

16 DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES

General - The materials, parts, and supplies listed below are those commonly consumed in the manufacture, processing, or assembly of the products listed in **2**. Please review the entire list and report separately each item consumed. Leave blank if you do not consume the item. If you use materials, parts, and supplies that are not listed, describe and report them in the "Cost of all other materials . . ." at the end of this section. If you consumed less than \$25,000 of a listed material, include the value with "Cost of all other materials . . ." Census material code 009700 99 8.

Report materials, parts, and supplies purchased, transferred from other plants of your company, or withdrawn from inventory.

If quantities are requested, please use the unit of measure specified.

If the information as requested cannot be taken directly from your book records, REASONABLE ESTIMATES ARE ACCEPTABLE.

Valuation of Materials Consumed - The value of the materials, etc., consumed should be based on the delivered cost; i.e., the amount paid or payable after discounts and including freight and other direct charges incurred in acquiring the materials.

Materials received from other plants within your company should be reported at their full economic value (the value assigned by the shipping plant, plus the cost of freight and other handling charges).

If purchases or transfers do not differ significantly from the amount actually put into production, you may report the cost of purchases or transfers. However, if consumption differs significantly from the amounts purchased or transferred, these amounts should be adjusted for changes in the materials and supplies inventories by adding the beginning inventory to the amount purchased or transferred and subtracting ending inventory.

Contract Work - Include all materials consumed those you purchased for use by others making products for you under contract. Amounts paid to the companies doing the contract work should be reported in **15**, line A5, and should include freight in and out. On the other hand, materials owned by others but used at this establishment in making products for others under contract or on commission should be excluded.

Resales - Cost for products bought and sold or transferred from other establishments of your company and sold without further manufacture, processing, or assembly should be reported in **15**, line A2, not in **16**. The value of these products shipped by this establishment should be reported in **2** under Census product code 000999 8900 6, "Resales."

INFORMATION COPY
 DO NOT USE TO REPORT

Line No.	Materials, parts, and supplies	Census material code	Consumption of purchased materials and of materials received from other establishments of your company		
			Cost, including delivery cost (freight-in)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
1	Components for electronic circuitry, excluding tubes				
	Printed circuit boards	334412 00 4			
2	Printed circuit assemblies, loaded boards or modules (printed circuit boards with inserted electronic components)	001900 C4 9			
3	Semiconductors, including transistors, diodes, rectifiers, and integrated circuits	334413 00 2			
4	Capacitors	334414 00 0			
5	Resistors	334415 00 7			
6	Other components and accessories, nec (<i>Specify kind.</i>) 7	001900 D3 0			
7	Current-carrying wiring devices	335931 01 0			
8	Fractional horsepower electric motors (less than 1 hp)	335312 11 2			

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If not shown, please enter your 11-digit Census File Number (CFN) from the mailing address.

16 DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES - Continued

Line No.	Materials, parts, and supplies	Census material code	Consumption of purchased materials and of materials received from other establishments of your company		
			Cost, including delivery cost (freight-in)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
9	Electronic communication equipment	334220 01 9			
10	Electrical transmission, distribution, and control equipment	001900 B1 6			
11	Electronic computing equipment	334100 01 3			
12	Electrical instrument mechanisms and meter movements (including instrument relays)	334515 01 2			
13	Electrical measuring instruments and parts, not listed elsewhere	334515 03 8			
14	Insulated wire and cable, including magnet wire	331000 A7 4			
15	Plastics resins consumed in the form of granules, pellets, powders, liquids, etc., but excluding sheets, rods, tubes, and other shapes	325211 05 0			
16	Fabricated plastics products (excluding gaskets, hoses, and belting)	326100 07 0			
17	Paper and paperboard containers, including shipping sacks and other paper packaging supplies	322200 17 1			
	Fabricated metal products (excluding forgings)				
18	Sheet metal products (excluding stampings)	332000 A9 9			
19	Bolts, nuts, screws, rivets, washers, and screw machine products	332722 03 2			
20	Metal stampings	332000 AC 2			
21	Other fabricated metal products	332000 AE 7			
22	Forgings	332100 01 5			
23	Castings (rough and semifinished)	331000 35 6			
24	Aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products)	331000 39 8			
25	Copper and copper-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products)	331421 11 5			
26	Steel shapes and forms (excluding castings, forgings, and fabricated metal products)	331200 01 4			
27	Metal shapes and forms (excluding castings, forgings, and fabricated metal products)	331000 33 1			
28	Other nonferrous shapes and forms (excluding castings, forgings, and fabricated metal products)	331000 83 6			
29	Liquid crystal display screens (LCD), including LED	334419 00 9			

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16 DETAILED COST OF MATERIALS, PARTS, AND SUPPLIES - Continued

Line No.	Materials, parts, and supplies	Census material code	Consumption of purchased materials and of materials received from other establishments of your company		
			Cost, including delivery cost (freight-in)		
			\$ Bil.	Mil.	Thou.
0634		0630	0631		
30	Glass and glass products (excluding windows and mirrors)	327200 03 6			
31	Optical instruments and lenses (excluding sighting, tracking, and fire control)	333314 01 1			
32	Cost of all other materials and components, parts, containers, and supplies consumed (<i>Specify the principal materials, etc., included in this value.</i>) ↗	009700 99 8			
33	TOTAL (<i>Should equal total reported in 15, line A1</i>)	771000 00 7			

17-21 Not Applicable.

22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE

General - The manufactured products and services listed below are generally made in your industry. If you make products that are not listed, describe and report them in the "All other products made in this establishment" section at the end of 2. PLEASE DO NOT COMBINE PRODUCT LINES.

If quantities are requested, please use the unit of measure specified.

If the information as requested cannot be taken directly from your book records, REASONABLE ESTIMATES ARE ACCEPTABLE.

Valuation of Products - Report the value of the products shipped and services performed at the net selling value, f.o.b. plant to the customer; i.e., after discounts and allowances, and exclusive of freight charges and excise taxes.

If you transfer products to other establishments within your company, you should assign the full economic value to the transferred products; i.e., include all direct costs of production and a reasonable proportion of all other costs and profits.

Contract Work - Report PRODUCTS MADE BY OTHERS FOR YOU FROM YOUR MATERIALS on the specific product lines as if they were made by you in this establishment. On the other hand, do not report on the specific product lines PRODUCTS THAT YOU MADE FROM MATERIALS OWNED BY OTHERS. Report only the amount that you received for "commission or contract receipts" for printed circuit boards under Census code 000930 0031 3, printed circuit assemblies under Census code 000930 0032 1, and all other contract work receipts under Census code 000930 0014 9.

Resales - Do not report on the specific product lines those PRODUCTS BOUGHT AND SOLD OR TRANSFERRED FROM OTHER ESTABLISHMENTS OF YOUR COMPANY AND SOLD WITHOUT FURTHER MANUFACTURE. Report only a value under Census code 000999 8900 6, "Resales."

Detailed Data Reported Elsewhere - Items denoted by an asterisk (*) require totals for groups of products covered in the more frequent Current Industrial Reports (CIR). If you report on the CIR form, the sum of the detailed products should equal the total reported on this form.

NOTE: Only totals are requested; do not duplicate detail reported on the CIR.

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If not shown, please enter your 11-digit Census File Number (CFN) from the mailing address.

22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
1	Laboratory and scientific apparatus (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4521 - 4537 and 4541 - 4548.)*	339111 0110 4			
2	Laboratory furniture and parts sold separately (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4539 - 4540.)*	339111 0230 0			
3	Automatic controls for monitoring residential and commercial environments and appliances (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4571 - 4609.)*	334512 0100 9			
4	Process control instruments (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4612 - 4897.)*	334513 0100 7			
5	Fluid meters and counting devices Integrating and totalizing meters for gas and liquids (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 5390 - 5425.)*	334514 1100 4			
6	Counting devices (excluding motor vehicle instruments) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 5504 - 5525.)*	334514 3100 2			
7	Motor vehicle instruments (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 5531 - 5547.)*	334514 5100 0			
8	Automatic regulating and control valves, power operated valves designed for modulating (throttling) service (excluding power operated on/off valves) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4001 - 4049.)*	332911 F100 9			
9	Solenoid-operated valves and parts (except nuclear and fluid power transfer) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4073 - 4079.)*	332911 H100 7			
10	Instruments to measure electricity Electrical integrating instruments (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 5610 - 5631.)*	334515 1100 1			
11	Portable instrument transformers (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, item code 5792.)*	334416 0100 3			
12	Test equipment for testing electrical, radio, and communication circuits, and motors (except portable instrument transformers) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 5701 - 5849.)*	334515 3100 9			
13	Other instruments to measure electricity (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 6001 - 6053.)*	334515 5100 7			
14	Analytical and scientific instruments (except optical) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002.)*	334516 0100 0			

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued					
Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
15	Sighting, tracking, and fire-control equipment, optical-type (Corresponds to the value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 8379 - 8391.)*	333314 1100 0			
16	Binoculars and astronomical instruments (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 8211 - 8215.)*	333314 3110 7			
17	Other optical instruments and lenses (except sighting, tracking, and fire-control) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 8221 - 8245.)*	333314 3230 3			
18	Measuring and controlling devices, nec Aircraft engine instruments, except flight (except chronometers) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 6101 - 6119.)*	334519 1110 2			
19	Chronometers	334519 1120 1			
20	Physical properties testing and inspection equipment and kinematic testing and measuring equipment (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 6201 - 6218.)*	334519 3100 1			
21	Water leak detectors	333999 8992 1			
22	Nuclear radiation, detection, and monitoring instruments (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 7001 - 7039.)*	334519 5100 9			
23	Commercial, geophysical, meteorological, and general-purpose instruments and equipment (except medical thermometers) (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 6601 - 6655.)*	334519 7100 7			
24	Surveying and drafting instruments and apparatus, including photogrammetric equipment (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4551 - 4561.)*	334519 9100 5			
25	Aeronautical, nautical, and navigational instruments, not sending or receiving radio signals, except engine instruments (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002, item codes 4420 - 4518.)*	334511 1100 0			
26	Search and detection and navigation and guidance systems and equipment (Corresponds to value of shipments reported on CIR Form MA334B, Selected Instruments and Related Products, for 2002.)*	334511 3100 8			
27	Switches for electrical circuitry (including vehicular switches) (Corresponds to value of shipments reported on CIR Form MA335K, Wiring Devices, for 2002.)*	335931 5100 5			
28	Relays for electronic circuitry, industrial control overload, and switchgear type (Corresponds to value of shipments reported on CIR Form MA335A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls, for 2002, item codes 5400 - 5496.)*	335314 1100 8			

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
29	Relays and industrial controls Specific-purpose industrial controls (Corresponds to value of shipments as reported on CIR Form MA335A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls, for 2002, item codes 6101 - 6355.)*	335314 3100 6			
30	General-purpose industrial controls (Corresponds to the value of shipments reported on CIR Form MA335A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls, for 2002, item codes 6402 - 6509.)*	335314 5100 4			
31	Parts for industrial controls and motor-control accessories (Corresponds to the value of shipments reported on CIR Form MA335A, Switchgear, Switchboard Apparatus, Relays, and Industrial Controls, for 2002, item codes 6703 and 6705)*	335314 7100 2			
32	Printed circuit (wiring) boards or assemblies (Report contract work receipts for work done by you for others on their own materials on lines 53 and 54.) Printed circuit (wiring) boards (Corresponds to value of shipments reported on CIR Form MA334Q, Semiconductors, Printed Circuit Boards, and Other Electronic Components, for 2002.)*	334412 0100 2			
33	Printed circuit assemblies, loaded boards or modules (printed circuit boards with inserted electronic components) (Corresponds to value of shipments reported on CIR Form MA334Q, Semiconductors, Printed Circuit Boards, and Other Electronic Components, for 2002.)*	334418 A100 8			
34	Electronic components, nec Crystals, filters, piezoelectric, and other related electronic devices, except microwave filters (Corresponds to value of shipments reported on CIR Form MA334Q, Semiconductors, Printed Circuit Boards, and Other Electronic Components, for 2002.)*	334419 1100 6			
35	Transducers, electrical-electronic, input or output (Corresponds to value of shipments reported on CIR Form MA334Q, Semiconductors, Printed Circuit Boards, and Other Electronic Components, for 2002.)*	334419 4100 3			
36	Switches for electronic circuitry (mechanical) (Corresponds to value of shipments reported on CIR Form MA334Q, Semiconductors, Printed Circuit Boards, and Other Electronic Components, for 2002.)*	334419 7100 0			
37	Microwave components and devices, except antennae, tubes, and semiconductors (Corresponds to the value of shipments reported on CIR Form MA334Q, Semiconductors, Printed Circuit Boards and Other Electronic Components, for 2002.)*	334220 7100 2			
38	Electronic teaching machines, teaching aids, trainers, and simulators, including kits (Corresponds to value of shipments reported on CIR Form MA334P, Communication Equipment, Including Telephone, Telegraph, and Other Electronic Systems and Equipment, for 2002.)*	333319 7100 3			
39	Communication systems and equipment (excluding broadcast; including space satellite borne and mobile telephone communications equipment) (Corresponds to value of shipments reported on CIR Form MA334P, Communication Equipment, for 2002.)*	334220 1100 8			
40	Irradiation (ionizing radiation) equipment, including X ray, beta ray, gamma ray, and nuclear (medical, dental, industrial, and scientific) (Corresponds to value of shipments reported on CIR Form MA334S, Electromedical and Irradiation Equipment, for 2002.)*	334517 0100 8			

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
41	Electromedical equipment (including diagnostic, therapeutic, and patient monitoring; excluding ionizing radiation equipment) (Corresponds to value of shipments reported on CIR Form MA334S, Electromedical and Irradiation Equipment, for 2002.)*	334510 1100 2			
42	Computers (excluding word processors, peripherals, and parts) (Corresponds to value of shipments reported on CIR Form MA334R, Computers and Office and Accounting Machines, for 2002.)*	334111 WYWW 9			
43	Computer storage devices except parts, attachments, and subassemblies. (Corresponds to value of shipments reported on CIR Form, MA334R, Computers and Office and Accounting Machines, for 2002.)*	334112 1100 7			
44	Computer terminals (excluding point of sale and funds transfer devices) (Corresponds to value of shipments reported on CIR Form MA334R, Computers and Office and Accounting Machines, for 2002.)*	334113 1100 5			
45	Computer peripheral (input/output) equipment, nec, except parts, attachments, and accessories (Corresponds to value of shipments reported on CIR Form MA334R, Computers and Office and Accounting Machines, for 2002.)*	334119 1100 2			
46	Diagnostic substances, in vitro (clinical chemistry products)	325413 0YWW 3			
47	All other products made in this establishment - <i>Specify and report each product with sales value of \$50,000 or more that cannot be assigned to one of the "listed products and services". For all remaining products, write "Other" and report a single total value.</i>	18			
48		26			
49		34			
50		42			
51		59			
52		67			
53	Contract work Printed circuit (wiring) boards	000930 0031 3			
54	Printed circuit assemblies, loaded boards, or modules (printed circuit boards with inserted electronic components)	000930 0032 1			
55	Receipts for work done for others on their own materials (<i>Specify products worked on and kind of work.</i>)	000930 0014 9			

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22 DETAIL OF SALES, SHIPMENTS, RECEIPTS, OR REVENUE - Continued

Line No.	Products and services *Items correspond to products reported on Current Industrial Reports (CIR)	Census product code	Products shipped and other receipts		
			Value, f.o.b. plant		
			\$ Bil.	Mil.	Thou.
0734		0730	0731		
56	Miscellaneous receipts				
	Receipts for research and developmental work	000999 8041 9			
57	Receipts for repair work	000999 8061 7			
58	Sales of scrap, refuse, and other miscellaneous receipts	000999 8098 9			
59	Resales - Sales of products bought and sold without further manufacture, processing, or assembly (The cost of such items should be reported in 15, line A2.)	000999 8900 6			
60	TOTAL (Should equal 4, line A)	770000 0000 8			

23-27 Not Applicable.



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28 ESTABLISHMENT ACTIVITIES

A. Indicate activities that were performed by this establishment or were performed for this establishment by another company during 2002.
(Mark "X" ALL that apply.)

This activity was performed -			
By this establishment	By another establishment of this company	By another company	Not at all
0921 <input type="checkbox"/>	8071 <input type="checkbox"/>	0941 <input type="checkbox"/>	0961 <input type="checkbox"/>
0923 <input type="checkbox"/>	8072 <input type="checkbox"/>	0943 <input type="checkbox"/>	0963 <input type="checkbox"/>
0924 <input type="checkbox"/>	8073 <input type="checkbox"/>	0944 <input type="checkbox"/>	0964 <input type="checkbox"/>
0925 <input type="checkbox"/>	8074 <input type="checkbox"/>	0945 <input type="checkbox"/>	0965 <input type="checkbox"/>
0926 <input type="checkbox"/>	8075 <input type="checkbox"/>	0946 <input type="checkbox"/>	0966 <input type="checkbox"/>
0927 <input type="checkbox"/>	8076 <input type="checkbox"/>	0947 <input type="checkbox"/>	0967 <input type="checkbox"/>
0928 <input type="checkbox"/>	8077 <input type="checkbox"/>	0948 <input type="checkbox"/>	0968 <input type="checkbox"/>
0932 <input type="checkbox"/>	8078 <input type="checkbox"/>	0952 <input type="checkbox"/>	0972 <input type="checkbox"/>

B. During 2002 did this establishment:

- 1. Manage inventory owned by this establishment AND held at this location? 0936 Yes 0937 No
- 2. Manage inventory owned by this establishment BUT held at a customer's location?. 0956 Yes 0957 No
- 3. Manage inventory owned by another company BUT held at this location? 0976 Yes 0977 No
- 4. Manage inventory owned by another company AND held somewhere other than at this location?. 0994 Yes 0995 No
- 5. Contract with another firm for any of your production using materials owned by this location? 8041 Yes 8042 No
- 6. Send any partially completed products to a foreign facility for processing that were then returned to this establishment for completion? 8044 Yes 8045 No
- 7. Manufacture products for a government to their specifications? 8047 Yes 8048 No
- 8. Manufacture products for another business to their specifications? 8016 Yes 8017 No
- 9. Manufacture products for a final retail customer to their specifications? 8060 Yes 8062 No



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29 OPERATIONAL STATUS

Activity that best describes this establishment's status at the end of 2002
(Mark "X" only ONE box.)

- 0011 In operation
- 0012 Under construction, development, or exploration
- 0013 Temporarily or seasonally inactive
- 0014 Ceased operation - Give date at right →
- 0015 Sold or leased to another operator - Give date at right AND enter new name and mailing address below ↴

0018	Month	Day	Year

0060 Name of new owner or operator		0061 Employer Identification Number		
		Enter EIN of new owner (9 digits) →		
0062 Mailing address (number and street, P.O. Box, etc.)				
0063 City, town, village, etc.		0064 State	0065 ZIP Code	

Remarks (Please use this space for any explanations that may be essential in understanding your reported data.)

30 CERTIFICATION - This report is substantially accurate and was prepared in accordance with the instructions.

Is the time period covered by this report a calendar year?

- 0078 Yes
- 0079 No - Enter time period covered →

FROM	Month	Year	TO	Month	Year
0070			0071		

0072 Name of person to contact regarding this report		0073 Title			

Telephone	Area code	Number		Extension	Fax	Area code	Number	
0074		-			0075		-	

0076 Internet e-mail address			Date completed	Month	Day	Year
			0069			

Thank you for completing your 2002 Economic Census form.
PLEASE PHOTOCOPY THIS FORM FOR YOUR RECORDS AND RETURN THE ORIGINAL.

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