
1	Date	Time	NJROS1UI	NJROS1UI	NJROS1UI	NJROS1UI	NJROS1UI	NJROS1UI	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL	PAEHOWL
2																		
3	00:05:01	00:05:01	71.60	77.11	77.11	66.10	318.55	703.48	181.77	78.95	163.96	85.02	145.75	66.80	97.16	53.09	903.09	86.01
4	00:10:01	00:10:01	38.56	38.56	38.56	33.05	252.19	650.38	286.42	72.87	133.60	78.95	145.75	54.65	60.73	39.82	888.76	57.34
5	00:15:01	00:15:01	44.06	44.06	38.56	33.05	238.92	650.38	214.81	72.87	145.75	91.09	194.33	66.80	85.02	26.55	917.43	57.34
6	00:20:01	00:20:01	38.56	38.56	44.06	33.05	238.92	597.29	192.78	78.95	115.38	66.80	157.89	60.73	60.73	39.82	974.76	71.67
7	00:25:01	00:25:01	66.10	71.60	71.60	60.59	305.28	212.37	99.14	91.09	170.04	72.87	157.89	60.73	54.65	53.09	974.76	71.67
8	00:30:01	00:30:01	44.06	38.56	38.56	33.05	238.92	132.73	104.65	54.65	145.75	54.65	170.04	60.73	72.87	39.82	903.09	71.67
9	00:35:01	00:35:01	38.56	38.56	38.56	33.05	238.92	132.73	93.64	48.58	121.45	72.87	206.47	72.87	78.95	39.82	888.76	57.34
10	00:40:01	00:40:01	38.56	38.56	38.56	33.05	252.19	146.00	71.60	54.65	103.24	91.09	170.04	54.65	60.73	26.55	874.42	57.34
11	00:45:01	00:45:01	66.10	82.62	71.60	60.59	305.28	212.37	187.27	72.87	145.75	66.80	157.89	66.80	78.95	53.09	888.76	86.01
12	00:50:01	00:50:01	44.06	38.56	38.56	33.05	238.92	132.73	132.19	54.65	121.45	97.16	133.60	48.58	72.87	39.82	860.09	57.34
13	00:55:01	00:55:01	44.06	44.06	44.06	33.05	238.92	132.73	71.60	48.58	103.24	66.80	182.18	42.51	54.65	39.82	874.42	57.34
14	01:00:01	01:00:01	38.56	44.06	44.06	33.05	252.19	132.73	110.16	54.65	97.16	66.80	121.45	48.58	54.65	39.82	845.75	57.34
15	01:05:01	01:05:01	66.10	71.60	71.60	55.08	305.28	212.37	88.13	72.87	145.75	145.75	133.60	48.58	85.02	53.09	888.76	86.01
16	01:10:01	01:10:01	44.06	38.56	44.06	38.56	345.10	132.73	71.60	48.58	121.45	66.80	115.38	48.58	115.38	39.82	845.75	57.34
17	01:15:01	01:15:01	44.06	38.56	38.56	27.54	292.01	132.73	71.60	48.58	127.53	48.58	170.04	42.51	48.58	26.55	831.42	57.34
18	01:20:01	01:20:01	38.56	44.06	44.06	88.13	278.74	146.00	77.11	48.58	85.02	54.65	145.75	36.44	54.65	39.82	845.75	57.34
19	01:25:01	01:25:01	71.60	77.11	71.60	60.59	318.55	398.19	77.11	72.87	115.38	78.95	133.60	48.58	66.80	79.64	931.76	86.01
20	01:30:01	01:30:01	44.06	38.56	44.06	33.05	265.46	159.28	77.11	54.65	85.02	54.65	139.67	36.44	54.65	79.64	888.76	86.01
21	01:35:01	01:35:01	38.56	38.56	49.57	27.54	252.19	0.00	66.10	54.65	85.02	54.65	182.18	42.51	36.44	53.09	860.09	71.67
22	01:40:01	01:40:01	38.56	71.60	38.56	38.56	252.19	0.00	82.62	78.95	163.96	60.73	115.38	36.44	60.73	39.82	845.75	57.34
23	01:45:01	01:45:01	121.18	104.65	121.18	55.08	305.28	0.00	110.16	103.24	163.96	85.02	127.53	54.65	72.87	53.09	860.09	86.01
24	01:50:01	01:50:01	55.08	38.56	44.06	33.05	252.19	0.00	55.08	54.65	97.16	42.51	121.45	42.51	48.58	39.82	845.75	57.34
25	01:55:01	01:55:01	66.10	44.06	38.56	33.05	252.19	0.00	49.57	54.65	103.24	54.65	163.96	36.44	36.44	39.82	845.75	57.34
26	02:00:00	02:00:00	71.60	49.57	44.06	33.05	252.19	199.10	60.59	48.58	109.31	48.58	127.53	36.44	42.51	39.82	831.42	57.34
27	02:05:00	02:05:00	82.62	104.65	71.60	60.59	305.28	1221.13	77.11	157.89	109.31	66.80	200.40	109.31	54.65	53.09	874.42	71.67
28	02:10:00	02:10:00	44.06	77.11	38.56	33.05	252.19	769.84	55.08	54.65	91.09	60.73	145.75	36.44	36.44	39.82	845.75	43.00
29	02:15:00	02:15:00	44.06	71.60	44.06	27.54	252.19	398.19	66.10	48.58	103.24	54.65	176.11	36.44	60.73	26.55	860.09	57.34
30	02:20:00	02:20:00	38.56	44.06	38.56	33.05	252.19	504.38	66.10	48.58	78.95	48.58	133.60	36.44	42.51	26.55	845.75	57.34
31	02:25:00	02:25:00	66.10	71.60	71.60	60.59	305.28	650.38	55.08	72.87	115.38	66.80	188.25	48.58	54.65	39.82	845.75	57.34
32	02:30:01	02:30:01	44.06	49.57	44.06	33.05	252.19	783.11	44.06	54.65	72.87	48.58	133.60	36.44	145.75	39.82	831.42	57.34
33	02:35:01	02:35:01	38.56	44.06	49.57	33.05	252.19	517.65	60.59	48.58	66.80	42.51	212.54	36.44	151.82	39.82	845.75	129.01
34	02:40:01	02:40:01	44.06	44.06	71.60	44.06	199.10	637.11	55.08	54.65	91.09	42.51	163.96	36.44	78.95	39.82	831.42	57.34
35	02:45:01	02:45:01	71.60	82.62	99.14	93.64	265.46	730.02	71.60	72.87	109.31	60.73	157.89	48.58	42.51	53.09	860.09	71.67
36	02:50:01	02:50:01	44.06	44.06	82.62	66.10	862.75	610.56	71.60	48.58	97.16	48.58	121.45	36.44	54.65	39.82	831.42	57.34
37	02:55:01	02:55:01	44.06	38.56	93.64	49.57	252.19	212.37	33.05	54.65	103.24	42.51	170.04	36.44	42.51	26.55	831.42	57.34
38	03:00:00	03:00:00	44.06	38.56	44.06	33.05	238.92	159.28	44.06	48.58	85.02	42.51	127.53	36.44	42.51	39.82	817.08	57.34
39	03:05:00	03:05:00	77.11	115.67	126.68	77.11	292.01	451.29	66.10	97.16	170.04	85.02	248.98	97.16	109.31	53.09	845.75	71.67
40	03:10:00	03:10:00	38.56	38.56	55.08	33.05	238.92	398.19	49.57	54.65	91.09	54.65	121.45	36.44	30.36	26.55	831.42	57.34
41	03:15:00	03:15:00	44.06	38.56	44.06	27.54	238.92	172.55	38.56	60.73	97.16	42.51	170.04	30.36	48.58	26.55	831.42	57.34


Lotus SMARTSuite 1-2-3 - [C:\DEMOSURF\DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
B:B4
'C:\DEMOSURF
SVPwklds
UtilFiles
Help
Utilization Analysis Sheet: V2.11
Button Description:
SCON.123 Directory=> C:\DEMOSURF
SCON.123 File Name=> DEMO-SCON.123
SURF.123 Directory=> C:\DEMOSURF
SURF.123 File Name=> DEMO-SURF.123
Import Server Definitions
Imports the Server Definitions fro
in the SCON Workbook.
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
New Utilization Sheet Name=> Sumbusy
Create Utilization Sheet
Creates a summary sheet showir
for all the selected Servers. Selec
sheet.
Utilization Sheet=> Sumbusy
New MIPS Sheet Name=> MIPSALL
Create MIPS Sheet
Creates a summary sheet showir
based on Servers in Utilization Sh
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRT
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Total MIPS Used
Creates a Total MIPS usage chart
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRS
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Stacked MIPS
Creates a Stacked MIPS usage ch
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
Utilization Sheet=> Sumbusy
Percentile (0 to 100%)=> 98%
Case (1 or 2)=> 1
Peak MIPS Analysis
Finds the interval for peak concur
inserts those utilizations into the
Case 2. Peak concurrent MIPS ba
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
Import Selected Files
Imports a separate utilization file
Server. Each file is stored in a sep
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Selected Files
Creates a utilization chart for eac
Each chart is stored in a separate


Total MIPS Consumed for All 27 Servers
for 24 hours on multiple days in 5 minute intervals
MIPS
14000
12000
10000
8000
6000
4000
2000
0
00:05:01
04:05:01
08:05:03
12:05:02
16:05:02
20:05:08
00:10:04
04:10:01
08:10:03
12:10:03
16:10:01
21:00:01
01:05:02
04:05:01
08:05:00
12:05:00
16:05:00
20:05:00
00:10:01
04:10:01
08:10:02
12:10:02
17:15:01
21:15:02
Time Of Day
Total MIPS


Lotus SMARTSuite 1-2-3 - [C:\DEMOSURF\DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
B:B4
'C:\DEMOSURF
SVPwklds
UtilFiles
Help
Utilization Analysis Sheet: V2.11
Button Description:
SCON.123 Directory=> C:\DEMOSURF
SCON.123 File Name=> DEMO-SCON.123
SURF.123 Directory=> C:\DEMOSURF
SURF.123 File Name=> DEMO-SURF.123
Import Server Definitions
Imports the Server Definitions fro
in the SCON Workbook.
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
New Utilization Sheet Name=> Sumbusy
Create Utilization Sheet
Creates a summary sheet showir
for all the selected Servers. Selec
sheet.
Utilization Sheet=> Sumbusy
New MIPS Sheet Name=> MIPSALL
Create MIPS Sheet
Creates a summary sheet showir
based on Servers in Utilization Sh
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRT
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Total MIPS Used
Creates a Total MIPS usage chart
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRS
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Stacked MIPS
Creates a Stacked MIPS usage ch
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
Utilization Sheet=> Sumbusy
Percentile (0 to 100%)=> 98%
Case (1 or 2)=> 1
Peak MIPS Analysis
Finds the interval for peak concur
inserts those utilizations into the
Case 2. Peak concurrent MIPS ba
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
Import Selected Files
Imports a separate utilization file
Server. Each file is stored in a sep
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Selected Files
Creates a utilization chart for eac
Each chart is stored in a separate



N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB
18.78	48.82	57.45	44.32	44.32	8.21	752.60	88.37	17.67	106.04	88.37	353.48	247.43	547.89	17.67
18.78	41.31	57.45	53.18	70.91	16.42	687.16	106.04	35.35	123.72	88.37	406.50	441.85	653.93	17.67
26.29	56.33	49.25	53.18	62.05	16.42	572.63	141.39	17.67	141.39	88.37	618.59	441.85	353.48	53.02
15.02	45.06	49.25	62.05	44.32	8.21	441.74	123.72	17.67	123.72	106.04	335.80	406.50	335.80	17.67
15.02	33.80	65.66	62.05	53.18	8.21	458.11	88.37	35.35	194.41	106.04	70.70	88.37	212.09	35.35
18.78	41.31	65.66	53.18	53.18	8.21	474.47	141.39	17.67	141.39	106.04	353.48	212.09	300.46	88.37
26.29	52.57	49.25	44.32	70.91	16.42	474.47	88.37	17.67	176.74	70.70	335.80	282.78	247.43	17.67
18.78	48.82	41.04	53.18	53.18	8.21	474.47	141.39	0.00	141.39	53.02	106.04	53.02	35.35	17.67
15.02	52.57	32.83	62.05							5.35	212.09	123.72	318.13	88.37
15.02	45.06	32.83	35.46							8.37	282.78	547.89	212.09	17.67
22.53	60.08	41.04	35.46							3.72	247.43	123.72	123.72	17.67
18.78	52.57	24.62	53.18							6.04	17.67	106.04	70.70	17.67
18.78	41.31	41.04	44.32							3.02	70.70	123.72	106.04	17.67
18.78	37.55	41.04	53.18							3.02	88.37	88.37	88.37	17.67
26.29	60.08	41.04	44.32							0.70	17.67	176.74	70.70	17.67
18.78	56.33	32.83	44.32							3.02	123.72	0.00	106.04	0.00
15.02	78.86	24.62	70.91	44.32	16.42	539.91	53.02	0.00	176.74	35.35	70.70	106.04	88.37	0.00
18.78	67.59	32.83	53.18	44.32	24.62	736.24	53.02	0.00	159.06	35.35	106.04	35.35	35.35	35.35
22.53	48.82	41.04	62.05	62.05	16.42	474.47	17.67	17.67	88.37	53.02	70.70	70.70	70.70	17.67
18.78	41.31	32.83	53.18	44.32	8.21	490.83	35.35	17.67	70.70	53.02	53.02	106.04	53.02	17.67
18.78	41.31	32.83	53.18	44.32	8.21	458.11	53.02	17.67	35.35	53.02	123.72	35.35	35.35	0.00
18.78	52.57	32.83	53.18	44.32	8.21	556.27	70.70	17.67	35.35	70.70	0.00	53.02	0.00	17.67
26.29	52.57	41.04	53.18	62.05	8.21	458.11	35.35	35.35	35.35	70.70	17.67	176.74	123.72	17.67
18.78	52.57	32.83	44.32	35.46	8.21	474.47	88.37	17.67	35.35	53.02	70.70	106.04	53.02	17.67
18.78	41.31	41.04	44.32	35.46	8.21	441.74	35.35	17.67	35.35	35.35	141.39	159.06	53.02	0.00
18.78	41.31	41.04	53.18	35.46	8.21	441.74	70.70	17.67	17.67	35.35	88.37	70.70	88.37	0.00
22.53	67.59	32.83	44.32	53.18	16.42	490.83	35.35	17.67	35.35	17.67	53.02	35.35	0.00	0.00
18.78	56.33	32.83	44.32	35.46	16.42	490.83	0.00	17.67	17.67	17.67	0.00	35.35	0.00	0.00
15.02	75.10	41.04	44.32	35.46	8.21	588.99	0.00	53.02	17.67	0.00	70.70	0.00	53.02	0.00
15.02	63.84	32.83	53.18	35.46	16.42	638.08	0.00	35.35	17.67	0.00	53.02	35.35	35.35	0.00
22.53	75.10	41.04	79.78	53.18	16.42	474.47	17.67	35.35	0.00	0.00	53.02	600.91	494.87	0.00
15.02	56.33	24.62	70.91	35.46	8.21	523.55	53.02	17.67	0.00	0.00	0.00	1113.45	1025.08	0.00
18.78	63.84	32.83	53.18	44.32	16.42	490.83	35.35	17.67	0.00	0.00	0.00	777.65	653.93	0.00
18.78	45.06	41.04	53.18	35.46	8.21	441.74	53.02	17.67	0.00	0.00	0.00	141.39	141.39	0.00
22.53	60.08	41.04	44.32	53.18	8.21	441.74	17.67	35.35	0.00	53.02	17.67	0.00	0.00	0.00
18.78	52.57	41.04	53.18	35.46	8.21	441.74	53.02	35.35	0.00	17.67	0.00	17.67	106.04	0.00
15.02	45.06	41.04	53.18	44.32	8.21	441.74	35.35	17.67	17.67	35.35	70.70	229.76	0.00	0.00
18.78	48.82	41.04	53.18	35.46	8.21	441.74	17.67	0.00	17.67	53.02	0.00	424.17	35.35	0.00
26.29	45.06	41.04	44.32	53.18	16.42	441.74	17.67	0.00	17.67	35.35	0.00	424.17	0.00	0.00
15.02	45.06	32.83	44.32	44.32	8.21	670.80	17.67	0.00	35.35	35.35	0.00	318.13	35.35	0.00
11.27	45.06	32.83	44.32	35.46	8.21	818.05	17.67	0.00	0.00	35.35	0.00	229.76	0.00	0.00
11.27	37.55	24.62	44.32	44.32	16.42	850.77	35.35	0.00	0.00	35.35	0.00	300.46	0.00	0.00
6	10	5	6	7	2	43	1	0	1	1	0	17	0	0
4	6	4	5	4	4	39	2	0	1	1	0	18	0	0

EMOSURF\DEMO-SCON.123]

Sheet Window Help

@IF($Calcs:$C13,@INDEX($MAIN_TABLE,$Calcs:$AL$3,Calcs:$C13),"")

inputs | DELL | FJS | HPQ | IBM | SUN | UserDef | WKLDscalar | **SVRwklds** | SVRcoc | CPUsummary | CPUutilization | CPUlist

and IBM System z Capacity Projections

Workload Summary JAN-2008B04 03/04

Processor Selection Guide for IBM System z

pacity projections,
derived from

onal
lysis Report V2
com

SCON (Server Consolidation Tool)

Linux / Unix Server Consolidation

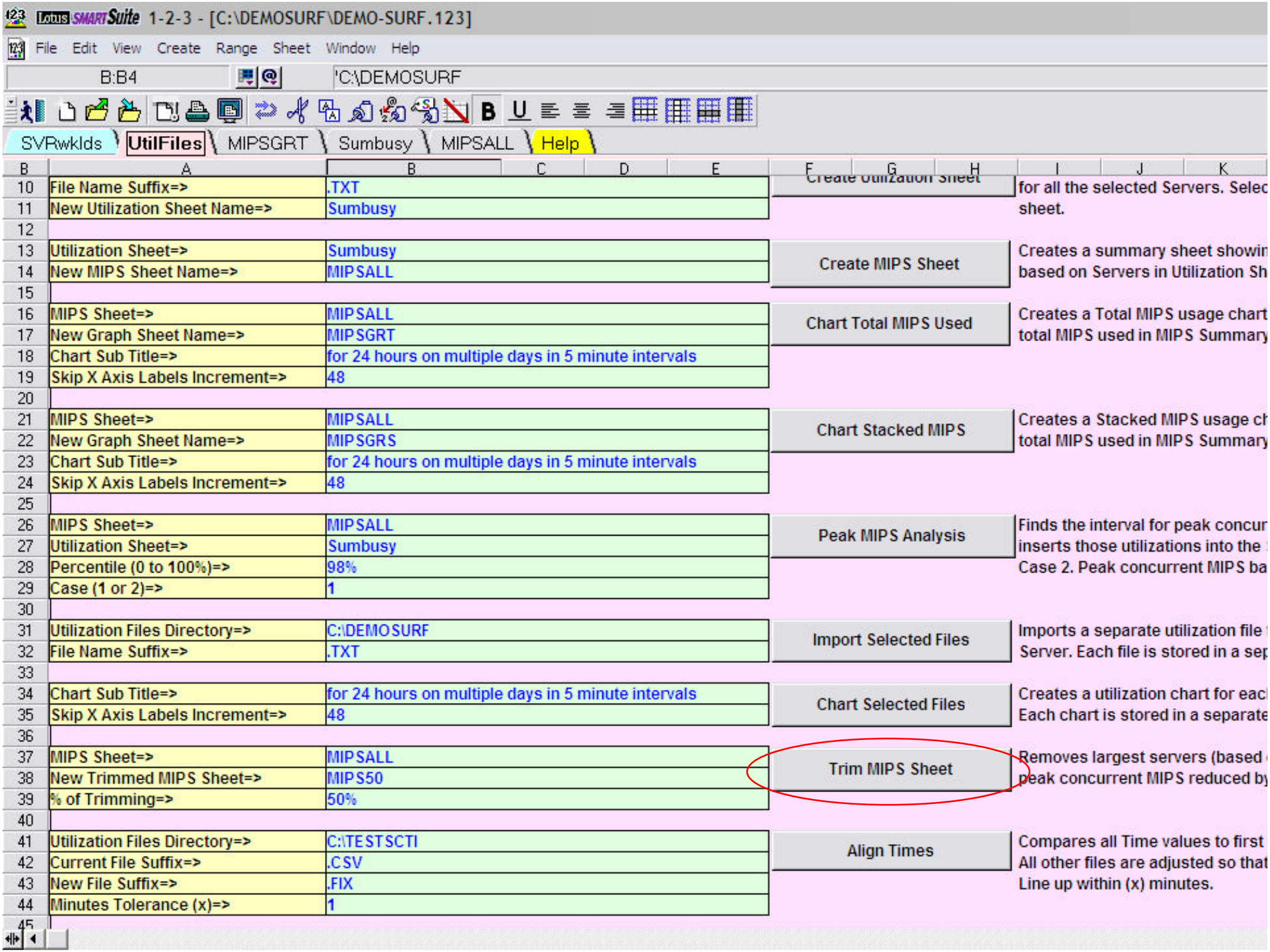
XYZ Corp: Consolidating 27 servers (27 applications)

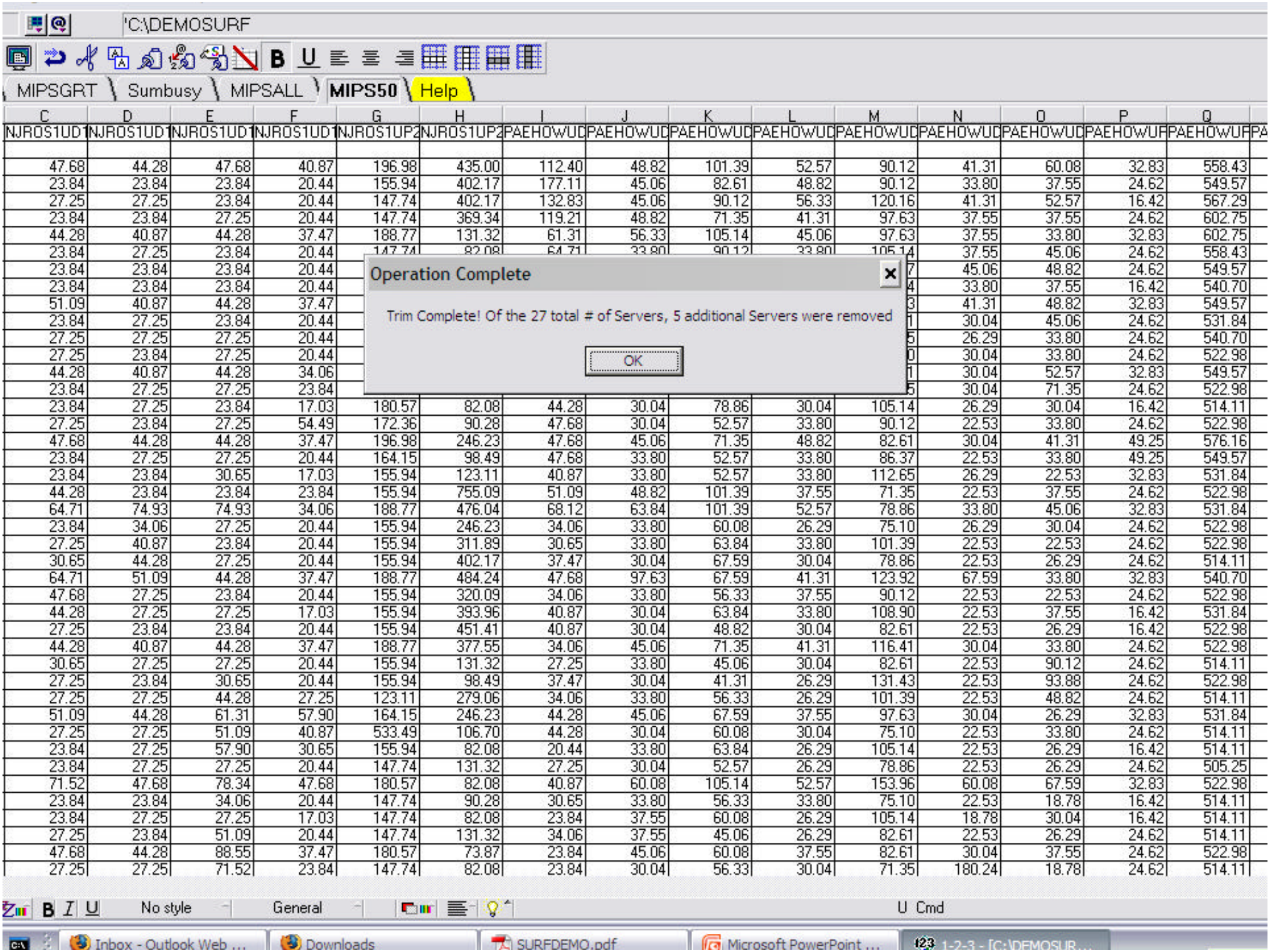
Capacity values derived from z/OS-1.6 LSPR data (04/27/2006)
Capacity values are relative to a 2094-701 assumed to be 602 MIPS

Copy to Clipboard

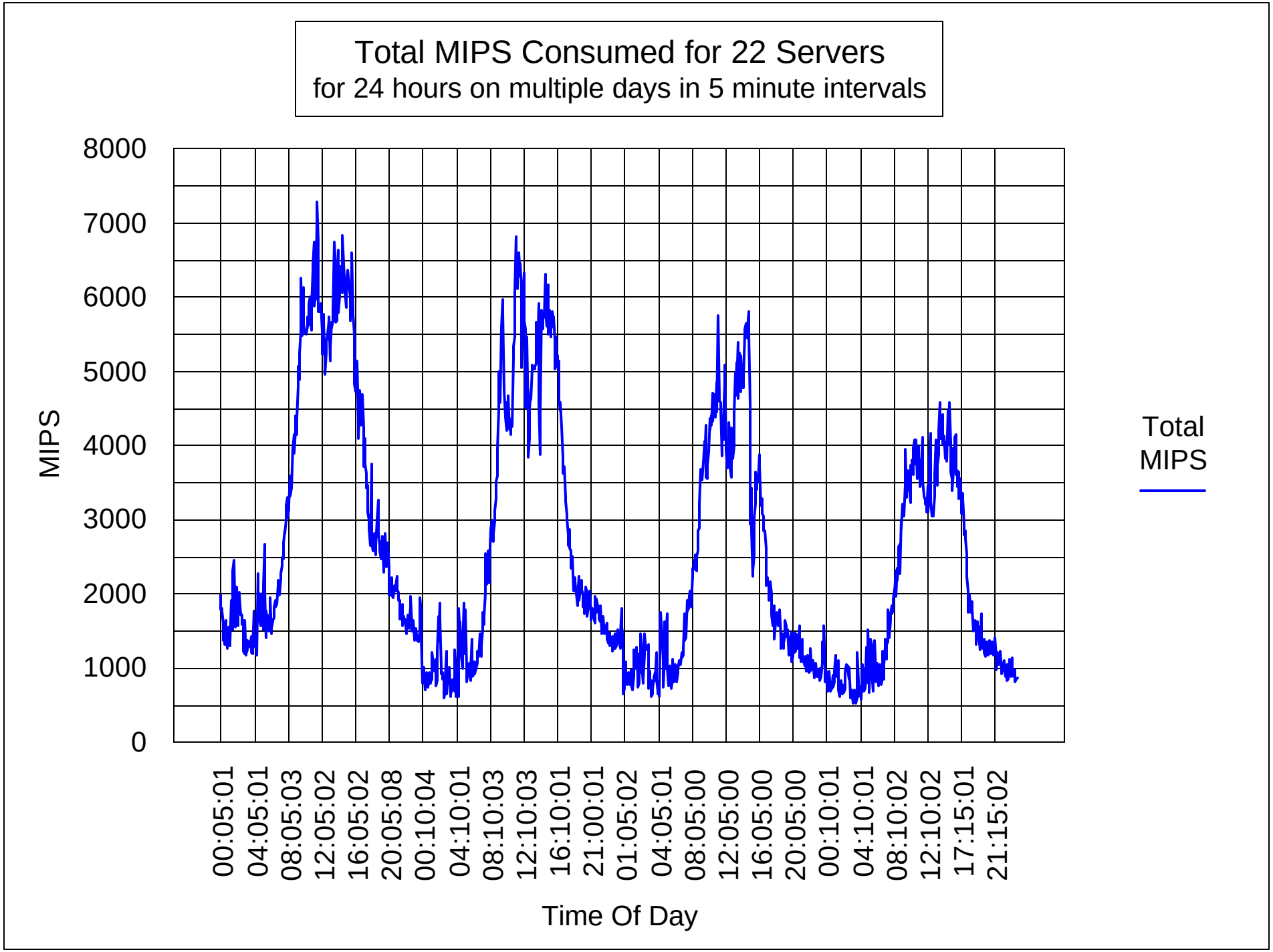
OEM Server Workloads Considered for Consolidation onto IBM System z Processors

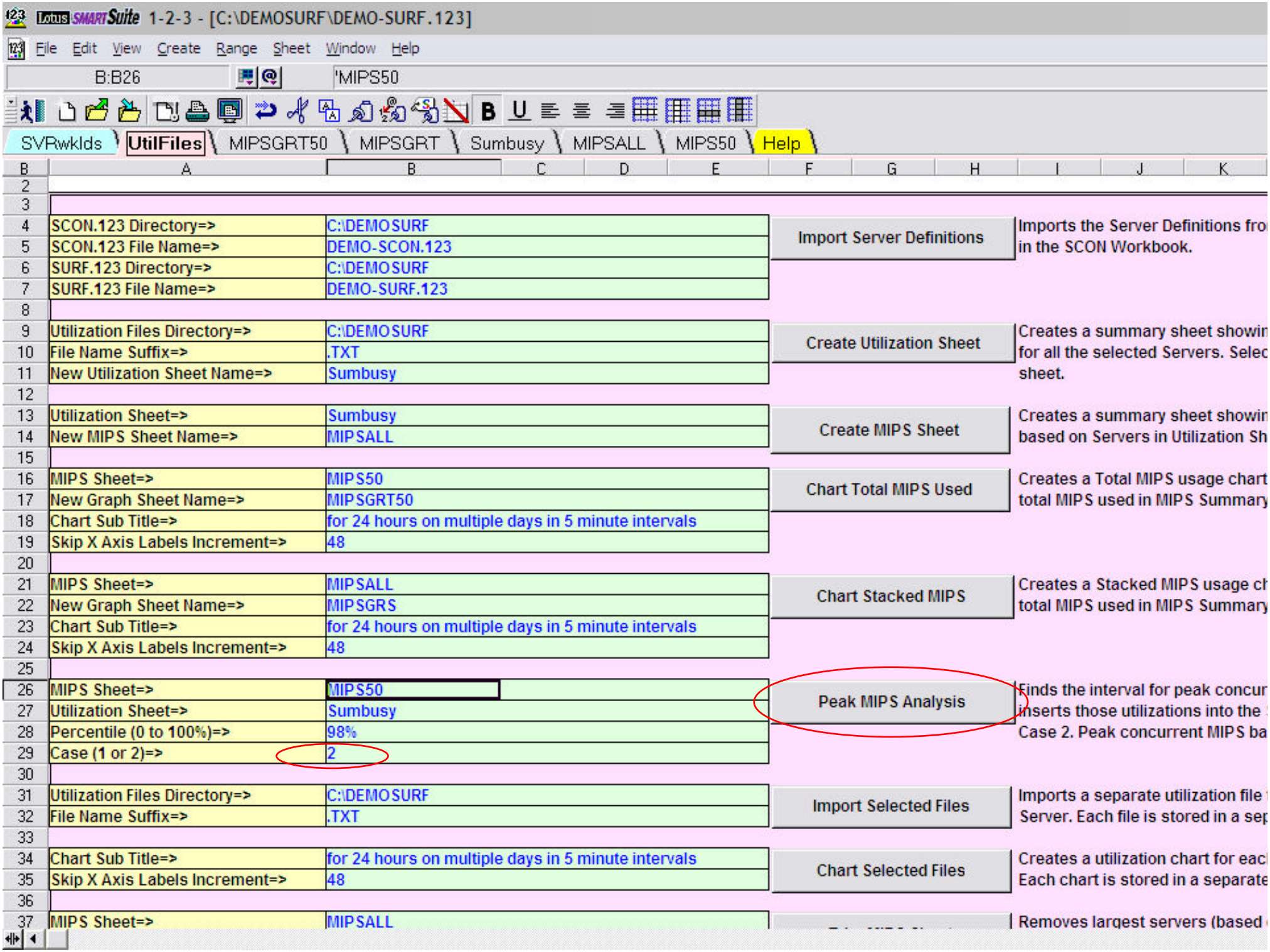
Server Identification						Workload		Scalar	Peak Capacity			
Vendor	Family	Model	Processor	Chips	Cores	No	Description	Value	Case 1		Case	
Capacity basis for "Average Utilization" (peaks are Complementary)								Peak	3,669		4	
Capacity basis for "Maximum Utilization" (peaks are concurrent)								Sum of Peaks	11,370		17	
IBM	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	8.0%	27	65.0%	
IBM	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	8.0%	27	65.0%	
IBM	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	10.0%	34	65.0%	
IBM	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	8.0%	27	65.0%	
IBM	eServer p5	550 Express	1.5GHz-36MB	1	2	33	DB: Production	0.75	68.0%	558	65.0%	
IBM	eServer p5	550 Express	1.5GHz-36MB	1	2	33	DB: Production	0.75	15.0%	123	65.0%	
IBM	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	27.0%	92	65.0%	
IBM	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	34.0%	128	65.0%	
IBM	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	39.0%	146	65.0%	
IBM	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	24.0%	90	65.0%	
IBM	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	55.0%	207	65.0%	
IBM	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	30.0%	113	65.0%	
IBM	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	22.0%	83	65.0%	
IBM	eServer p5	550 Express	1.5GHz-36MB	1	2	33	DB: Production	0.75	2.0%	16	65.0%	
IBM	eServer p5	510	1.65GHz-36MB	1	2	33	DB: Production	0.75	75.0%	665	65.0%	
IBM	eServer p5	510	1.65GHz-36MB	1	2	33	DB: Production	0.75		293		

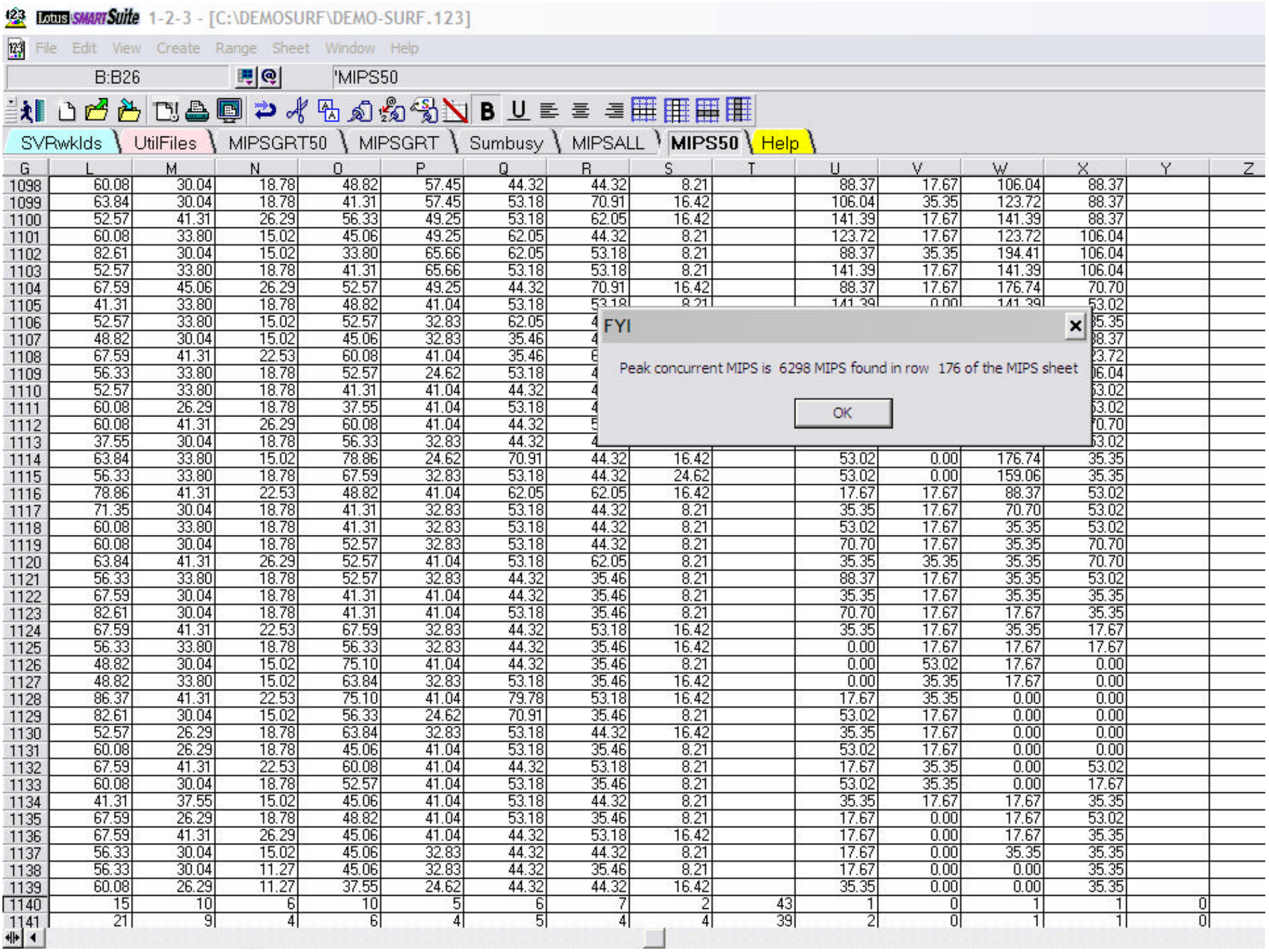

Lotus SMARTSuite 1-2-3 - [C:\DEMOSURF\DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
B:B4
'C:\DEMOSURF
SVRwklds UtilFiles MIPSGRT Sumbusy MIPSALL Help
File Name Suffix=> .TXT
New Utilization Sheet Name=> Sumbusy
Utilization Sheet=> Sumbusy
New MIPS Sheet Name=> MIPSALL
Create MIPS Sheet
Creates a summary sheet showin
based on Servers in Utilization Sh
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRT
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Total MIPS Used
Creates a Total MIPS usage chart
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRS
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Stacked MIPS
Creates a Stacked MIPS usage ch
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
Utilization Sheet=> Sumbusy
Percentile (0 to 100%)=> 98%
Case (1 or 2)=> 1
Peak MIPS Analysis
Finds the interval for peak concur
inserts those utilizations into the
Case 2. Peak concurrent MIPS ba
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
Import Selected Files
Imports a separate utilization file
Server. Each file is stored in a sep
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Selected Files
Creates a utilization chart for eac
Each chart is stored in a separate
MIPS Sheet=> MIPSALL
New Trimmed MIPS Sheet=> MIPS50
% of Trimming=> 50%
Trim MIPS Sheet
Removes largest servers (based
peak concurrent MIPS reduced by
Utilization Files Directory=> C:\TESTSCTI
Current File Suffix=> .CSV
New File Suffix=> .FIX
Minutes Tolerance (x)=> 1
Align Times
Compares all Time values to first
All other files are adjusted so that
Line up within (x) minutes.



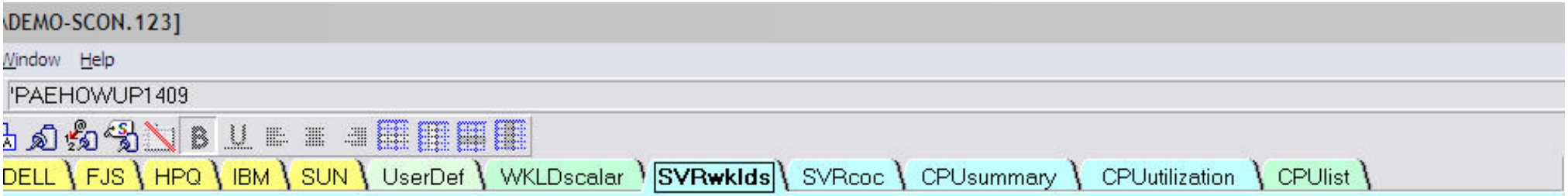
C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
NJROS1UD1	NJROS1UD1	NJROS1UD1	NJROS1UD1	NJROS1UP2	NJROS1UP2	PAEHOWUD	PAEHOWUD	PAEHOWUD	PAEHOWUD	PAEHOWUD	PAEHOWUD	PAEHOWUD	PAEHOWUP	PAEHOWUP
47.68	44.28	47.68	40.87	196.98	435.00	112.40	48.82	101.39	52.57	90.12	41.31	60.08	32.83	558.43
23.84	23.84	23.84	20.44	155.94	402.17	177.11	45.06	82.61	48.82	90.12	33.80	37.55	24.62	549.57
27.25	27.25	23.84	20.44	147.74	402.17	132.83	45.06	90.12	56.33	120.16	41.31	52.57	16.42	567.29
23.84	23.84	27.25	20.44	147.74	369.34	119.21	48.82	71.35	41.31	97.63	37.55	37.55	24.62	602.75
44.28	40.87	44.28	37.47	188.77	131.32	61.31	56.33	105.14	45.06	97.63	37.55	33.80	32.83	602.75
23.84	27.25	23.84	20.44	147.74	82.08	64.71	33.80	90.12	33.80	105.14	37.55	45.06	24.62	558.43
23.84	23.84	23.84	20.44								7	45.06	48.82	24.62	549.57
23.84	23.84	23.84	20.44								4	33.80	37.55	16.42	540.70
51.09	40.87	44.28	37.47								3	41.31	48.82	32.83	549.57
23.84	27.25	23.84	20.44								1	30.04	45.06	24.62	531.84
27.25	27.25	27.25	20.44								5	26.29	33.80	24.62	540.70
27.25	23.84	27.25	20.44								0	30.04	33.80	24.62	522.98
44.28	40.87	44.28	34.06								1	30.04	52.57	32.83	549.57
23.84	27.25	27.25	23.84								5	30.04	71.35	24.62	522.98
23.84	27.25	23.84	17.03	180.57	82.08	44.28	30.04	78.86	30.04	105.14	26.29	30.04	16.42	514.11
27.25	23.84	27.25	54.49	172.36	90.28	47.68	30.04	52.57	33.80	90.12	22.53	33.80	24.62	522.98
47.68	44.28	44.28	37.47	196.98	246.23	47.68	45.06	71.35	48.82	82.61	30.04	41.31	49.25	576.16
23.84	27.25	27.25	20.44	164.15	98.49	47.68	33.80	52.57	33.80	86.37	22.53	33.80	49.25	549.57
23.84	23.84	30.65	17.03	155.94	123.11	40.87	33.80	52.57	33.80	112.65	26.29	22.53	32.83	531.84
44.28	23.84	23.84	23.84	155.94	755.09	51.09	48.82	101.39	37.55	71.35	22.53	37.55	24.62	522.98
64.71	74.93	74.93	34.06	188.77	476.04	68.12	63.84	101.39	52.57	78.86	33.80	45.06	32.83	531.84
23.84	34.06	27.25	20.44	155.94	246.23	34.06	33.80	60.08	26.29	75.10	26.29	30.04	24.62	522.98
27.25	40.87	23.84	20.44	155.94	311.89	30.65	33.80	63.84	33.80	101.39	22.53	22.53	24.62	522.98
30.65	44.28	27.25	20.44	155.94	402.17	37.47	30.04	67.59	30.04	78.86	22.53	26.29	24.62	514.11
64.71	51.09	44.28	37.47	188.77	484.24	47.68	97.63	67.59	41.31	123.92	67.59	33.80	32.83	540.70
47.68	27.25	23.84	20.44	155.94	320.09	34.06	33.80	56.33	37.55	90.12	22.53	22.53	24.62	522.98
44.28	27.25	27.25	17.03	155.94	393.96	40.87	30.04	63.84	33.80	108.90	22.53	37.55	16.42	531.84
27.25	23.84	23.84	20.44	155.94	451.41	40.87	30.04	48.82	30.04	82.61	22.53	26.29	16.42	522.98
44.28	40.87	44.28	37.47	188.77	377.55	34.06	45.06	71.35	41.31	116.41	30.04	33.80	24.62	522.98
30.65	27.25	27.25	20.44	155.94	131.32	27.25	33.80	45.06	30.04	82.61	22.53	90.12	24.62	514.11
27.25	23.84	30.65	20.44	155.94	98.49	37.47	30.04	41.31	26.29	131.43	22.53	93.88	24.62	522.98
27.25	27.25	44.28	27.25	123.11	279.06	34.06	33.80	56.33	26.29	101.39	22.53	48.82	24.62	514.11
51.09	44.28	61.31	57.90	164.15	246.23	44.28	45.06	67.59	37.55	97.63	30.04	26.29	32.83	531.84
27.25	27.25	51.09	40.87	533.49	106.70	44.28	30.04	60.08	30.04	75.10	22.53	33.80	24.62	514.11
23.84	27.25	57.90	30.65	155.94	82.08	20.44	33.80	63.84	26.29	105.14	22.53	26.29	16.42	514.11
23.84	27.25	27.25	20.44	147.74	131.32	27.25	30.04	52.57	26.29	78.86	22.53	26.29	24.62	505.25
71.52	47.68	78.34	47.68	180.57	82.08	40.87	60.08	105.14	52.57	153.96	60.08	67.59	32.83	522.98
23.84	23.84	34.06	20.44	147.74	90.28	30.65	33.80	56.33	33.80	75.10	22.53	18.78	16.42	514.11
23.84	27.25	27.25	17.03	147.74	82.08	23.84	37.55	60.08	26.29	105.14	18.78	30.04	16.42	514.11
27.25	23.84	51.09	20.44	147.74	131.32	34.06	37.55	45.06	26.29	82.61	22.53	26.29	24.62	514.11
47.68	44.28	88.55	37.47	180.57	73.87	23.84	45.06	60.08	37.55	82.61	30.04	37.55	24.62	522.98
27.25	27.25	71.52	23.84	147.74	82.08	23.84	30.04	56.33	30.04	71.35	180.24	18.78	24.62	514.11


Total MIPS Consumed for 22 Servers
for 24 hours on multiple days in 5 minute intervals
MIPS
8000
7000
6000
5000
4000
3000
2000
1000
0
00:05:01
04:05:01
08:05:03
12:05:02
16:05:02
20:05:08
00:10:04
04:10:01
08:10:03
12:10:03
16:10:01
21:00:01
01:05:02
04:05:01
08:05:00
12:05:00
16:05:00
20:05:00
00:10:01
04:10:01
08:10:02
12:10:02
17:15:01
21:15:02
Time Of Day
Total MIPS


Lotus SMARTSuite 1-2-3 - [C:\DEMOSURF\DEMO-SURF.123]
File Edit View Create Range Sheet Window Help
B:B26
'MIPS50
SVRwklds UtilFiles MIPSGRT50 MIPSGRT Sumbusy MIPSALL MIPS50 Help
SCON.123 Directory=> C:\DEMOSURF
SCON.123 File Name=> DEMO-SCON.123
SURF.123 Directory=> C:\DEMOSURF
SURF.123 File Name=> DEMO-SURF.123
Import Server Definitions
Imports the Server Definitions fro
in the SCON Workbook.
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
New Utilization Sheet Name=> Sumbusy
Create Utilization Sheet
Creates a summary sheet showin
for all the selected Servers. Selec
sheet.
Utilization Sheet=> Sumbusy
New MIPS Sheet Name=> MIPSALL
Create MIPS Sheet
Creates a summary sheet showin
based on Servers in Utilization Sh
MIPS Sheet=> MIPS50
New Graph Sheet Name=> MIPSGRT50
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Total MIPS Used
Creates a Total MIPS usage chart
total MIPS used in MIPS Summary
MIPS Sheet=> MIPSALL
New Graph Sheet Name=> MIPSGRS
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Stacked MIPS
Creates a Stacked MIPS usage ch
total MIPS used in MIPS Summary
MIPS Sheet=> MIPS50
Utilization Sheet=> Sumbusy
Percentile (0 to 100%)=> 98%
Case (1 or 2)=> 2
Peak MIPS Analysis
Finds the interval for peak concur
inserts those utilizations into the
Case 2. Peak concurrent MIPS ba
Utilization Files Directory=> C:\DEMOSURF
File Name Suffix=> .TXT
Import Selected Files
Imports a separate utilization file
Server. Each file is stored in a sep
Chart Sub Title=> for 24 hours on multiple days in 5 minute intervals
Skip X Axis Labels Increment=> 48
Chart Selected Files
Creates a utilization chart for eac
Each chart is stored in a separate
MIPS Sheet=> MIPSALL
Removes largest servers (based



	G	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
1098		60.08	30.04	18.78	48.82	57.45	44.32	44.32	8.21		88.37	17.67	106.04	88.37		
1099		63.84	30.04	18.78	41.31	57.45	53.18	70.91	16.42		106.04	35.35	123.72	88.37		
1100		52.57	41.31	26.29	56.33	49.25	53.18	62.05	16.42		141.39	17.67	141.39	88.37		
1101		60.08	33.80	15.02	45.06	49.25	62.05	44.32	8.21		123.72	17.67	123.72	106.04		
1102		82.61	30.04	15.02	33.80	65.66	62.05	53.18	8.21		88.37	35.35	194.41	106.04		
1103		52.57	33.80	18.78	41.31	65.66	53.18	53.18	8.21		141.39	17.67	141.39	106.04		
1104		67.59	45.06	26.29	52.57	49.25	44.32	70.91	16.42		88.37	17.67	176.74	70.70		
1105		41.31	33.80	18.78	48.82	41.04	53.18	53.18	8.21		141.39	0.00	141.39	53.02		
1106		52.57	33.80	15.02	52.57	32.83	62.05	4						35.35		
1107		48.82	30.04	15.02	45.06	32.83	35.46	4						88.37		
1108		67.59	41.31	22.53	60.08	41.04	35.46	6						3.72		
1109		56.33	33.80	18.78	52.57	24.62	53.18	4						06.04		
1110		52.57	33.80	18.78	41.31	41.04	44.32	4						53.02		
1111		60.08	26.29	18.78	37.55	41.04	53.18	4						53.02		
1112		60.08	41.31	26.29	60.08	41.04	44.32	5						70.70		
1113		37.55	30.04	18.78	56.33	32.83	44.32	4						53.02		
1114		63.84	33.80	15.02	78.86	24.62	70.91	44.32	16.42		53.02	0.00	176.74	35.35		
1115		56.33	33.80	18.78	67.59	32.83	53.18	44.32	24.62		53.02	0.00	159.06	35.35		
1116		78.86	41.31	22.53	48.82	41.04	62.05	62.05	16.42		17.67	17.67	88.37	53.02		
1117		71.35	30.04	18.78	41.31	32.83	53.18	44.32	8.21		35.35	17.67	70.70	53.02		
1118		60.08	33.80	18.78	41.31	32.83	53.18	44.32	8.21		53.02	17.67	35.35	53.02		
1119		60.08	30.04	18.78	52.57	32.83	53.18	44.32	8.21		70.70	17.67	35.35	70.70		
1120		63.84	41.31	26.29	52.57	41.04	53.18	62.05	8.21		35.35	35.35	35.35	70.70		
1121		56.33	33.80	18.78	52.57	32.83	44.32	35.46	8.21		88.37	17.67	35.35	53.02		
1122		67.59	30.04	18.78	41.31	41.04	44.32	35.46	8.21		35.35	17.67	35.35	35.35		
1123		82.61	30.04	18.78	41.31	41.04	53.18	35.46	8.21		70.70	17.67	17.67	35.35		
1124		67.59	41.31	22.53	67.59	32.83	44.32	53.18	16.42		35.35	17.67	35.35	17.67		
1125		56.33	33.80	18.78	56.33	32.83	44.32	35.46	16.42		0.00	17.67	17.67	17.67		
1126		48.82	30.04	15.02	75.10	41.04	44.32	35.46	8.21		0.00	53.02	17.67	0.00		
1127		48.82	33.80	15.02	63.84	32.83	53.18	35.46	16.42		0.00	35.35	17.67	0.00		
1128		86.37	41.31	22.53	75.10	41.04	79.78	53.18	16.42		17.67	35.35	0.00	0.00		
1129		82.61	30.04	15.02	56.33	24.62	70.91	35.46	8.21		53.02	17.67	0.00	0.00		
1130		52.57	26.29	18.78	63.84	32.83	53.18	44.32	16.42		35.35	17.67	0.00	0.00		
1131		60.08	26.29	18.78	45.06	41.04	53.18	35.46	8.21		53.02	17.67	0.00	0.00		
1132		67.59	41.31	22.53	60.08	41.04	44.32	53.18	8.21		17.67	35.35	0.00	53.02		
1133		60.08	30.04	18.78	52.57	41.04	53.18	35.46	8.21		53.02	35.35	0.00	17.67		
1134		41.31	37.55	15.02	45.06	41.04	53.18	44.32	8.21		35.35	17.67	17.67	35.35		
1135		67.59	26.29	18.78	48.82	41.04	53.18	35.46	8.21		17.67	0.00	17.67	53.02		
1136		67.59	41.31	26.29	45.06	41.04	44.32	53.18	16.42		17.67	0.00	17.67	35.35		
1137		56.33	30.04	15.02	45.06	32.83	44.32	44.32	8.21		17.67	0.00	35.35	35.35		
1138		56.33	30.04	11.27	45.06	32.83	44.32	35.46	8.21		17.67	0.00	0.00	35.35		
1139		60.08	26.29	11.27	37.55	24.62	44.32	44.32	16.42		35.35	0.00	0.00	35.35		
1140		15	10	6	10	5	6	7	2	43	1	0	1	1	0	
1141		21	9	4	6	4	5	4	4	39	2	0	1	1	0	



System z Capacity Projections

d Summary JAN-2008B04 03/04/2008

Processor Selection Guide for IBM System z

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SCON (Server Consolidation Tool)

Linux / Unix Server Consolidation

XYZ Corp: Consolidating 27 servers (27 applications)

Capacity values derived from z/OS-1.6 LSPR data (04/27/2006)
Capacity values are relative to a 2094-701 assumed to be 602 MIPS

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OEM Server Workloads Considered for Consolidation onto IBM System z Processors

Server Identification					Workload		Scalar	Peak Capacity			
or	Family	Model	Processor	Chips	Cores	No	Description	Value	Case 1		Case 2	
			Capacity basis for "Average Utilization" (peaks are Complementary)					Peak	3,669		3,112	
			Capacity basis for "Maximum Utilization" (peaks are concurrent)					Sum of Peaks	11,370		6,298	
	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	8.0%	27	100.0%	341
	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	8.0%	27	8.0%	27
	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	10.0%	34	14.0%	48
	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	8.0%	27	9.0%	31
	eServer p5	550 Express	1.5GHz-36MB	1	2	33	DB: Production	0.75	68.0%	558	19.0%	156
	eServer p5	550 Express	1.5GHz-36MB	1	2	33	DB: Production	0.75	15.0%	123	11.0%	90
	pSeries	615-6C3	1.2GHz-8MB	1	2	33	DB: Production	0.75	27.0%	92	61.0%	208
	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	34.0%	128	36.0%	135
	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	39.0%	146	35.0%	131
	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	24.0%	90	30.0%	113
	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	55.0%	207	45.0%	169
	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	30.0%	113	33.0%	124
	pSeries	615-6C3	1.45GHz-8MB	1	2	33	DB: Production	0.75	22.0%	83	25.0%	94
	eServer p5	550 Express	1.5GHz-36MB	1	2	33	DB: Production	0.75	2.0%	16	2.0%	16
	eServer p5	510	1.65GHz-36MB	1	2	33	DB: Production	0.75	75.0%	665	83.0%	736
	eServer p5	510	1.65GHz-36MB	1	2	33	DB: Production	0.75		293		222

port 2: Capacity Summary for IBM System z

SG - Server Consolidation: Summary Report JAN-2008B04 03/04/2008

e Help

Processor Selection Guide for IBM System z

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XYZ Corp: Consolidating 27 servers (27 applications)

Capacity values derived from z/OS-1.6 LSPR data (04/27/2006)
Capacity values are relative to a 2094-701 assumed to be 602 MIPS

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	Case 1		Case 2	
	Complementary Peaks	Concurrent Peaks	Complementary Peaks	Concurrent Peaks
System z9 BC				
Processor model	None	None	None	None
Feature				
Capacity rating (MIPS)				
Projected utilization	n/a	n/a	n/a	n/a
System z9 EC				
Processor model	2094-710	2094-743	2094-708	2094-718
Feature	10W	43W	8W	18W
Capacity rating (MIPS)	4,957	13,738	4,130	7,699
Projected utilization	82.6%	89.6%	84.5%	89.6%
System z10 EC				
Processor model	2097-512	2097-722	2097-510	2097-711
Feature	12W	22W	10W	11W
Capacity rating (MIPS)	4,671	13,800	4,011	8,188
Projected utilization	87.3%	89.3%	86.6%	85.7%