IBM System/23 Datamaster
Business Report/
Application Development
System III
Features and Sample Reports

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IBM

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Business Report/
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System III
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Datamaster Datamaster



First edition (October 1981)

Changes are periodically made to the information herein; any such changes will be reported in subsequent editions.

Use this publication only for the purpose of obtaining information about selected functions and sample reports and screens produced using the IBM System/23 Business Report/Application Development System III (BRADS III).

The following document contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples contain the names of individuals, companies, brands, and products. All of these are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

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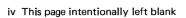
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Highlights

BRADS III provides an easy way for you to use the BASIC function of Datamaster for managing your business. BRADS will allow you to:

- Add functions to existing applications
 - Your applications
 - IBM System/23 Business Management Accounting System for Datamaster

If you are interested in any of the Business Management Accounting System applications, we encourage you to obtain and review the applicable Reports brochure.

IBM System/23 Datamaster Billing Reports, G280-0229
IBM System/23 Datamaster Accounts Receivable
Reports, G280-0230

IBM System/23 Datamaster Accounts Payable Reports, G280-0231

IBM System/23 Datamaster General Ledger Reports, G280-0232

IBM System/23 Datamaster Inventory Accounting Reports, G280-0233

IBM System/23 Datamaster Payroll Reports, G280-0234

- Build entirely new applications
- Design, build, update, and use data files
- Use application data and word processing text together for personalized mailing or other word processing applications
- Perform calculations
- Design and print reports and documents
- Design and produce comparative financial analysis "spread sheets" using simple "what-if" alternatives
- Design screens for data entry, option selection, operator instruction, error messages, or operator 'help' when requested
- Sort data files into different sequences

IBM System/23 Datamaster requirements

System/23 BRADS requires the following minimum System/23 Datamaster configuration:

- IBM 5322 Computer with 64K¹ bytes of storage and 1.1 million bytes of diskette storage (either integrated or the IBM 5246 Diskette Unit). IBM type 2D diskettes are required.
- Sort feature
- IBM printer (80 characters per second print speed)
- System/23 Customer Support Functions (specifically Prepare diskette, Copy diskette, and Index file generation).

Note: In some instances, the complexity of a report or file you define might require more than 64K bytes of storage. A simpler definition or additional storage can avoid the problem. A larger diskette storage configuration and/or a faster printer (160 characters per second) may be required, depending on your company's business volume. For operational ease, 2.2 million bytes or more of diskette storage are recommended.

 $^{^{1}}$ K = 1,204 bytes; thus, the total is 65,536 bytes of storage.

² IBM System/23 Datamaster requirements

Who can use BRADS III

BRADS III is a productivity aid for persons with different levels of computer skill. It can help you solve problems associated with maintaining, retrieving, and using information whether you are a new computer user or an experienced programmer.

- Owner of a business or manager of a department in a large company, without programming skills.
 With System/23 accounting applications installed, you use BRADS to sort files and produce simple new reports. With a little more practice, you can use BRADS to design and produce reports with subtotals, multiple heading lines, simple calculations and more.
- Financial analyst, budget planner, or accountant, with limited programming skills.
 BRADS III includes a spread sheet generator function for those with a requirement for comparative analysis.

With this function, reports can be produced such as the following:

- Forecasts showing expected revenues, operating costs, capital expenditures, taxes, and other expenditures
- A variety of "what-if" adjustments to the original spread sheet data to investigate other alternatives
- Reports that examine the differences (variances) between plans or differences between plans and actual performance
- Combined historical and predictive data
- Manager with a moderate level of programming skills.

You can extend the use of BRADS to include more complex calculations or the design of complex documents.

Professional programmer.

You can use BRADS to build entire applications, or to build reports and screens to be used with other applications.

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BRADS III with IBM Business Management Accounting System

The IBM System/23 Business Management Accounting System includes the following application programs:

- Billing
- Inventory
- Accounts Receivable
- General Ledger
- Accounts Payable
- Payroll

Each application is shipped with BRADS III definitions of the master files you can use to produce your special reports. Some of the special reports you can add for each application are:

- Billing
 - Daily invoices with profit amount and percent
 - Sales by salesman
 - Profit analysis for a period
 - Mailing labels
- Inventory accounting
 - Items on order
 - Items below minimum balance level
 - Items above maximum balance level
 - Items out of stock

- High activity items
- Low activity items
- Accounts Payable
 - Mailing labels
 - Vendor analysis by discounts lost
 - Vendor analysis by volume of purchases
 - Open payables by total amount due
 - Credit memos outstanding
- Payroll
 - Union reports
 - Labor costs
 - Special tax reporting
 - Vacation/holiday/sick reports
- Accounts Receivable
 - Profitability by customer
 - Sales commissions
 - Salesman follow-up for collections
- General ledger
 - Key ratio analysis
 - Trend analysis
 - Cost of goods sold

The following pages describe some of the reports you can add to your System/23 Billing, Inventory Accounting, and Accounts Payable applications.

BRADS III with Billing

Building	Repair A	and Design	Services,	Inc.)
DAIL	Y I N	And Design	REPO	RT }

INVOICE NUMBER	ORDER NUMBER	CUSTOMER NUMBER	CUSTOMER NAME	NET SALES	SPECIAL CHARGES	TAX AMOUNT	INVOICE AMOUNT	PROF: AMOUNT	IT PCT	INVOICE B
134281 134282 134283 134284 134285 134286 134287 134288	275623 000728 A-2583 6458 GH-038 58792 798 3098AB	10400 10800 20410 20499 11900 11820 20420 14800	Anderson Inc Angeroth Inc Rowe Electronics Clay & Peters Inc Gordons Hardware Westernwide *Store 1* Walker Electrical Robertson Inc.	432.50 1,878.78 4,479.60 52.78 431.66 * -69.76 6,774.23 277.06	48.51 146.82 378.23 5.50 18.50 -12.25 127.69 25.43	30.70 129.29 310.07 3.72 28.73 -5.23 440.55 17.12	511.71 2,154.89 5,167.90 62.00 478.89 -87.24 7,342.47 319.61	258.90 1,234.60 2,764.05 28.50 238.23 -48.25 3,486.29 125.00	50.5 57.3 53.5 46.0 49.7 -55.3 47.5 43.8	102.34 430.98 1,033.58 10.00 95.78 00 1,468.49 57.07
Number	of invoice	es: 8	INVOICE BATCH TOTALS	14,256.85	738.43	954.95	15,950.23	8,087.32	50.8	3,198.24 D

F Date: July 31, 1981 Time: 10:45:32

Page: 1

This is a listing of the invoices printed each day showing profit amount and percent. The BRADS Specify and Run Report commands are used to get the data from the billing transaction file and print the report.

- A Report title exactly as you specify it.
- B Column headings you define.
- © Data from billing invoice transaction file (BITRAN).
- Underline to set off totals.
- E Total line at the end of the report.
- Footing line, with the date, time, and page number supplied by BRADS.

BRADS III with Inventory Accounting

	Buildi	ng Repair And De	esign Syste	ems			
	INVENTORY AC	COUNTING	0 N - 0	RDER	REPOR	Т	
ITEM NUMBER	ITEM DESCRIPTION	QUANTITY ON ORDER	VENDOR NUMBER	WHS NO.	QUANTITY ON-HAND	MINIMUM QUANTITY	MAXIMUN QUANTITY
1410	Tennis Balls - yellow	5	A1011	1	9	5	20
2338	Transister array	100	E8834	1	370	225	500
2370	Rectifier fast recovery	160	E8834	1 3	90 16	25	180
2390 A	Cable copper undrgrd 1500	10	E8834	1 2 3	10 3 2	10	20

Date:

August 3, 1981 Time: 02:30:47

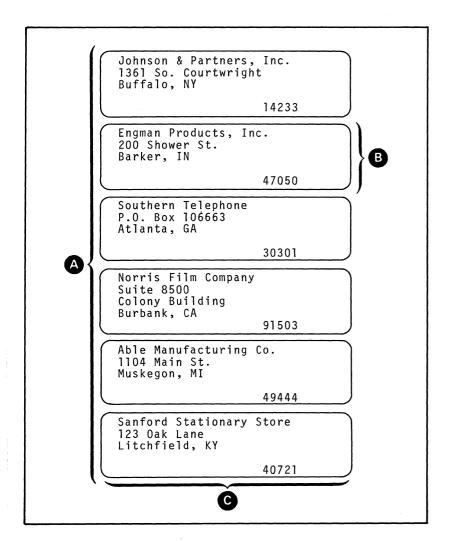
Page: 1

8 BRADS III with Inventory Accounting

BRADS can be used to produce a variety of exception reports based upon information in the inventory master files. The following is a listing or report of all items that are on order.

- A The items appear in item number sequence because the records are sorted before the report is printed.
- **B** Items without a quantity on order are omitted from the report.
- Only those warehouses with a quantity on hand are shown.

BRADS III with Accounts Payable



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10 BRADS III with Accounts Payable

The accounts payable vendor master file (VENMAS) and the BRADS File Query command can be used to produce mailing labels for all, or selected, vendors.

- A In this example, one label is printed for every vendor in your vendor master file. In addition:
 - Two, three, or four labels for each vendor can be printed side-by-side.
 - Labels can be printed selectively, based on such things as geographic area, purchases YTD, or discount information.
- **B** Each five-line label is printed from a single vendor record.
- In this example, the labels are printed in the order the vendor's name appears in the file. The BRADS Define Sort command can be used to print labels in sequence by zip code, vendor name, or other fields in the vendor master file.

Note: These labels are for mailings to vendors. They can also be used for mailings to prospects, customers, or employees.

BRADS III and word processing

Building Repair And Design Services

4194 Cherry Oaks Pl. Palo Alto, CA 94306

415 494-7199

Ms. Anne Giles
Westernwide *Store 1*
2800 El Camino Real
Mountain View CA

August 3, 1981

Dear Ms. Giles:

I want to let you know that we are changing our discounting practice due to the current high interest rates. Our current cash discount rate of 20%, net 30 days will become 18%, net 20 days as of September 1, 1981.

We regret the need for this change and assure you we will improve these terms as soon as practical.

Thank you for your continued patronage.

Yours truly,

Clyde P. Dooley Marketing Director



Anne, your business is truly appreciated. I sincerely hope our services are satisfactory. Please let me know if I can be of help.

B

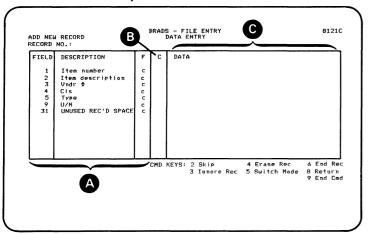
12 BRADS III and word processing

In this example, the text of the letter is prepared using the System/23 word processing feature. The personalization features are obtained from the accounts receivable customer master file (CUSMAS), and the postscript is selected by BRADS, based upon the amount of business the customer has done with the company this year. Only those customers who get a cash discount have been selected by BRADS.

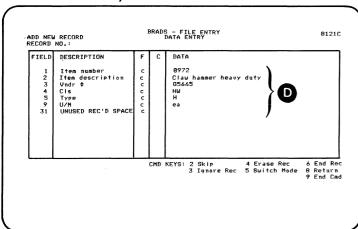
- A The customer name and address comes from the accounts receivable customer master file.
- **B** BRADS provides the date.
- The contact's first name is taken from the accounts receivable master file. If there is no contact name in the file, the word "Sir," is inserted by BRADS.
- The body of the letter comes from a word processing document file.
- E The postscript is selected by BRADS, based upon the volume of business the customer has done with the company this year.

BRADS III features — building files (File Entry)

Screen before data entry



Screen after data entry



14 BRADS III features - building files

After a file is defined, you can use the File Entry command to place data into the records you have defined.

- A This information is displayed automatically, based on the file definition.
- B This column lets you control the entry by skipping fields or repeating data from previous records.
- This is where you enter the data for each record. Notice that the column is blank because you are adding a new record to the file.
- **D** This is how the screen appears after you enter the data.

You can also use the File Entry feature to make changes to information in existing data files.

BRADS III features — inquiries

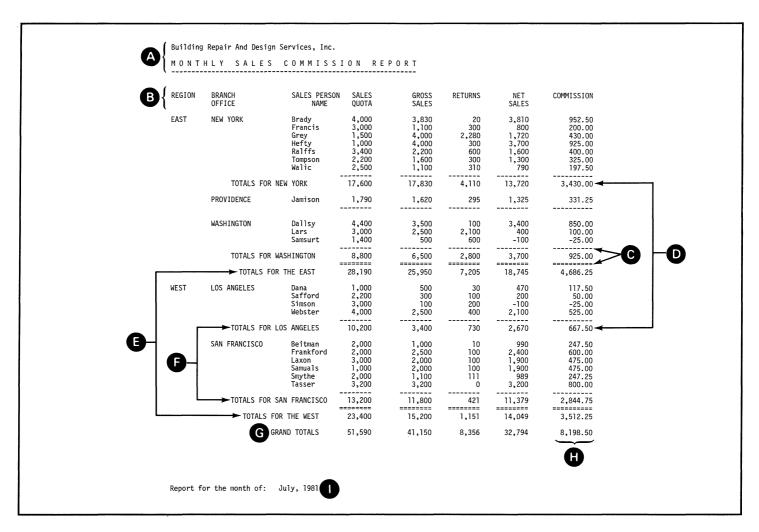
File Na	ame : CUSMAS									
Cust#	Customer name A 0r	ds MTD	Ords YTD	Sold MTD	Sold YTD	Avg MTD	Avg YTD	Cr Lmt	Amt due	Cr avail
20499 11820	Sheeba Material Handling Clay & Peters Inc. Westernwide *Store 2* Gordons' Hardware	24 13 12 13	25 51 34 21	2490.89 400.00 6417.92 5430.90	4578.95 3344.90 15984.07 8901.05	103.79 30.77 534.83 417.76	183.16 65.59 470.12 423.86	25000 0 10000 1500	28350.00 348.89 11995.09 3023.94	-3350.00 -348.89 -1995.09 -1523.94
4 recor	rds selected	62	131	14739.71	32808.97	271.79	285.68		43717.92	-7217.92

BRADS provides a File Query command for your simpler report needs.

In this example, File Query was used to calculate credit available and then to select all records from the customer master file if the amount due exceeded the credit limit.

- A These column headings are printed automatically.
- **B** Only the fields you choose are printed.
- C Column totals print automatically where you request them.
- **D** These fields were calculated during File Query.
- Only those records for customers who have exceeded their credit limit are selected.
- Title information is printed automatically.
- **G** An automatic count of the number of records selected.

BRADS III features — report programs (Specify Report)



18 BRADS III features - report programs

With BRADS you can design reports (as well as other data processing jobs) and when you finish specifying your report, a program is built and stored. You can then use the Run Report command to print the report. This monthly sales commission report is an example of a report you can design.

- A Report titles you defined.
- B Your column headings.
- C Underlines you define to set off the subtotals.
- Total lines for each branch office.
- E Total lines for each region.
- **F** Descriptive total line titles.
- **G** Grand total of all regions.
- H Commission amount (result of a calculation you define).
- Footing line you define. BRADS places the date and page number where you want them.

You actually lay out the report on the screen, putting the various titles and data where you want it to appear. You can move the fields around on the screen until you are satisfied with the appearance of the report.

BRADS III features — report programs (continued)

1 Control number	Copy 1 For State, City or Local Tax De Employee's and employer's copy compared. [3 Employer's Identification number 4 Employer's State number
Building Repair And Design S 4194 Cherry Oaks Pl.	erv. 123456789
Palo Alto, CA 94306	S Stat em De Pesson Legal 942 Sab Cer- playee ceased plan rap emp total rection
L 2 Employer's name, address, and ZIP code	6 . 00 7 Advance EIC payment . 00
8 Employer's name, address, and ZIP code 8 Employee's social security number 9 Federal income tax withheld 1,393.0	6 0 Wages, lips, other compensation 11 FICA tax withheld 394.80
12 Employee's name, address, and ZIP code Frederick A Collins	13 FICA wages 5,936.72 14 FICA lips .00
2500 Bradford Sq. Decatur, GA 30302	16 Employer's use
55555	17 State income tax 18 State Wages, tips, etc 19 Name of State
	20 Local income tax 21 Local wages, fips. etc 22 Name of locali
Form W-2 Wage and Tax Statement 1980	.00 .00
•	
1 Control number	Comuni Ear State City and cond Toy
r Sometiment	Copy 1 For State, City or Local Tax Employee's and employer's copy compared.
Building Repair And Design S	2 Employer's identification number 4 Employer's State number 123456789
4194 Cherry Oaks Pl. Palo Alto, CA 94306	5 Stat en Se Penson Legal 942 Sub Cer- ployee ceased plan rep emp total rection
L	6 7 Advance EIC payment
Employer's name, address, and ZIP code Employer's social security number 9 Federal income tax withheld	.00 .00
847-52-684 2,493.1 12 Employee's name, address, and ZIP code	13 FICA wages 14 FICA tips
Joseph B. Eggland 3825 Brady Circle	7,853.95
Marietta, GA. 30302	
	.00 .00
	20 Local income tax 21 Local wages, tips, etc. 22 Name of localit
Form W-2 Wage and Tax Statement 1980	
1 Control number	Copy 1 For State, City or Local Tax [
	Employee's and employer's copy compared. 3 Employer's identification number 4 Employer's State number
Building Repair And Design Se 4194 Cherry Oaks Pl.	erv. 123456789
Palo Alto, CA 94306	player creased plan my emp lettel rection
2 Employer's name, address, and ZIP code	.00 .00
2 Employer's name, address, and ZIP code 8 Employee's social security number 9 Federal income tax withheld 54,586.3	10 Wages, tips, other compensation 11 FICA tax withheld 12,639.43
12 Employee's name, address, and ZIP code	13 FICA wages 14 FICA tips 0.00
	16 Employer's use
	17 State income tax 18 State Wages, tips, etc 19 Name of State
	. 00 . 00 20 Local income tax 21 Local wages, tips, etc 22 Name of local
	.00 .00

20 BRADS III features - report programs

You can use BRADS to format and produce reports on preprinted forms such as invoices, purchase orders, and vouchers. Following are examples of federal W-2 forms that were printed by BRADS.

- A W-2 form is printed for every employee in your Payroll master file.
- **B** A total of each tax is printed on the blank W-2 form after all the W-2 forms are printed.

Note: The IBM Payroll application provides a program to print W-2 forms. W-2 forms were only chosen for this example to illustrate how BRADS can be used to produce reports on preprinted continuous forms.

BRADS III features — spread sheet reports

			Buil	,		Design S and EXPE	ervices,	Inc.)
						(July 28								
	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	1982	ANNUAL	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL)
FORECASTED REVENU														
A Timers (units) Timers (price) Timers (\$ rev) Calculators (\$ Calculators (\$ Calculators (\$	rice) 50.00	2500 33.25 83125 3450 50.00 172500	2500 33.25 83125 3900 50.00 195000	3000 33.25 99750 4350 50.00 217500	3000 33.75 101250 4800 56.00 268800	3000 33.75 101250 5250 56.00 294000	2500 33.75 84375 5700 56.00 319200	2500 33.75 84375 6150 56.00 344400	2500 34.50 86250 6600 56.00 369600	2250 34.50 77625 7050 56.00 394800	2250 34.50 77625 7500 56.00 420000	7950 56.00 445200	30,750 34.50 1,039,500- 65,700 56.00 3,591,000	G
TOTAL SALES	233125		278125	317250	370050	395250	403575	428775	455850		497625		4,630,500	-
\$ Growth by mo		22500 9.7	22500 8.8	39125 14.1	52800 16.6	25200 6.8	8325 2.1	25200 6.2	27075 6.3	16575 3.6	25200 5.3	25200 5.1	289,700 124.3	(
COST OF SALES														
Marketing Materials Labor Other direct c	34969 57925 40241 osts 8112	38344 63932 45037 7845	41719 69940 49833 7902	47587 79522 56283 8005	55507 85530 61078 8108	59287 91537 65874 8213	60536 93970 69016 8165	64316 99977 73812 8143	68377 105985 78608 7895	70864 110205 82577 7998	74644 116213 87373 8024	92169 7840	694,575 1,096,957 801,903 96,250	
TOTAL COST OF SAL	S 141247	155158	169394	191398	210224	224912	231688	246249	260866	271644	286253	300653	2,689,686	
GROSS PROFIT % of sales	91878 39.4		108731 39.1	125852 39.7	159826 43.2	170338 43.1	171887 42.6	182526 42.6	194984 42.8		211372 42.5		1,940,814 41.9	- (3)
EXPENSES														
G & A Expenses Depreciation Interest Other indirect		10110 917 1800 1568	10098 917 1750 1587	10065 917 1700 1582	10009 917 1650 1494	10035 917 1600 1500	10088 917 1550 1560	10120 917 1500 1591	10348 917 1450 1653	10299 917 1400 1738	10312 917 1350 1711	10435 917 1300 1750	121,991 11,000 18,900 19,194	
TOTAL EXPENSES	14299	14395	14352	14264	14070	14052	14115	14128	14368	14354	14290	14402	171,085	
OPERATING PROFIT Federal income	77579 tax 37238	86072 41315	94380 45302	111589 53563	145756 69963	156286 75017	157773 75731	168398 80831	180617 86696	186427 89485	197082 94599		1,769,729 849,470	
NET EARNINGS	40341	44757	49077	58026	75793	81269	82042	87567	93921	96942	102483		920,259	
\$ Growth by month % Margin (after t	0 ax) 17.3	4416 17.5	4320 17.6	8949 18.3	17767 20.5	5475 20.6	773 20.3	5525 20.4	6354 20.6	3022 20.5	5540 20.6	5558 20.7		- •
TOTAL UNITS SOLD	5500	5950	6400	7350	7800	8250	8200	8650	9100	9300	9750	10200	96,450	
Labor rate Avg material c Average price	7.35 ost 10.53 42.39	7.35 10.74 42.96	7.35 10.93 43.46	7.35 10.82 43.16	7.35 10.97 47.44	7.35 11.10 47.91	7.35 11.46 49.22	7.35 11.56 49.57	7.35 11.65 50.09	7.35 11.85 50.80	7.35 11.92 51.04	7.35 11.98 51.26	11.37	

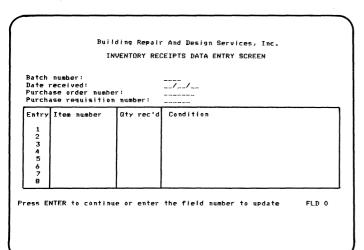
The BRADS III spread sheet function allows you to design and run comparative financial analysis spread sheet reports.

- A Specific values you enter.
- **B** Growth trends (450 unit increment).
- Values calculated from other lines [(price x units) and (timers + calculators)].
- D Changes over a period of time (dollars and percentages).
- E Calculation of row relationship to another row (profit as percentage of sales).
- **F** Special financial calculations.
- **G** Spacing and underscores (you define them).
- H Recalculated annual percentage.
- Report titles and column headings (you define them).
- J Subtitles (you define them).
- Row descriptors (you define them).

BRADS III features — screens

BRADS allows you to design screens for your BRADS report applications. Following are two examples of what you can design.

Data entry screen



Job selection screen

Building Repair And Design Services, Inc

PURCHASING APPLICATION - JOB SELECTION MENU

Enter the number of the job you want to perform next:

1. Enter new Purchase Requisitions
2. Print Purchase Orders
3. Print Request for Bids letters
4. Enter wendor compliance data
5. Print On-order Report by wendor
6. Print On-order Report by date promised
7. Print Vendor Compliance Report
8. Enter Inventory Receipts data
9. Print Cleared For Payment list
10. End Purchasing Application



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G280-0237-0 File No. S23-79 Printed in U.S.A.