# RETEK RETAIL SOLUTION – RMS 9.0

## FOR IBM

# SIZING AND PLANNING QUESTIONNAIRE

Questionnaire Version 1.6.1

October 2001

For sizing requests in all Geographies, send completed questionnaires to:

**IBM Americas Techline Solution Sizing**
**West Chester, Pennsylvania**

| | |
|---|---|
| **e-mail:** | **eSizings@us.ibm.com** |
| **Phone:** | **(770) 835-6690** |
| **Tollfree:** | **(800) IBM-0222** |
| **Fax:** | **(770) 659 5245** |

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### What is a sizing estimate?

A sizing estimate is an **approximation** of the hardware resources required to support an application implementation. It is a 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. IBM assumes no liability for actual results that differ from the sizing estimate.

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## 1.0   INTRODUCTION

The purpose of this questionnaire is to collect information to estimate the IBM hardware requirements for the implementation of the Retek Retail Solution (RRS) – RMS in RS/6000 environments.

It is important to understand that "sizing" the hardware for each customer's RRS – RMS 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 RRS environment. In this case, we can complete the sizing estimate with general information about your Retek anticipated use. When you are further along in your implementation planning, you will know more about RRS applications you plan to use.  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. In the Sizing Center, we will be happy to work with you throughout this process.

The IBM RRS – RMS sizing methodology uses information from Retek, IBM/Retek sizing studies, and actual experiences. The sizing estimate is based on input from the completed sizing and planning questionnaire. IBM assumes no liability for results that differ from the sizing estimate.

## 2.0   INSTRUCTIONS FOR COMPLETING THE QUESTIONNAIRE

In general, hardware sizing for RRS – RMS is based on Batch activity and concurrently active users. You will be asked to specify numbers of users. In addition, you will be asked for information about your batch workload, hardware environment, implementation schedule, etc. It will not be necessary for you to complete all sections of the questionnaire. Before you begin to complete the questionnaire, read all of the instructions in this section. The six steps to completing the questionnaire are listed below and described in more detail on the following pages.

(1)  Make sure you have the current version of the questionnaire.

(2)  Obtain assistance if necessary.

(3)  Complete Sections 3 and 4 of the questionnaire.

(4)  Review the sizing methodology and terminology.

(5)  Complete Section 5, *Sizing Questions*.

(6)  Return the questionnaire to the IBM Sizing Center

## 2.1 Make Sure You Have the Current Version of the Questionnaire

Over time we revise the Retek Sizing and Planning Questionnaire, and before taking the time to complete it you should make sure you have the most recent version. To obtain a softcopy of the questionnaire use the URL: www.ibm.com/erp/sizing or send a request to the IBM Sizing Center at esizings@us.ibm.com.

## 2.2 Obtain Assistance if Necessary

Once you have the current version of the questionnaire, you will be able to answer the questions without having detailed knowledge of RRS. However, if you do need assistance, your IBM or Retek Representative can obtain support through the Sizing Center. Send your questions to the IBM Sizing Center at esizings@us.ibm.com or call us at 800-IBM-0222.

## 2.3 Complete Sections 3 and 4 of the Questionnaire

Section 3 of the questionnaire asks general questions about you and your IBM/Retek representatives. Section 4 asks questions about the IBM hardware and Retek software that you plan to install. These sections are required for all customers.

## 2.4 Review the Sizing Methodology and Terminology

The objective of the IBM RRS - RMS sizing methodology is to estimate the hardware resources required to support your peak hour of business processing. In the questionnaire, you will provide information about the user and batch processing workloads that must be processed during this peak hour. Our philosophy is that if we size the hardware to support the peak application workload, then all workloads outside of the peak period should also provide acceptable response time.

To complete the sizing and planning questionnaire, you must gather the following information:

- Your organization's peak hour(s) of information processing
- The peak planned user activity
- The peak batch processing workload

### Identifying the Peak Hour of Processing

Before you can specify your online and batch work volumes, you must identify your peak hour(s) of processing. The peak hour is your busiest hour of activity from an information-processing standpoint. It is the hour when CPU utilization is the highest. In identifying your peak hour, consider how your processing volumes vary throughout the year and select the 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 Retek Applications.

Typically, for RRS - RMS, the peak workload on the database server is during the nightly batch window and the peak workload on the application server(s) is during the day.

### Identifying the Online Transaction Processing Volumes

You must identify the RRS functions that are in use during the online and during the batch window. For this sizing, you will identify the RRS applications that are active during the peak periods.

For each RRS application, you will identify the number of users of the function and also the batch activity. This information will be used to estimate the processor and main memory required to handle your identified workload.

You will provide user information for RRS - RMS, specifying the numbers of peak concurrently logged on users and peak active concurrent users. Concurrently active users are those users who are

actually executing the application transactions during the online processing window. Peak concurrently logged on users is the peak number the users that are logged on to the RRS – RMS system concurrently at any time, but who are not necessarily executing application transactions.

**Identify the Batch Processing Workload**
The next step is to identify the batch processing workload. *For this sizing*, you will simply estimate the total workload during the peak batch shift.

## 2.5 Complete the Sizing Questions

In the sizing questions later in this document you will tell us the size of each batch job in terms of numbers of units. For example, for replenishment processing, you will record the number of SKUs to be processed in an average replenishment run and the assigned batch window in minutes to process replenishment. You will record batch volumes for Retek functions that you plan to use (For example, RMS Point of Sale upload and Replenishment). We assume that online activity does not overlap with the batch processing unless noted.

## 2.6 Return the Questionnaire to IBM:

Send your completed questionnaire to IBM. If you have a hardcopy of the questionnaire, fax it to us. If you have a softcopy of the questionnaire, email it to us. Please return only the pages you filled-out, i.e., Section 3, Section 4, and section 5.

Send completed questionnaires to:

**IBM Sizing Center (Techline)**
**email: esizings@us.ibm.com or fax: (770) 659-5245**

## 3.0 GENERAL INFORMATION QUESTIONS

**3.1 Date** _____

**3.2 Customer Information.** Please complete this entire section**.**

| Company Name | |
|---|---|
| Street Address | |
| City, State/Province, Zip | |

| Customer Contact | |
|---|---|
| Title | |
| Phone Number | |
| Fax Number | |
| Email Address | |

| Industry | |
|---|---|
| Short Business Description | |

### 3.3 IBM/Retek Sales Contacts

Please tell us the name of your IBM and Retek sales contacts. We will send the results of the sizing estimate to the requesting IBM Representative, Retek Representative, or business partner.

| IBM Client Representative | |
|---|---|
| Phone Number | |
| Email Address | |

| IBM Product Specialist | |
|---|---|
| Phone Number | |
| Email Address | |

| IBM RRS Specialist | |
|---|---|
| Phone Number | |
| Email Address | |

| Retek Sales Contact | |
|---|---|
| Phone Number | |
| Email Address | |

| Business Partner | |
|---|---|
| Phone Number | |
| Email Address | |

## 4.0   CONFIGURATION QUESTIONS

The information you provide in this section will enable us to complete the sizing estimate for your hardware/software environment. It includes questions about your planned hardware and software configurations.

### 4.1   Current System

Answer the following question about your currently installed system (if applicable).

| Question | Non-Production | Production | Neither |
|---|---|---|---|
| Are you currently running Retek Applications? (Check ✓ all that apply) | | | |
| Current Retek Applications software release? | | | n/a |
| Current Retek Applications hardware systems/models? | | | n/a |

**Comments:**

### 4.2   Planned Retek Applications Release

Which version of Retek Applications are you planning to run? Check one.

| ✔ | Release | Explanation |
|---|---|---|
| | R 9.0 | Retek Retail Solution Release 9.0 is available for RS/6000 platforms. |
| | ___ | Other Retek Applications Release |

### 4.3   Planned Hardware Platform

Which hardware platform(s) would you like to consider for the sizing estimate? Check (✓) a database server and circle 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:**

A mixed Application Server environment is not supported by the sizing methodology.

| ✔ | **Database Server** (check) | **Application Server** (circle) | | |
|---|---|---|---|---|
| | RS/6000 Standalone | RS/6000 standalone | RS/6000 SP | Netfinity |
| | RS/6000 SP | | RS/6000 SP | |

**Comments:**

### 4.5 Project Phase

Describe the key milestones and hardware requirements associated with your phased implementation of RRS. Indicate which RRS applications you plan to implement in each phase. If desired, you may copy and fill-out questionnaire section 5 with data for each phase and attach each copy to your completed questionnaire.

| Phase | Description | Hardware Install Date | Production Date |
|---|---|---|---|
| 1 | | | |
| 2 | | | |
| 3 | | | |

**Comments:**

### 4.6 Disk Requirements

If *you* have an estimate of your Retek Applications user database requirements, please write it in the space below and in the questionnaire in section 5. Please contact Retek to obtain the Retek 'database size calculation form'. Retek can work with you to understand the database size in GB.

| | |
|---|---|
| How much disk space do you need for your RRS – RMS production database? | _____GB |

### 4.7 Development, Test, and Other Non-Production System Requirements

Will your RRS implementation include any of the following systems? Check all that apply. For each system you check, indicate the number of concurrently active users during the peak business processing hour, and the total amount of disk space you want to allocate to the system.

| ✔ | Non-Production Systems | Number of active users? | Disk space for this system? |
|---|---|---|---|
| | Development System | | |
| | Test System | | |
| | Sandbox System | | |
| | Training System | | |
| | Other | | |

## 4.8   High Availability Requirements

Would you like us to include high availability requirements in the sizing estimate? If so, please answer the following questions.

| | |
|---|---|
| Do you want a failover system environment? | **yes** or **no** |
| If you want a failover environment for the database server, tell us the percentage of the total workload that needs to run in failover mode. | _____% |
| If you want a failover environment for the application server(s), tell us how many additional applications servers you want. | _____# |

## 5.0 DETAILED QUESTIONS

### 5.1 Sizing questions for RMS for users and batch

Answer the following workload questions using section 5.2 as reference for definitions of terminology.

## System Configuration

| Select which ORACLE version will be used | |
| --- | --- |
| *Enter:*<br>*1 = Oracle 8.16 32Bit*<br>*2 = Oracle 8.16 64Bit* | |
| **Select type of Application Server** | |
| *Enter:*<br>*UNIX = Application Server running on RS/6000*<br>*NT   =   Application Server running on Windows NT* | |

## Application Sizing

| *General Parameters* | |
| --- | --- |
| Total number of different SKUs | |
| *Replenishment* "**read section 5.2 before completing these fields**" | |
| Number of Warehouses | |
| Number of Stores | |
| | |
| Average Number of SKUs per Location | |
| % SKUs on Replenishment per Location | |
| Max. Number of **Stores** to be evaluated during one replenishment run | |
| Max. Number of **SKUs** to be evaluated during one replenishment run | |
| % of "SKUs on Replenishment per Location" which need to be reordered per replenishment cycle | |
| Batch window for Replenishment Run | |
| *POS upload* | |
| Max number of POS upload transactions | |
| Batch window for POS upload Run | |
| *User Counts* | |
| Peak Concurrently Logged on Users | |
| Peak Active Concurrent Users | |

### 5.1 Sizing questions for RMS for users and batch continued

# Availability and Transaction Requirements

**Specify RAID configuration.**

|  | *Requirement* | *Default* |
|---|---|---|
| RAID Disk Factor for Database Size calculations<br><br>Enter:<br>1.5   for RAID5<br>2.0   for RAID1+0<br>1.0   for No RAID |  | 1.5 |

# System Capacity - "Headroom" specification

**Specify CPU sizing utilization "headroom" for RS/6000 APPLICATION SERVER**

| *Type* | *Percentage of CPU reserved for sizing projection* | *Default* |
|---|---|---|
| Batch & Other workloads |  | 0 |
| System Safety |  | 35 |

**Specify CPU sizing utilization "headroom" for RS/6000 DATABASE SERVER**

| *Type* | *Percentage of CPU reserved for sizing projection* | *Default* |
|---|---|---|
| Batch & Other workloads (prime shift) |  | 20 |
| System Safety |  | 10 |

**Specify database sizing information, if already known:**

| | |
|---|---|
| How Large (GB) customer guess? |  |
| How Large (GB) from Retek DB Sizer? |  |

## 6.0   TERMINOLOGY

## Application Sizing Specifications

## Total number of different SKUs

Valid input values:        x >= 1

This parameter specifies how many different SKUs are known to RMS. Each product, style has its own SKU.

## Replenishment

This section contains the parameters defining the resource requirements of the replenishment batch run.

**It is important to keep in mind that we try to determine the maximum number of SKU x Store combinations evaluated in any one run. If you replenish only a subset of your stores and/or SKUs each day, you should enter the corresponding values for the day with the highest workload. For example: Assume you have 500 stores with an average of 10000 SKUs in each store. You replenish only two times a week – Monday 200 stores all SKUs and Friday 300 stores all SKUs. You would enter in *"Average Number of SKUs per Location"* the value 10.000 and in *"Number of stores"* the maximum of 200 and 300 → 300.**

## Number of Warehouses

Valid input values:        x >= 0

This parameter specifies how many Warehouses or Distribution Centers need to be evaluated during the replenishment run. Do not include Warehouses or Distribution Centers in the count for which automatic replenishment is NOT activated.

## Number of stores

Valid input values:        x >= 1

This parameter specifies how many stores need to be evaluated during the replenishment run. Do not include stores in the count for which automatic replenishment is NOT activated.

## Average Number of SKUs per Location

This is the AVERAGE number of SKUs that are typically active (on hand) at a location on any given day. Typically locations may have different distinct SKUs on hand from other locations, so this should be an average per location.

## % SKUs on Replenishment per Location

Valid input values:        1 <= x <= 100

This parameter defines the percentage of the "Average Number of SKUs per Location" parameter that is evaluated during the replenishment run per location. This is an average over all locations.

## Max. Number of Stores to be evaluated during one replenishment run

If you plan to automatically replenish different stores each day of the week, which is the maximum number of stores you are planning to replenish on any day of the week.

## Max. Number of SKUs to be evaluated during one replenishment run

If you plan to automatically replenish different SKUs each day of the week, which is the maximum number of SKUs you are planning to evaluate during automatic replenishment on any day of the week.

## % of "SKUs on Replenishment per Location" which need to be reordered per replenishment cycle

Valid input values:        $1 <= x <= 100$

Enter the AVERAGE percentage of the "SKUs on Replenishment per Location" for which the automatic replenishment run generates orders or allocations / transfers - means the stock on hand in that location was too low.
This percentage has to be an average over all locations for which automatic replenishment is activated.

## Batch window for Replenishment Run

Valid input values: $x >= 20$ min

This parameter specifies the length of available batch window for the replenishment run in minutes.

## POS upload

This section contains the parameters defining the resource requirements of the POS upload batch run.

## Max number of POS upload transactions

Valid input values: $x >= 1$

This parameter specifies the maximum number of POS upload transactions observed on one day.

One POS transaction contains the information of how many items of one specific SKU per specific location were sold on that day. If there was no sale, no record is generated.

## Batch window for POS upload Run

Valid input values: $x >= 20$ min

This parameter specifies the length of the available batch window for the POS upload run in minutes.

## User Counts

This section contains the parameters defining the resource requirements of the interactive user community.

## Peak Concurrently Logged on Users

Valid input values: $x >= 1$

This parameter specifies the peak number of users logged on to the application server(s) at any one time.

## Peak Active Concurrent Users

Valid input values: x >= 1 and <= Peak Concurrently Logged on Users

This parameter specifies the peak number of users logged on and actively working with the RMS application at the same point in time.

## Availability and "Headroom" specifications

This section contains the parameters defining the availability of data stored on the disks and available "headroom" for future growth or unknown additional load on the systems.

## Specify RAID configuration

Valid input values: 1, 1.5, and 2
    1.0:   for No RAID
    1.5:   for RAID5
    2.0:   for RAID1 + 0

This parameter specifies the RAID Disk Factor for database size calculations. First the required number of hard drives to hold the database is calculated (based on DB size specified and the size of one hard drive) and then this number is multiplied by the specified parameter to determine the final number of required spindles.

## *System Capacity – "Headroom" specification*

This section contains the parameters defining the percentage of CPU resources that should be available for "unforeseen" circumstances, like additional batch load or higher workload than expected and specified.

## Specify CPU sizing utilization "headroom" for RS/6000 APPLICATION SERVER

## Batch & Other workloads

Valid input values: $1 <= x <= 100$

This parameter specifies the percentage of the CPU resource on the application server(s), which should be reserved for batch load during peak shift and other, not yet known, workloads.

## System Safety

Valid input values: $1 <= x <= 100$

This parameter specifies the percentage of the CPU resource on the application server(s), which should be reserved for future growth or to provide headroom for unforeseen spikes in the workload.

## Specify CPU sizing utilization "headroom" for RS/6000 DATABASE SERVER

## Batch & Other workloads

Valid input values: $1 <= x <= 100$

This parameter specifies the percentage of the CPU resource on the database server that should be reserved for batch load during peak shift and other, not yet known, workloads.

## System Safety

Valid input values: $1 <= x <= 100$

This parameter specifies the percentage of the CPU resource on the database server that should be reserved for future growth or to provide headroom for unforeseen spikes in the workload.

## Specify database sizing information

## How Large (GB) customer guess?

Valid input values: $x >= 1$

This parameter specifies the production database size in GB. It is a customer guess. The data is used to calculate the number of spindles required on the database server and is also used to crosscheck the memory calculation for the database server.

## How Large (GB) from Retek DB Sizer?

Valid input values: $x >= 1$

This parameter specifies the production database size in GB. This value was calculated using the Retek database size calculator using detailed input from the customer. The data is used to calculate the number of spindles required on the database server and is also used to crosscheck the memory calculation for the database server.