

DAILY LOG BOOK

MISSION
NUMBER

2004-21

DATE:

From: 21 June to: 26 June

VESSEL:

VECTOR

PROJECT:

J2F - SOG

INSTITUTE OF OCEAN SCIENCES
OCEAN SCIENCES AND PRODUCTIVITY DIVISION
SIDNEY, BC, CANADA

DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>June</i>				Year <i>2004</i>				Ship <i>Vector</i>			Cruise ID <i>2004-21</i>				
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
22	SI	1:54	BE	ROS		1	48 39.685	123 30.080	170						radiometer
		1:58	BO				48 39.680	123 30.83		162	1-3	3			
		2:03	EN				48 39.708	123 30.91							
	59	3:57	BE	ROS		2	48 37.91	123 14.59	232		4-17	14	DM MS		program crashed.
		4:04	BO				48 37.98	123 14.47		241					
		4:25	EN				48 38.516	123 14.094							
	60	5:10	BE	CTD		3	48 33.901	123 12.884	296						calm
		5:17	BO				48 33.936	123 12.916		297					
		5:23	EN				48 33.956	123 12.928							
	61	6:11	BE	CTD		4	48 29.22	123 9.32	285						
		6:18	BO				48 29.20	123 9.45		278					
		6:23	EN				48 29.17	123 9.66							program crashed again
22	101	14:07	BE	CTD		5	48 25.356	124 45.12	230	222					
		14:14	BO				48 25.361	124 45.151							
		14:26	EN				48 25.322	124 45.180							
22	102	14:58	BE	ROS		6	48 30.502	124 44.140	260	255	18-31	15		✓	radiometer
		15:09	BO				48 30.124	124 44.299							
		15:26	EN				48 30.378	124 44.908							

Cast type:
 BOT = bottle cast, no CTD
 CTD = CTD without Rosette
 ROS = Rosette plus CTD

USW = sea water loop
 MOR = mooring
 NET = net haul
 DRF = drifter

bottle firing method:
 US = up / stop
 UN = up / no stop
 DN = down / no stop

Time Code
 BE = beginning time of cast
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 RE = recover mooring time

Transmissometer to be cleaned for each cast, do not use Ammonia products

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
22	101	16:15	BE	CTD		7	48 32.945	124 42 979	122						program crashed
		16:19	BO				48 32.956	124 42 979		120					AGAIN
		16:21	EN				48 32.984	124 43 008							* calm *
22	74	17:29	BE	CTD		8	48 31.43	124 30.14	86						hardly any swell
		17:32	BO				48 31.45	124 30.18		87					
		17:34	EN				48 31.46	124 30.22							
22	75	18:06	BE	ROS		9	48 28.28	124 32.85	220		32-45	14			
		18:05	BO				48 28.28	124 32.85							
		18:05	EN				48 28.28	124 32.85							
22	76	19:31	BE	ROS		10	48 25.12	124 35.75	187						
		19:36	BO				48 25.18	124 35.87		180	46-50	5			
		19:44	EN				48 25.18	124 36.02							
22	73	22:12	BE	CTD		11	48 15.03	124 06.64	163						
		22:16	BO				48 15.04	124 06.57		155					
			EN				48 15.04	124 06.57							
22	72	23:16	BE	ROS		12	48 18.620	124 4 031	192	187	51-63		1/4	✓	
		23:20	BO				48 18.618	124 4 019		183					
		23:33	EN				48 18.604	124 3 992							

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							Latitude	Longitude								
23	71	00:19	BE	CTD		13	48 22 189	123 59 161	107				LD		windy	
		00:22	BO				48 22 184	123 59 128		100						
		00:25	EN				48 22 182	123 59 110								
23	70	1:32	BE	CTD		14	48 19 212	123 43 124	150						computer crashed	
		1:35	BO				48 19 192	123 42 972		147					* twice *	
		1:39	EN				48 19 166	123 42 858								
23	69	2:17	BE	ROS		15	48 15 427	123 42 965	173		64-75	12	AV	✓		
		2:22	BO				48 15 340	123 42 874		170						
		2:35	EN				48 15 442	123 42 643								
23	68	3:06	BE	CTD		16	48 12 167	123 42 991	138	139						
		3:11	BO				48 12 127	123 42 936								
		3:15	EN				48 12 084	123 42 893								
	105	4:51	BE	CTD		17	48 11 010	123 18 970	89							
		4:53	BO				48 11 009	123 18 961		84						
		4:56	EN				48 11 010	123 18 955								
	ADCP	5:23	BE	ROS		18	48 11 048	123 17 976	121		76-85	10			blowing hard	
		5:28	BO				48 11 096	123 17 926		121					1 nutrient bottle	
		5:40	EN				48 11 189	123 17 984							broken	
															#76	

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Month				Year			Ship		Cruise ID						
June				2004			Vector		2004-21						
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
23	104	6:24	BE	CTD		19	48 20 06.8	123 18 07.3	86						
		6:27	BO				48 20 10.1	123 18 09.5		83.					
		6:29	EN				48 20 14.7	123 18 11.4							
	67	6:59	BE	CTD		20	48 22.77	123 18.06	108						
		7:02	BO				48 22.79	123 18.07		101					
		7:04	EN				48 22.86	123 18.08							
23	66	7:44	BE	CTD		21	48 19.36	123 14.16	104						
		7:47	BO				48 19.37	123 14.15		90					
		7:50	EN				48 19.43	123 14.13							
	65	8:30	BE	ROS		22	48 15.91	123 09.73	125						
		8:34	BO				48 15.91	123 09.66		415	86-95	10			
		8:47	EN				48 16.09	123 09.29							
	64	9:25	BE	CTD		23	48 12.88	123 05.72	106						
		9:28	BO				48 12.84	123 05.40		95					
		9:31	EN				48 12.82	123 05.69							
	63	10:18	BE	CTD		24	48 14.60	122 58.53	156						
		10:22	BO				48 14.62	122 58.53		145					
		10:25	EN				48 14.62	122 58.52							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
<i>23</i>	<i>62</i>	<i>11:28</i>	<i>BE</i>	<i>RDS</i>		<i>25</i>	<i>48 22.736</i>	<i>123 25.57</i>	<i>148</i>		<i>96-106</i>		<i>JA</i>	<i>✓</i>	<i>computer checked</i>
		<i>11 31</i>	<i>BO</i>				<i>48 22.729</i>	<i>123 25.69</i>		<i>144</i>					
		<i>11 43</i>	<i>EN</i>				<i>48 22.698</i>	<i>123 25.586</i>							
<i>23</i>	<i>54</i>	<i>13:13</i>	<i>BE</i>	<i>CTD</i>		<i>26</i>	<i>48 26.482</i>	<i>122 44.410</i>	<i>82</i>				<i>TD</i>	<i>✓</i>	
		<i>13 15</i>	<i>BO</i>				<i>48 26.478</i>	<i>122 44.425</i>		<i>76</i>					
		<i>13 17</i>	<i>EN</i>				<i>48 26.472</i>	<i>122 44.431</i>							
<i>23</i>	<i>53</i>	<i>14:08</i>	<i>BE</i>	<i>CTD</i>		<i>27</i>	<i>48 33.205</i>	<i>122 44.929</i>	<i>58</i>				<i>✓</i>	<i>✓</i>	
		<i>14 10</i>	<i>BO</i>				<i>48 33.210</i>	<i>122 44.906</i>		<i>52</i>					
		<i>14 12</i>	<i>EN</i>				<i>48 33.211</i>	<i>122 44.878</i>							
<i>23</i>	<i>52</i>	<i>14:58</i>	<i>BE</i>	<i>CTD</i>		<i>28</i>	<i>48 38.88</i>	<i>122 43.30</i>	<i>86</i>						<i>flat calm.</i>
		<i>15:00</i>	<i>BO</i>				<i>48 38.88</i>	<i>122 43.24</i>		<i>83</i>					
		<i>15:02</i>	<i>EN</i>				<i>48 38.88</i>	<i>122 43.21</i>							
	<i>51</i>	<i>16:14</i>	<i>BE</i>	<i>CTD</i>		<i>29</i>	<i>48 46.68</i>	<i>122 51.5</i>	<i>159</i>						
		<i>16:17</i>	<i>BO</i>				<i>48 46.68</i>	<i>122 51.48</i>		<i>157</i>					
		<i>16:20</i>	<i>EN</i>				<i>48 46.69</i>	<i>122 51.48</i>							
	<i>58</i>	<i>17:55</i>	<i>BE</i>	<i>CTD</i>		<i>30</i>	<i>48 42.97</i>	<i>123 14.29</i>	<i>330</i>						<i>hit a jelly fish</i>
		<i>18:02</i>	<i>BO</i>				<i>48 42.92</i>	<i>123 14.20</i>		<i>326</i>					
		<i>18:07</i>	<i>EN</i>				<i>48 42.90</i>	<i>123 14.18</i>							

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bottle firing method:
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							Latitude	Longitude								
23	57	18:50	BE	CTD		31	48 44.02	123 8.03	156							
		18:53	BO				48 43.99	123 8.0		153						
		18:56	EN				48 43.96	123 8.0								
23		19:58	BE	Radio Dist 1		32	48 46.38	123 01.71								
		20:01		RD 2		33	"	"								
		20:04		RD 3		34	"	"								
23	56	20:20	BE	ROS		35	48 46.373	123 1.554	215		107-120	14	MQDA	✓		
			BO				48 46.333	123 1.530								
		20:43	EN				48 46.278	123 1.540								
23	47	21:38	BE			36	48 49.28	123 06.24	184							
		21:43	BO				48 49.29	123 06.29		175						
		21:47	EN				48 49.30	123 06.30								
23	48	22:18	BE			37	48 51.756	123 3.107	229							
			BO				48 51.811	123 3.103		219						
		22:25	EN				48 51.816	123 3.108								

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
23	49	2255	BE	ROS		38	48 55 032	122 59 55.6	128		121-25		11	✓	put 38 for
		2258	BO				48 55 044	122 59 54.6		122					slr name
		2304	EN				48 55 081	122 59 53.7							rather than 50
	49	2310		RAD		39	48 55 097	122 59 52.5							
				"		40	"	"							
		2318		"		41	48 55 12	122 59 46.9	25						
	50	2343	BE	CTD		42	48 57 652	122 56 032					11		"
		2344	BO				48 57 647	122 56 017							
		2345	EN				48 57 643	122 56 009							
24	44	0031	BE	CTD		43	48 56 785	123 6 076	117				11	✓	
		0034	BO				48 56 789	123 6 139		110					
		0036	EN				48 56 796	123 6 176							
24	45	104	BE	CTD		44	48 53 905	123 8 519	126				11	✓	computer crashed
		107	BO				48 53 928	123 8 58.8							
		110	EN				48 53 960	123 8 647							
24	46	134	BE	ROS		45	48 51 416	123 10 774	175		126-137		11	✓	
		139	BO				48 51 463	123 10 786		170					
		149	EN				48 51 638	123 10 736							
24	46	157		RAD		46	48 51 80	123 10 82							

Cast type: BOT = bottle cast, no CTD CTD = CTD without Rosette ROS = Rosette plus CTD USW = sea water loop MOR = mooring NET = net haul DRF = drifter bottle firing method: US = up / stop UN = up / no stop DN = down / no stop Time Code: BE = beginning time of cast BO = bottom time of cast EN = end time of cast DE = deployment time MR = messenger release time RE = recover mooring time

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							Latitude	Longitude							
24	46	0158		RAD		47	48 51.803	123 10.831							
"	"	0203		RAD		48	48 51.886	123 10.908							
	43	330	BE	CTD		49	49 0.244	123 30.206	196						
		335	BO				49 0.314	123 30.349		193					
		3:38	EN				49 0.366	123 30.458							
	42	4:04	BE	ROS		50	49 1.816	123 26.195	321		138-152	15			
		4:12	BO				49 1.836	123 26.179		320					
		4:32	EN				49 1.889	123 26.082							
	41	5:19	BE	CTD		51	49 3.310	123 22.316	246						
		5:21	BO				49 3.294	123 22.284		244					
		5:30	EN				49 3.307	123 22.292							
	52-3	5:48	BE	ROS		52	49 5.008	123 20.982	170		153-156	4			SCOR NET
		5:53	BO				49 5.010	123 21.002		168					
		5:58	EN				49 4.994	123 20.977							
	37	7:28	BE	CTD		53	49 13.57	123 20.67	218						Jelly-fish attack →
		7:34	BO				49 13.57	123 20.75		209					
		7:38	EN				49 13.57	123 20.78							

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* Numerous jellyfish strands on CTD/Rosette
Picked & rinsed off as many as I could find.

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							Latitude	Longitude							
<i>24</i>	<i>38</i>	<i>0817</i>	<i>BE</i>	<i>CTD</i>		<i>54</i>	<i>49 12.02</i>	<i>123 26.42</i>	<i>312</i>				<i>DA</i>	<i>✓</i>	
		<i>0824</i>	<i>BO</i>				<i>49 12.06</i>	<i>123 26.33</i>		<i>301</i>					
		<i>0830</i>	<i>EN</i>				<i>49 12.03</i>	<i>123 26.36</i>							
	<i>39</i>	<i>0907</i>	<i>BE</i>	<i>ROS</i>		<i>55</i>	<i>49 09.88</i>	<i>123 33.03</i>	<i>380</i>				<i>DA Rame</i>		
		<i>0915</i>	<i>BO</i>				<i>49 09.90</i>	<i>123 33.00</i>		<i>370</i>	<i>157-173</i>	<i>17</i>			
		<i>0934</i>	<i>EN</i>				<i>49 09.77</i>	<i>123 33.10</i>							
	<i>40</i>	<i>1033</i>	<i>BE</i>	<i>CTD</i>		<i>56</i>	<i>49 08.61</i>	<i>123 36.72</i>	<i>149</i> <i>152</i>						
		<i>1037</i>	<i>BO</i>				<i>49 08.66</i>	<i>123 36.70</i>		<i>140</i>					
		<i>1040</i>	<i>EN</i>				<i>49 08.69</i>	<i>123 36.73</i>							
<i>24</i>	<i>26</i>	<i>1154</i>	<i>BE</i>	<i>CTD</i>		<i>57</i>	<i>49 14.371</i>	<i>123 50.708</i>	<i>265</i>				<i>DA</i>	<i>✓</i>	
		<i>1200</i>	<i>BO</i>				<i>49 14.245</i>	<i>123 50.645</i>		<i>260</i>					
		<i>1206</i>	<i>EN</i>				<i>49 14.298</i>	<i>123 50.623</i>							
<i>24</i>	<i>27</i>	<i>1311</i>	<i>BE</i>	<i>ROS</i>		<i>58</i>	<i>49 19.086</i>	<i>123 48.026</i>	<i>347</i>		<i>174-189</i>	<i>16</i>	<i>DA</i>	<i>✓</i>	<i>ASCOR NET</i>
		<i>1318</i>	<i>BO</i>				<i>49 19.039</i>	<i>123 48.082</i>		<i>343</i>					
		<i>1337</i>	<i>EN</i>				<i>49 19.154</i>	<i>123 48.144</i>							
<i>24</i>	<i>28</i>	<i>1418</i>	<i>BE</i>	<i>CTD</i>		<i>59</i>	<i>49 24.049</i>	<i>123 45.317</i>	<i>133</i>				<i>DA</i>	<i>✓</i>	
		<i>1421</i>	<i>BO</i>				<i>49 24.053</i>	<i>123 45.337</i>		<i>128</i>					
		<i>1424</i>	<i>EN</i>				<i>49 24.073</i>	<i>123 45.356</i>							

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DAILY LOG

Ocean Sciences and Productivity Division

INSTITUTE OF OCEAN SCIENCES

Month <i>June</i>		Year <i>2004</i>		Ship <i>VECTOR</i>		Cruise ID <i>2004-21</i>									
Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
<i>24</i>	<i>25</i>	<i>15.50</i>	<i>BE</i>	<i>CTD</i>		<i>60</i>	<i>49 27.742</i>	<i>124 7.460</i>	<i>296</i>						
		<i>15.56</i>	<i>BO</i>				<i>49 27.726</i>	<i>124 7.501</i>		<i>284</i>					
		<i>16.01</i>	<i>EM</i>				<i>49 27.701</i>	<i>124 7.514</i>							
	<i>2</i>	<i>16.28</i>	<i>BE</i>	<i>ROS</i>		<i>61</i>	<i>49 24.098</i>	<i>124 9.324</i>	<i>277</i>		<i>190-204</i>	<i>15</i>			
		<i>16.34</i>	<i>BO</i>				<i>49 24.103</i>	<i>124 9.292</i>		<i>276</i>					
		<i>16.51</i>	<i>EN</i>				<i>49 24.209</i>	<i>124 9.270</i>							
	<i>2</i>	<i>16.55</i>	<i>BE</i>	<i>RAD</i>		<i>62</i>									
		<i>16.57</i>	<i>EN</i>												
		<i>16.58</i>	<i>BE</i>	<i>RAD</i>		<i>63</i>									
		<i>16.59</i>	<i>EN</i>												
		<i>16.59</i>	<i>BE</i>	<i>RAD</i>		<i>64</i>									
		<i>17.00</i>	<i>EN</i>												
	<i>1</i>	<i>17.34</i>	<i>BE</i>	<i>CTD</i>		<i>65</i>	<i>49 20.31</i>	<i>124 12.08</i>	<i>247</i>						
		<i>17.39</i>	<i>BO</i>				<i>49 20.31</i>	<i>124 12.09</i>		<i>246</i>					
		<i>17.43</i>	<i>EN</i>				<i>49 20.30</i>	<i>124 12.12</i>							
	<i>4</i>	<i>18.35</i>	<i>BE</i>	<i>CTD</i>		<i>66</i>	<i>49 24.45</i>	<i>124 22.08</i>	<i>340</i>						<i>big jelly fish</i>
		<i>18.42</i>	<i>BO</i>				<i>49 24.45</i>	<i>124 22.17</i>		<i>337</i>					<i>on rosette</i>
		<i>18.49</i>	<i>EN</i>				<i>49 24.45</i>	<i>124 22.23</i>							

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							Latitude	Longitude							
24	3	1914	BE	ROS		67	49 26.63	124 20.19	325		205-220	16			
		1924	BO				49 26.68	124 20.29		317					Jelly fish strand likely in one or both cond.
		1944	EN				49 26.71	124 20.48							cell. large diff. pri-sec.
24	5	20:39	BE	CTD		68	49 27.38	124 30.742	338						
		20:45	BO				49 27.346	124 30.761		306.8					
		20:52	EN				49 27.350	124 30.757							
24	6	21:23	BE	ROS		69	49 30.56	124 27.828	194		220-233	13			
		21:28	BO				49 30.613	124 27.853		182.0					
		21:45	EN				49 30.760	124 28.132							
24	6	22:06	EN	RAP		70-73	49 30.965	124 28.377							
						74									
24	7	22:40	BE	CTD		75	49 34.302	124 24.136	349						
		22:48	BO				49 34.280	124 24.184		339.9					
		22:55	EN				49 34.296	124 24.216							
24	8	23:46		CTD		76	49 39.329	124 33.048	338				11	✓	
		23:53					49 39.373	124 33.090		330					
25		00:49					49 39.403	124 33.095							

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Day	Station Name	Time (UTC)	Time Code	Cast Type	Firing Method	Event Number	Position		Bottom Depth	Max Depth	Sample Numbers	# of Bottles	Watch keepers	Trans. cleaned	Comments
							Latitude	Longitude							
25	9	00:39	BE	ROS		77	49 35.484	124 38.231	167		234-245	12	<i>W</i>	✓	
		00:43	BO				49 35.461	124 38.195		160					
		00:55	EN				49 35.432	124 38.066							
25	09	01:02		RAD		78									
		01:05		RAD		79	49 35.429	124 37.981							
		01:06		RAD		80	49 35.436	124 37.981							
25	10	1:59	PE	CTD		81	49 40.762	124 47.291	95				<i>W</i>	✓	
		2:02	BO				49 40.753	124 47.293		90					
		2:04	EN				49 40.810	124 47.310							
25	11	2:29	BE	CTD		82	49 42.433	124 43.382	302				<i>W</i>	✓	
		2:36	BO				49 42.510	124 43.442		290					
		2:42	EN				49 42.636	124 43.495							
	12	3:01	BE	ROS		83	49 43.475	124 40.648	355		246-260	15	<i>DN/MO</i>		Transmissometer noisy at ~250m
		3:09	BO				49 43.54	124 40.73		352					
		3:25	EN				49 43.710	124 40.909							
	13	4:50	BE	CTD		84	49 55.36	124 55.27	235						
		4:57	BO				49 55.48	124 55.40		231					
		5:02	EN				49 55.55	124 55.47							

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							Latitude	Longitude							
25	14	5:31	BE	ROS		85	49 53.01	124 59.55	316		261-276	16			
		5:39	BO				49 53.01	124 59.55		310					
		5:50	EN				49 52.99	124 59.58							
25	15	6:37	BE	CTD		86	49 51.626	124 1.553	130						
		6:48	BO				49 51.628	124 1.508		134					
		6:43	EN				49 51.622	124 1.470							
25	16	07:37	BE	ROS		87	49 57.68	125 08.80	161						only 3 rep of N+H at surface.
		07:42	BO				49 57.70	125 08.83		155	277-287	11			
		07:53	EN				49 57.69	125 08.77							
25	17	08:37	BE	CTD		88	49 58.82	125 04.36	270						
		08:43	BO				49 58.85	125 04.39		260					
			EN				49 58.	125 04.							
25	18	09:17	BE	CTD		89	49 59.220	125 58.975	144						
		09:20	BO				49 59.230	125 59.074		140					
		09:23	EN				49 59.276	125 59.213							
25	19	9:58	BE	CTD		90	50 1.186	125 53.149	280						
		10:01	BO				50 1.211	125 53.087		270					
		10:09	EN				50 1.230	125 53.059							

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