

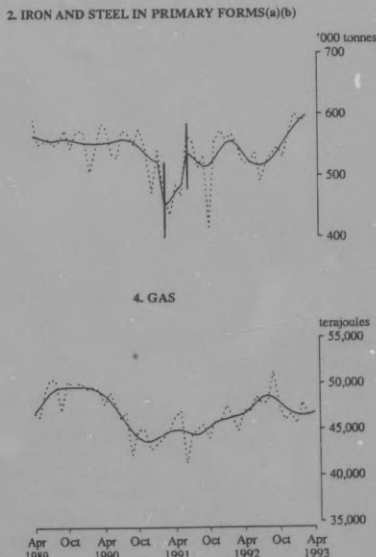
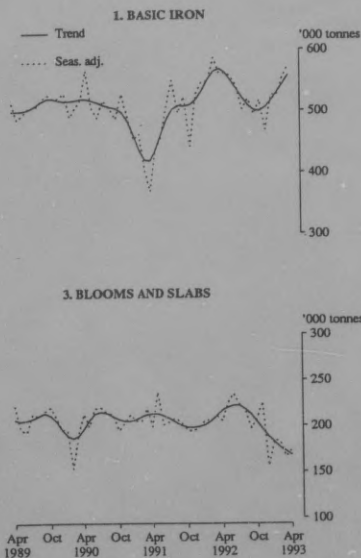
MANUFACTURING PRODUCTION, AUSTRALIA APRIL 1993, PRELIMINARY

NOTES

This publication presents preliminary monthly estimates for selected major indicators of manufacturing production for Australia. The statistics are collected from all the relevant manufacturing establishments other than single establishment manufacturing enterprises with fewer than four persons employed and are part of a much broader range of items published monthly and quarterly. For details of these see "Related publications", in the Explanatory Notes at the back of this publication.

IAN CASTLES
Australian Statistician

PRODUCTION STATISTICS, AUSTRALIA : TRENDS



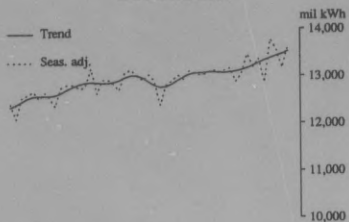
For footnotes see end of graph.

INQUIRIES

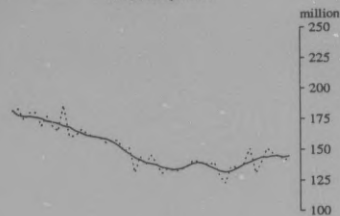
- * for further information about statistics in this publication and the availability of related unpublished statistics, contact Vaughn Moore on Melbourne (03) 615 7635 or any ABS office.
- * for information about other ABS statistics and services please refer to the back page of this publication.

PRODUCTION STATISTICS, AUSTRALIA : TRENDS

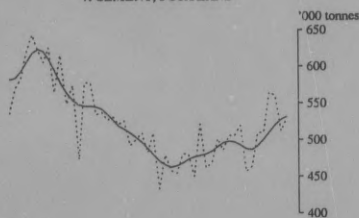
5. ELECTRICITY



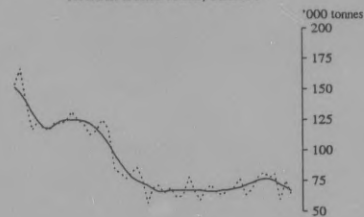
6. BRICKS, CLAY



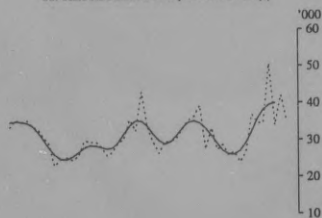
7. CEMENT, PORTLAND



10. SULPHURIC ACID; OLEUM



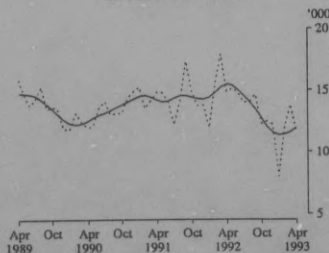
11. REFRIGERATORS, DOMESTIC(e)



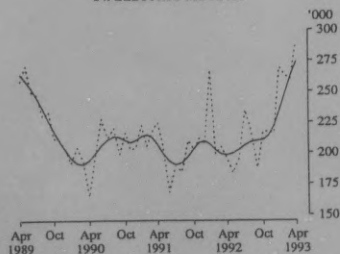
12. CLOTHES WASHING MACHINES, DOMESTIC



13. TELEVISION SETS

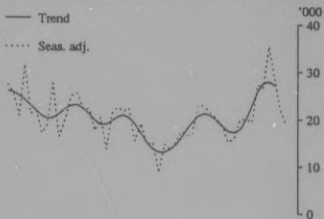


14. ELECTRIC MOTORS

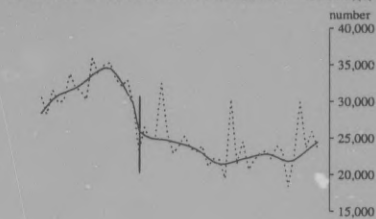


PRODUCTION STATISTICS, AUSTRALIA : TRENDS

15. LAWN MOWERS, PETROL-ROTARY TYPE(c)



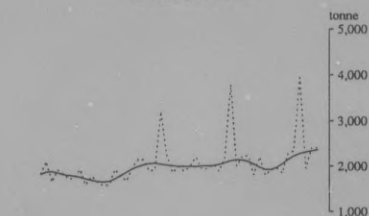
16. MOTOR VEHICLES (CARS AND STATION WAGONS)(d)



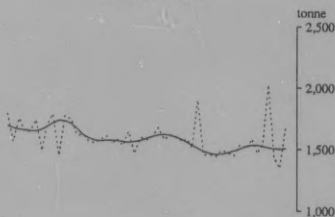
17. MOTOR VEHICLES FOR GOODS AND MATERIALS(c)



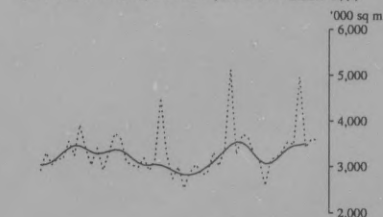
18. YARN, COTTON



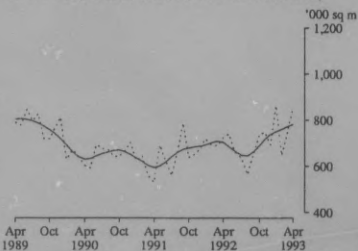
19. YARN, WOOL



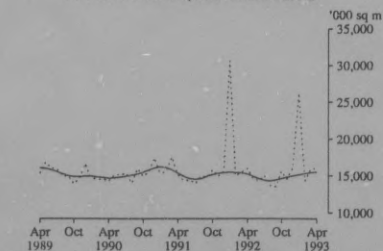
20. WOVEN FABRIC, COTTON (INCL. TOWELLING)(c)



21. WOVEN FABRIC, WOOL (INCL. BLANKETING)

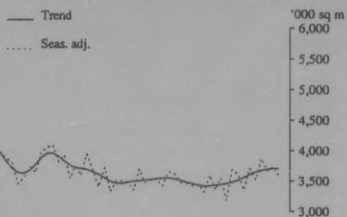


22. WOVEN FABRIC, MAN-MADE FIBRE

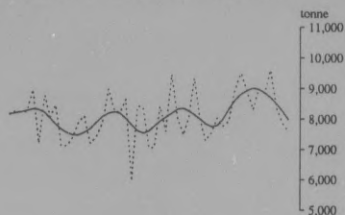


PRODUCTION STATISTICS, AUSTRALIA : TRENDS

23. TEXTILE FLOOR COVERINGS



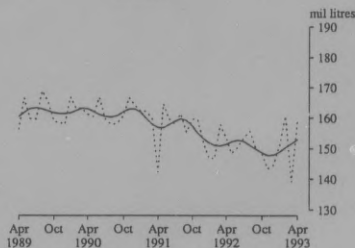
24. CONFECTIONERY, CHOCOLATE BASED



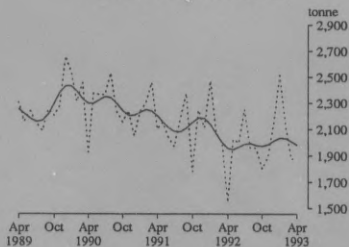
25. CONFECTIONERY, OTHER



26. BEER



27. TOBACCO AND CIGARETTES



(a) There is a drop in the level of the trend from March 1991 due to plant maintenance. (b) Break in series after July 1991. See footnote (a) on page 6. (c) Trend estimates are not available for the last two periods. (d) There is a lowering of the level of the trend series from September 1990 attributable to various factory shutdowns.

PRODUCTION STATISTICS, AUSTRALIA, APRIL 1993, PRELIMINARY

No. Item	Series	Unit	1992					1993				Percentage changes between:	
			Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Mar. 93 and Apr. 93	Apr. 92 and Apr. 93
1. Basic iron, spiegeleisen and sponge iron	Orig. '000 tonnes		537	543	532	533	500	531	466	526	550	4.6	3.2
	S. adj. "		501	519	494	517	468	525	525	554	572	3.2	2.2
	Trend r		521	508	500	499	505	516	530	544	558	2.6	-1.7
2. Iron and steel in ingots or other primary forms(a)	Orig. "		540	550	557	542	542	582	525	584	562	-3.8	8.5
	S. adj. "		492	523	536	546	530	569	601	589	594	0.9	8.5
	Trend r		517	520	528	539	553	567	580	590	598	1.4	8.8
3. Blooms and slabs(b)	Orig. "		232	211	222	207	160	179	161	174	171	-1.7	-15.3
	S. adj. "		217	197	208	226	156	184	182	166	174	4.4	-15.2
	Trend r		218	212	204	196	188	182	176	172	168	-2.2	-22.5
4. Gas(c)	Orig. terajoules		59,408	55,988	47,321	42,269	r 39,606	37,059	38,720	41,461	42,117	1.6	-1.0
	S. adj. "		47,991	51,316	47,526	46,024	r 46,694	45,555	47,947	46,569	46,869	0.6	-0.4
	Trend r		48,693	48,451	47,918	47,332	46,865	46,617	46,570	46,595	46,855	0.6	0.2
5. Electricity	Orig. mil kWh		14,151	13,355	13,094	12,656	r 12,435	13,287	12,434	13,209	12,803	-3.1	4.1
	S. adj. "		13,033	13,455	13,184	13,356	r 12,849	13,767	13,565	13,175	13,643	3.6	4.4
	Trend r		13,120	13,165	13,220	13,277	13,330	13,376	13,425	13,470	13,523	0.4	3.5
6. Bricks, clay	Orig. million		142	161	140	141	139	94	r 136	164	141	-14.0	10.2
	S. adj. "		139	151	131	140	151	147	r 145	142	142	0.0	9.7
	Trend r		138	140	142	144	144	145	145	144	145	0.1	9.0
7. Cement, Portland	Orig. '000 tonnes		539	473	519	552	498	r 404	510	536	512	-4.5	5.8
	S. adj. "		520	457	464	510	510	r 565	560	512	530	3.5	5.5
	Trend r		493	488	487	492	501	511	521	528	532	0.8	8.4
8. Particle board and similar boards(d)	Orig. '000 cu m		55.6	64.8	60.6	55.9	48.4	22.6	51.7	67.3	53.2	-21.0	-10.3
	S. adj. "		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Trend		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
9. Plastics in primary forms(e)	Orig. '000 tonnes		84.8	92.7	92.1	89.5	83.2	72.1	77.7	r 88.5	78.5	-11.3	-1.5
	S. adj. "		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
	Trend		n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
10. Sulphuric acid; oleum	Orig. "		52	57	70	76	88	94	69	85	68	-20.0	1.5
	S. adj. "		64	69	79	82	78	81	60	75	64	-15.3	0.2
	Trend r		72	74	76	77	77	75	72	70	67	-4.1	-1.7
11. Refrigerators, domestic	Orig. '000		25.1	29.2	39.1	38.2	32.1	34.7	34.7	40.3	31.5	-21.8	26.3
	S. adj. "		24.0	26.6	36.8	34.6	34.5	50.6	34.0	42.0	35.2	-16.2	29.1
	Trend r		27.1	29.3	32.5	35.7	38.2	39.5	40.0	(f)	(f)	n.a.	n.a.
12. Clothes washing machines, domestic	Orig. "		28.9	26.3	24.2	25.9	22.8	14.0	25.2	31.0	25.7	-17.0	10.4
	S. adj. "		25.8	23.0	22.4	24.9	23.8	28.6	26.1	27.9	27.4	-1.6	11.3
	Trend r		24.5	24.2	24.2	24.5	25.1	26.1	26.9	27.5	28.0	1.7	12.8
13. Television sets(g)	Orig. "		16.0	15.2	15.2	13.8	11.1	2.6	11.9	14.8	11.0	-25.8	-19.0
	S. adj. "		14.1	14.6	12.3	12.5	12.2	8.0	12.0	13.8	11.7	-15.3	-21.3
	Trend r		14.1	13.5	12.8	12.1	11.6	11.4	11.4	11.6	12.0	2.9	-22.6
14. Electric motors	Orig. "		217	226	249	231	203	139	253	r 288	256	-10.9	51.1
	S. adj. "		218	188	218	217	216	270	263	r 260	290	11.4	48.5
	Trend r		209	210	211	214	222	235	249	263	274	4.3	38.1

For footnotes see end of table

PRODUCTION STATISTICS, AUSTRALIA, APRIL 1993, PRELIMINARY

No. Item	Series	Unit	Percentage changes between												
			1992					1993				Mar. 93 and Apr. 92		Apr. 93	
			Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	Mar. 93	Apr. 92	Mar. 93	Apr. 92
15. Lawn mowers petrol-rotary type	Orig. '000		21.4	31.8	34.2	38.3	32.3	24.2	29.4	20.6	10.5	-48.9	-10.1		
	S. adj. "		20.1	20.1	19.6	27.4	26.7	35.5	28.8	22.3	19.0	-14.7	-6.2		
	Trend r		18.2	20.3	23.2	26.0	27.7	28.0	27.3	(f)	(f)	n.a.	n.a.		
Motor vehicles—															
16. Cars and station wagons	Orig. number		24,473	26,353	26,089	20,099	19,668	10,191	23,159	27,697	21,016	-24.1	12.2		
	S. adj. "		22,087	23,882	23,148	18,402	22,571	29,898	23,704	25,969	23,465	-9.6	13.8		
	Trend r		22,656	22,326	21,963	21,779	22,006	22,555	23,241	23,885	24,523	2.7	10.2		
17. Vehicles for goods and materials(h)	Orig. "		961	1,297	1,417	1,270	1,213	636	1,343	r 1,554	1,700	9.4	59.8		
	S. adj. "		853	1,201	1,192	1,292	1,471	1,628	1,379	r 1,356	1,948	43.7	64.9		
	Trend r		1,063	1,121	1,206	1,301	1,392	1,466	1,532	(f)	(f)	n.a.	n.a.		
Yarn(i)—															
18. Cotton	Orig. tonne		2,045	2,247	2,265	2,199	1,941	1,361	2,009	2,441	2,334	-4.4	13.6		
	S. adj. "		1,924	1,958	1,850	2,280	2,341	3,940	1,957	2,405	2,414	0.4	8.7		
	Trend r		1,923	1,971	2,055	2,145	2,225	2,281	2,317	2,344	2,368	1.0	13.0		
19. Wool	Orig. "		1,576	1,755	1,747	r 1,635	1,370	872	1,466	r 1,508	1,447	-4.0	11.8		
	S. adj. "		1,538	1,509	1,589	r 1,472	1,550	2,029	1,431	r 1,348	1,667	23.6	15.7		
	Trend r		1,507	1,527	1,537	1,536	1,526	1,514	1,507	1,506	1,509	0.2	3.4		
Woven fabric(i)—															
20. Cotton (incl. towelling)	Orig. r '000 sq m		3,435	3,478	4,160	3,358	2,762	1,400	3,460	3,707	3,857	4.0	2.4		
	S. adj. r		3,173	3,213	3,351	3,552	3,482	4,961	3,426	3,623	3,563	-1.7	-2.1		
	Trend r		3,082	3,170	3,296	3,403	3,463	3,487	3,509	(f)	(f)	n.a.	n.a.		
21. Wool (incl. blanketing)	Orig. "		606	717	800	813	650	502	702	r 831	718	-13.6	13.8		
	S. adj. "		565	655	739	748	694	863	648	r 746	855	14.6	18.3		
	Trend r		646	663	690	718	739	751	761	772	782	1.3	11.0		
22. Man-made fibre	Orig. "		14,735	14,835	17,146	15,709	14,844	7,845	15,337	r 17,565	15,470	-11.9	1.6		
	S. adj. "		13,672	13,508	15,660	14,570	16,151	26,326	14,354	r 16,028	15,966	-0.4	-0.7		
	Trend r		14,334	14,437	14,643	14,866	15,048	15,202	15,330	15,470	15,546	0.5	1.8		
23. Textile floor coverings	Orig. "		3,905	4,024	3,800	4,034	r 3,477	2,144	r 3,452	r 3,788	3,271	-13.6	0.7		
	S. adj. "		3,683	3,601	3,350	3,708	r 3,524	3,865	r 3,666	r 3,738	3,589	-4.0	0.0		
	Trend r		3,477	3,511	3,557	3,609	3,649	3,677	3,695	3,704	3,708	0.1	8.5		
Confectionery—															
24. Chocolate base	Orig. tonne		9,655	9,189	9,149	8,909	8,081	5,004	8,502	r 9,462	7,756	-18.0	-5.3		
	S. adj. "		9,492	8,884	8,306	8,968	8,831	9,600	8,368	r 7,841	7,607	-3.0	-5.2		
	Trend r		8,811	8,933	9,000	8,974	8,861	8,702	8,487	8,235	7,985	-3.0	2.7		
25. Other	Orig. r		6,373	6,450	5,583	6,062	5,220	2,862	4,850	5,735	4,523	-21.1	2.7		
	S. adj. r		5,842	5,676	4,599	5,365	5,869	5,892	5,020	5,199	5,561	7.0	3.0		
	Trend r		5,401	5,410	5,425	5,433	5,444	5,451	5,447	5,432	5,444	0.2	-1.5		
26. Beer(j)	Orig. mil litres		137	138	168	176	188	139	143	150	154	2.7	3.0		
	S. adj. "		156	150	149	144	145	151	161	139	159	14.0	3.4		
	Trend r		151	150	149	148	148	149	150	152	153	0.8	1.1		
27. Tobacco and cigarettes(k)	Orig. tonne		2,080	1,898	1,813	2,140	1,872	1,228	2,230	2,266	1,808	-20.2	21.3		
	S. adj. "		1,959	1,959	1,803	1,887	2,144	2,516	2,133	1,879	1,885	0.3	21.4		
	Trend r		1,993	1,980	1,974	1,985	2,014	2,036	2,033	2,010	1,984	-1.3	1.4		

(a) Includes ingots, puddled bars, pilings, blocks or lumps and steel in the molten state. There is a break in the three series as data after July 1991 excludes a small proportion of total production. * to the withdrawal of consent for the ABS to release the information. (b) From rolling and forging of iron and steel (primary mills output). (c) Available for issue through mains. Includes natural gas. (d) Particle boards and similar boards of wood or other lignous material. Includes boards for subsequent conversion to other purposes. Excludes laminated. (e) Includes liquid, paste, powder, granules, flakes, blocks, irregular shapes, lumps and similar forms. (f) See paragraph 9 of Explanatory Notes. (g) Excludes combination with radio etc. (h) Includes utilities, panel vans and prime movers for semi-trailers. (i) Includes mixtures predominantly of the fibre named. (j) Includes ale and stout. Excludes beverages with alcohol content of less than 1.15 per cent. (k) Source: Australian Tobacco Marketing Advisory Committee.

EXPLANATORY NOTES

Introduction

Preliminary estimates for April 1993 for certain major indicators of production are shown in the table on page 5. Production statistics for April 1993 for a more extensive range of commodities will be published later in the series of ten *Manufacturing Production Bulletins* (8357.0 to 8363.0 and 8367.0 to 8369.0).

Scope and coverage

2. Production statistics are not collected from single establishment manufacturing enterprises with fewer than four persons employed or from establishments predominantly engaged in non-manufacturing activities but which may carry out in a minor way some manufacturing. However, in general the contribution of these small producers to statistical aggregates is only marginal and data contained in this publication provide reliable information for the evaluation of movements in commodity production.

Comparability with other estimates

3. The ABS publishes quarterly estimates of constant price manufacturing production in the publication *Quarterly Indexes of Industrial Production, Australia* (8125.0). These estimates are shown as index numbers and are derived mainly from estimates of manufacturers' sales and stocks.

4. The production statistics published in the series of ten *Manufacturing Production Bulletins* (8357.0 to 8363.0 and 8367.0 to 8369.0) referred to in paragraph 1 account, in total, for less than half of the output of the manufacturing sector, so differences may occur between the general tendency (if there is one) in these items and changes in the quarterly indexes of industrial production. The comment applies with still greater force to the preliminary estimates for the major indicators of production shown in this publication.

Seasonally adjusted and trend estimates

5. Seasonally adjusted statistics are shown for all but two of the data items contained in this publication. In the seasonal adjustment, account has been taken not only of normal seasonal factors, but also where appropriate, of 'working day' effects (arising from the varying numbers of Sundays, Mondays, Tuesdays, etc. in the month) and the influence of Easter and Australia Day which may, in successive years, affect figures for different months. Details of the methods used in seasonally adjusting these series are available on request.

6. Seasonal adjustment procedures do not aim to remove the irregular or non-seasonal influences which may be present in any particular month, such as the effect of strikes, holiday shutdowns or other factors which vary with the prevailing demand for products. Irregular influences that are highly volatile can make it difficult to interpret the movement of the series even after seasonal adjustment.

7. The smoothing of seasonally adjusted series to create trend estimates is a means of reducing the impact of the irregular component of the series. The trend estimates have been derived by applying a 13-term Henderson weighted moving average to the seasonally adjusted series.

8. While this smoothing technique enables estimates of trend to be produced for the latest month, it does result in revisions to the estimates for the most recent months as data for subsequent months become available. Generally subsequent revisions become smaller and after 3 months

have little impact on the series. There will also be revisions as a result of revisions to the original estimates and annual reviews of seasonal and 'working day' factors.

9. Because of the highly irregular nature of some production series it is not possible to discern with reasonable confidence the current direction of the trend at the end of these series. For such highly irregular series the ABS does not provide the last two trend estimates.

10. Users may wish to refer to the ABS Information Papers *A Guide to Smoothing Time Series — Estimates of 'Trend'* (1316.0) and *Time Series Decomposition — An Overview* (1317.0) for more detailed information on smoothing of seasonally adjusted time series data.

Related publications

11. Other ABS publications which may be of interest are:

Manufacturing Production, Australia, Household Appliances and Electrical Equipment (8357.0) — issued monthly

Manufacturing Production, Australia, Clothing and Footwear (8358.0) — issued monthly

Manufacturing Production, Australia, Food, Drink, Tobacco, Stock and Poultry Food (8359.0) — issued monthly

Manufacturing Production, Australia, Fibres, Yarns, Fabrics, Bedding and Floor Coverings, (8360.0) — issued monthly

Manufacturing Production, Australia, Building Materials and Fittings (8361.0) — issued monthly

Manufacturing Production, Australia, Plastics, Rubber, Paints, Detergents and Industrial Chemicals (8362.0) — issued monthly

Manufacturing Production, Australia, Transport Equipment (8363.0) — issued monthly

Manufacturing Production, Australia, Metal Products (8367.0) — issued monthly

Manufacturing Production, Australia, Energy Products (8368.0) — issued monthly

Manufacturing Production, Australia, Wood and Wood Products (8369.0) — issued monthly

Manufacturing Commodities: Selected Principal Articles Produced, Australia, 1986-87, Preliminary (8365.0)

Manufacturing Commodities: Principal Articles Produced, Australia, 1986-87 (8303.0)

Unpublished production data is also available from the ABS Sydney office. Please contact Colin Nicholson on (02) 268 4282.

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