



This 'slide-show' provides an overview of Rocket AS for people who have not used the product before.

For more information, visit the Rocket web-site at <http://www.rocketsoftware.com>. For AS support, use the Rocket Customer Portal <http://www.rocketsoftware.com/support..>

## Topics



- Some AS concepts
- Data retrieval/analysis - View/Select etc.
- Data manipulation - Copy/Sequence etc.
- The AS Data Dictionary - Tables/Columns
- Other presentation styles - Reports/Charts
- Organising your AS work - Procedures & Workplaces
- Starting/Ending AS
- Other useful things



2

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### SLIDE NOTES.....

The topics covered in this slide-show:

- Some AS concepts – an overview of AS, who uses it, what they use it for, how AS is structured, etc.
- Some methods for performing simple queries.
- Commands and facilities for manipulating data tables
- The AS Data Dictionary – the information that AS stores about your data
- More formal presentation styles using formatted text (Report) or business graphics (Chart)
- How to organise your work using Procedures (like programs) and Workplaces (like desktops)
- How to start and end an AS session
- Other useful commands and facilities

## Topic 1



- **Some AS concepts**
- Data retrieval/analysis - View/Select etc.
- Data manipulation - Copy/Sequence etc.
- The AS Data Dictionary - Tables/Columns
- Other presentation styles - Reports/Charts
- Organising your AS work - Procedures & Workplaces
- Starting/Ending AS
- Other useful things



3

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SLIDE NOTES.....

We start with **Some AS concepts**

## What is AS?



- Management Information
- Decision Support
- Business Intelligence
- Application Development
- 4th Generation Language
- Database Query/Reporting
- Business Graphics
- Project Management
- Business Planning
- Statistics/Forecasting/Linear Programming
- .....




4

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### SLIDE NOTES.....

Rocket AS is an unusually broad product. It combines end-user functions with a rich application development language and also provides specialised solutions in Project Management, Business Planning, Statistics and LP. AS is used in countless different ways in all industry sectors but the common theme is to provide **Business Intelligence** solutions for organisations with large databases.

## Who uses AS?



- Planners
- Engineers
- Administrators
- Financial Analysts
- Accountants
- Statisticians
- Executives
- Programmers
- Anybody!




5

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### SLIDE NOTES.....

AS is used by many different types of user including end-users, who value its intuitive interface for easy access to data and programmers, who value its abilities as a rapid application development tool for IBM mainframe environments.

## What does AS provide?



- Data access
  - AS tables
  - DB2 tables
  - Other files
- End-user tools
  - Query
  - Report/Chart
  - Data Analysis
  - Business Tools
- Application Development tools
  - Programming language
  - Screen Design
  - Client/Server




6

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### SLIDE NOTES.....

The strength of AS is its ability to access and manipulate large databases, especially DB2, and to provide a wide range of tools for querying and analysing data for presentation as vital business information. The application development language ranges from simple automation of AS commands to full-scale bespoke applications, including operation by PC clients.

## Components of AS



- **Server (z/OS and z/VM)**
  - Base product: Data Access, Query, Reporting, Charts, Data Analysis etc.
  - Business Tools
    - Project Management
    - Business Planning
    - Statistics & Forecasting
    - Linear Programming
  - Info Center/Enhanced (ASICE)
- **Multi-platform Clients**
  - Rocket.Ascent
    - Graphical user interface
  - Client Connections
    - Multi-platform client support including APIs for Java and .NET
    - Command Client, ActiveX support
  - Client Applications
    - AS Explorer, FTP Printing



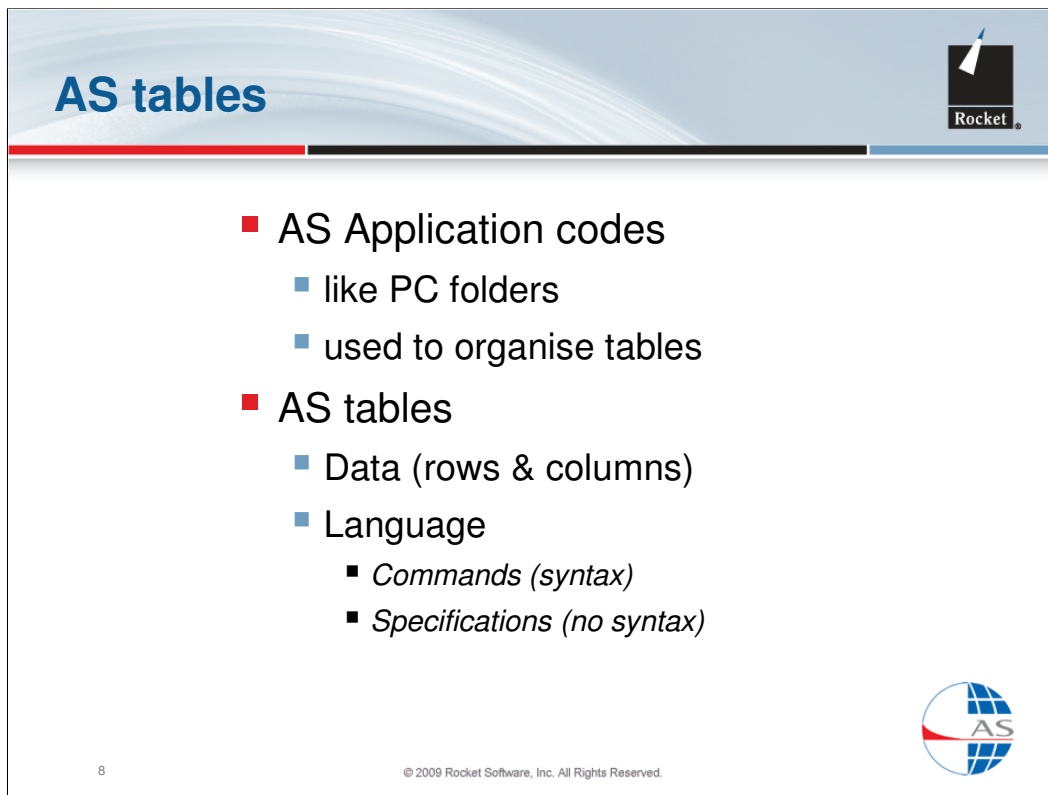
7

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### SLIDE NOTES.....

The mainframe components of AS can be used through a state-of-the-art interface (normally through a PC emulator program) or can be accessed from a PC using:

- AS Client Connections - a package of connection tools, including object-oriented client development APIs for Java and .NET, ActiveX support and an AS command editor for the PC.
- AS Client Applications - a package of additional tools, including an FTP application for using PC printers with AS.





**AS tables**

- AS Application codes
  - like PC folders
  - used to organise tables
- AS tables
  - Data (rows & columns)
  - Language
    - *Commands (syntax)*
    - *Specifications (no syntax)*

8

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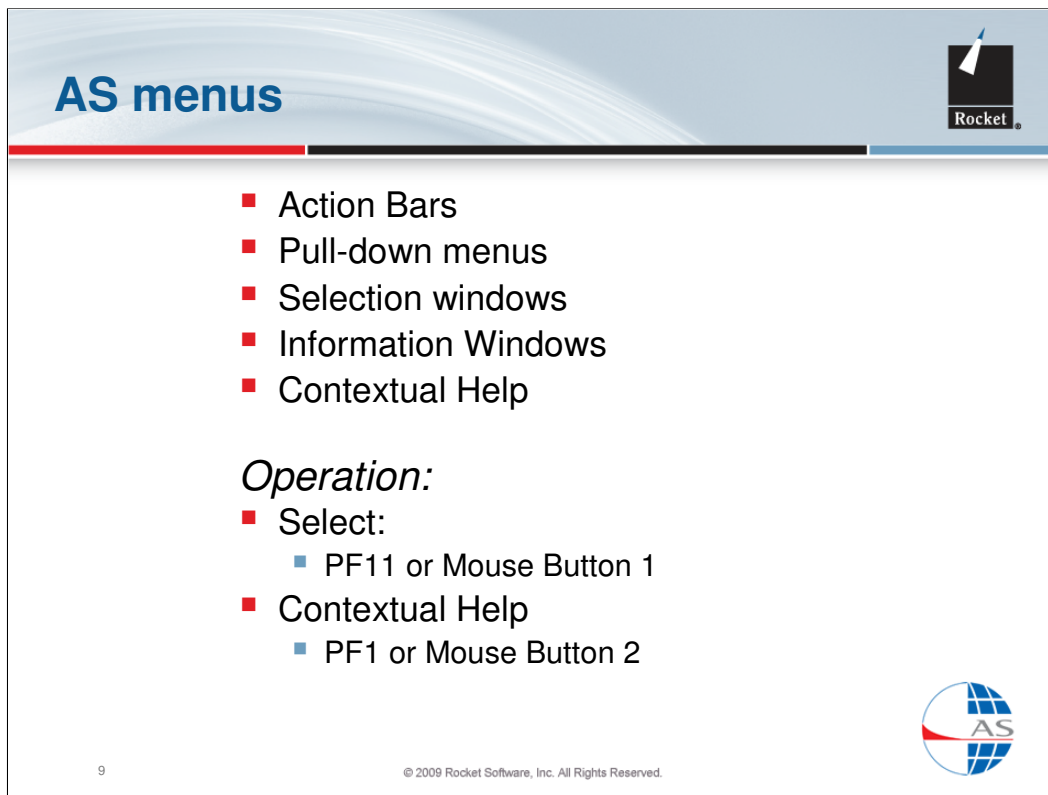
## SLIDE NOTES.....

AS Application codes are used to segregate and organise tables. An AS user can have multiple application codes on a userid, rather like a set of folders. Typically, all tables for a particular application will be stored together on one code.

AS uses the term 'table' to embrace two different concepts:

- **Data** tables (like DB2) have rows and columns and can be combined together
- **Language** tables are the objects that *process* the data and are found in two types:
  - A **Command** table (e.g. Procedure) uses one of a number of task-related AS programming languages, each with its own syntax
  - A **Specification** table (e.g. Chart) is created when you save processing options which you have specified using menus and option windows



A presentation slide titled "AS menu" with a blue header and a white body. The slide lists menu features and their operation. The Rocket logo is in the top right, and the AS logo is in the bottom right. A small number "9" is in the bottom left.

## AS menu

- Action Bars
- Pull-down menus
- Selection windows
- Information Windows
- Contextual Help

*Operation:*

- Select:
  - PF11 or Mouse Button 1
- Contextual Help
  - PF1 or Mouse Button 2

9

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### SLIDE NOTES.....

Much can be achieved in AS by using the point-and-select interface, rather than by entering commands.

The standard AS screen has an Action Bar with Pull-Down menus and can be operated by PF key or mouse.

Contextual Help is supplied on every menu and on every option in every window.

**AS Menus & Help**

Facilities Data Dictionary Actions Exit Help

Report  
Charts  
View data table  
Change data table  
Copy data table  
Edit command table  
Data analysis  
Project management  
Business planning  
Statistical analysis  
Screen design

**Data Analysis**

The Data Analysis screen enables you to create, update, or use an AS Data Analysis specification.

The features on the Data Analysis screen are:

Columns to Analyze	columns or expressions to be analyzed
Group by	column or expression used to group results
Group across	to group results in the second dimension
Group through	to group results in the third dimension
Analysis type	to confirm the current analysis type
Column Identification	to mark the currently active column
Action	to manipulate columns and expressions entered

To get more help, move the cursor to an item on an option list, an area of the screen, or the PF key area, and press PF1.  
PF12=Cancel Help

1 Help	2 Run	3	4 Print	5 Recall	6 Toggle
7 Up	8 Down	9	10	11 Select	12 Command


10

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### SLIDE NOTES.....

Here you see the main Action Bar with the Facilities pull-down menu displayed. The user has requested help on one of the menu items (Data Analysis) by positioning the mouse pointer and pressing mouse button 2, to reveal the help window shown.

## AS commands



- Sometimes quicker than menus
- More powerful than menus
- Entered at the '?' prompt
- Press Enter after each one
- 3 character abbreviation, e.g.
  - **CHAnge**
- 'Active' or 'Passive', e.g.
  - **ANALYSE** is active
  - **SELECT** is passive
  - **SEQUENCE** is active



11

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### SLIDE NOTES.....

The AS command language is extensive. It is more powerful than the AS menus but not necessarily quicker for certain operations. Don't assume that menus are for novices only! In some cases, particularly where selection lists are provided, using menus can be more productive and less prone to user errors.


AS commands are entered at the '?' in the bottom left corner of most AS screens. All commands can be abbreviated to the first 3 letters.

AS uses a concept of 'Active' and 'Passive' commands. This allows a set of commands (Passive) to be entered before they are executed as a block by an Active command, like RUN.

## Simple query commands



- Specify the data table:  
**in** staff
- Select some columns:  
**view** name,job code,division,birth date
- Select some rows:  
**select** job code=500 | division='Sales'
- Specify the order of rows:  
**sequence** department,-annual salary
- Analyse the data:  
**frequency** division,job code



12

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### SLIDE NOTES.....

Some simple AS commands used for querying data:

- Access the STAFF table
- View four of the columns in a full-screen display
- Select just the rows where the Job Code is 500 *or* the Division is 'Sales'
- Re-order the rows by *descending* Annual Salary *within* Department
- Create a frequency distribution of the values of Job Code and Division

## Topic 2



- ✓ Some AS Concepts
  - **Data retrieval/analysis - View/Select etc.**
  - Data manipulation - Copy/Sequence etc.
  - The AS Data Dictionary - Tables/Columns
  - Other presentation styles - Reports/Charts
  - Organising your AS work - Procedures & Workplaces
  - Starting/Ending AS
  - Other useful things




13

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SLIDE NOTES.....

Topic completed - now we move on to Data Retrieval and Analysis.

## The IN table



- Must be specified before you can process any data
- Can be the Output from the previous process
- Use 'Select In...' option on 'Data' menu, *or*
- Use the IN command, e.g.:
  - `in sales`
- To access a DB2 table:
  - `in (DB2)tablename`
- To access another user's data table:
  - `in userid.code/tablename`



14

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### SLIDE NOTES.....

The IN table is an important concept in AS. Most AS processes will use an IN table as the primary source of data.


The IN table can be 'inherited' from a previous process – the output data from one process will be available as the input to the next unless a different table is specified.

The IN table is specified using the IN command or the 'Select In...' window on the 'Data' pull-down menu.

To work with a DB2 table (rather than an AS table), just add the 'DB2' prefix to the table name.

If you are authorised, you can use the syntax shown here to access another user's table.

## Selecting the IN table



---

Facilities   Data   Dictionary   Actions   Exit   Help

Select In table

```

Database . . . . . AS
Userid . . . . . PETERM
Code . . . . . DEMO
Table . . . . . StaffNew
Cycle . . . . .
Password . . . . .
Enter PF7=Up PF8=Down PF11=Select PF12=Cancel


```

AS Data Tables

Table	Top
raddata	A-D
Rates	E-H
RatesA	I-M
Results	N-Q
Shares	R-T
sqlstock	U-Z
StaffDepR	
Staff	
StaffD	
StaffDep	
StaffJob	
StaffNew	
Staffreg	
StafSumI	

PF7=Up PF8=Down  
PF11=Select

1 Help	2 Run	3	4 Print	5 Recall	6 Toggle
7 Up	8 Down	9	10	11 Select	12 Command




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### SLIDE NOTES.....


Here is the 'Select In' dialog. You can enter the details (shown in green) in the upper window and/or select from the lists which are presented in the lower window.

## VIEW command



- Simple view of AS tables:  
in staff  
view
- Select columns for viewing:  
view name,annual salary,job code,birth date,subject
- Dynamic display of Row Selections
- Can use expressions:  
view name,annual salary+commission
- PF keys for navigating:
 

PF7: up	PF8: down
PF10: left	PF11: right
PF2: bottom of table	PF6: top of table



16

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### SLIDE NOTES.....


The AS View command is invaluable for browsing data and for ad-hoc investigations.

You can select the columns to be displayed from your current IN table or additional tables (known as Include tables) and you can even specify expressions to dynamically modify the basic data.


You can regard the View screen as a 'window' on your table. You can move the window around the data using PF keys.



## The View Screen



Data	Dictionary	Display	Exit	Help		
VIEW ***DEMO/STAFF - Demonstration STAFF table						
Annual Job						
Dept	Employee Name	Salary	Code	Birth Date	Field of Study	Action
11	Dickinson, Edward	22,513	500	15 Jun 75	Statistics	
11	Emery, Ralph	30,670	510	4 Jan 67	Sociology	
11	Farmer, Alison	18,597	500	16 Jun 77	Mathematics	
11	Gibson, John	17,292	320	10 Sep 66		
11	Hill, James	40,783	530	12 Nov 65	Art	
11	King, Trudi	30,017	510	6 May 67	Drama	
11	Lennon, Madeleine	61,665	905	17 May 60	Business Admin.	
11	Murray, Julie	29,364	510	19 Mar 71	Economics	
11	Rawlings, Pamela	17,945	500	8 Dec 76		
11	Saunders, Sharon	32,301	510	7 Feb 60		
11	Snow, Jane	29,364	510	26 Apr 72	Mathematics	
11	Wells, Judy	15,988	420	4 Jul 77		
12	Carroll, Eleanor	17,292	410	12 Jul 77		
12	Cross, Margaret	19,903	320	8 Feb 63		
12	Duggan, Vincent	29,364	510	27 Nov 68	Mathematics	
12	Edwards, Janet	29,364	510	16 Jan 70	German	
12	Ellis, Jerry	31,322	510	13 Jul 65	Mechanical Engr.	
12	Hall, Ann	15,988	410	27 Jun 77		
12	Morton, Yvette	27,407	510	20 Aug 71	Psychology	
12	Owen, Thomas	32,954	510	23 Nov 56		
12	Parsons, Nicola	33,279	510	11 Jun 61	History	
12	Rice, Douglas	51,551	530	21 Feb 65	Mechanical Engr.	
12	Shaw, James	60,033	905	13 Jan 67	Business Admin.	
12	Shepherd, John	18,597	500	14 Jan 74	Business Admin.	
12	Smith, Carl	19,577	500	3 Apr 67	Anthropology	
? █						
1 Help	2 Bottom	3 End	4 Print	5 Recall	6 Top	
7 Up	8 Down	9 Switch	10 Left	11 Right	12 Command	



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### SLIDE NOTES.....

This is how the View screen looks. This is the result of giving the command:


**view name,annual salary,job code,birth date,subject**

Notice that Dept (Department) is also displayed. This is because Department and Name are the **key columns** on this table (see later slide) and they will appear on all Views.

## SELECT command



- Used for Row Selections
- A single numeric value:  
`select department=70`
- A single alphanumeric value:  
`select division='Head Office'`
- A range:  
`select annual salary=10000:20000`
- A set of distinct values:  
`select job code=310;400;600;790`



18

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### SLIDE NOTES.....

The AS Select command is a key component in creating management information.


Here are some examples of simple logical expressions for row selection but the Select command can handle much greater complexity if you need it to.

The row selection expression can also be built using the 'Select Rows...' dialog, available from the Data pull-down menu.

## SELECT command (cont'd)



- Logical tests, e.g.:
  - select** annual salary >= 20000
  - select** department != 99
- With functions, e.g.:
  - select** AGE(birth date) > 45
  - select** WORD(name, 2) = 'John'
  - select** EXC(dollar commission, 'EUR') > 1500
- Multiple selections, e.g.:
  - select** department = 12:30:70
  - select** sex = 'M' & marital status = 'S'
  - select** employee no > 150000 | salary type = 1




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### SLIDE NOTES.....

Some more examples of the scope of row selections:

- where Annual Salary is greater than **or equal to** 20,000
- where Department is **not** equal to 99
- where Birth Date is more than 45 **years** old
- where the **second word** in Name is 'John'
- where Dollar Commission, converted to **Euros**, is greater than 1,500
- where Department is in the **range** 12 to 30 inclusive, **or** 70
- where Sex is M **and** Marital Status is S
- where Employee No is greater than 150000 **or** Salary Type is 1

If Select commands are entered one after the other, their effects are compounded together (as a logical AND).



## Select Rows window

Facilities Data Dictionary Actions Exit Help

Select Rows

No. Selection Condition


1 Division = 'Sales'; 'Computing'

Enter PF1=Help PF4=Delete PF7=Up PF8=Down PF12=Cancel

In: StaffNew		Select Operator	
No.	Column Name	Type	Size
1	Name	A	18
2	Employee No	N	6
3	Sex	A	1
4	Marital Status	A	1
5	Birth Date	N	6
6	Division	A	16
7	Department	N	3
8	Telephone	N	4
9	Hire Date	N	6
10	Source of Hire	A	18
11	Job Code	N	3
12	Salary Type	N	1
13	Annual Salary	N	7.2
14	Commission	N	7.2

PF1=Help PF4=Details PF7=Up PF8=Down  
PF10=Next PF11=Select PF12=Cancel

1 Help	2 Run	3	4 Print	5 Recall	6 Toggle
7 Up	8 Down	9	10	11 Select	12 Command




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SLIDE NOTES.....

Here is the 'Select Rows' dialog where column names and operators can be picked from lists to reduce the chances of user error.

## ANALYSE command



- Used for counting unique values in columns
- One dimension (*rows*):  
**analyse** division
- Two dimensions (*rows,columns*):  
**analyse** division,marital status
- Three dimensions (*rows,columns,pages*):  
**analyse** division,marital status,sex




21

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### SLIDE NOTES.....

The AS Analyse command is very simple to use but is extremely useful for quickly counting the unique values in the specified columns. The output from Analyse is shown in the next slide.

## Analyse example



Division by M/S					
	Total	D	M	S	W
Total	262	15	78	143	26
Computing	12	0	5	6	1
Head Office	30	2	7	17	4
Production	108	7	32	58	11
Research	17	2	8	7	0
Sales	95	4	26	55	10



22

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SLIDE NOTES.....

This is the result of using the command:

**Analyse Division, Marital Status**

showing the distribution of rows (employees, in this case) by Division, Marital Status and by each combination of those values.

## Topic 3



- ✓ Some AS concepts
- ✓ Data retrieval/analysis - View/Select etc.
- **Data manipulation - Copy/Sequence etc.**
- The AS Data Dictionary - Tables/Columns
- Other presentation styles - Reports/Charts
- Organising your AS work - Procedures & Workplaces
- Starting/Ending AS
- Other useful things




23

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SLIDE NOTES.....

Topic completed - now it's Data Manipulation.

## The OUT table



- Specifies the table to be used for output
- Use 'Select Out...' option on 'Data' menu, **or**
- Use the OUT command, e.g.:
  - out** newstaff
- Must be specified before the command that creates the table, e.g.:
  - in** staff
  - out** newstaff
  - copy** department,name,birth date
- The OUT table from one process becomes the IN to the next (unless you specify another)



24

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### SLIDE NOTES.....

If necessary, you can specify the name of the data table to be used as the output from an AS process. If you don't give a name, AS will use a temporary table using its own naming convention.


You can use the **OUT** command or the 'Select Out' dialog. In AS procedures, it is common to see IN and OUT commands at the beginning of the step, followed by the command(s) that will perform the processing of the data.



## COPY command



- Creates a new copy of a table e.g.:  
`in staff`  
`out newstaff`  
`copy`
- Copy selected columns in any order:  
`copy name,job code,annual salary`
- Use with SELECT for table subsets:  
`in staff`  
`out dep70`  
`select department=70`  
`copy name,telephone,birth date`



25


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### SLIDE NOTES.....


The AS COPY command copies data from the IN table to the OUT table. You can copy specific columns on the IN table so that COPY can be used to re-structure an AS table, or even combine columns from several tables. You can also select the rows to be copied using the SELECT command, making it very easy to create a subset of columns **and** rows.

In the example, the output table DEP70 will contain just three columns and only the rows that have a department value of 70.

## SEQUENCE command



- Changes the order of the rows in a table and creates key columns
- Copies all columns to a new table
- Specify columns in major to minor sequence (10 maximum), e.g.:
  - in** staff
  - out** newstaff
  - sequence** department,job code,name
- Use '-' for descending sequence:
  - sequence** -annual salary




26

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### SLIDE NOTES.....

The AS SEQUENCE command is used to change the order of the rows, for example for a report, and to create or change the key columns. In AS, key columns and sequence columns are synonymous. Key columns are not mandatory on AS data tables but are widely used for indexing and to control the order of rows displayed.

## SEQUENCE cont'd



- Used with SELECT for table subsets:
  - in** staff
  - out** sales
  - select** division='Sales' & job code>500
  - sequence** job code,-birth date



27

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### SLIDE NOTES.....

SEQUENCE creates an output table and therefore can be used instead of COPY if it is necessary to re-order the rows at the same time as copying all the columns. In this example, the OUT table SALES will contain **all** the columns from the IN table but only the rows where Division is 'Sales' and Job Code is greater than 500. The rows will be sequenced by **descending Birth Date** within **Job Code**. The SALES table will have two key columns - Job Code and Birth Date.

## Topic 4



- ✓ Some AS concepts
- ✓ Data retrieval/analysis - View/Select etc.
- ✓ Data manipulation - Copy/Sequence etc.
- **The AS Data Dictionary - Tables/Columns**
- Other presentation styles - Reports/Charts
- Organising your AS work - Procedures & Workplaces
- Starting/Ending AS
- Other useful things




28

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SLIDE NOTES.....


Topic completed - now it's the AS Data Dictionary.

## The Data Dictionary



Contains information about your data:

- **Table Summary**
  - A list of tables in the application code showing
    - *Name*
    - *Type*
    - *Title*
- **Table Details**
  - More details on each table, including:
    - *Creation & Modification dates/times*
    - *Table Comment*
    - *No. of rows/lines*



29

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### SLIDE NOTES.....

The AS Data Dictionary contains information about your AS tables – or *metadata*, as it's sometimes known.


There are 4 parts to the Data Dictionary:

- Table Summary
- Table Details

and, on the next slide:

- Column Summary
- Column Details

## The Data Dictionary (cont'd)




- **Column Summary**

A list of columns in a data table, showing:

  - *Name*
  - *Type, Size*
  - *Key*
  - *Title*
- **Column Details**

More details on each column, including:

  - *Column Comment*
  - *Display format & colour*
  - *Total option*
  - *Default value*
  - *Validity check*



30

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### SLIDE NOTES.....

The Column Summary and Column Details only apply to AS Data tables whereas the Table Summary and Table Details are available for all tables, including Language tables.

## Accessing the Data Dictionary



Two methods/styles of use:

- Select 'Housekeeping' from the 'Dictionary' menu, then follow:
  - Attributes (for Table Details)
  - Column Summary
  - Column Details
- Use the **Tables** command for the Table Summary, then use PF10 and PF11 for:
  - Table Details
  - Column Summary (*or straight here with the **Columns** command*)
  - Column Details



31

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### SLIDE NOTES.....

The Table and Column information can be accessed in a number of different ways. The Housekeeping screen is shown on the next slide. A third method of listing and working with your tables is provided by the AS utility LCAT.

**Housekeeping - Table list**

Facilities Data Dictionary Actions Exit Help

**Housekeeping**

Database . . . . .	AS	Select Action	
Userid . . . . .	PETERM	Attributes Purge	Rename
Code . . . . .	DEMO	Column Det Share	Withdraw
Table . . . . .	StaffNew	Column Sum Protect	Allow
Cycle . . . . .		Keep Lock	Unlock
Password . . . . .		Clear Actions	Table copy

Enter PF1=Help PF11=Select PF12=Cancel

**AS Tables**

Table	Type	Last change	Title	
StaffNew		4 Feb 99	Updated Staff table	Top
StaffPie	Dra	9 Sep 98		A-D
Staffreg		1 Aug 97	Regional Managers for STAFFDEP	E-H
STAFFREP	Cen	19 Sep 97		I-M
StaffR1	Rep	3 Nov 97	Summary of salaries by division	N-Q
staffr1c	Cen	3 Nov 97		R-T
StaffR1H	Cen	3 Nov 97		U-Z
StaffSum	Pro	14 Dec 98		
StafSmR2	Rep	14 Dec 98		
StafSumI		14 Dec 98		
StafSumR	Rep	11 Dec 98		
StatDemo	Pro	1 Oct 98	Experiment with Stats/Model	
StatPro	Pro	22 Oct 98	Forecasting Book Sales	
supplier		1 Aug 97	Supplier data table	

PF1=Help PF7=Up PF8=Down PF9=Subset PF11=Select PF12=Cancel

1 Help	2 Run	3	4 Print	5 Recall	6 Toggle
7 Up	8 Down	9	10	11 Select	12 Command

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## SLIDE NOTES.....

This is the **Housekeeping** screen. A table (StaffNew) has been selected from the lower window and the user can now select an Action in the upper window by clicking on one of the pink options, e.g. **Attributes** to display the Table Attributes screen, as shown on the next slide.



**Table Attributes**

Facilities Data Dictionary Actions Exit Help

**Data Table Attributes**

Database . . . . . AS Select Action

Userid . . . . . PETERM Panel Details Properties

Code . . . . . DEMO Column Details Cultural seq

Table . . . . . StaffNew Column Summary

Cycle . . . . . Help

New password . . . . . Confirm new password

Title . . . . . Updated Staff table

Comment

Derived from \*\*\*DEMO/STAFF

No. of Columns . . . . . 24 Locked . . . . . Yes No

Size of each row . . . . . 194 Shared . . . . . Yes No

No. of Rows . . . . . 262 Password Status . . . . . No

Efficiency . . . . . OPTIM Creation Date . . . . . 18 Sep 97 09:15:49

Table Status . . . . . In Modified by . . . . . Cha 4 Feb 99 14:41:35


Enter PF1=Help PF11=Select PF12=Cancel

1 Help      2 Run      3      4 Print      5 Recall      6 Toggle  
7 Up      8 Down      9      10      11 Select      12 Command

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SLIDE NOTES.....

The **Table Attributes** screen shows some information about the table StaffNew, for example the number of columns, modification date etc. Further options are available by selecting the items in pink, for example, to lock the table or to edit the Help text for this table. If the user selects the **Column Summary** option, the next screen is displayed.....



## Column Summary


Facilities Data Dictionary Actions Exit Help

Column Summary for Table staffnew

Act	No.	Name	Type	Size	Key	Title
	1	Name	A	18	2	Employee Name
	2	Employee No	N	6		Number
	3	Sex	A	1		
	4	Marital Status	A	1		M/S
	5	Birth Date	N	6		
	6	Division	A	16		
	7	Department	N	3	1	Dept
	8	Telephone	N	4		Extn
	9	Hire Date	N	6		
	10	Source of Hire	A	18		Hire Source
	11	Job Code	N	3		
	12	Salary Type	N	1		Pay Type
	13	Annual Salary	N	7.2		
	14	Commission	N	7.2		
	15	Evaluation Date	N	6		Eval Date
	16	Evaluation Code	N	1		Eval Code
	17	Increase Date	N	6		
	18	Increase Amount	N	7.2		
	19	Increase Type	A	1		Inc Type
	20	Last Job Code	N	3		
	21	Qualifications	A	8		Education
	22	Subject	A	18		Field of Study
	23	Languages Spoken	M	6		Fluency

Enter PF1=Help PF7=Up PF8=Down PF11=Column Details PF12=Cancel

1 Help    2 Run    3    4 Print    5 Recall    6 Toggle  
 No changes allowed to table structure 0    11 Select    12 Command




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### SLIDE NOTES.....

The **Column Summary** lists the column structure of the selected data table. On this screen, you can change anything that appears in green, i.e. the Column Names and Titles. The Column Types and Sizes cannot be changed on this screen if the table already contains data (there is a different method for this). If you select one of the columns, say **Birth Date**, AS will display the **Column Details** screen for this column, as shown on the next slide.

## Column Details



---

Facilities   Data   Dictionary   Actions   Exit   Help

Column Details for Table StaffNew

Column Number . . . . .	5		Select Action
Name . . . . .	Birth Date		Display   Default   Check
Key Number . . . . .			Comment   External   Input
Size . . . . .	6		SQL   Help
Type . . . . .	Alphanumeric	Numeric	Graphic   Multiple Response
Title . . . . .			


Enter PF1=Help PF7=Up PF8=Down PF11=Select PF12=Cancel

Column List

No.	Column Name	Type	Size
1	Name	A	18
2	Employee No	N	6
3	Sex	A	1
4	Marital Status	A	1
5	Birth Date	N	6
6	Division	A	16
7	Department	N	3
8	Telephone	N	4
9	Hire Date	N	6
10	Source of Hire	A	18
11	Job Code	N	3
12	Salary Type	N	1
13	Annual Salary	N	7.2
14	Commission	N	7.2

PF1=Help PF7=Up PF8=Down  
PF11=Select PF12=Cancel

1 Help	2 Run	3	4 Print	5 Recall	6 Toggle
7 Up	8 Down	9	10	11 Select	12 Command




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### SLIDE NOTES.....

The selected column is shown in the upper window, along with further actions which enable you to specify a display format, default value, validation test etc. You can use the lower window to select a different column if necessary.

**Topic 5**



- ✓ Some AS concepts
- ✓ Data retrieval/analysis - View/Select etc.
- ✓ Data manipulation - Copy/Sequence etc.
- ✓ The AS Data Dictionary - Tables/Columns
- **Other presentation styles - Reports/Charts**
- Organising your AS work - Procedures & Workplaces
- Starting/Ending AS
- Other useful things




36

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SLIDE NOTES.....

Topic completed - now it's Report and Chart, two methods of presentation.

# Report



- Specification table
- Used for:
  - Formatting data
  - Adding titles etc.
  - Creating totals
  - Including graphic output
- Create/select from:
  - 'Reports' under 'Facilities' menu, *or*
  - ?REPORT command
- Customise using:
  - 'Reports' action bar/menus



37


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## SLIDE NOTES.....

**Report** is a Language table, of the **Specification** type. In other words, you build a report layout interactively, using the menus and option windows, rather by writing AS language (although there is also a Report Language which can be used for more complex requirements).

Report is used to display data where a simple View is not sufficient. You have much greater control over the layout with multi-level sub-headings, sub-totals, conditional highlighting, additional text, graphics etc. and you can save the specifications to use again.

You can create and edit a Report by selecting **Report** from the Facilities pull-down menu or you can create an 'instant' report on your current IN table using the **?REPORT** command, as shown on the next slide.



## Example of ?REPORT

---

Reports Data View Contents Text Actions Exit Help
Page 1


Staff Report

Dept **11**

Employee Name	Number	Birth Date	Extn	Job Code	Annual Salary
Dickinson, Edward	166992	11 Sep 73	1101	500	£25,509
Emery, Ralph	200890	2 Apr 65	1102	510	£34,752
Farmer, Alison	123814	13 Sep 75	1103	500	£21,073
Gibson, John	103966	7 Dec 64	1104	320	£19,594
Hill, James	652066	9 Feb 64	1105	530	£46,212
King, Trudi	690811	2 Aug 65	1106	510	£34,012
Lennon, Madeleine	578772	14 Aug 58	1107	905	£69,873
Murray, Julie	202446	15 Jun 69	1108	510	£33,273
Rawlings, Pamela	457444	7 Mar 75	1109	500	£20,333
Saunders, Sharon	287596	6 May 58	1110	510	£36,600
Snow, Jane	582090	24 Jul 70	1111	510	£33,273
Wells, Judy	141589	1 Oct 75	1112	420	£18,115
					£392,618

1 Help      2 Run      3 End      4 Print      5 Print all    6 Toggle

7 Up        8 Down    9 Sel. cols 10    11 Select    12 Command



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### SLIDE NOTES.....

This attractive report has been created by using just two AS commands:


**In Staff  
?Report**

The Department sub-heading and sub-total, the date and salary formatting, the title and the colours have all been derived from the information found in the Data Dictionary for this table. Even if this layout is not quite what you want, it makes an excellent starting point for further editing using the options found on the Reports action bar.

## Charts



- Specification table
- Used for creating business charts
  - Pie, Line Plot, Histogram
  - etc.
- Create/select from:
  - 'Charts' under 'Facilities' menu
  - A command, e.g.:
    - pie turnover,area*
    - histogram sales,month*
- Customise using:
  - 'Charts' action bar/menus

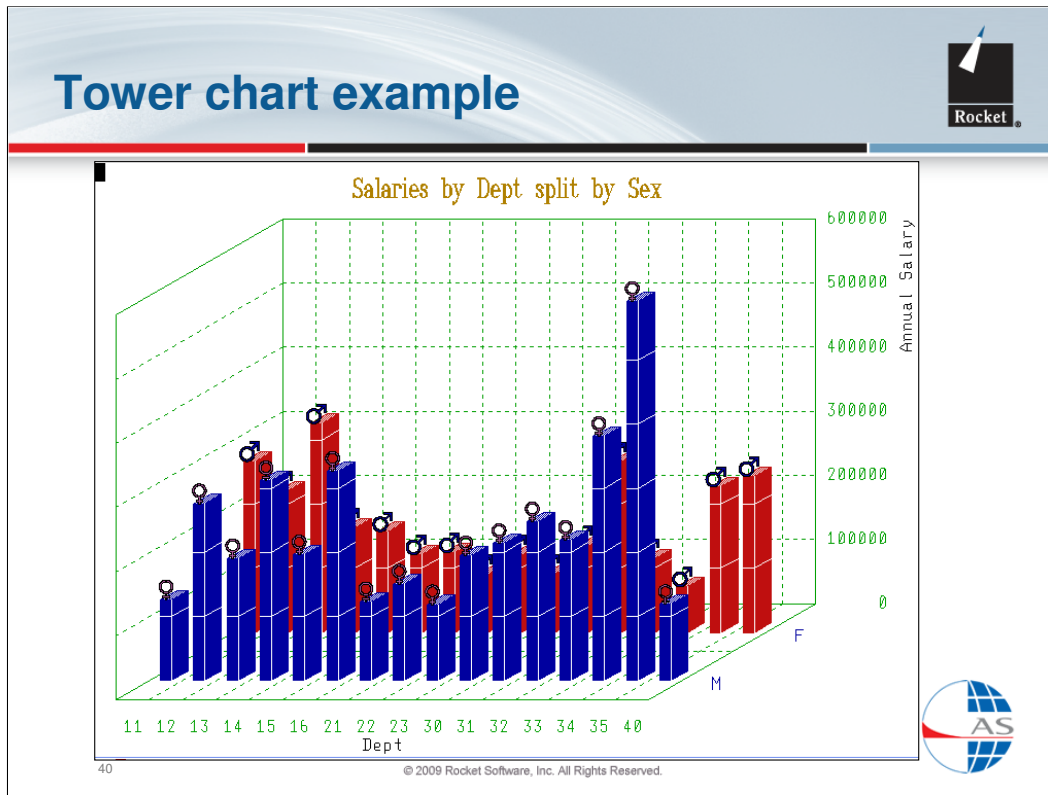


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### SLIDE NOTES.....

Like Report, **Chart** is also a type of language Specification. You can use Charts to display a variety of business graphics chart types from your data – Plot, Scatter, Surface, Histogram, Tower, Pie, Ribbon, Radar, Venn and Map.

You can create and edit Chart specifications from the Facilities pull-down menu but there are also several AS commands (such as PIE, HISTOGRAM, TOWER, PLOT etc.) for 'instant' charts. Once you have created a chart in this way, you can customise it using the options on the Charts action bar.



### SLIDE NOTES.....

Here is a Tower chart showing total salary by department, split by males and females. Additional 'pictographic' symbols have been inserted on the top edge of each tower.



## Topic 6



- ✓ Some AS concepts
- ✓ Data retrieval/analysis - View/Select etc.
- ✓ Data manipulation - Copy/Sequence etc.
- ✓ The AS Data Dictionary - Tables/Columns
- ✓ Other presentation styles - Reports/Charts
- **Organising your AS work - Procedures & Workplaces**
- Starting/Ending AS
- Other useful things




41

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SLIDE NOTES.....

Topic completed - now we shall look at how to organise your work.

## Procedures



- Command table
- Used for:
  - Automating sets of commands
  - Building complete applications
- Create/Select/Edit:
  - 'Edit command table' under 'Facilities', or
  - Command (see next slide)



42

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### SLIDE NOTES.....

All AS commands can be entered one at a time at the AS command prompt (?). However, even as a novice, you will soon find the need to save sets of commands so that you can use them repeatedly without re-keying them each time.

An AS **Procedure** is a Command table which allows you to do just that. You enter your commands in the AS Editor and then save them with a name, e.g. MyProc. To run the same commands again, you would just enter the AS command:


**Run MyProc**

## Procedures (cont'd)



*Commands for creating/modifying procedures:*

- Create a new procedure 'myproc1':  
**procedure** *input,output*  
**procedure** \*, myproc1
- Modify 'myproc1', creating 'myproc2'  
**language** *input,output*  
**language** myproc1,myproc2
- Modify 'myproc2'  
**language** *name*  
**language** myproc2




43

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### SLIDE NOTES.....

Here are the commands for creating and modifying procedures (and, in a similar way, for any other AS language tables).

## Procedure example



Command tables	Data	Actions	Locate	Exit
PROCEDURE Proc1,Proc1		Origin		1
/* Select Sales for ISO products				
In Admin.Plan/SalesYTD				
Out Temp1				
Select Sales>0 & ProdGrp='ISO'				
Sequence ProdCode,-Month				
/* Add Code descriptions and calculate Value				
Include Admin.Plan/Codes				
Out Temp2				
Let Sales Value=Units*RRP				
Copy ProdCode,Month,Code Desc,Sales Value				
/* Create Sales Report				
Run Admin.Plan/SalesRep				
/* Purge temporary tables				
Purge Temp1,Temp2				

44
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### SLIDE NOTES.....


Here is an example of a simple procedure, displayed in the AS editor (complete with its own action bar for editing functions).

This procedure includes examples of IN, OUT, SELECT and COPY commands. It also illustrates:


- Comments, using the /\* prefix
- The **Include** command for accessing data in related tables
- The **Let** command for assigning new values
- The **Run** command for executing a Language table (in this case, a Report Specification table)
- The **Purge** command for deleting temporary tables.

In large AS applications, procedures may each have hundreds or even thousands of lines.

## Workplaces



- Specification table
- Used for creating:
  - Personal 'desktops'
    - *launch applications*
    - *view data tables*
    - *execute AS commands*
  - Application menus
- Create/select from:
  - 'Actions' menu
- Customise using:
  - 'Context menus' (PF6)



45

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### SLIDE NOTES.....

AS also provides a 'desktop' facility called a **Workplace**.

Workplaces are very easy to set up and use and are very convenient ways of presenting AS objects such as tables, commands, applications etc. You can use Workplaces for organising your personal work or as menus for corporate applications.

Workplaces can be operated by mouse and can provide you with an environment with a similar look and feel to a PC.

**Workplaces - an example**

Rocket

Facilities Data Dictionary Actions Exit Help

Papillon MIS WorkPlace

**Principal Data tables**

- Book sales
- Book authors
- Book titles

**Reports/Charts**

- Revenue by Style/Format
- Units sold YTD
- Top 10 best-selling authors

**Data Maintenance Procedures**

- Update sales figures
- Enter new titles/authors
- Calculate YTD Revenue

**Office Functions**

- Check Mail
- Create/send new mail
- Prepare graphic document

Terminate AS session Log off  
PF1=Help PF3=Cancel PF6=Options PF9=Switch PF11=Select PF12=Cancel

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### SLIDE NOTES.....

This example shows how a Workplace could provide a menu for a management information system. Graphical icons are used to divide the Workplace into areas - viewing data tables, running data procedures, creating reports and charts, using Office functions.

Creating a Workplace can usually be done in minutes and requires no programming at all. It is a similar concept to creating 'shortcuts' on a PC desktop.

## Topic 7



- ✓ Some AS concepts
- ✓ Data retrieval/analysis - View/Select etc.
- ✓ Data manipulation - Copy/Sequence etc.
- ✓ The AS Data Dictionary - Tables/Columns
- ✓ Other presentation styles - Reports/Charts
- ✓ Organising your AS work - Procedures & Workplaces
- **Starting/Ending AS**
- Other useful things




47

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SLIDE NOTES.....

Topic completed - now a few words about starting and ending an AS session.

## Start-up options



- A command or a command table can be executed automatically as you start AS
- Select 'Application' from 'Dictionary' menu
- Under 'Initial Action', you can either:
  - Click on 'Command', then enter a command in the window, e.g.:  
**screen mouse(graphics)\_synonym recover(mysyn)**
  - *or:* Click on 'Table' then select a command table from the list



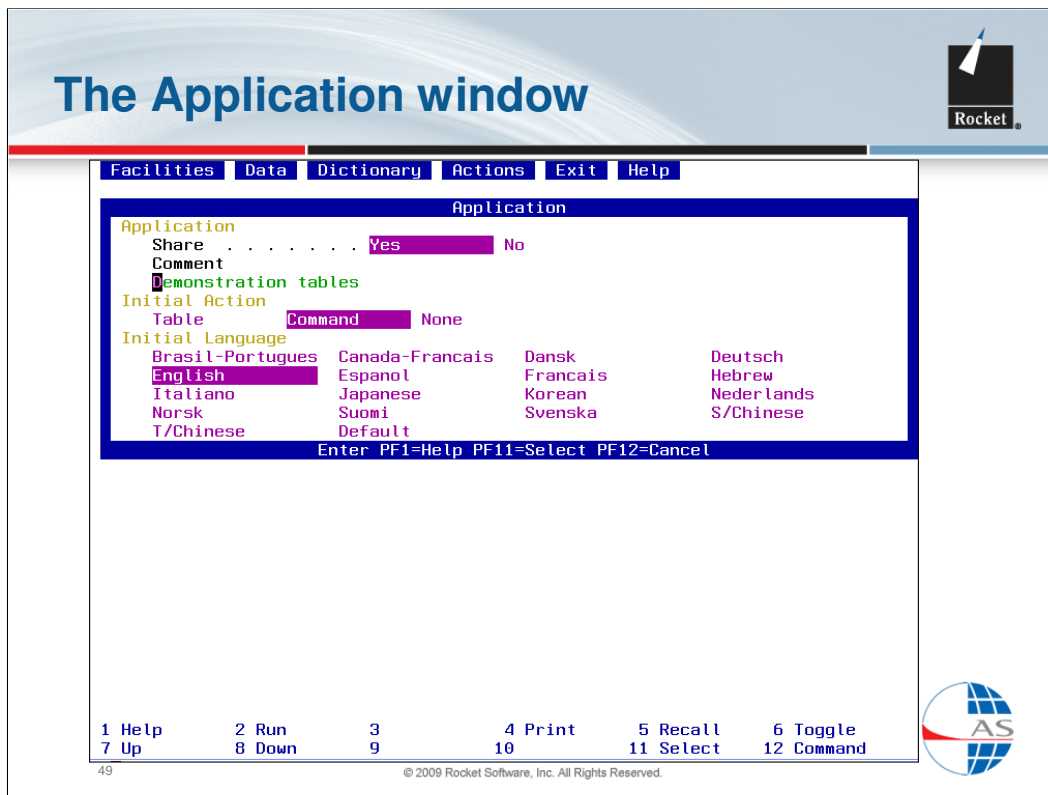
48

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### SLIDE NOTES.....

You may find that you always enter the same command(s) every time you start AS. If so, you can automate that process by specifying an 'Initial Action' as shown. You can enter a command (or several commands, by linking them with a 'newline' character - shown here as '\_') or name a procedure to be executed on start-up.






### SLIDE NOTES.....


Here is the Application window, accessed from the Dictionary pull-down menu. In this example, under 'Initial Action', the option 'Command' has been selected and the command itself is entered in a subsequent window.

You will also notice that the Application window allows you select the language you wish to work in.

## Terminating your AS session



- To terminate AS and return to your host system:  
**end as**
- To terminate the current AS application (code) and return to the list of applications:  
**end app**
- To switch to another application code (e.g. 'test') without terminating AS:  
**end app(test)**



50

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### SLIDE NOTES.....

Here are the AS commands for three different ways of terminating your AS session. The first two options are also available using the **Exit** pull-down menu.

## Topic 8



- ✓ Some AS concepts
- ✓ Data retrieval/analysis - View/Select etc.
- ✓ Data manipulation - Copy/Sequence etc.
- ✓ The AS Data Dictionary - Tables/Columns
- ✓ Other presentation styles - Reports/Charts
- ✓ Organising your AS work - Procedures & Workplaces
- ✓ Starting/Ending AS
- **Other useful things**




51

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SLIDE NOTES.....

Topic completed - now a few miscellaneous useful items.

## Synonyms




- Useful for 'personal commands'
 

*For example, instead of entering the commands:*  
in mydata\_run myrep\_review mylist  
*You could just enter your own command:*  
go
- Defined using the SYNonym command e.g.
 

syn go,com(in mydata\_run myrep\_review mylist)
- Parameters can be used to substitute values
 

*For example, using the parameter '?1':*  
syn go,com(in mydata\_select ?1\_run myrep)  
*the value for the Select command can be supplied:*  
go 12



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### SLIDE NOTES.....

Synonyms can be very useful and can make you much more productive in using AS. You can effectively build your own AS commands to abbreviate operations that you perform frequently.


In this example, a synonym called **GO** (not an existing AS command) is defined using the Synonym command. Thereafter, GO can be used just like an AS command and can even be defined with one or more parameters to make it more flexible. Just use ?1, ?2 etc. in the Synonym definition then supply the values in the right order when you use your synonym.

In the last example, by following the synonym with number 12, the Select command becomes 'Select 12' when the value is substituted.

## Synonyms (cont'd)



- Can be shorter than 3 characters, e.g.:  
`synonym A,com(end app(?1))`
- Can contain more than 1 command, e.g.:  
`synonym V,com(in ?1_view)`
- Can be saved in an Environment spec e.g.:  
`synonym save(MySyns)`  
*and recovered using:*  
`synonym recover(MySyns)`



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### SLIDE NOTES.....


The best synonyms are the shortest ones – a single letter is ideal because it can never conflict with an existing AS command.

Synonyms can be saved in an AS table and recovered at the start of every AS session so they are always available for use.


In later releases of AS, some system synonyms are provided as standard but you can still define your own. To view the synonyms already defined in your AS session, enter the AS command:

**Synonym**

## Other useful commands



- **Cancel Select** to remove row selections
- **Rename** to rename a table without copying it
- **SCopy** to copy a table and change its structure
- **Purge** to delete unwanted tables
- **Help** for Online Reference
- **Demonstrate** for AS information, worked examples, tutorials etc.



54

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### SLIDE NOTES.....

There are numerous AS commands and here are just a few more.

Don't forget to use the AS **HELP** command to access the AS Reference Manual online. You can search for AS commands, functions and system values and see the full explanation, syntax and examples for each one.

**DEMONSTRATE** (also available from the Facilities pull-down menu) offers a wealth of information, examples, demonstrations and opportunities to learn more about AS.

## Topics - all done?



- ✓ Some AS concepts
- ✓ Data retrieval/analysis - View/Select etc.
- ✓ Data manipulation - Copy/Sequence etc.
- ✓ The AS Data Dictionary - Tables/Columns
- ✓ Other presentation styles - Reports/Charts
- ✓ Organising your AS work - Procedures & Workplaces
- ✓ Starting/Ending AS
- ✓ Other useful things




55

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SLIDE NOTES.....

All topics completed – and now a few words about Rocket.....



## Rocket Software

- We develop, market and support Rocket AS and ASICE
- We provide services to Rocket AS customers:
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  - Consultancy
  - Application Development
- Rocket web-site:  
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  - News & Information about products and events
  - Downloads & Documentation
  - Support & Hints
- For AS support, use the Rocket Customer Portal:  
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56

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### SLIDE NOTES.....

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In addition to providing high quality, responsive AS support to our customers, we also provide services on AS-related topics, including the development of bespoke applications in AS.

Our web-site at <http://www.rocketsoftware.com> provides extensive news and information of interest to AS users.

For AS support, use the **Rocket Customer Portal** - <http://www.rocketsoftware.com/support>.