Log Scaling, Processing and Sorting in Howe Sound, British Columbia,

Adding Value, Providing Service.

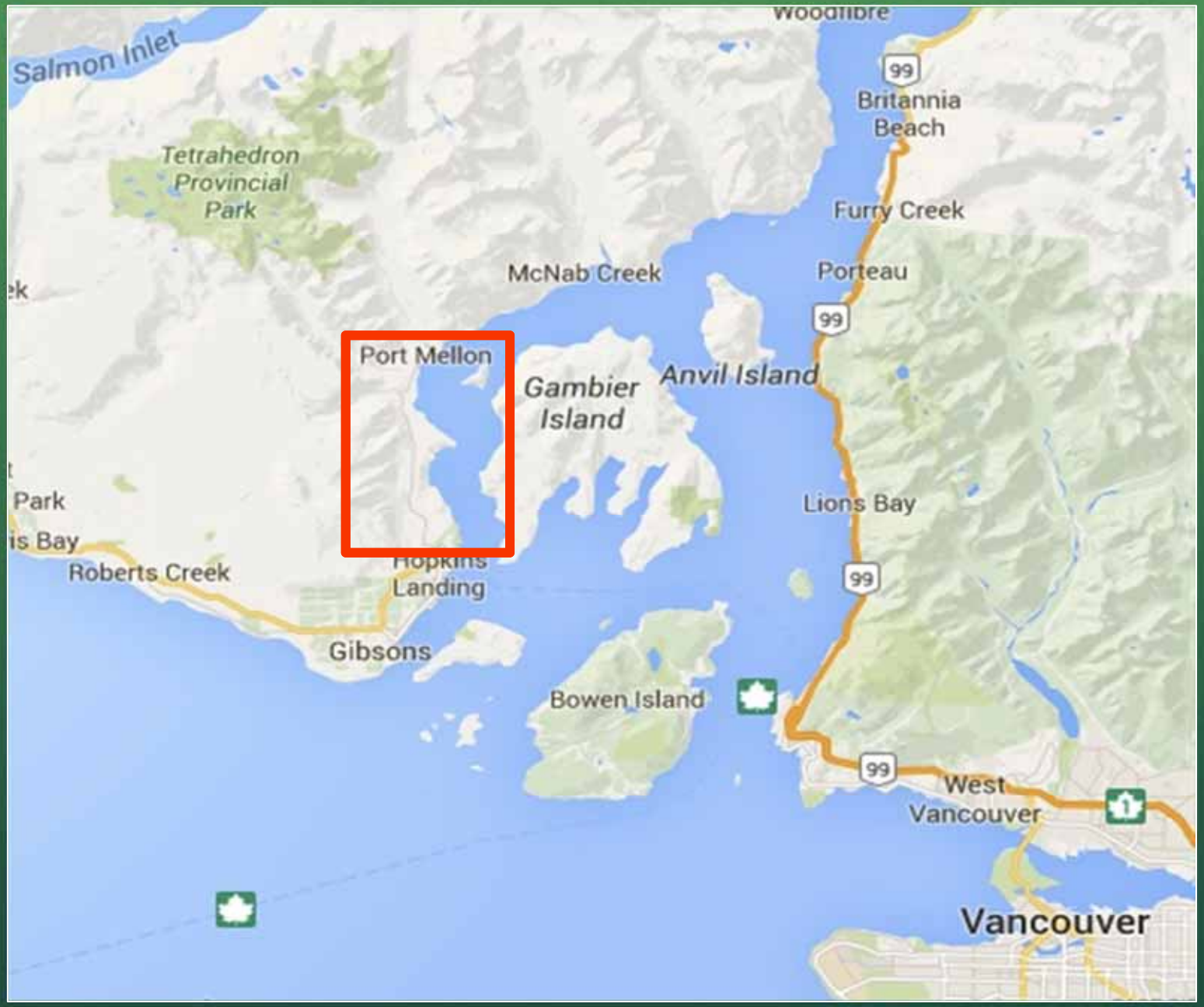
Al Clyde. Garrett Log Service Ltd.

Innovation

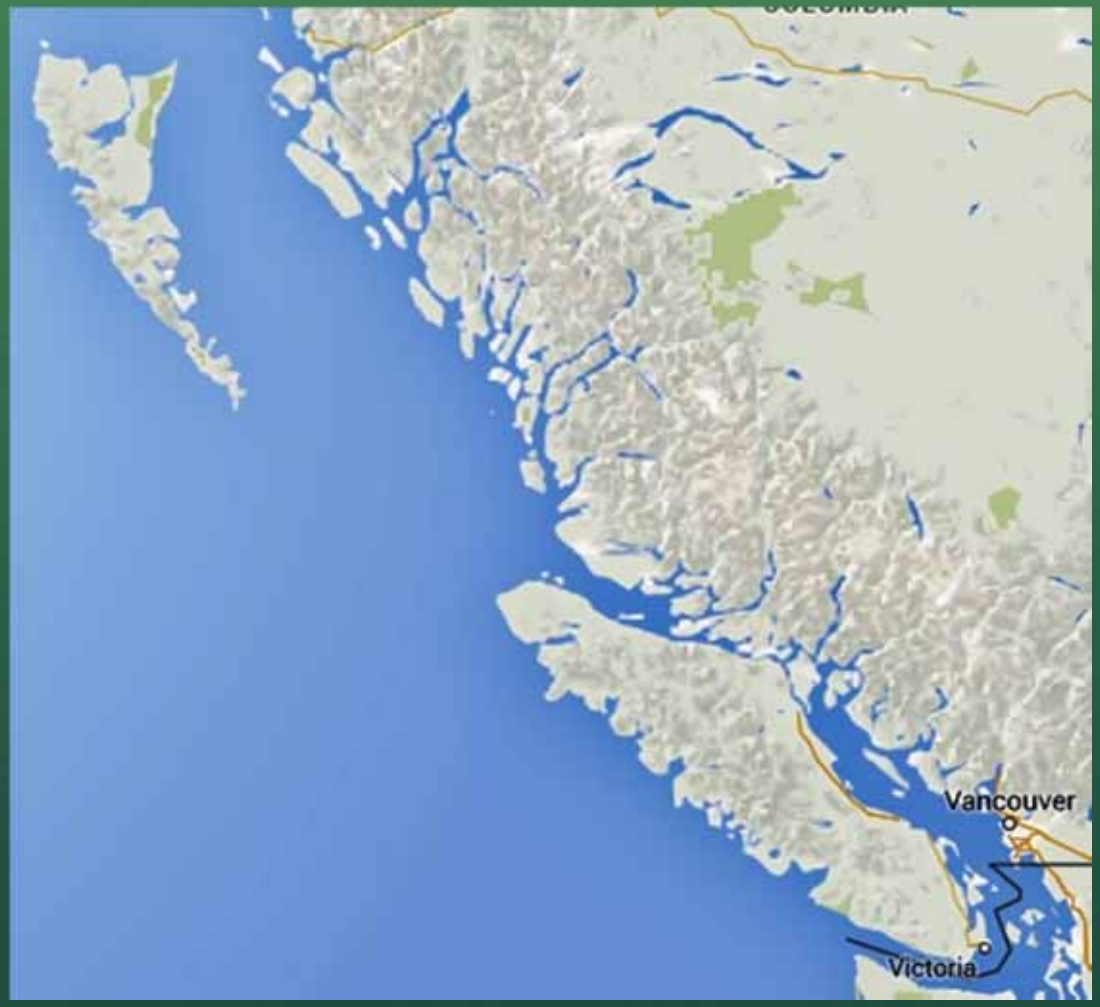
What can new technologies do to enhance human knowledge and skill in the modern scaling business?

Can we make new tools to fit our environment, not make our environment fit the new tools?

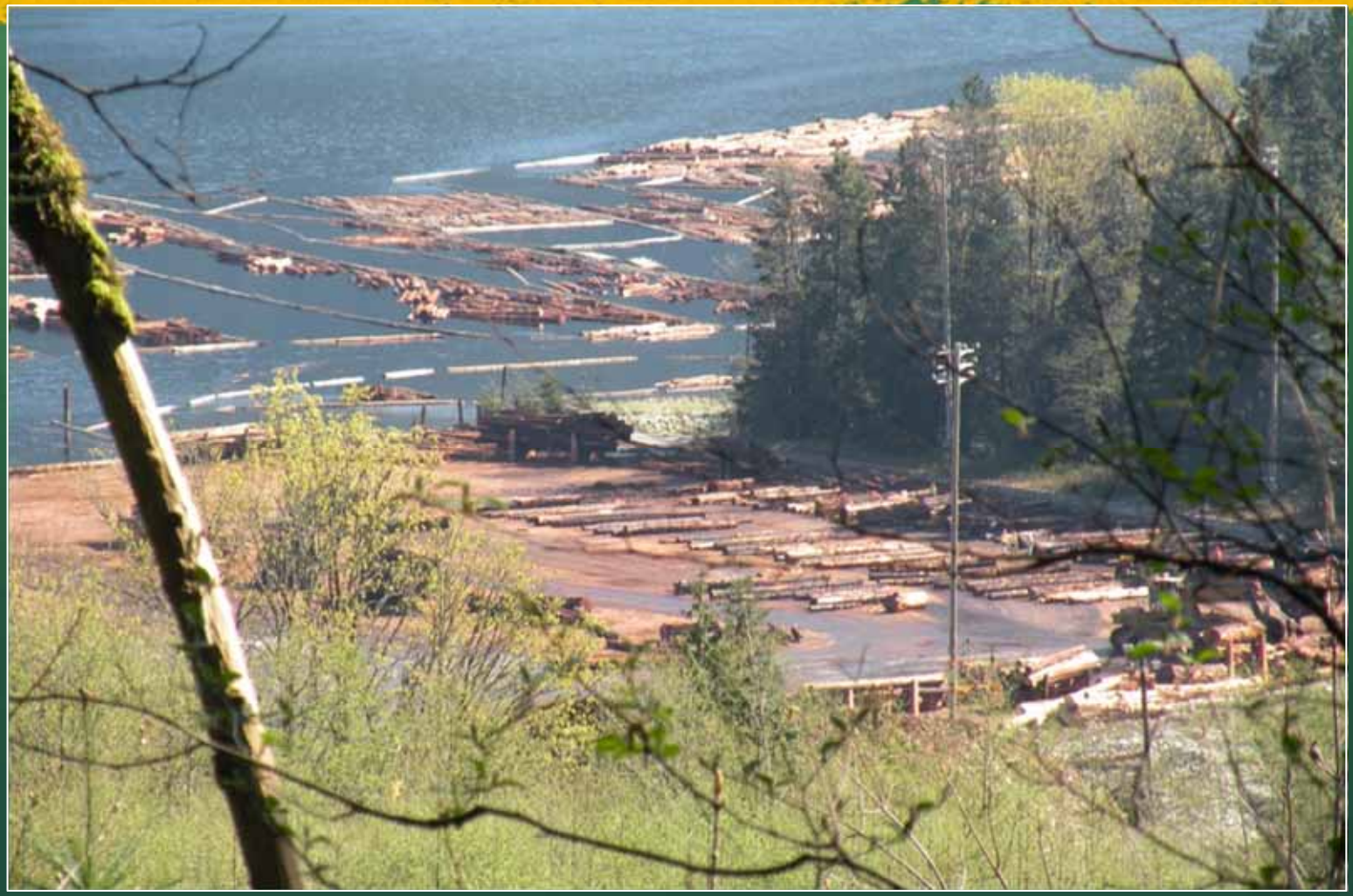
Howe Sound, B.C., Canada, sheltered deep water, close to the Vancouver log market


Salmon Inlet
Tetrahedron Provincial Park
Woodfibre
99
Britannia Beach
Furry Creek
McNab Creek
Porteau
99
Port Mellon
Gambier Island
Anvil Island
Park
Lions Bay
is Bay
Roberts Creek
Hopkins Landing
99
Gibsons
Bowen Island
99
West Vancouver
1
Vancouver

British Columbia, 16,000 miles or 25,000Km of coastline (Washington to California 7600 miles)



Multiple Custom Log Sorts Processing More Than 3 Million Cubic Meters Of Logs Per Year



Nearly the entire foreshore is dedicated to log processing

The ocean makes it all possible

Multiple transport methods

More than just sorting and scaling is going on.

Processed logs arriving at shipside in New Zealand

Different timber profile requires a different approach

The dynamics of custom log sorting and processing in multiple varied timber profiles.

Custom sorting parameters, Multiple customers, hundreds of variations, 20 X 40= 800 sorts

Hem		200	200	OIC Export Highgrade	•	•	27	2 way	33r+	26"+	4.2	12.6	D, F	$$$$$+	12.5, 10.7, 8.9, 6.3, 4.2
Hem		201	201	OIC Export Lumber	•	•	27	2 way	25r+	19"+	4.2	12.6	D, F, H	$$$$	12.5, 10.7, 8.9, 6.3, 4.2
Hem		203	203	OIC Export Shop	•	•	27	2 way	25r+	19"+	4.2	12.6	D, F, H, I, U	$$$+	12.5, 10.7, 8.9, 6.3, 4.2
Hem		210	210	Domestic Highgrade	•		40		33r+	26"+	4.2	17.0	D, F	$$$$$	12.5 11.3 10.7 8.3 6.3 4.2
Hem		211	HL	Domestic Lumber	•		40		25r+	19"+	4.2	17.0	F, (H)	$$$$-	12.5 11.3 10.7 8.3 6.3 4.2
Hem		213	(H)	Domestic Shop	•		40		25r+	19"+	3.8	17.0	F, H, I, U	$$$	12.5 11.3 10.7 8.3 6.3 4.2
Hem/Ba		226/326	H3	OG Prov 12"+ C Sawlog	•	•	27	2 way	15r	12"+	6.0	12.6	H, I, J, U	$$$	12.5, 11.3, 10.3, 8.3 NO ROT Max 39" butt
Hem/Ba		280/380	H4	OG Prov H4 DB		•	27	2 way	15r	12"+	6.0	12.6	H, I, J, U	$$$	12.5, 11.3, 10.3, 8.3 Paint can rot Max 39"
Hem/Ba		228/328	//	OG Domestic Standard			40		19r+		4.2	17.0	H, I, (U, F)	$$	16.6, 12.5, 11.3, 8.3, 4.2
Hem/Ba		244/344	C	OG Prov C Gang		•	27	2 way	10 - 15r	8" - 11"	6.0	12.6	J, U	$$+	12.2 11.3 10.3 8.2 No Rot
Hem/Ba		259/359	A	Domestic Gang			40		10 - 18r		3.8	16.9	J, U	$+	
Hem/Ba/Sp		270/370/670	HX	Domestic Lrg Pulp			40		26r+ Butt		2.8	15.0	ALL	$	26r anywhere on the log
Hem/Ba/Sp		276/376/676	X	Domestic Small Pulp			40		under 26r		2.8	15.0	ALL	$	
Bal		300	300	OIC Export Highgrade	•	•	27	2 way	33r+	26"+	4.2	12.6	D, F	$$$$$	12.5 10.7 8.9 6.3 4.5
Bal		301	301	OIC Export Lumber	•	•	27	2 way	25r+	19"+	4.2	12.6	D, F, H	$$$$	12.5 10.7 8.9 6.3 4.5
Bal		310	BH	Domestic Highgrade	•	•	27	2 way	33r+	26"+	4.2	12.6	D, F	$$$$	12.5 10.7 8.9 6.3 4.5
Bal		311	BL	Domestic Lumber	•	•	27	2 way	25r+	19"+	4.2	12.6	D, F, H	$$$	12.5 10.7 8.9 6.3 4.5
Cedar		410	L	Domestic Highgrade			40		38r+	30"+	3.8	17.0	D, F, (H), K	$$$$$	
Cedar		414	OS	Domestic Oversize			40		30r+	24"+	3.8	17.0	D, F, (H), K, L	$$$$$	
Cedar		415	#	Domestic Sawable Shingle			40		25r	15" thick	3.8	17.0	D, F, K, L, H	$$$$	
Cedar		417	C7	Domestic OG Character House Log	•		40		8	99	5.0	19.8	H, I , J, U, X, Y	$$$++	65' max length, heavy to 14"-16" tops
Cedar		426	CT	Domestic Timber			40		30-37r	24-29"	10.1	12.5	H	$$$+	Highline H only, no rot/seams.
Cedar		428	M	Domestic OG Merch			40	2 way	19r+	15"	3.8	16.4	H, I, J, U	$$$+	
Cedar		449	G	Domestic OG Gang			40	2 way	10 +	8"+	3.8	16.4	J, U	$$$	15.0, 13.0, 9.0 .All : 12.4, 11.2, 8.9, 7.6, 6.3 Max 24" Butt
Cedar		460	SH	Domestic Shingle			40		22r+		2.8	17.0	K, L, M, H, I, U	$$	No Loose grain. Min 10r X 15r thick slabs
Cedar		461	SS	Domestic Utility Shingle			40		8rx8r		2.8	17.0	L, M, I, J, U	$	Min 8r thick slabs, min round log 15r
Cedar		462	M S	Domestic Small Sawable Slab			40		13 r thick		3.8	17.0	H, K, L, M	$$$+	mins. 13r thick 90% clear lumber
Cedar		464	•	Domestic Chip&Saw			40		7 - 10r	5.5 - 8"	5.0	17.0	J, U	$$	
Cedar		476	CX	Domestic Small Pulp			40		5r+		3.0	17.0	ALL	$	
Cedar		481	481	Short Poles			40		9r	7"	12.8	19.8		$$$	42 - 84 feet
Cedar		482	482	Med Poles			40				19.8	25.8		$$$$-	84 - 85 feet
Cedar		483	483	Long Poles			40				25.9			$$$$	86 feet +
Cedar		485	U	Domestic Small Utility Sawlog			40		8r-18r	6"+	3.0	17.0	I, J, U, X	$$	
Cedar		486	UL	Domestic Large Utility Sawlog			40		19r+		3.0	17.0	H, I , U	$$	

High value complex logs

Challenging decision making

Machinery used to upgrade and maximize value

Careful analysis

What about automated scaling?

Value is added at the point of sorting and must be measurable

The Challenge is considerable

How will we measure this?

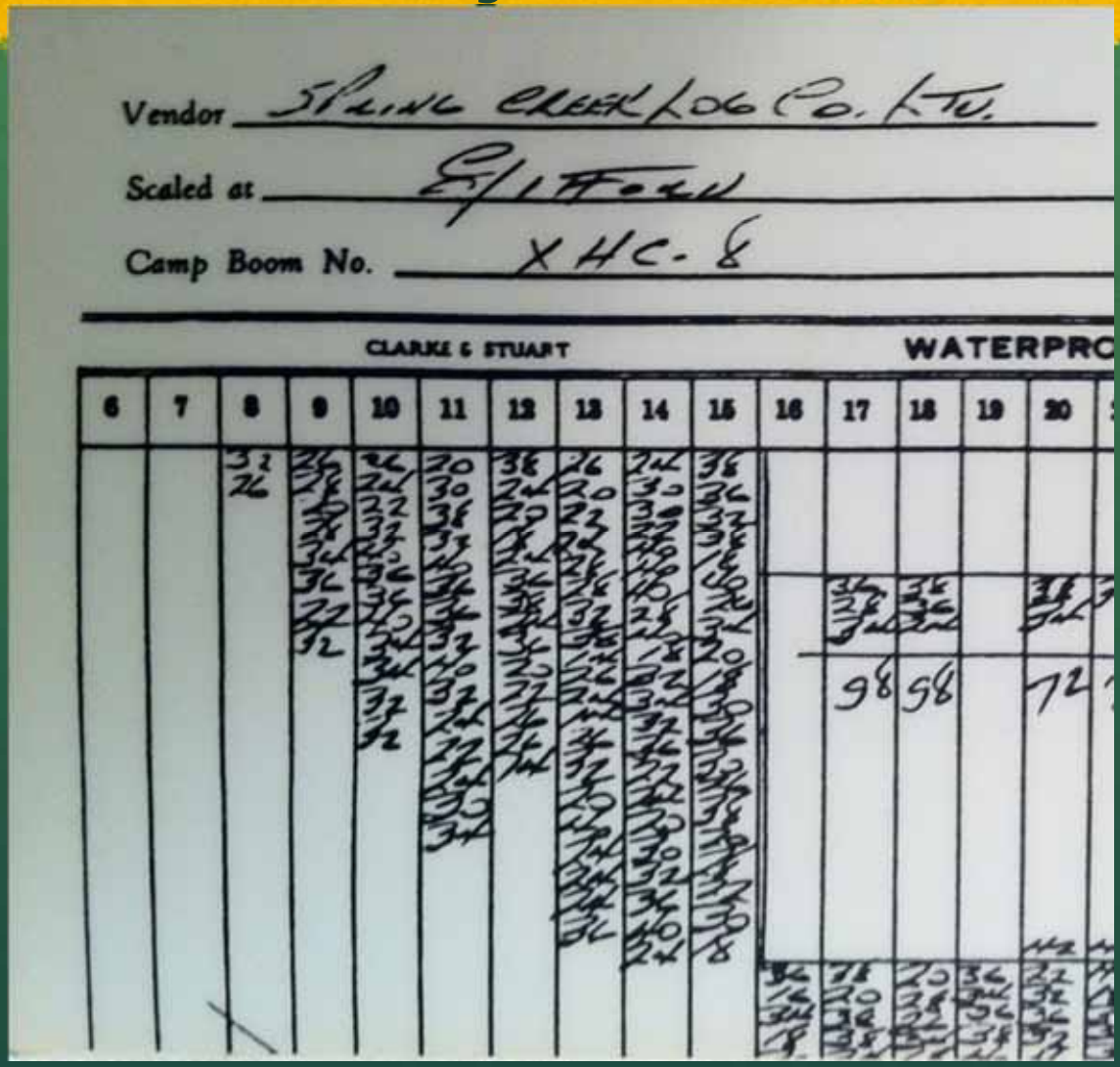
Or This?

Or this?

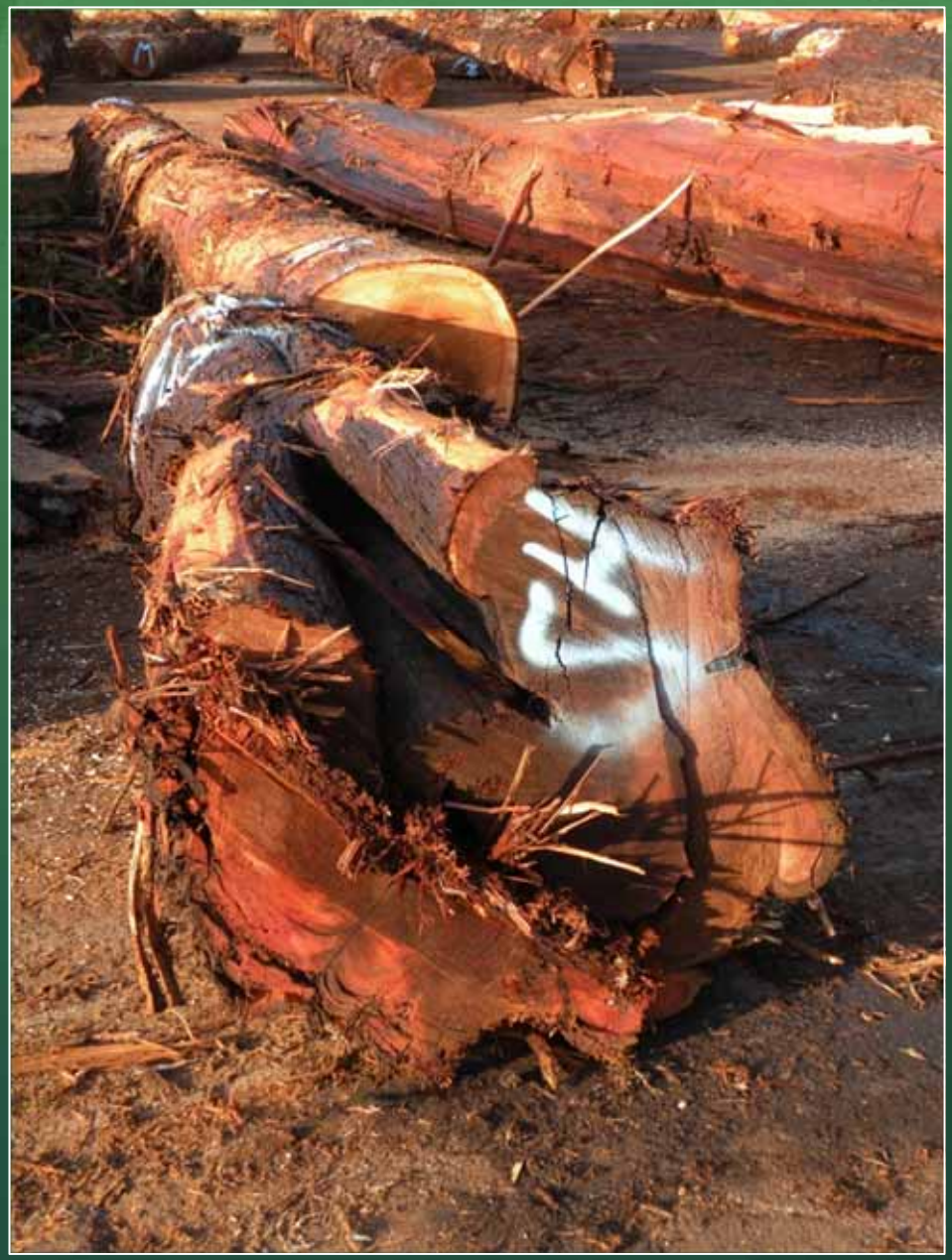
What's in that container?

Handheld Revolution

F.B.M. Talley from the 1950's, 2 key stroke entry!



How much Data can a scaler reasonably Enter?



Trim must be scaled as a log and at times even given a quality code.

Each line represents one log, with Scribner, 20 key stokes minimum.

1	NDSJM	HE	125	13	17	J	0.899	40	10	03	0	0	150		228	0
2	NDSJM	HE	113	10	13	J	0.477	36	7	03	2	0	60		238	0
3	NDSJM	HE	125	14	18	J	1.021	40	11	03	1	0	180		228	0
4	NDSJM	HE	125	16	20	J	1.288	40	12	02	1	0	190		229	0
5	NDSJM	HE	124	14	20	J	1.161	40	11	03	3	0	170		228	0
6	NDSJM	HE	113	9	12	J	0.399	36	7	03	1	0	60		238	0
7	NDSJM	HE	113	12	16	J	0.710	36	9	03	0	0	100		228	0
8	NDSJM	HE	106	16	20	J	1.092	34	12	02	1	0	160		229	0
9	NDSJM	HE	125	19	26	H	2.036	40	14	02	1	0	280		229	0
10	NDSJM	HE	125	13	17	J	0.899	40	10	03	2	0	140		228	0
11	NDSJM	HE	125	28	31	F	3.426								217	237736
12	NDSJM	HE	112	10	15	J	0.572	36	8	03	0	0	80		268	0
13	NDSJM	HE	101	14	16	J	0.717	32	11	03	2	0	130		268	0
UBTOTAL							14.697						1,700	0		
OTAL							14.697						1,700	0		

A single piece of trim can require 12 key strokes!

A single processed log can require more than 64 key strokes of data entry!

19 sailings, 300 cars, 6 digit license plates = 34,200 key strokes

8200 logs, Average 15 key strokes log entry, 123,000 key strokes. (plus header info), and maybe even a few seconds to look at the log.

A very dynamic environment!

Keeping track of it all

What is the role of Human experience in the future?

We have learned ways to overcome other challenges.

To even profit from what were costs.

What tools do we need for the future?

What role will scalers play?

Early use of logs

One thing led to another

And another!

A step forward or?

Thank You From all of us at Garrett Log Service Ltd. and Richmond Systems Ltd.