



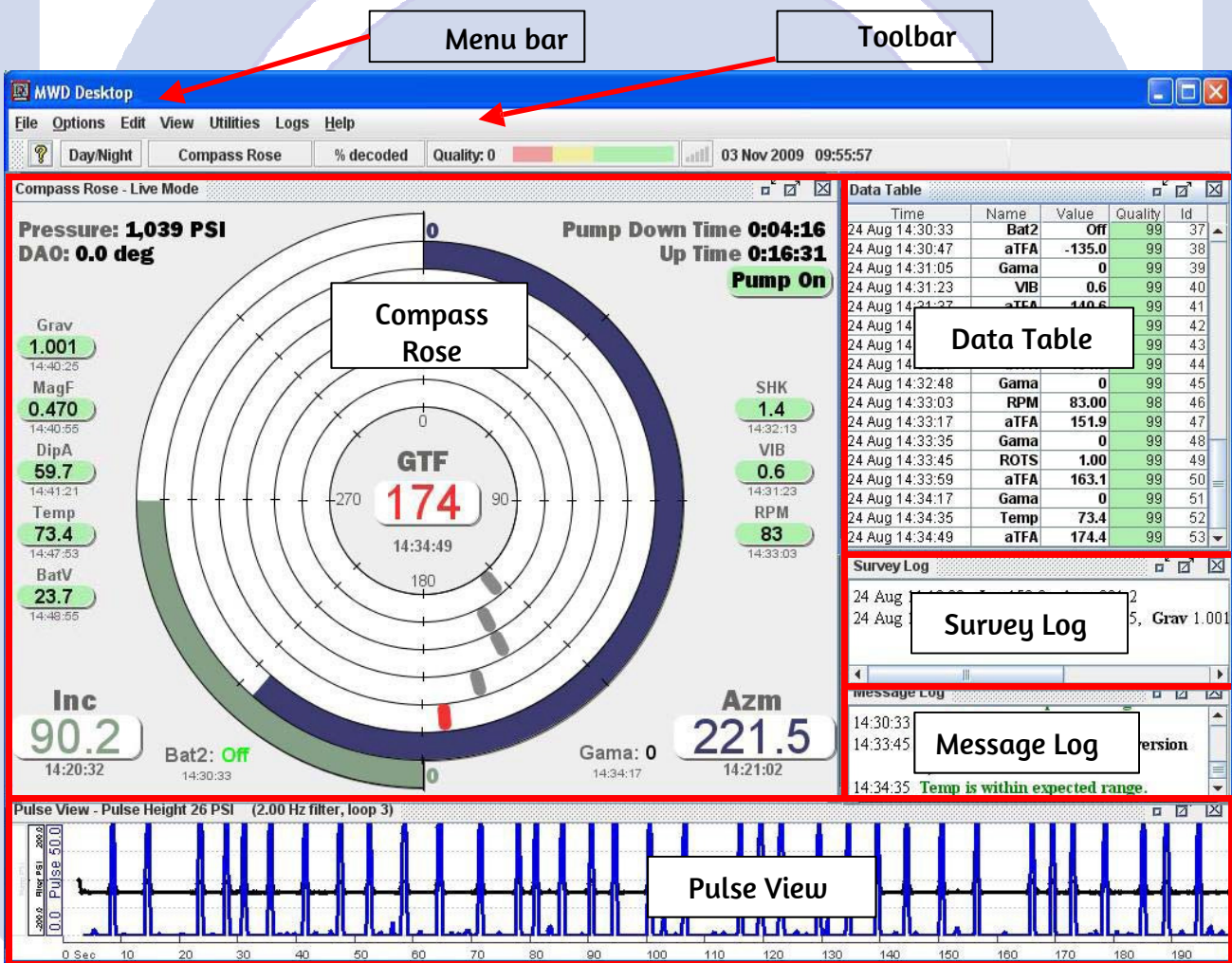
REAL-TIME MONITORING CENTER - FEATURES AND BENEFITS

- Simultaneous monitoring of multiple rig operations
- Interactive real-time delivery of drilling data
- Remote real-time directional survey monitoring
- Secure access from anywhere over the internet or intranet
- Real-time continuous monitoring and critical evaluation of the wellpath inclination and azimuth by service personnel and at Evolution offices
- Proactive evaluation of wellpath position in relation to existing and planned wellbores in real-time.
- Secure file exchange between the rig, remote monitoring stations and authorized third parties.
- Secure access from any smart-phone or tablet.
- Real-time correlation of drilling, MWD and LWD data throughout the wellbore and to offsetting wells
- Complete control of remote MWD surface equipment
- Program / re-program MWD tools from remote locations and Evolution offices.
- Ability to remotely modify surface parameters thus ensuring pulses fall within the band width window for proper decoding.
- Data transfers utilize secure data channels with key exchange and AES (256 Bit) session encoding, the same security standard used by https/SSL. This ensures that the most sensitive data is transmitted with confidence

Evolution’s real-time monitoring system delivers secure real-time Measurement While Drilling (MWD), Logging While Drilling (LWD), and Directional Drilling data from remote locations (rig-sites) to monitoring stations and Evolution offices anywhere in the world.

Assigned personnel securely monitor multiple and simultaneous drilling operations. The result is timely, permitting informed decisions that significantly impact drilling cost and time as off-site specialists collaborate with the onsite crew to leverage and focus resources during job execution all in real time.

One of Our Remote Real-Time Steering Screens



Steering screen is observed remotely and in real-time. Assigned seasoned off-site personnel remotely monitor this screen to ensure data accuracy.



Our realtime monitoring system relies on information technology advancements to ensure that service personnel can troubleshoot MWD signal problems, evaluate the pulse data wave form, adjust filter and pulse thresholds and even completely program the surface and downhole equipments from remote locations and from Evolution offices. Thanks to this technology, if an MWD problem is surface equipment related, the dedicated MWD support personnel may not have to drive to the rig to solve the problem saving both time and money.

Remote Real-Time Integrated Logging Screen

MD	Inclination	Azimuth	TVD	VS	EW	NS	DLS
3435.00	1.20	267.00	3434.81	20.71	-0.22	22.11	0.12
3480.00	1.00	273.30	3479.80	21.02	-1.08	22.11	0.52
3525.00	1.20	264.70	3524.80	21.31	-1.94	22.09	0.58
3347.00	1.10	264.90	3346.83	20.19	1.54	22.24	0.38
3614.00	1.20	280.50	3613.78	22.05	-3.78	22.17	0.37
3702.00	1.50	273.80	3701.75	23.02	-5.84	22.42	0.38
3790.00	1.60	282.00	3789.72	24.17	-8.19	22.75	0.28
3880.00	1.50	279.60	3879.69	25.46	-10.58	23.21	0.13
3969.00	1.90	276.70	3968.65	26.74	-13.20	23.57	0.46
4059.00	1.90	278.20	4058.60	28.17	-16.15	23.96	0.06
4148.00	2.00	285.70	4147.55	29.82	-19.11	24.59	0.31
4236.00	2.20	289.00	4235.49	31.83	-22.18	25.56	0.27
4324.00	2.10	280.50	4323.43	33.76	-25.37	26.40	0.38
4413.00	1.40	268.90	4412.38	34.99	-28.06	26.68	0.88
4503.00	1.70	272.50	4502.35	35.90	-30.49	26.71	0.35
4589.00	1.80	263.00	4588.31	36.74	-33.11	26.60	0.36
4676.00	1.80	258.00	4675.27	37.29	-35.80	26.15	0.18
4763.00	1.80	264.60	4762.23	37.87	-38.49	25.74	0.24

This feature allows for remote validation of logged data by trained MWD support personnel. All transmitted data is date, depth and time stamped ensuring transparency at all times. Relevant magnetic and gravity data are used to validate the quality and accuracy of transmitted surveys and toolface data.



EVOLUTION™
DRILLING SYSTEMS

