



WOOD GROUP



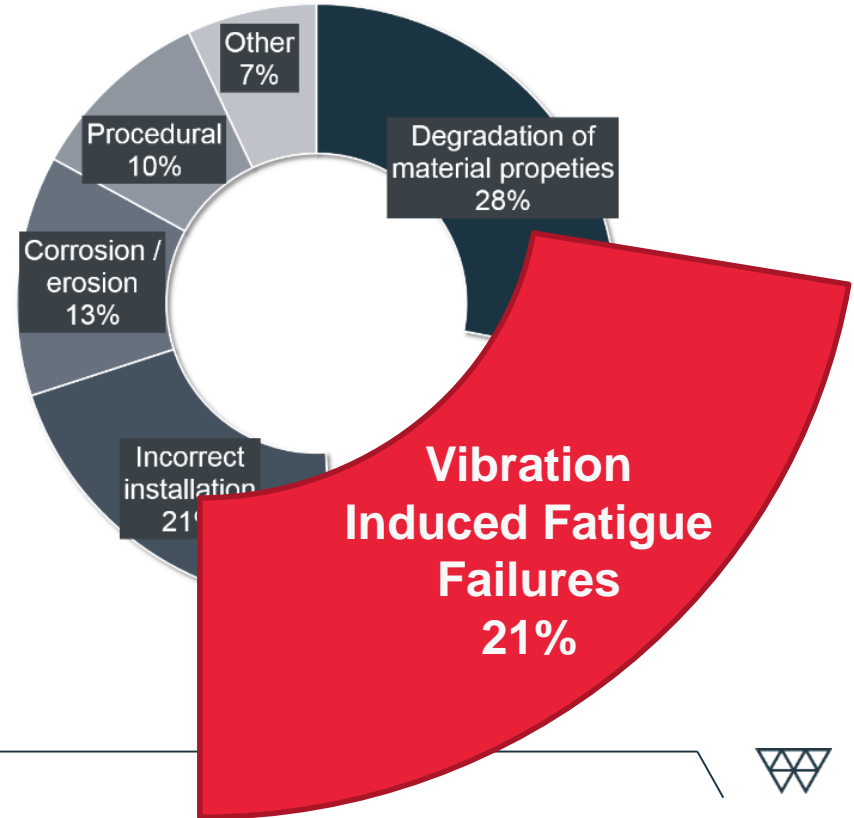
Piping Vibration Screening Software

Veridian – Free Software for Industry

www.woodgroup.com/vdn



An issue affecting all operators and engineering firms...



How do you know when to be worried?

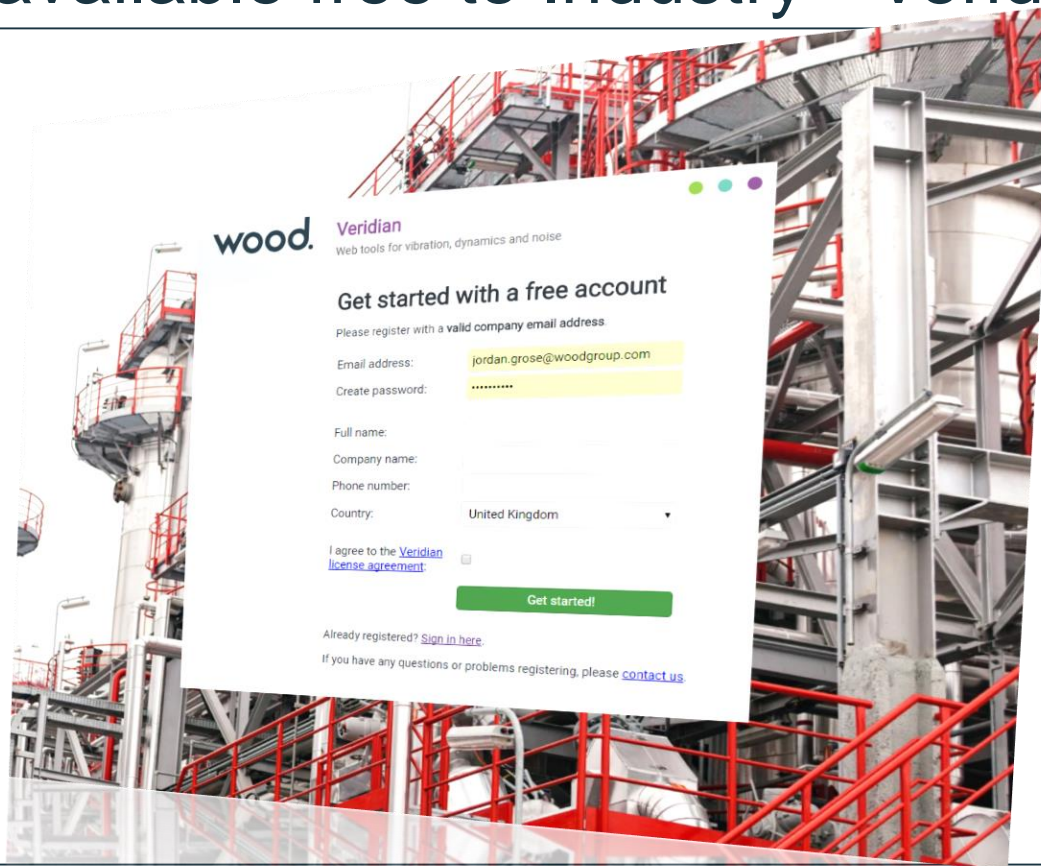


What is currently done today?

- Mixed approaches common in North America
 - Acoustic and Flow induced vibration
 - Not very rigorous in practice
 - *Small bore piping, usually not considered*
- No impact of changing operating conditions considered
- Detailed design activities lost before commissioning



New tool available free to Industry - Veridian



The screenshot shows a web browser window with the Veridian registration form. The background of the slide is a photograph of an industrial facility with red metal walkways and railings. The form is white with a green 'Get started!' button. The text on the form includes the 'wood.' logo, the 'Veridian' brand name, a description of the tools, and a registration prompt. The form fields are partially filled with example data.

wood. Veridian
Web tools for vibration, dynamics and noise

Get started with a free account
Please register with a valid company email address.

Email address:

Create password:

Full name:

Company name:

Phone number:

Country:

I agree to the [Veridian license agreement](#) ☐

Get started!

Already registered? [Sign in here.](#)

If you have any questions or problems registering, please [contact us](#).



Veridian



wood.
Web tools for vibration, dynamics and noise

Current project
CA00703 - Modoc b

Vibration screening
Measurements
Anomaly manager
Documents

Project management
Users and teams
Help

Signed in as [jordan.grose@woodgroup.com](#) [Sign out](#)

System 2/System 2 - Electrostatic Treatment_R00

Record ID	P&ID	Line reference	Description	Notes	Pipe details	Stream	% of stream	Qualitative assessment (modules)	Flow-induced turbulence	Valve transients	Cavitation and flushing	Small bore connections
1	0381-MI20-90DP-3190	14"-PL-A5D-19023-2H1	1st Stg. Electrostatic		14" CBI-A5D 10S Stainless Steel	Stream 1009 (Max Oil) (liquid)	50	v=2.2 m/s pv= 3,662	0.15			
2	0381-MI20-90DP-3190	14"-PL-A5D-19023-2H1	1st Stg. Electrostatic		14" CBI-A5D 10S Stainless Steel	Stream 1009 (Max Oil) (liquid)	50	v=2.2 m/s pv= 3,662	0.15			
3	0381-MI20-90DP-3190	14"-PL-A5D-19023-2H1	1st Stg. Electrostatic		14" CBI-A5D 10S Stainless Steel	Stream 1009 (Max Oil) (liquid)	100	v=4.3 m/s pv= 14,648	1.38	0.10	0.00	0.74
4	0381-MI20-90DP-3190	14"-A5D-2RNX-19063	1st Stg. Electrostatic		14" CBI-A5D 10S Stainless Steel	Stream 1010 (Max Oil) (liquid)	100	v=3.2 m/s pv= 8,173	0.77	0.60	1.00	0.66
5	0381-MI20-90DP-3190	14"-A5D-2RNX-19064	1st Stg. Electrostatic		14" CBI-A5D 10S Stainless Steel	Stream 1011 (Max Oil) (multiphase)	100	v=7.9 m/s pv= 26,085	0.83	0.47	1.00	0.68
6	0381-MI20-90DP-3190	16"-PL-A5D-19024-2H1	1st Stg. Electrostatic		16" CBI-A5D 10S Stainless Steel	Stream 1012 (Max Oil) (multiphase)	100	v=6.1 m/s pv= 12,098	0.49	0.14	1.00	0.70
7	0381-MI20-90DP-3192	16"-A5D-2RNX-19233	1st Stg. Electrostatic		16" CBI-A5D 10S Stainless Steel	Stream 1013 (Max Oil) (multiphase)	100	v=14.3 m/s pv= 28,322	1.14			0.64
8	0381-MI20-90DP-3192	None	1st Stg. Electrostatic		18" CBI-A5D 10S Stainless Steel	Stream 1013 (Max Oil) (multiphase)	100	v=11.2 m/s pv= 17,493	0.68			
9	0381-MI20-90DP-3190	None	1st Stg. Electrostatic		6" CBI-A5D 10S Stainless Steel	Stream 4502 (Max Oil) (liquid)	100	v=0.4 m/s pv= 121	0.01			
10	0381-MI20-90DP-3190	3"-A5D-SRSX-19069	1st Stg. Electrostatic		3" CBI-A5D 10S Stainless Steel	Stream 4502 (Max Oil) (liquid)	100	v=1.3 m/s pv= 1,748	0.08	1.00	0.00	

Know where to focus your efforts



Case Example: Middle East LNG – existing facility

- Risk assessment of three LNG trains
- Over **2,200** main-line vibration assessments
- **Veridian** used in
 - vibration risk assessment
 - prioritize field inspection program
- Field anomalies identified & managed using **Veridian AM**.
- 1000's of hours saved with:
 - efficient data management
 - One location to managing anomaly progress



Why Veridian?

- Consistent methodology **recommended** by industry:
 - ASME B31.3
 - API 571
 - Energy Institute AVIFF 2nd Ed. 2008



Why Veridian?

- Free...

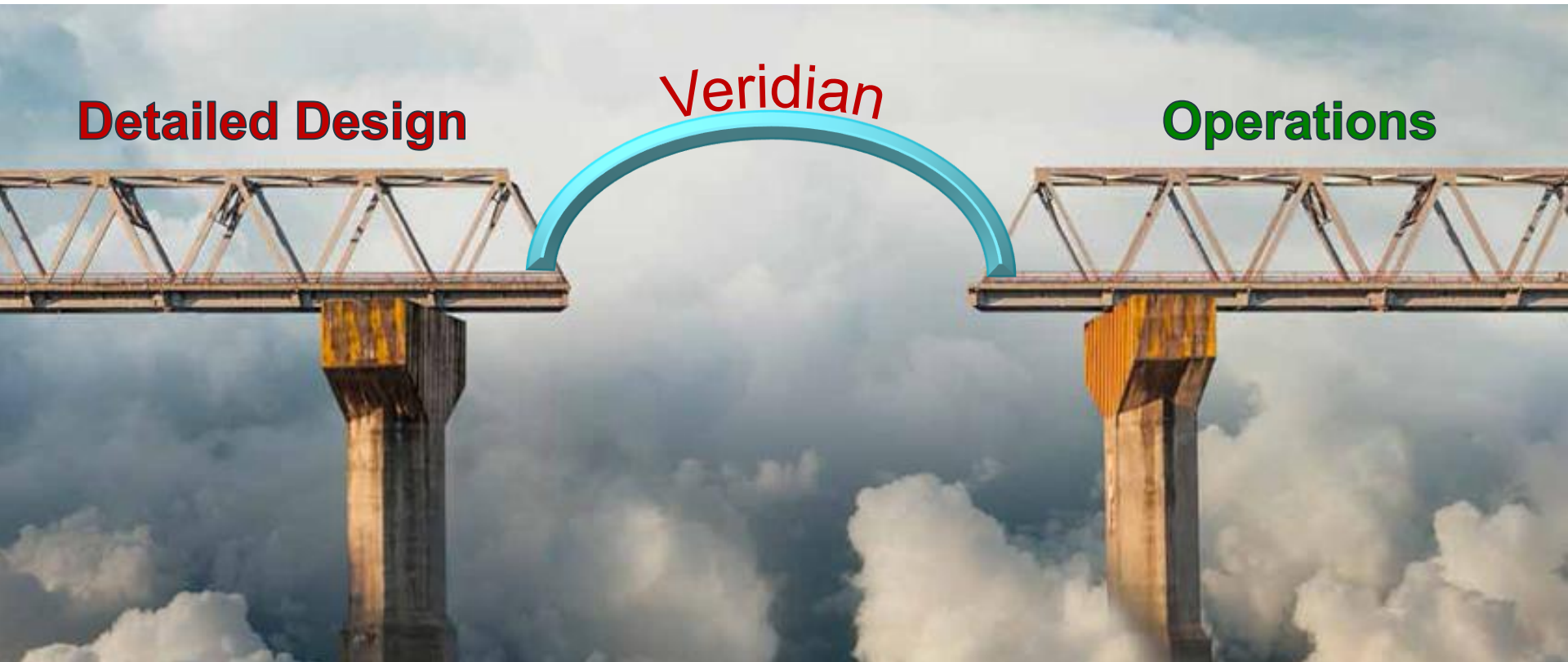


Why Veridian?

Detailed Design

Veridian

Operations



Why **Veridian**... used on many projects

A proven method over ad-hoc reactive vibration approaches



Statoil



MODEC

encana



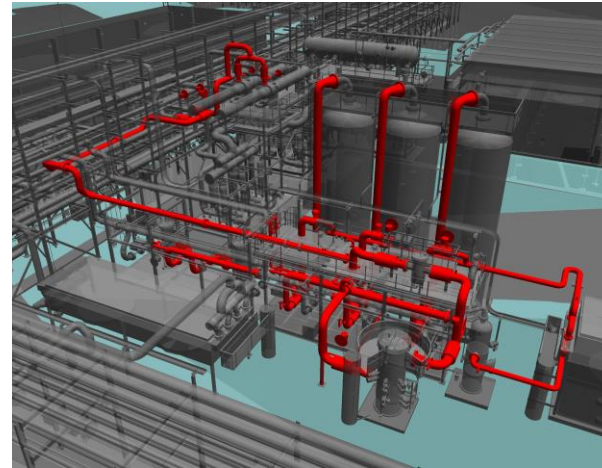
Why is it free?

- Allows **wood.** VDN to be top of mind for advanced vibration studies



Case Example: Onshore plant, USA

- Troubleshooting high vibration in piping
- **Veridian** used to find root cause of high vibrations in field



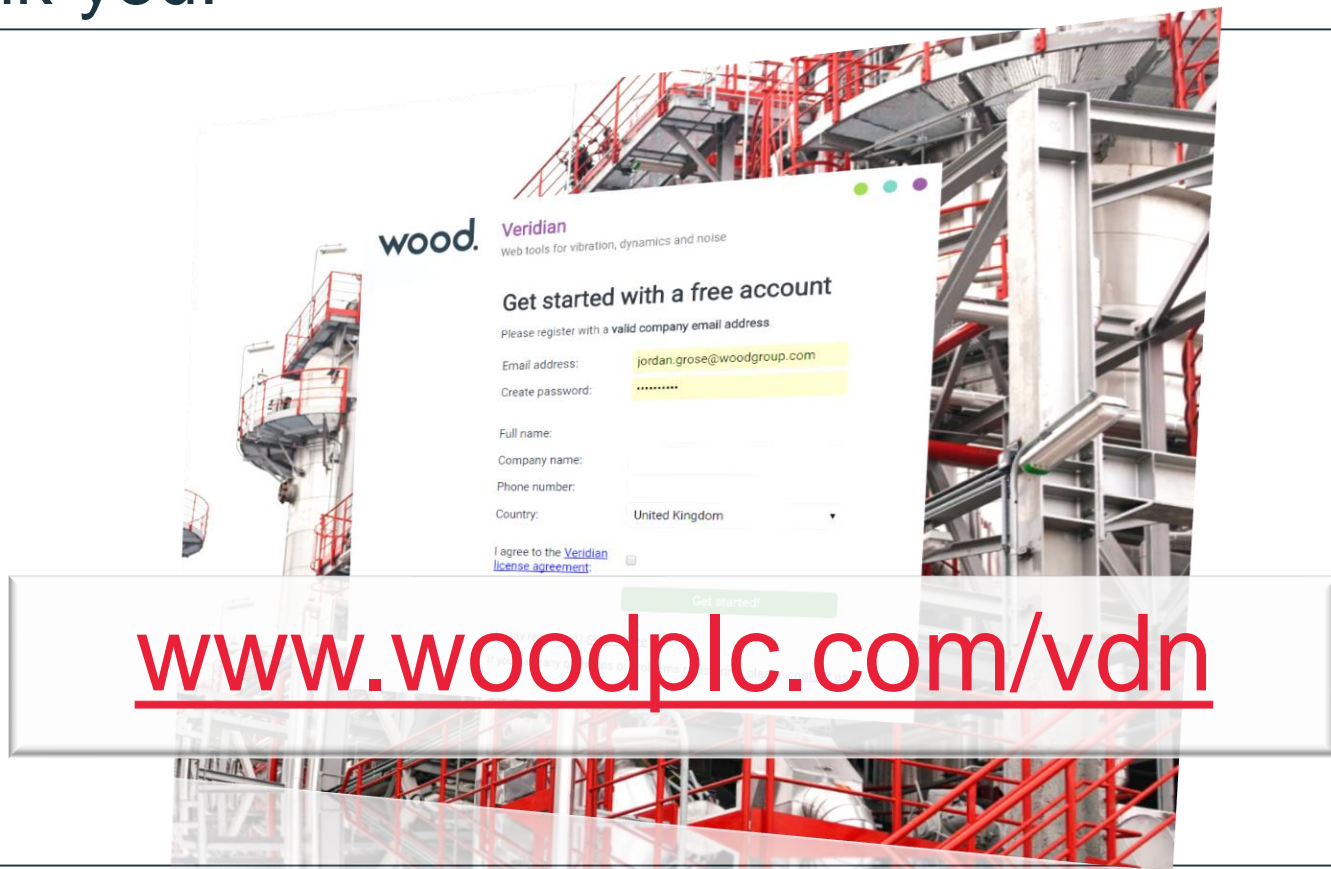
How to use it?

- Go to www.woodplc.com/vdn click on Veridian
- Sign up
 - Worked examples provided in software to understand how it works
 - Wood Group VDN Veridian training courses are available

Contact us directly to learn more!



Thank-you!



www.woodplc.com/vdn

