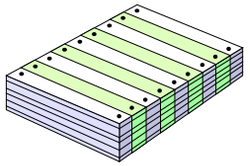
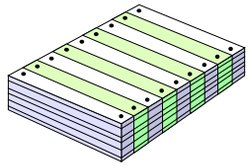


PowerHouse and Suprtool

PowerHouse and Suprtool

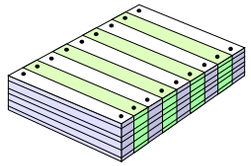
	Page
Why use Suprtool?	2
Combining Suprtool and QUIZ	4
Linking multiple files	8
Creating complex subfiles	14
Importing external data for QUIZ	15
Suprtool subtotal and count operations	16



Why preselect data with Suprtool?

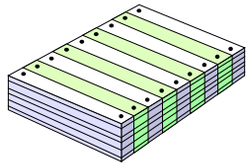
- Suprtool features
  - Fast and efficient serial reads of files
  - Powerful and flexible selection features
  - Efficient sort routines
  - Links files on any field with minimum disc I/O
  - Interfaces with many application tools

- QUIZ features
  - Powerful, flexible report writer
  - Uses standard data retrieval methods



Reading input files

- Suprtool can read
  - IMAGE datasets
  - KSAM files
  - MPE disc files
  - Tape files
  - Other files with fixed-length records
- QUIZ can read
  - QDD or PDL declared files
  - PowerHouse subfiles
- MPE disc files can be declared in the PowerHouse dictionary



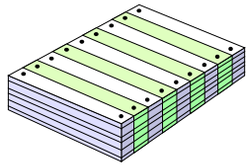
A typical QUIZ and Suprtool task

- Choose an input method for QUIZ; Suprtool cannot create subfiles
  1. Create an empty subfile

     or
  2. Describe a direct or sequential file in PDL or QDD

- Use Suprtool to populate the file

- Access the output file in QUIZ and link to others



Step 1: Creating subfiles

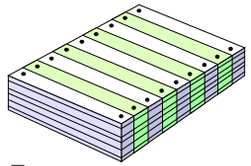
- QUIZ

```
>access D-SALES
>report summary all
>set subfile name SALESUB keep size 10000
>set report limit 1
>go
```

- QTP

```
>access D-SALES
>subfile SALESUB keep size 10000 include D-SALES
>set input limit 0
>go
```

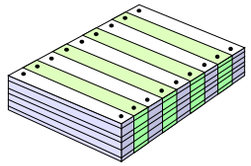
- Different results if items redefined more than once



Step 2: Populate the subfile with Suprtool

```
:run SUPRTOOL.PUB.ROBELLE

>base STORE,5,READER
>get D-SALES
>if PRODUCT="WIDGET"
>sort CUST-ACCOUNT
>output SALESUB,erase
>xeq
IN=20, OUT=6. CPU-Sec=1. Wall-Sec=1.
```



Step 3: QUIZ can now read the subfile

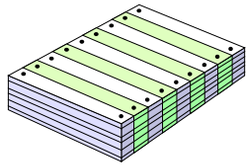
- Change the QUIZ report from

```
>access D-SALES
>select if PRODUCT="WIDGET"
>sort on CUST-ACCOUNT
>Heading ...
```

to

```
>access *SALESUB
>sorted on CUST-ACCOUNT
>Heading ...
```

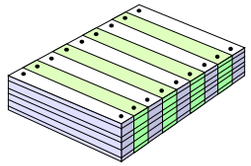
- QUIZ TIP: Compiled QUIZ program doesn't require mini-dictionary



Linking multiple data files

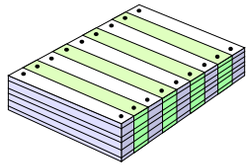
Using Suprlink with PowerHouse

- Suprtool reads and selects records from each data file
- Suprtool sorts the qualified records on the link field into flat files
- Suprlink links the files into one record and writes to the subfile
- QUIZ does the final reporting



Linking with QUIZ versus Suprlink

- QUIZ
  - Links on key fields
  - One-to-many links
  - Link field appears twice in subfile
- Suprlink
  - Links flat files on any sorted field
  - Each input file record can generate only one output record
  - Link field appears once in output record



Linking with Suprlink versus QUIZ

M-CUSTOMER File

CUST-ACCO	NAME-FIRST	NAME-LAST
10001	Darlene	Hamilton
10002	Gordon	Lackner
10003	John	Melander
10008	Thomas	Serafin
10009	Gordon	Oxenbury
10010	Wayne	Humphreys
10011	William	Kirk
10012	Percy	Ferguson
10013	Colin	Andersen
10019	Rupert	Hillstrom
10020	Walley	Nisbet

D-SALES File

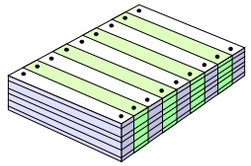
PURCH-DATE	CUST-ACCO
19931015	10003
19931015	10003
19931015	10003
19931020	10010
19931021	10016
19931021	10016
19931001	10020
19931028	10020

- QUIZ links 6 records; 14 records if optional link

```
CUST-ACCOUNT NAME-FIRST NAME-LAST PURCH-DATE CUST-ACCOUNT
```

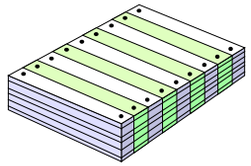
- Suprlink links 3 records; 11 records if optional link

```
CUST-ACCOUNT NAME-FIRST NAME-LAST PURCH-DATE
```



Replacing QUIZ with Suprlink

- Change one-to-many links to many-to-one; output file cannot contain more records than input file
- Field sequence is different from QUIZ output
- Link field is not repeated in output record; record length of Suprlink output file is smaller than QUIZ
- Optional linkage defaults fields to blanks or zeros

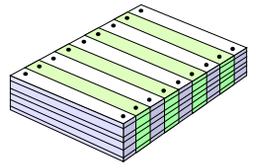


Debugging tip

- First create a self-describing (SD) file with the LINK option
  >**output SALCUST,LINK**

- Use FORM command to examine record structure

```
>form salcust
File: SALCUST.HANS.TECHSUP          (SD Version B.00.00)
Entry:                                Offset
   CUST-ACCOUNT                Z8         1   <<Sort 1 >>
   DELIV-DATE                  I2         9
   PRODUCT-NO                  Z8        13
   PRODUCT-PRICE               I2        21
   PURCH-DATE                  I2        25
   ...
   POSTAL-CODE                 X6       135
Limit: 108 EOF: 8 Entry Length: 140 Blocking: 29
```



Creating subfiles from multiple datasets

- Indexed link

  QUIZ

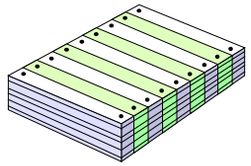
```
>Access D-SALES link to M-CUSTOMER
>report summary CUST-ACCOUNT NAME-FIRST &
>     NAME-LAST PURCH-DATE
>set subfile name ...
```

  QTP

```
>Access D-SALES link to M-CUSTOMER
>subfile SALFILE size 10000 keep &
>     include D-SALES, NAME-FIRST, NAME-LAST
>set input limit 0
>go
```

- Suprlink does not repeat link field in output record

Creating complex subfiles without an indexed link

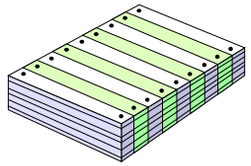


- Suprlink can link files on any field
- QUIZ requires an index to link
- How do you create a QUIZ subfile with the required fields?
- Two steps:
  1. Build a one-record subfile of each data file
  2. Link subfiles on record number to create new subfile

```
>Access *SALSUB link to record(0) of *CUSTSUB
>report summary CUST-ACCOUNT NAME-FIRST ...
```

- Subfiles must have correct item definitions; data not important

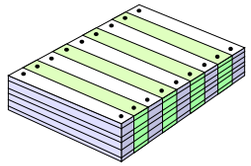
Creating subfiles without a PowerHouse dictionary



- Create a one-record subfile with QUIZ

```
>define NAME-FIRST character size 10 = " "
>define NAME-LAST character size 20 = " "
>define DELIV-DATE Integer size 4 = 0
>report summary all
>set subfile name ...
```

- Ensure data-types match actual data
  - **`Integer*4`** is not the same as **`Integer size 4`**
  - Check record length of subfile against data



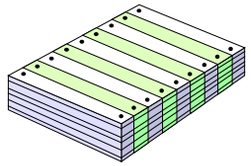
Creating new data fields

- Suprtool can summarize at sort breaks

```
>duplicate none keys total Sales-total
```

- Suprtool creates new fields for totals
  - Field names ST-TOTAL-1, ST-TOTAL-2, etc.
  - Appended to record
  - Field format P28 (packed-decimal)
- To create a compatible field in QUIZ:

```
>define D-Total packed size 14 = 0
```



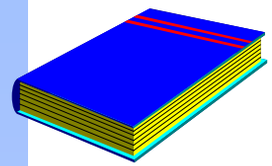
A typical requirement: Summary values

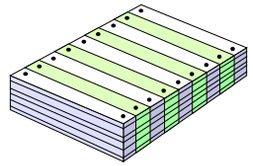
- Create subfile with sort and total fields
- Calculate sort-break totals with Suprtool

```
>get d-sales
>sort cust-account
>dup none keys total sales-total
>extract cust-account
>out saltot,erase
```

- Use totals in QUIZ report

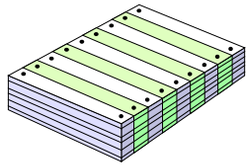
```
>access *saltot link to d-sales
>define d-pcnt num*3 = &
                    (sales-total/st-total-1)*100
>report .....
```





Summary of Speeding Up QUIZ

- Suprtool delivers qualified data to QUIZ
- Data must be in a format QUIZ understands
- Use PowerHouse to create its own data structures
- Create new items with QUIZ Define commands
- Use Suprtool FORM command to examine structure
- Use Show Items in QUIZ to display structure

Carefully examine your requirements

Call our toll-free number if you need help