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IBM mySAP.com **Sizing and Planning Questionnaire**

Send completed questionnaire to	either your local IBM contact or:
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North and South America	IBM Americas Techline Solutions Sizing
by E-mail	eSizings@us.ibm.com
or Fax	+1 770 659 5245
Europe, Middle East, and Africa	IBM EMEA Techline / ISICC
IBMers send file to and then raise Techline Request through BPs send file to and then raise Techline Request through	ERPEMEA@it.ibm.com http://w3-5.ibm.com/support/emea/techline ERPEMEA@it.ibm.com PartnerInfo/PartnerLine
Others by E-mail	isicc@de.ibm.com
Asia, Pacific	IBM SAP International Competence Center
by E-mail	isicc@de.ibm.com
or Fax	+49 6227 73 1052

For more information about IBM mySAP.com solutions, go to http://www.ibm.com/erp/sap

For online entry of data from this questionnaire, go to

http://service.sap.com

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1.0 INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

Before completing the questionnaire, read the *Important Notes* on the next several pages. Then follow the steps below.

- 1. Read all of the Important Notes.
- 2. Complete the general sizing questions, providing special notes or comments about your mySAP.com project. (Section 4)
- 3. Complete the SAP user-based sizing questions. (Section 5)
- 4. Optional: Complete the SAP quantity structure-based sizing questions. (Section 6)
- 5. Return the questionnaire to IBM, or, enter the data directly into the QuickSizer at web address: http://service.sap.com (you will need an OSS User ID and an SAP customer number which you can get from your local SAP representative).

2.0 IMPORTANT NOTES

2.1 Purpose of the Questionnaire

The purpose of this questionnaire is to collect information that will be used to estimate the IBM hardware resources required to run the basic mySAP.com application suite on S/390/zSeries, AS/400/iSeries, RS/6000/pSeries, Netfinity/xSeries or mixed environments. The sizing estimate results will include recommendations for CPU(s), memory, and disk. In addition, information from the sizing questionnaire may be used by an IBM sales representative or business partner to develop an IBM hardware configuration to support the proposed mySAP.com installation.

2.2 What is a Sizing Estimate?

A sizing estimate is an approximation of the hardware resources required to support a mySAP.com implementation. It is a <u>pre-sales effort based on information available at a point in time, providing an entry into understanding the customer's hardware requirements. Customers' actual experiences will vary from the sizing estimate for many reasons, including batch and reporting workloads, and custom code. The degree of variability can range from small to very significant.</u>

Most likely, there will be software, server, and network requirements that are not addressed by this sizing estimate. For example, many mySAP.com installations run software for systems management, EDI translation, file transfer, help desk management, etc. To determine the complete hardware and software configuration required for your mySAP.com implementation, we recommend that you work with an mySAP.com specialist who will help you to develop the overall system architecture.

Sizing the hardware requirements for each customer's mySAP.com implementation is an *iterative process*, which may be refined and repeated a number of times. If you are in the early stages of planning, you will probably have limited information about your planned mySAP.com environment. In this case, we can complete the sizing estimate with general information about the numbers of users your IBM mySAP.com system needs to support. When you are further along in your mySAP.com implementation planning, you will know more about mySAP.com, the mySAP.com applications you plan to use, and your potential mySAP.com transaction activity. At that time, you may request another sizing estimate based on more detailed information. In any case, after receiving the results of a sizing estimate, you may choose to revise your input and request a re-sizing.

It is important to understand that the sizing estimate is a pre-sales effort mainly based on benchmark performance data; it should not replace capacity planning for installed systems. You can use the sizing estimate for pre-installation planning; however, once you are in the process of implementing mySAP.com, you should work with an IBM/SAP Capacity Planning consultant to monitor and predict the ongoing resource requirements e.g. for your production R/3 system.

The IBM/SAP sizing methodology is continually reviewed and revised to provide the best possible estimate of the IBM hardware resources required to run mySAP.com. Guidelines for sizing mySAP.com come from a number of sources, including SAP, SAP R/3 benchmarks, and customer feedback. Based on information from these sources and your completed sizing questionnaire, we will analyze your mySAP.com requirements and recommend an IBM hardware configuration.

Customer results may vary, and IBM assumes no liability for actual results that differ from the sizing estimate.

2.3 How to Obtain Assistance and IBM Contacts

The questionnaire was designed so that you can answer it without detailed knowledge of mySAP.com. IBM has established the Techlines Solutions Sizing team to provide assistance to your queries and help to size and configure your mySAP.com Solution. These have been established on geographical basis to address them locally. To make sure that you are using the latest version of this questionnaire, or if you have any questions about it and also once you have filled in the questionaires please contact:

For North and South Americas: IBM Americas Techline Solutions Sizing

- To obtain a softcopy of the questionnaire, visit <u>http://www.ibm.com/erp/sizing</u> or ask your IBM Representative or send a request to the IBM Sizing Center at <u>eSizings@us.ibm.com</u>
- For questions, you can reach the IBM Sizing Center at 800-IBM-0222 or at 888-IBM-5525 option 6.

For Europe, Middle East and Africa : IBM EMEA Techline Solutions Sizing

 To obtain a softcopy of the questionnaire, ask your IBM Representative or send a request to the IBM Sizing Center at <u>ERPEMEA@it.ibm.com</u>

For ASEAN / South Asia : IBM ASEAN/SA Techline Solutions Sizing

• To obtain a softcopy of the questionnaire, ask your IBM Representative or send a request to the IBM Sizing Center at <u>techline@my.ibm.com</u>

For others

Contact the IBM SAP International Competency Center at <u>isicc@de.ibm.com</u>

For additional information on IBM and mySAP.com, go to

External : <u>http://www.ibm.com/erp/sap</u>

Internal : http://w3.isicc.de.ibm.com

Other contacts for IBM Internal

For Europe, Middle East and Africa: IBM EMEA Techline Solutions Sizing

http://w3-5.ibm.com/support/emea/techline

For Asia Pacific, ASEAN/SA: IBM Asia Pacific Techline Solutions Sizing

http://w3-6.ibm.com/support/ap/asean/techline/

2.4 User-Based vs. Quantity structure Based Sizing

You must decide whether you want a *user-based* sizing or a *quantity structure-based* sizing. If you have limited information about your planned mySAP.com implementation, we suggest a user-based sizing. If you have more detailed knowledge of mySAP.com and your planned implementation, you may prefer a quantity structure-based sizing. Since the quantity structure-based sizing requires more detailed information, it may provide a more accurate estimate of the hardware resource requirements. To determine if you have enough information to complete a quantity structure-based sizing, read Section 6 *Quantity structure-Based Sizing Questions*. If you do select the quantity structure-based sizing, you must answer the quantity structure-based sizing questions, as well as the user-based sizing questions. When we complete the sizing estimate, we will evaluate both the user-based and quantity structure-based sizing results, and recommend the larger of the two solutions.

2.5 IBM/SAP Sizing Methodology and Terminology

Sizing Methodology

The objective of the IBM/SAP sizing methodology is to estimate the hardware resources required to support your *peak hour of business processing*. Our sizing philosophy is that if we size the hardware to provide acceptable response time for the peak application workload, then all workloads outside of the peak hour should also provide acceptable response time.

Your first step in the sizing process is to identify your organization's peak hour of processing. Next, you will complete the sizing questionnaire, providing information about your planned mySAP.com online and batch *IBM SAP R/3 Sizing & Planning Questionnaire* Page 3

processing for the peak hour. In the Sizing Center, we will use the IBM/SAP sizing tools to convert your questionnaire responses into potential mySAP.com workload and estimate the hardware resources required to support the system.

Note: For quantity structure-based sizings, some customers cannot identify specific application volumes for the peak hour. In those cases, we will accept average yearly volumes.

Identifying the Peak Hour of Processing

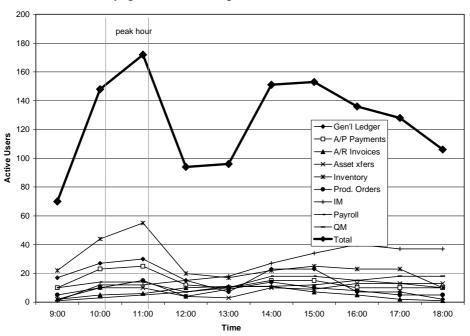
Before you can specify your online and batch transaction volumes, you must identify your peak hour of processing. The peak hour is the busiest hour of activity from an information-processing standpoint. It is the hour in which the CPU utilization is the highest. In identifying your peak hour, consider how your processing volumes vary throughout the year and select a peak hour during the busiest time of the year. If you do not know the peak hour, you may need to survey the user departments of the various mySAP.com modules.

Typically, the peak hour occurs somewhere between 8:00 a.m. and 6:00 p.m., but this can vary. In the illustration on the next page, the thick line shows the transaction volumes for all of the SAP R/3 modules used in one organization, with the peak hour occurring from 10:00 a.m. to 11:00 a.m.

Identifying the Online Processing Volumes

Once you have identified the peak hour, you must identify the mySAP.com functions that will be in use during that hour (refer to the illustration below). For a user-based sizing, you will identify the mySAP.com modules that will be active during the peak hour and the numbers of users of each module. For a quantity structure-based sizing, you will breakdown the modules by transaction and specify the number of transactions to be processed during the peak hour. For example, in a user-based sizing, you would indicate that 20 Financial Accounting (FI) users will be active; for a quantity structure-based sizing, you would specify some number of FI transactions like A/P Payments, A/R Invoices, GL Postings, etc.

Note: It is important to understand that you should not include every mySAP.com module/transaction to be used by your organization. Instead, you should report only those mySAP.com modules/transactions that will be active during the peak hour.





Identifying the Batch Processing Workload

The next step is to identify the batch processing workload. For a user-based sizing there is heasdroom being taken into the calculation by the SAP quicksizer. For a quantity structure-based sizing, you will identify the batch quantity structure volumes for the peak hour in the input "quantity structure II" section of the SAP quicksizer.

Note: In most organizations, the peak hour occurs during the day and includes both online and batch processing. However, for some organizations, overnight batch processing actually requires more CPU resources than the daytime workload (i.e., the peak hour occurs at night with little or no online activity). If this is the case for your organization, you must request a quantity structure-based sizing and provide

application volumes for the batch jobs that will run during the peak hour. We will size your system to accommodate this batch workload.

Sizing Assumptions

This sizing estimate will predict the resources required to support your mySAP.com activity with default values for CPU utilization, batch, spool, and reporting. The default values have been determined as a result of our experience with many mySAP.com projects and sizings. You may, however, change one or more of the default sizing assumptions. The sizing assumptions and default values are listed in section ahead

2.6 Sizing Assumptions

The SAP Quick Sizer Tool uses the following assumptions.

Questions	Default
Power user think time (user characteristics are described in Section 5)	10 seconds
Standard user think time (user characteristics are described in Section 5)	30 seconds
Occasional user think time (user characteristics are described in Section 5)	360 seconds
Amount of data created daily per user?	1.5 MB
Data retention period for disk storage?	1 year
	Asia/Pacific 300
Number of working days per year?	Americas 250
	Europe 200

2.7 Special Instructions for Installed R/3 Customers or Upgrade Customers

In general, this sizing exercise is intended for new mySAP.com implementations. However, customers who are expanding an existing SAP R/3 installation with new application modules or additional users may use a sizing estimate to help determine the additional resource requirements. In these cases, the sizing estimate must be used in conjunction with an *IBM Insight for SAP R/3 Analysis*, a no-charge IBM offering that provides a workload analysis of the customer's currently installed R/3 system.

When the sizing request accompanies an Insight Analysis, the information provided in the sizing questionnaire should reflect the user or transaction volumes for the new workload only, not the workload for the existing SAP R/3 system. When specifying the user or transaction volumes, only the new SAP R/3 modules or new users should be listed in Sections 5 and 6 of the questionnaire. To complete the sizing estimate, we will obtain the resource requirements for the existing system from the results of the Insight Analysis and the new workload requirements from the sizing questionnaire.

For more information about IBM Insight for SAP R/3, go to http://www.ibm.com/erp/sap/insight

3.0 CONTACT INFORMATION

Please fill in the information on the following contact points. If unknown or not applicable, leave blank.

Company Name	
Street Address	
City, State/Province Zip/Postal Code, Country	
Industry	
Short Business Description	

Customer Contact		
Title		
Phone Number	Fax Number	
E-mail Address		

SAP Contact		
Phone Number	Fax Number	
E-mail Address		

SAP Value Added Reseller		
VAR Contact		
Phone Number	Fax Num	ber
E-mail Address		

IBM ERP Specialist		
Phone Number	Fax Number	
E-mail Address		

Business Partner Company		
Contact		
Phone Number	Fax	Number
E-mail Address		

4.0 GENERAL SIZING QUESTIONS

In this section, you will tell us about your hardware/software environment. Some of the subsections require responses; others are optional.

4.1 mySAP.com Areas of Application

Area	MySAP.com Areas of Application
Enterprise Resource Planning	 SAP Enterprise – Core R/3 (the backend System) including Specialised Industry Solutions in <i>mySAP.com Environment</i>
Business Intelligence	SAP BW - Business Information Warehouse
	SAP SEM - Strategic Enterprise Management
	SAP KM – Knowledge Management
Supply Chain Management	SAP APO – Advanced Planner & Optimizer
Customer Relationship	□ Field Sales □ Customer □ Interaction Center
Management (CRM)	□ Field Service & Service □ Sales
	Dispatch □ Internet Sales □ Marketing
Infrastructure &	mySAP.com Workplace System
Middleware	mySAP.com Internet Transaction Server
	mySAP.com Web Application Server
	R/3 Plug-In (Extractors) for mySAP.com Components
Others	□ SAP Employee Self Service □ SAP Employee Health & Safety
	SAP Real Estate SAP Product Lifecycle Management

mySAP.com Areas of Application

mySAP.c	om Industry Solutions	
	Retail	High-Tech
	Utilities	Mill Products
	Telecom	Pharmaceutical
	Banking	Oil + Gas
	Insurance	Service Provider
	Automotive	Engineering + Construction
	Healthcare	Consumer Products
	Public Sector	Aerospace + Defense
	Media	Other

mySAP.com Extended Solution

□ SAP Portals

□ SAP Marketplace

4.2 Current System

Answer the following questions about your currently installed SAP R/3 system (if applicable).

Note: This sizing exercise is intended for new R/3 implementations and for customers who are expanding an existing R/3 installation with new R/3 modules or additional users (refer to the Special Instructions for Installed R/3 Customers in last section of the previous document).

Are you currently running mySAP.com in production and/or non- production? (Check all that apply)		
Current mySAP.com software release?		 n/a
Current hardware systems/models for mySAP.com?		n/a
Current R/3 database system?		n/a

4.3 mySAP.com System Landscape (required)

A system landscape consists of the mySAP.com systems and clients that are needed for production. Once the system landscape has been defined, you create an implementation strategy for the setup and maintenance of the systems and clients within this landscape.

IBM and SAP strongly recommend having a three-system landacape. A three-system landscape is comprised of a a development system, a quality assurance system and a production system. This configuration ensures the proper management and testing of changes to the mySAP.com system before applying them to the live production environment. While the development and quality assurance systems could be implemented on a single server, the production system has to be implemented on its own separate system.

System Landscape Definitions					
Production System	A system that contains live business data to which users have access.				
Development System	A system used for ongoing customization of the mySAP.com components and/or the development of new components.				
Quality Assurance System or Consolidation System	A system that enables complete testing of upgrades and new software modules prior to implementation in the production system. This system may also be used to test modifications to system components, such as the operating system, device drivers, new hardware components, etc.				
Technical Sandbox	A system that is used for Basis or DBA training and testing.				
Staging System	A system that is populated with "live" data that may be used for end-user training.				

Production System Requirements

You will provide detailed information on the production system requirements in Sections 5 and 6.

Non-Production System Requirements

In addition to the development and quality assurance systems, you may want to add other non-production systems to the landscape. In the table on the next page, specify the non-production system requirements. Check all of the non-production systems that will be included in the landscape.

For each system you check, write the number of users who will be active concurrently during that system's peak processing hour and the total amount of disk space you want to allocate to the system. If no amount of disk is specified, the minimum requirements for the chosen mySAP.com version will be applied. The quality assurance

system recommendation will have the same amount of disk space as the production system to allow replication and simulation of the production system data.

Non-Production Systems	Number of active users?	Disk space	Planned
		for this system?	Installation Date
Development System		GB	
Quality Assurance System		GB	
Technical Sandbox System		GB	
Staging System		GB	
Other		GB	
Comments:			

Question	Answer
Did you consult with your SAP implementation partner to complete the non-production system questions above? (Circle one) If you answered no , before ordering the non-production system(s), you must work with your implementation partner to determine the requirements for each system (i.e., number of users and disk space), and then request a re-sizing for the system.	yes or no

4.4 Planned Hardware Platform (required)

Which hardware platform(s) would you like to consider for this sizing estimate? Check a database server and one of its application server options. If you want to consider more than one application server option, please describe each scenario in the comments section below.

Note: For customers with smaller system requirements, a two-tier configuration in which one server provides both the database and application server functions may be appropriate.

ries ries	pSeries pSeries	RS/6000 SP RS/6000 SP	xSeries	zSeries
	pSeries	RS/6000 SP		
		10,000 01	xSeries	
6000 SP		RS/6000 SP		
eries (W2K, Linux)			xSeries	
ies			iSeries	
		ies	ies	ies iSeries

SAP R/3 Enterprise

Other areas(like APO, BW, CRM, etc) :____

✓	Database Server	Application Serve	Application Server(s)					
	zSeries	pSeries	RS/6000 SP	xSeries	zSeries			
	pseries	pSeries	RS/6000 SP	xSeries				
	RS/6000 SP		RS/6000 SP					
	xSeries (W2K, Linux)			xSeries				
	iSeries			iSeries				
Со	mments:				1			

4.5 Production System Software Versions

Technology Questions	✓	Answer Options
What release of mySAP.com do you plan to install? (Check ✓ one)	e) IBM DB2 (default) Oracle SQL Server	
		Release 4.6(default)
		Release 4.5
		Other, specify:
What database software do you plan to use with mySAP.com? (Check ✓ one)		IBM DB2 (default)
		Oracle
		SQL Server
		Informix
		Other, specify:

4.6 Network Interface

Network Questions	✓	Answer Options
What LAN network attachment do you want on your servers for connection to the client systems? (Check \checkmark one)		Ethernet 100 Mbps (default)
		Token-Ring 16 Mbps
		Other, specify:
S/390 Only – Which network communication technology do you want between the S/390 database server and the RS/6000 or Netfinity application servers? (Check ✓ one)		Gigabit Ethernet via an OSA-Express attachment (Recommended) ATM 155, or Fast Ethernet via an OSA- Express attachment FDDI, Fast Ethernet, or ATM 155 via an OSA-2 attachment
		ESCON (MCA, PCI, or 2216)
		Other, specify:

4.7 Preferred Disk Technology

Disk Technology Questions	✓	Answer Options
Please indicate your preferred disk technology? (Check 🗸 one)		SCSI
		SSA
		ESS
		Other, specify:

4.8 Scalability

Critical business applications such as mySAP.com commonly require hardware upgrades over time to meet increasing needs. The IBM server options ensure scalability to provide our customers with a path for future growth. In some sizing scenarios, several different server configurations may be able to address the sizing requirements, but the configuration options may vary in terms of their scalability.

In order for us to make the best sizing recommendation, it is important that we know how important the server scalability is to your organization. Please answer the scalability questions below.

Scalability Questions	✓	Answer Options
How important is it that the hardware configuration recommended by IBM addresses scalability for future growth? (Check ✓ one)		Very Important
		Important
		Not so Important
Comments:		

4.9 High Availability

IBM servers offer a wide range of features to address high availability. Some features come as standard, others are optional. In order for us to better determine which high availability options should be included in the recommended configuration, please indicate your preferences for high availability.

High Availability Questions	✓	Answer Options
Do you want a failover system for the production system? (Check 🗸 one)		Yes
If you answer yes , you must answer the next two questions.		No (default)
In failover mode, what percentage of your total workload needs to run on the backup system? (Specify a percentage)		100% (default)
To which system or server do you want to failover? (Check 🗸 one)		Application server (default)
		Development system
		Test system
		Separate server in idle standby
		Other, specify:
S/390 Only – For what functions do you want to provide high availability?		DB Server
(Check 🗸 all that apply)		CI (e.g., MSG/ENQ)
Do you want a Uninterruptable Power Supply (UPS) inlcuded in the		Yes, for all servers
configuration? (Check 🖌 one)		Only for the
		production system
Netfinity Only – In case of a disk failure, do you want hot-spare disks in the servers in order to be able to reconstruct the RAID secured configuration?		Yes, on database servers
(Check ✓ one)		No
Do you want to have redundant network attachments in your servers, whenever		Yes, for all servers

4.10 Backup/Restore

Backup/Restore Questions	✓	Answer Options	
Do you want a backup device included in the proposed configuration?		Yes	
(Check 🗸 one)		No	
If you answered yes , do you want to have an unattended (automatic) backup, or		Unattended (default)	
n attended (operator-assisted) backup? (Check 🗸 one)		Attended	
Do you want to consider a network attached (shared between servers), or a		Network backup	
direct attachment (dedicated to a server) backup device? (Check \checkmark one)		Direct attachment	
		IBM to make recommendation	
What is your production system backup window? (Specify <i>nn</i> number of hours)		Specify:	
Do you want to do online or off-line backups? (Check 🗸 one)		Online	
		Off-line	
Which tape media would you prefer to use for backup/restore of your system data? (Specify type of tape media)		Specify:	

4.11 Project Phases and Growth

By default, this sizing estimate will predict the resources required to support the mySAP.com activity you describe in Sections 5 and 6 of the questionnaire. If desired, you can use this section to request sizing estimates for specific project phases. A project phase may be the implementation of one or more mySAP.com business applications, growth in terms of additional users, or growth in business volumes. See the example below.

Example of Project Phase Descriptions

- **Phase 1** Implement Sales & Distribution, Materials Management, and Financial Accounting in Raleigh (20 users).
- **Phase 2** Implement Sales & Distribution, Materials Management, and Financial Accounting in Atlanta (add users).

Phase 3 Implement Human Resources in Atlanta (add an mySAP.com business component and users).

Phase 4 Factor in 20% business growth over one year (add 20% to the overall SAP R/3 workload).

If necessary, copy and fill-out questionnaire Section 5 (user-based sizing questions) and/or Section 6 (quantity structure-based sizing questions) for each phase, and submit these pages along with your completed questionnaire.

Phase	Description	Start Product	Date / ion Date	System Date	Install
1					
2					
3					
Comme	ents:			1	

4.12 Additional Comments

Please note any additional comments or requirements for your mySAP.com project. For instance, you might want to provide sizing information from previous SAP installations in your company. Or, you might specify hardware requirements that you want us to take into account for model homogeneity or reuse of existing equipment. **Comments:**

QUESTIONS FROM THE SAP QUICKSIZER FOR CORE R/3

Print version

of the Quick Sizer Input Screens

October 2001

Please note that the Quick Sizer is subject to regular changes several times per year. Please make sure you have the most current version available. (http://service.sap.com/quicksizing)

SAP R/3 Standard

mySAP.com Workplace

mySAP.com Workplace Users

Enter the number of users who will use the mySAP.com Workplace.

Please enter the number of **peak concurrent active users** in the table below. **Users**

		Low	Medium	High
FI	Financial Accounting			
FI-AA	Asset Accounting			
TR	Treasury			
СО	Controlling			
EC	Enterprise Controlling			
SD	Sales & Distribution			
MM	Materials Management			
LE-WM	Warehouse Management			
QM	Quality Managerment			
PM	Plant Maintenance			
CS	Customer Service			
PP	Production Planning			
PS	Project System			
PA	Personnel Management			
PA-PD	Personnel Development			
BC	Basis Components			
BWP	Business Work Place			

Enter any kind of additional information with regard to this project here.

Quantity Structure I: Dialog & Batch

					Highloa	d Phase		
Component				Retention Period		Execution	Object	Object
& Object	Created per Year	Object	Sub-Objects	[Months]	Objects	period	Changes (%)	Display
			(Natural numbers		Created per	[hh:00 -		(%)
			only)		Day	hh:00]		
FI		Line items						
Documents								
FI-TV		Line items						
Receipts								
TR								
Postings								
СО		Line items						
Documents								
CO-PA		Line items						
Orders transferred from SD-								
SLS								
CO-PA		Line items						
Billings transferred from								
SD-BIL								
CO-PA		Line items						
Documents transferred from								
FI								
EC		Lines						
Reports								

Component	Number of Objects	Sub-Object of the	Average No. of	Retention Period	Number of	Execution	Object	Object
& Object	Created per Year	Object	Sub-Objects (Natural numbers only)	[Months]	Objects Created per Day	period [hh:00 - hh:00]	Changes (%)	Display (%)
SD		Line items						
Customer Inquiries								
SD-SLS		Line items						
Sales Orders								
SD-BIL		Line items						
Invoices								
SD-POS-IN		Line items						
Sales Data / Idocs								
MM-PUR		Line items						
Purchase Orders								
MM-IM		Line items						
Materials Movements								
LE-WM		Line items						
Transfer Orders								
LE-SHP		Line items						
Delivery Notes & Goods								
Issues								
QM		Inspection						
Inspections		Characteristics						
PM		Components						
Orders								
CS		Components						
Orders								

Component	Number of Objects	Sub-Object of the	Average No. of	Retention Period		Execution	Object	Object
& Object	Created per Year	Object	Sub-Objects	[Months]	Objects	period	Changes (%)	Display
			(Natural numbers		Created per	[hh:00 -		(%)
			only)		Day	hh:00]		
PP-SOP		Components						
Planned Orders								
PP-SFC		Components						
Production Orders								
PS		WBS elements						
Projects								
		Networks						
		Activities						
РТ								
Time data								
BC								
Printed documents								
BWP								
Business Work Place								
		Internal mails						
		External mails						

Enter any kind of additional information with regard to this project here.

Quantity Structure II: Batch

Component	Description	Maximum No. of Objects	
Object			[hh:00 - hh:00]
FI-AA	Number of Assets		
Assets depreciation			
CO-OM-OPA	Number of orders allocated per period		
Order Settlement			
CO-OM-OPA	Number of orders per period with overhead rates		
Overhead Rate			
CO-OM	Number of sender-receiver relations for all cycles		
Assessment			
РА	Number of employees		
Employee			
РТ	Number of processed time pairs		
Time Evaluation			
РҮ	Average Number of retro calculations per payroll		
Payroll			
MM	Number of materials		
Period Closer (Until Release 4.0)			

All Questions in this section must be completed.

MRP	Description	Maximum No. of Objects	Execution Time
Object			[hh:00 - hh:00]
PP-N1	Number of planned orders per day		
PP-N3	Average number of components per BOM		
PP-N4	Number of purchase order line items for reorder-point driven materials per day		
PP-N5	Number of purchase order line items/schedule lines for non reorder-point driven mat. p. day		
PP-H0	Size of planning horizon in days		
PP-P1	Number of BOM structure changes per day in %		
PP-P2	Variant Configuration: Average number of BOM positions with object dependencies in %		
PP-P3	How many orders use Lead Time Scheduling in %		

Enter any kind of additional information with regard to this project here.

SAP Business Information Warehouse

Users

Please specify the number of Concurrent Users that will use the SAP Business Information Warehouse.

Low	Medium	High

InfoCube

Additionally, you can specify the amount of data records in an InfoCube:

Data Records

CRM Customer Relationship Management

User Based Sizing

If some of your users work with several different components, attribute them to the component <u>they work with most of the time</u>. Please enter the number of Concurrent CRM users and how they will work with the system:

	Low	Medium	High
Internet Sales			
Mobile Sales			
Mobile Service			
Enterprise Buyer Professional			
Customer orders			
Service Transactions			
Opportunity Management			
Activity Management			

Enter below how many of the above Users enter objects such as customer orders or opportunities using the Customer Interaction Center.

	Low	Medium	High
Customer Interaction Center			

Quantity Structure or Transaction based sizing

The information you provide in this section is used to determine disk size and CPU consumption of the CRM Server. Note that depending objects created in a backend system must be considered separately.

Component	Number of Objects	Sub-Object of the	Average No. of	Retention Period	Number of	Execution	Object	Object
& Object	Created per Year	Object	Sub-Objects	[Months]	Objects	period	Changes (%)	Display
			(Natural numbers		Created per	[hh:00 -		(%)
			only)		Day	hh:00]		
Internet Sales Orders								
Mobile Sales								
Enterprise Buyer Orders								
CIC Orders								
Customer Interaction Center								
Calls								
Opportunity Management								
Opportunities								
Activity Management								
Activities								

The information of this section is used for disk sizing of the CRM Middleware and the Consolidated Database (CDB). For more information refer to the documentation on sizing CRM in the Media Center. For information on the input fields, refer to the online help.

<u>Note:</u> As of Release 2.0C, enter these values under Quantity Structure. Average number of line items per sales document As of Release 2.0C, enter these values under Quantity Structure.

Total number of customers and prospects	
Total number of offered products	
Number of layers of your organization	
Total number of sales documents (as of Release 2.0C, enter these values under Quantity Structure)	
Average number of line items per sales document (as of Release 2.0C, enter these values under Quantity Structure)	
Total number of service orders	
Total number of your installed technical objects	
Retention period for the above objects in months	

SAP Advanced Planner and Optimizer

Demand Planning

Total number of characteristic combinations			
Total number of key figures			
Nunber of keyfigures in livecache (in %)			
Total number of periods in planning horizon			
Total number of periods in historical horizon			
Total number of planning versions			
Retention period for data records in InfoCube			
Characteristic combinations relevant for planning run in % of above			
Duration of planning run time frame	From	То	

Supply Network Planning, PP / Detailed Scheduling, ATP

Master Data

Number of warehouse stocks	
Number of location product combinations	
Number of location product combinations with planning relevant characteristics in %	
Number of resources	

Transactional Data

Number of sales orders	
Average number of delivery schedules per sales order	
Number of purchase orders or purchase requisitions	
Number of delivery schedules per purchase order or purchase requisition	
Number of transfer orders	
Number of products per transfer order	
Number of forecast orders used for planning	
Number of schedule lines per forecast order	

APO Transactional Data (Continued)		
Average number of orders created by a heuristic planning run		
Average number of planned orders and manufacturing orders		
Average number of components per manufacturing order		
Average number of operation steps per manufacturing order		
Average number or operations steps per operation		
Average number of alternative resources per activity		
Average number of parallel capacity requirements per operation step or activity		
Number of planning versions		
Number of Users working parallel		
Average number of orders created by one heuristic planning run		
Start and Stop of the planning run	From	То

SAP Utilities

Dialog part one: Here, you must fill in all fields completely

Total number of business partners.	Number of budget billings per year	
Total number of contracts	Number of billing cycles per year	
Number of meters in the network	Average number of billing lines per bill	
Number of contract accounts	Average number of print lines per bill	
Retention period for the above objects		

Dialog part two: Here, you can fill in single average fields, single highload fields, or complete lines

Object	Average number created per year	Created during highload phase	Time period of highload phase
Customer-Overviews			
Customer contacts			
Move-in			
Move-out			
Duration of highload phase	e for the above objects; mandatory, if you	entered values for the highload phase.	

Batch

Here, you must fill in all fields completely

No. of business partners (equal to dialog input)	Minimum no. of days to complete one batch cycle	Batch processing interval	

Enter any kind of additional information with regard to this project here.

6.0 APPENDIX: SAP QUICKSIZER HELP SCREENS

Following you can find all the help documentation being available in the SAP quicksizer for the different input screens and the result screen.

User-based input

Term	Definition	
User-based sizing	For sizing we assume active users who go through a given number of business processes in a given time period. Since not all active users equally put load on the system or consume system resources, we distinguish between three categories to represent typical activity patterns of users: low, medium, and high. Comment: In case some of your users work with several different components attribute them to the component they work with most of the time.	
Low / Occasional User	An occasional user is logged on and consumes system resources. We assume that the occasional user accesses the system from time to time, fitting the work profile of an information user or an executive. From a technical viewpoint, this user type typically performs around 400 dialog steps (equivalent to approximately 400 screen changes) per week. Assuming a working week of 40 hours, this amounts to ten dialog steps per hour or one every six minutes. In this column you enter the number of users who are logged on and use it every once in a while during the day. Comment: For calculating the optimum memory consumption we assume that these users typically work during peak hours. For minimum requirements they are omitted. Also, they have no influence on disk sizing.	
Medium User Accountant / Clerk	We assume that this user definition represents the work profile of accountants, clerks or office personnel. From a technical viewpoint, this user type typically performs around 4,800 dialog steps per week. Assuming a working week of 40 hours, this amounts to 120 dialog steps per hour or one every 30 seconds. In this column you enter the number of users who are logged on and use it regularly during the day.	
High User Data entry user, Telesales User, Power User	We assume that this user definition represents the work profile of users in the telesales environment, data entry users or power users such as application developers. From a technical viewpoint, this user type typically performs an average of around 14,400 dialog steps (screen changes) per week. Assuming a working week of 40 hours, this amounts to 360 dialog steps an hour or on every 10 seconds. In this column you enter the number of users who are logged on and use it intensively during the day.	

Quantity Structure Based Input I

Quantity Structure I:	If you enter the number of objects for a certain component, the number of objects, the average number of	
Mandatory Input	sub-objects (in natural numbers, no decimals!) and the retention period are mandatory.	
5 1	Comment: A default-value of twelve months for the retention period is offered by the program. The input	
	is used for disk sizing and average CPU sizing (between 8 am and 4 pm).	
Optional Input	Optionally, peak sizing is possible. In that case enter a number of peak-objects and the respective peak	
	processing period. You can also optionally enter the number of displays and the number of changes.	
Component & Object	Component or object of the system corresponding to the component hierarchy. A component can be a	
	production order or a Financial document.	
	The Quick Sizer calculates with the number of respective objects created per year.	
	Calculations are based on the following assumptions:	
	Number of working days per year in Europe: 200 days	
	Number of working days per year in USA: 250 days	
	Number of working days per year in Asia: 300 days	
	8 hour working day from 8:00 am - 4:00 pm.	
Sub-Component	Component at a lower level of the component hierarchy in the R/3 System. For the calculation we need to know the number of subitems. For example: The number of lines per printed document, the number of line items per purchase order, or the number of recipients per mail.	
	reading the particular country of the country of the particular particul	
	The Quick Sizer calculates with the average no. of number of sub objects, that is, line items, lines, or mail recipients created per year.	
	Note: Enter only rounded up natural numbers without decimals.	
Retention Period	The time in months that the object remains in the system before it gets archived and deleted in the	
(Months)	database. The time objects remain in the system influences the disk size to a great extent. We therefore	
	recommend you consider data archiving at a very early stage in your project.	
Highload Phase	For the calculations of your CPU requirements, we need to know the volumes processed per day. Here, it	
	is important to know the figures during a particularly active day or season in the year (such as Christmas) where the volumes processed are much higher than usual.	
	In order to determine the peak load the system will have to handle, we ask you to fill in the number of	
	objects that are created in the highload phase. A telesales company, for example, could enter the number	

	Appendix	
	of customer orders created in the peak phase of the day, for example between 3 pm and 9 pm.	
	The highload time is selected in clock time (e.g. 15 - 21). You can also use the highload phase for entering batch processes, for example the number of billings created between 9 pm and 12 pm.	
% of Object Changes and	Enter how often a newly created object is changed or displayed (in percent on average, without percentage	
Display	sign).	
	Examples:	
	An order is always changed or displayed after being created: Enter 100	
	Every second order is changed or displayed after being created: Enter 50	
	Every order is changedor displayed twice after being created: Enter 200	

Business terms explained

Business terms ex			
FI Documents	Document for proof of a business transaction. They may include accounting documents, sample		
	documents and recurring entry documents. Whereas accounting documents are a representation of the		
	original document in the system, sample and recurring entry documents are simply templates to simplify		
	entry of accounting transactions.		
	Comment: Enter the number of all financial documents including those that originate from material		
	movements.		
FI-TV Receipts	Number of receipts (Business Trip Management).		
FI-TV Line items	Average number of line items per receipt, for example travel costs, meals, or accommodations.		
TR postings	To carry out a posting, the flows of the transactions/positions to be posted are selected. The posting run transfers flows and posting information to Financial accounting where the corresponding documents are generated. In Treasury, the posting run can be carried out manually (for irregular posting activities) or automatically (for recurring flows that pre condition-based). The Treasury payment program connection and debit position and clearing are directly linked to the posting run. Comment: Financial postings resulting from loan postings have to be treated separately. We assume that a posting (document) in loan has an average of 1.5 posting items (document items). Master data are calculated by assuming 8 posting items per month and per loan. This share is independent of the residence time.		
CO Line items	Number of line items posted to CO (orders, cost centers, WBS). For postings within CO, each document		
	consists at least of two line items. Postings to statistical orders consist at least of three line items. Activity		
	allocations add another line to the posting.		
	Example		
	Posting from Posting to Number of line items		
	Cost center Cost center 2		
	Cost center Statistical order 3		
	Posting activitly Posting activity Number of line items		
	calculation from calculation to		
	Cost center Cost center 3		
	Cost center Statistical order 4		
	 Comment: If you use detailed planning, you should add line items created during planning. Line items per year = DIALOG line items + sum of all line items posted during all period-end closings within a year As the highload phase is used for CPU calculation, you enter only the line items posted in dialog. There are different formulas used for dialog transactions and batch transactions as shown in the list below. (D) = dialog (B) = batch postings into CO, e.g. (D) FI-postings into CO (D) Material movements into CO (D) Completion confirmations(PP,PM) CO-internal allocations, e.g. (D) Reposting (D) Activity allocation (B) Indirect activity allocation (B) Settlement (B) Assessment (B) Distribution 		
	(B) Periodic reposting		
CO-PA Profitability	In our experience, the number of documents that you transfer to CO-PA from Sales and Distribution (SD)		

CO-PA Profitability In our experience, the number of documents that you transfer to CO-PA from Sales and Distribution (SD)

	Appendix
Analysis	or Financial Accounting (FI) serves as a good indicator of the disk space and system load that CO-PA represents. Using this indicator simplifies the sizing process because the Quick Sizer no longer needs to take into account the contributions from planning, cost center assessment, the information system, realignments, or settlement. If your requirements in one of these areas are high (for example, a large volume of data needs to be processed by a large number of users during peak system load times), you should contact your hardware partner or SAP. To gain a deeper understanding of the factors that can influence sizing and performance, see the information contained in http://service.sap.com/co-pa Transferred Objects: If you use Profitability Analysis, SD billing documents (SD-BIL) and FI documents are transferred to CO-PA automatically. The transferred per year from the respective components to CO-PA. For subobjects, enter the average number of document items in each case. You can also use the above
	methods to display how external data is transferred to CO-PA.
EC Reports	EC Enterprise Controlling allows you to control your enterprise from a corporate and a business unit perspective within one common infrastructure. It helps to speed up provision of business control information by fully automated corporate reporting from operative accounting via financial consolidation to management reporting. From EC-Enterprise IInformation System (EIS) top-level reports, end users can drill-down to more detailed information within EC or any other mySAP.com component. Lines: Average number of lines of a report
SD Customer Inquiries	A customer request to the company for a quotation or sales information that is not binding. The request can refer to materials or services, conditions and, if necessary, delivery deadlines. It is accepted by the sales area that is then responsible for any further processing. A customer request comprises one or several items containing the required quantity of a material/service. Line items: Number of line items per customer inquiry
SD Invoices	Sales and distribution document used to charge a customer for a delivery of goods or for services rendered. Line items: Number of line items per invoice.
LE-SHP Sales Order	A customer request to the company for the delivery of goods or services at a certain time. The request is received by a sales area, which is then responsible for fulfilling the order. Line items: A sales order consists of one or several items containing the quantity of the material or service specified in the order. The total quantity can be subdivided into schedule lines which contain different partial quantities and the relevant delivery dates.
SD POS IN Sales data and IDOCs	 Number of Sales Data and IDocs created per year. The Quick Sizer assumes that for every Idoc, one material document and one billing document are generated with subsequent postings to FI. The IDocs themselves are assumed to be archived immediately. The column "number of objects created per year" refers to the number of documents created per year. The next column "number of subobjects" refers to the number of line items per document. The Quick Sizer considers aggregated upload (WPUUMS). In the case of WPUBON, you will have to consider the following: Number of POS transactions. This corresponds to the number of customers per store. Number of items per transaction. This corresponds to the number of articles purchased by each customer. The total number of line items is the product of number of customers and the number of articles per customers. Example: You have 500 stores with an average of 300 customers per day and an average of three articles per customers. Assuming one IDoc per store this will give you: 500 IDocs, each with 900 lines per day. Assuming 300 working days Number of sub objects = 900 Retention period is actually that of the follow-on documents - material-, billing- and financial-documents. Comment: Number of Sales Data and Idocs created per year. The System creates one goods issue and one bill per document/IDOC including the respective number of line items. With each bill and material movement, one FI document with the respective number of line item is created. Additional postings are not considered. When processing different IDOC-types (e.g. store order), enter any follow-on documents seperately (such as SD order line-items in SD-SLS).
MM PUR	 Request or instruction from a purchasing organization to a vendor (external supplier) or a plant to deliver a certain quantity of material or to perform certain services. Line items: A purchase order consists of a number of items, each of which will have a procurement type defined. Comment: We assume a purchase order has two text lines on average. 30% of the purchase orders are assigned to an account. 10% of the line items have delivery costs. There is one goods receipt line item per purchase order line
	item. There is one invoice line item per purchase order line item.

	Appendix
	posting of materials. Please enter the number of all material movements that originate from any used component within the SAP system (e.g. LE - SHP Logistics Execution - Shipment) Line items: A goods movement consists of items containing the quantity and value of the given material. The materials to be actually placed in or removed from storage can be specified in each item as single units
	units. Comment: No postings in the previous month. When processing different IDOC-types (e.g. store order), enter any follow-on documents seperately (such as SD order line-items in SD-SLS).
LE WM Stock Movement	The business object transfer order is an instruction to move materials from a source storage bin to a destination storage bin within a warehouse complex at a specified point in time. Line items: A transfer order consists of items that contain the quantity of the material to be moved and specifies the source and destination storage bins.
LE-SHP Delivery Notes	Number of delivery notes and goods issue.
& Goods Issue	Line items: Average number of line items for delivery notes and goods issue.
QM Inspections	Tasks for determining the actual status of a technical system (for example, a machine) or a material. Inspection Characteristics: The basis on which an inspection is performed. Comment: We assume that one inspection with several inspection characteristics is carried out per inspection lot. On average, there is one single value recording per inspection characteristic.
PM Orders	Orders in the sense of maintenance orders. Requirement to execute a maintenance task on a maintenance object for a specific deadline. In addition, the maintenance order is a means of documenting maintenance work. In particular, maintenance orders are used to - plan maintenance tasks in a targeted manner - monitor the execution of maintenance tasks - enter and settle the costs incurred by maintenance tasks Components: A maintenance order contains operations that describe the individual work steps. If greater detail is required, operations can be subdivided into sub-operations. Enter the average number of components per operation.
CS Orders	A request for a service activity to be performed to a maintenance object at a customer company on a particular date. In addition, a service order is used to document service and customer service activities. Components: In an order, components are usually materials assigned to an operation. Enter the average number of components per order. Comment: We assume that one operation is valid for five components.
PP Planned Orders	Request created in a plant's planning run which triggers the procurement of a plant material for a certain quantity for a specific date.
PPP SFC Production Orders	Manufacturing order used for discrete manufacturing. A production order contains operation sequences. An operation describes how to carry out a work step. By combining operations into operation sequences, you can create parallel or alternative processes. Components: The following graph gives an example of how to determine the number of components by showing number of components of a multi-level BOM of a product F1. The finished product F1 contains a semi-finished product F2, which is also an in-house-product. Therefore the production orders for both products F1 and F2 must be considered for sizing. The size of the "number of components" is determined by the summation of all individual components on the first production layer (finished product and semi-finished product, respectively). The components used are either raw materials, for example F1Cx or F2Cx, or assemblies, such as F2 used in the production of F1. Phantom assemblies (P1 and P2) are only used to structure the bill of materials; they are not produced seperately. The components of the phantom assemblies (P1Cx or P2Cx) must therefore be added to the components of the next higher level.
	Therefore, in this example we can determine the following number of components: The production orders for the finished product F1 have seven components (F1C1, F1C2, F1C3, P1, P1C1, P1C2, and F2). The phantom assembly P1 should be counted as a real component. The production orders for the assembly F2 have six components (F2C1, F2C2, P2, P2C1, P2C2, and P2C3). Note You must enter the respective materials movements (goods receipt for the header material and goods movement for the used components) in the line for MM-IM. This is not counted automatically. If you print numerous production documents, enter their number in the line for "BC Printed Documents". The columns for the display of objects and the changes of objects should be filled, too. If, for example, you create a production order in one transaction and release it afterwards, please enter "100" for "object changes" because every order (i.e., 100% of the orders) is changed by being released. If you display the production order, then you must fill in the field for object display. Also, every confirmation to a
	production order must be considered for the field "object change". Order settlements are not considered and have to be considered by CO. Comment: We assume: 10 status items per production order 3 status items per component

	Appendix
	1 sequence for every 10 componentsr
	1 operation for every 5 components
	3 status items per operation
PS Projects	A complex structure of tasks within a controlling area which is used to control and monitor the schedule,
	resources, capacities, cost, revenues, and funds availability.
	WBS-Elements: An individual structural element in the work breakdown structure (WBS) representing the
	hierarchical organization of a project. It describes either a concrete task or a partial one that can be further subdivided.
	Networks: A network contains instructions on how to carry out activities in a specific way, in a specific
	order and in a specific time period.
	Activities: Average number of activities per network. An activity is a task in a network which has a
	defined start and finish. An activity can be broken down into activity elements. There are three categories
	of activities in the Project System:
	internal activities
	external activities
	general costs activities
	Comment: For calculation we assume:
	5 status items per project.
	5 distribution rules per project.
	3 status items per WBS element
	3 distribution items per WBS element
	3 allocations per WBS element
PT Time Data	Employee data that is relevant in some way to time.
	Examples:
	sickness period; working time; leave; overtime
BC Printed Documents	Data storage medium containing information of a specific type.
	Comment: We assume we assume that a page is always completely filled in and that the document is
	always completely printed.
	Enter the number of printed pages per year.
BWP Business	The Business Workplace provides a standard working environment in which every SAP user can carry out
Workplace	their share of the business and communication processes in the enterprise. There, they receive all the work
	items that are assigned to them in the course of SAP Business Workflow and process the documents that
	were sent to them from people or from SAP applications. This can include the following actions:
	Processing work items
	Receiving and sending mails
	Administrating documents and work processes
	Distributing and processing companywide and group internal information
	Comment: The number of sub components for BWP means the number of lines per item. Enter the number
	of recipients for external and internal mails in the field for sub components.

Quantity Structure based input II

FI AA	Reduction of the asset book value due to decline in economic usefulness, or due to legal requirements for
assets depreciation	taxes.
CO-OM-OPA Order	Complete or partial crediting of an order. The costs which have accrued to an order are debited to one or
settlement & Overhead	several allocations.
rates	Overhead rates: Rate applied to the direct costs to allocate the indirect costs. Can be a flat rate or a
	percentage.
CO-OM Assessment &	Assessment is a method of internal cost allocation in which you transfer the costs of a sender cost center to
Overhead rates	receiver CO objects (orders, other cost centers, and so on) under an assessment cost element. The system
	supports both the hierarchical method (where the user determines the assessment sequence) and the
	iterative method (where the system determines the sequence via iteration).
	Estimation of line items for assessment, distribution and periodic reposting:
	The segments of all cycles have to be added. For each segment the line items (sender (S) - receiver (R)
	relationship) may be calculated:
	assessment S-R = number of senders * number of receivers
	distribution S-R = number of senders * number of receivers * average number of cost elements used by the
	sender
	periodic reposting (equal to distribution)
	Indirect activity allocation S-R = number of senders * number of receivers * average number of activities
	used by the sender
	Example
	You have defined a cycle which consists of the segments a and B, each segment consists of 5 senders.
	Two receivers and each sender of segment A have received postings with three different cost elements
	(CE). The 5 senders of segment B have received postings with four different cost elements. Therefore the
	cycle has $30 + 40 = 70$ S-R relations altogether.

	Appendix
	Segment A: $5(S) * 3(CE) * 2(R) = 30$ S-R relationships
	Segment B: $5(S) * 4(CE) * 2(R) = 40$ S-R relationships
PT Time evaluation	Time evaluation is a program which is generated daily to calculate attendance and absence times on the basis of attendance and absence data, time types (flextime balance, productive hours) and wage types (bonuses for night, Sunday and public holiday work). Assumption: Time Evaluation is processed every working day.
PA Employee & Number of employees	The business object Employee is a person who contributes or has contributed to the creation of goods and services within the enterprise. As a rule, this occurs on the basis of a work contract or a contract for services.
	Comment: Financial postings resulting from loan postings have to be treated separately. For the number of employees we assume that the payroll is executed once a month. Other periods should be scaled through the input data (Example: 50,000 employees should be calculated semi-monthly in 4 hours -> Input: 100,000 employees and 8 hours)
PY Payroll	The average Number of retro calculations per employee per payroll Example: Input "2" for two retro calculation means three periods in total.
	Comment: Always enter information for both, Employee and Payroll.
MM Period Closer	Program that is run at the start of every new period. It ensures the following: Certain data is updated in the correct period
	Goods movements are always posted to the correct period
	The values in what was formerly the current period are copied to the corresponding fields for the previous
	period
PP MRP	Material Requirements Planning (MRP)
	Generic term for procedures in materials planning which take into account and plan every future
	requirement during the creation of order proposals (independent requirements, dependent requirements,
	and so on).
	Comment: The MRP run is conducted every day with the processing key "Net change" for the total planning horizon. The number of components implicitely determines the scope of the routing. With an increasing number of components, the number of operations in the routing rise. The runtime and CPU
	consumption directly depend on the number of reservations in the system.
	The MRP run can be parallized without end, dependencies on dataconstellation are not considered.
Net change planning	Materials planning run where only those materials are planned which have undergone a change relevant to materials planning since the last planning run.
Planned orders per day	A planned order is a request created in the planning run for a plant to trigger the procurement of a plant material for a certain quantity for a specific date. Enter the number of planned orders created per day and when the batch jobs run.
Planning Horizon	The planning horizon is the period which is set for the "net change planning in the planning horizon." For this type of net change planning only those materials are planned in the planning run which have a change related to materials planning within the period (in work days).
	Comment: The length of the planning horizon should at least include the following: Period in which customer orders are being created Delivery times
	Complete material processing time
Reorder point planning	Special procedure in materials planning. If the reorder point is greater than warehouse stock, an order proposal is created by materials planning. A distinction is made between: automatic reorder point planning
	manual reorder point planning
Lead time scheduling	Calculates the exact production dates and creates capacity requirements. Lead time scheduling via routing: In this case, it calculates the start and finish dates and times of the individual operations.

SAP BW Business Information Warehouse Sizing Input

Infocube	The central data container for reporting and evaluations.
	InfoCubes contain two types of data, namely key figures and characteristics. An InfoCube is a number of
	relational tables, that are put together according to the star schema:
	A large fact table in the center
	Surrounded by several dimension tables
	The fact table is set up in order to save all key figures on the lowest level of detail, while the dimension
	tables are used to save the characteristics that are required both in reporting and in the evaluations of these
	key figures. Dimension tables are seen as being independent of one another. Only the fact table connects
	the dimensions with the key figures. Therefore, all of the data is stored multi-dimensionally in the
	InfoCubes.

CRM Customer Relationship Management

Activity Management	Within Activity Management, your employees can:
	Create business activities to document any interaction they have with customers
	Create tasks to manage their own workload
	Manage their work in the Application Workplace
	View appointments and activities in the calendar
	Access the fact sheet for valuable information about business partners
	Access the Business Workplace for using workflow items
	The two main elements in Activity Management are the application workplace and the calendar. Each provides a different view of your workload and you can switch between them. The calendar displays all your appointments in a daily, weekly, or monthly overview. The inbox, on the other hand, provides you with a personal workplace or file manager, where all your activities, whether they have been given fixed appointments or not, are clearly sorted into different folders.
Opportunity Management	The Opportunity describes the sales prospects, their requested products and services, the sales prospect's budget, the potential sales volume and an estimated sales probability. This information becomes concrete in the course of the sales cycle, and can be displayed and evaluated in the system. Opportunity Management provides the framework for presenting sales projects from the very start, and tracking their progress. In this way, it provides the basis for an analysis and optimization of your enterprise.
	Users in Opportunity Management can use the following functions:
	 Presentation of the Sales Cycle Reason for Status
	Working With ProductsManagement of Attachments
	 Transferring Data for Sales Volume Forecast
	 Classification of Opportunities
	 Texts in Opportunities
	 Opportunities - Fast Change
Customer Orders	In CRM, customer orders can be created in different ways, for example by a telesales agent in the Call
Customer orders	Center or by customers via the Internet.
Internet Sales	This component allows electronic business activities to take place between companies and consumers as well as only between companies. Using SAP Internet Sales, manufacturers, shippers, wholesalers, and retailers can sell their products directly via the World Wide Web. The following components are contained in CRM Internet Sales:
	Business-to-Consumer (B2C) Internet Sales
	Business-to-Business (B2B) Internet Sales
	Business-to-Reseller (B2R) Internet Sales
Customer Interaction Center	The Customer Interaction Center (CIC) is a key technology of Customer Relationship Management with mySAP.com. It is designed as a multi-channel, blended business process interaction center. To empower call centers to provide the highest level of customer service. It provides robust technology for contact center operations. It tightly integrates a highly customizable and full-featured front office with your back-office as well as your entire range of customer-centric processes. The customer Interaction Center is the common state-of-the-art technology for any business transactions via phone, email, letter or face to face. It's used in the following CRM Business Scenarios: Service Interaction Center, Telesales and Telemarketing. Highlights of CIC include:
	Processing inbound and outbound telephone calls with customers and other business partners using Computer Telephony Integration (CTI) technology as middleware.
	An Email Office system for processing incoming and outgoing emails. Also included are Planned Activities for the agent to execute.
	An Interactive Intelligent Agent (IIA) for problem analysis and Interactive Solution Search along with Frequently Asked Questions.
	The IIA Intelligent Agent is an easy to use tool that provides a wide range of users access to solutions from various knowledge bases. For more information, see Interactive Intelligent Agent.
	A comprehensive Interaction History log to provide one view of a customer. This enables agents to view planned and historical activities along with sales and service orders. Interactive Scripting to guide an agent through a telesales, outbound campaign or technical support interaction.
Mobile Sales &	Mobile Sales allows sales teams to work offline and to synchronize their data with the R/3 System. In this
Service	way, it supplies all the information required for optimal customer interaction. Such information can include real-time updates on:

	Appendix
Business partners	
Contact persons	
Products and services	
Opportunities	
Activities	

APO Advanced Planner & Optimizer Sizing Input

Characteristic	The Total number of characteristic combinations is the number of values of each combination multiplied.
combinations	For example, a company plans 800 Products across 12 plants to serve 20 customer locations. Then the
	number of characteristic combinations would be $800*12*20 = 19,200$. If there are multiple cubes used in
	addition, the total is the sum of Characteristic combinations for each InfoCube.
Keyfigure	A criterion for evaluating past performance or forecasting future performance. A key figure is a value or a
	quantity; for example, sales revenue, sales quantity or production quantity. The total number of key
	figures is the sum of the key figures identified in each InfoCube used in planning.
Planning version	A Demand Planning version is a scenario of data used to create a unique demand forecast. The data for
6	each version is stored in the InfoCube. So, an InfoCube that contains two versions, each having the same
	data, requires twice the disk space than if the InfoCube contained one version of data. Therefore, the
	sizing estimate requires a count of planning versions used by all InfoCubes used by Demand Planning.
	The calculation for disk space assumes that each version contains the same amount of data per version
Characteristic value	Number of characteristic combinations on aggregation level. A planning run can generate a forecast at any
combinations	aggregation level in the hierarchy. If the forecast is generated at the lowest aggregation level (typically
combinations	Item/Location), then 100% of the characteristic combinations are relevant for planning. Alternatively, if
	the planning run is generated at a higher level, then only a percentage of the characteristic combinations
	are used to generate a plan. So, the amount of CPU processing time is reduced in direct linear proportion
	to the percentage of characteristic combinations used to generate a forecast. The totals can be
	disaggregated to lower levels in the planning book, or summed to a higher level in the hierarchy. For
	example, if a planner generates forecasted demand for a region, then the system does not plan forecasts for
	all of the different sales channels, product families, brands, products, and customers in that region.
	Those values are calculated in the planning book when displaying those characteristic combinations, and
	are based on the results of the forecast at the region.
	Comment: Aggregation is a function by which key figure values on the lowest level of detail are
	automatically summed at run time and displayed on a high level; for example, if you display the forecast
	demand for a region in the interactive planning screen, what you see is the forecast demand for all of the
	different sales channels, product families, brands, products, and customers in that region which the system
	has added together. This ensures a conistent planning apporach throughout your organization. Key figure
	values are stored at the lowest level of detail only. Aggregation is therefore not a save function. You set
	the aggregation type of a key figure in the row attributes of the planning book.
Number of periods in	Total number of periods in planning horizon is a count of future time buckets used in planning. The more
planning horizon	time buckets, the more disk space required to store data. Also, CPU process time increases as the time
praiming nonzon	
	bucket count grows. For example, a DP planner may define an annual forecast in weekly time buckets.
	Hence, the number of time buckets is 52. Alternatively, the planner may define the annual forecast horizon as 12 works followed by 8 months. In that area the number of time buckets would be $12 \cdot 8 = 20$. The
	as 12 weeks followed by 8 months. In that case, the number of time buckets would be $12+8 = 20$. The
	weekly forecast, 52 time buckets, requires more disk space and CPU processing time than the mixed time of weeks and months of 20 time buckets.
Number of periods in	Total number of periods in historical horizon is a count of the historic time buckets to plan future demand.
historical horizon	
Retention period for data	As with question 3, more time buckets requires more disk space and CPU processing time. Retention period for data records in InfoCube asks for the number of planning cycles retained in an
records in InfoCube	
records in infocube	InfoCube. This helps determine the amount of data held on hard disk before the archiving and deletion of
	old data. The greater the number of retention periods, the more disk space is required to store the
Dianning mun time forme	accumulation of data.
Planning run time frame	Q8: The duration of planning run time frame is determined by a Company's planning and operating
	requirements. The shorter the required time frame, the more CPU processing power is required to
	complete the planning run. The impact required for CPU processing power verses process time is in
W7 1 4 1	complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion.
Warehouse stocks	complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each
Warehouse stocks	complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each facility, you have to decide whether sub locations will be included in the planning process. These can be
Warehouse stocks	complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each facility, you have to decide whether sub locations will be included in the planning process. These can be as detailed as shelf and bin locations in a warehouse. Also, batches can be separated in product planning.
Warehouse stocks	 complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each facility, you have to decide whether sub locations will be included in the planning process. These can be as detailed as shelf and bin locations in a warehouse. Also, batches can be separated in product planning. If either the sub location or the batch value is not used for planning then that category is set to 1. Multiply
Warehouse stocks	 complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each facility, you have to decide whether sub locations will be included in the planning process. These can be as detailed as shelf and bin locations in a warehouse. Also, batches can be separated in product planning. If either the sub locations or the batch value is not used for planning then that category is set to 1. Multiply the number of sub locations by the number of batches for each facility. Sum the totals for the facilities
Warehouse stocks	 complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each facility, you have to decide whether sub locations will be included in the planning process. These can be as detailed as shelf and bin locations in a warehouse. Also, batches can be separated in product planning. If either the sub locations by the number of batches for each facility. Sum the totals for the facilities used in active model. If sub locations and batches are not used in planning, the total is the number
	 complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each facility, you have to decide whether sub locations will be included in the planning process. These can be as detailed as shelf and bin locations in a warehouse. Also, batches can be separated in product planning. If either the sub locations or the batch value is not used for planning then that category is set to 1. Multiply the number of sub locations by the number of batches for each facility. Sum the totals for the facilities used in active model. If sub locations and batches are not used in planning, the total is the number facilities in the active model.
Warehouse stocks Location product combinations	 complete the planning run. The impact required for CPU processing power verses process time is in reverse linear proportion. The number of warehouse stocks is a count of the detailed stock locations used in planning. For each facility, you have to decide whether sub locations will be included in the planning process. These can be as detailed as shelf and bin locations in a warehouse. Also, batches can be separated in product planning. If either the sub locations by the number of batches for each facility. Sum the totals for the facilities used in active model. If sub locations and batches are not used in planning, the total is the number

	Appendix
	Alternatively, if selected products are stored at each facility, then sum the number products modeled at each location. For example, each customer location may store only finished goods, while each distribution center stores both finished goods, and components, and each plant produces and stores only a portion of the finished goods and components.
Products with characteristics	Number of location product combinations with planning-relevant characteristics. Some location product combinations use characteristics to forecast the dependent demand. This number is a percentage of the number of warehouse stocks determined in the question above.
Resources	Total number of resources i.e. work center, production lines, tools to be planned in APO. Resources used in APO can define work centers, or production lines and tools used in the manufacturing of products. Determine the number of resources used in APO planning for both Supply Network Planning and Detailed Scheduling.
Planning relevant sales orders	Those orders that are satisfied are not relevant for planning, because they are deleted from liveCache. However, they still reside in R/3, until payment for the sale is fulfilled. So, there are typically more sales orders in R/3 than in APO. Also determine how many transports, on average, are required for a sales order.
Purchase orders	The number of planning relevant purchase orders, only include those purchase orders that are not yet filled. Those that are will be deleted from liveCache. However, until payment is completed, they will still reside in R/3. For this reason, more purchase orders often reside in R/3 than in APO. The average number of delivery schedules per purchase order or purchase requisition, as with the question above, asks for the number of transports required for the average purchase order.
Transfer orders	These are internal stock transfers generated by the APO Supply Network Planning process. This number is typically a count of vehicles generated from a TLB planning run. Average number of products per transfer order, asks for a count of products that are grouped into a transfer order from a Tranport Load Builder (TLB) planning run.
Forecast orders	The average number of forecast orders used for planning asks for the number of location product combinations, with a forecast that is released from Demand Planning to Supply Network Planning. Each product-location combination is considered one forecast order. The average number of schedule lines per forecast order refers to the number of partitions made for each time bucket in Demand Planning. So, if the forecasts from Demand Planning are in monthly time buckets, and Supply Network Planning plans in daily time buckets, then the average number of scheduled lines per monthly forecast is 30.
Orders generated Supply Network Planning	The average number of orders by Supply Network Planning refers to all transactions generated from an Supply Network Planning run. These include production orders, transport orders, purchase requisitions, etc.
Planning relevant orders	The average number of planning relevant planned orders and manufacturing orders refers to all production orders that are planned and scheduled in PP/DS. The larger the number, the greater the Live Cache memory requirements. Also, orders that are confirmed by the R/3 system are no longer in the APO system. So, the number of planned and released production orders in APO may be smaller than the number of production orders in R/3. The average number of components per manufacturing order asks for a count of the bill of material components included in each production process model. The average number of operation steps per manufacturing order asks for the number operations, on average, in each Production Process Model. The average number or operations steps per operation. Each operation is composed of operation steps (activities). Activities include setup, tear down, production, and queue. Determine the average number of activities per operation used in APO planning. The average number of alternative resources per activity can be one or more, depending on the number of resources that can perform the same activity used to produce a product. (A resource can be a production line, a work center or any other manufacturing facility.) Determine the average number of parallel capacity requirements per operation step (activity). This can be one or more constraining resource in an operation. For example, this can be a work center and a specific tool or person, all required to perform a specific operation step.
Supply Network Planning versions	The average number of planning versions refers to the number of Supply Network Planning versions used by the active and simulation models. Each version is assumed to contain an equivalent amount of transaction data used for planning. So, a model with two versions will require twice the amount of Live Cache memory, as a model with one version. This is a sum of the versions used in APO divided by the number of models.
Heuristic planning run	The number of orders created by one heuristic planning run asks for a count of the new orders generated from a planning run. These orders represent a significant percentage of the amount of Live Cache memory required by the system.
Supply Network Planning duration	The Supply Network Planning duration of a planning run is the time needed to plan for the entire time horizon during nightly batch processing. The smaller this time (in hours), the more CPU processing capacity is required.

SAP Utilities Sizing Input

Business partners of the utility company	A business partner is a natural person, organization, group of natural persons, or group of organizations in which a company has a business interest. A business partner may be a person, organization, or group within a company, such as 'Mrs. Lisa Davies', 'Reproelectrical Products Inc.', or 'The tenants of 15 Charles St.'. Please enter the total number of business partners of the utility company.
Total number of contract accounts	A contract account is an account in which posting data for contracts or contract items are processed for which the same collection/payment agreements apply. Contract accounts are managed on an open item basis within contract accounts receivable/payable. In the case of utility companies, a contract is assigned to one contract account only. However, and depending on the contract account category, several contracts can be assigned to one contract account.
Total number of meters	A meter is an instrument to measure the consumer-dependent resources of a rental unit (for example,
in the network	electricity, water) as a value. Enter the total number of meters of the utility company
Total number of contracts	A contract is an agreement between a business partner and the utility company that applies to a single division. Please enter the total number of contracts (master data) of the utility company here.
Budget billings per year (0-12)	For the utility company, budget billing payments are down payments on the bill, which is charged later. We need to know how often you create budget billings for all your customers in one year. Comment: Typical values are: 0 (no budget billing) 1 (yearly) 2 (half yearly) 3 (quarterly) 6 (bimonthly) 12 (monthly) Note: You must choose one of the numbers between 0 and 12.
Billing cyclces per year	How often is the utility company billing all its business partners? Typical values here are:
(1-12)	1 (yearly billing) 2 (half yearly) 4 (quarterly) 6 (bimonthly) 12 (monthly) Note: You must choose one of the numbers between 1 and 12.
Billing lines and print lines	Billing lines and print lines do not contain any address lines, explanatory texts or sums and so on; these are contributed by the form. Print lines contain additional variable specifications (for example, tax) and are contributed by invoicing. To illustrate this, every line in the following highly simplified sample form have been marked at the end to indicate whether it is a form line, a billing line or a print line. In this case, the example form consists of one billing line and two print lines. Comment: Enter the average number of the respectve lines on a single bill.
Retention period	Complete time period in which the data for an object are in the database until they are archived.
Customer overview	Enter how often you use the transaction "Customer Overview"
Customer contact	Enter how often you create customer contacts with the respective transaction.
Move-in and move-out	Move-in is the registration for utility service by the customer. This is different from moving into the residence, where the customer cancels the utility service.
No. of days for one complete batch cycle	The "complete batch cycle" here comprises all the required batch jobs for the complete processing of the business partners, that is meter reading order creation, meter reading order output, upload of meter reading results, billing, invoicing, bill printout etc. Comment: Enter the minimum number of days in which the complete batch cycle must be done for all business partners of the utility company once.
Batch processing interval	Specify when the batch jobs run for the billing.