International Association of Drilling Contractors

Drilling Controls Systems Subcommittee
IADC Advanced Rig Technology Committee
09.00-11.00 Thursday, 10 January 2019
IADC Headquarters, Crown 1 Conference Room
3657 Briarpark, Ste 200
Houston, TX 77042

Attendees

Cole Burdette, H&P
Chris Corcoran, ABS
Megan Essig, NOV
Gabriel Felipe, Petrobras
Douwe Franssens, IDS
Walker Hubbard, Pason Systems
Nathan Moralez, BP

Ray Pereira, Enforce Energy & Consulting
David Shackleton, IDS
Rob Shank, Parker Drilling
Robert van Kuilenburg, Noble
Mike Killalea, IADC
Linda Hsieh, IADC

Minutes

DCS Subcommittee Chairman Nathan Moralez, BP, opened the meeting and welcomed the attendees. Linda Hsieh, IADC, gave an overview of the IADC antitrust policy and the facility.

Current DDR		DDR Plus	
CODE	OPERATION	CODE	OPERATION
1	RIG UP AND TEAR DOWN	1	RIG UP / TEAR DOWN / MOVE
2	DRILL ACTUAL	2	DRILLING
3	REAMING	3	REAMING
4	CORING	4	CORING
5	CONDITION MUD & CIRCULATE	5	CIRCULATE & CONDITION MUD
6	TRIPS	6	TRIPS
7	LUBRICATE RIG	7	SERVICE/MAINTAIN RIG
8	REPAIR RIG	8	REPAIR RIG
9	CUT OFF DRILLING LINE	9	REPLACING DRILL LINE
10	DEVIATION SURVEY	10	DEVIATION SURVEY
11	WIRE LINE LOGS	11	WIRELINE LOGS
12	RUN CASING & CEMENT	12	RUN CASING & CEMENT
13	WAIT ON CEMENT	13	WAIT ON CEMENT
14	NIPPLE UP B.O.P.	14	RIG UP/DOWN BOP
15	TEST B.O.P.	15	TEST BOP
16	DRILL STEM TEST	16	DRILL STEM TEST
17	PLUG BACK	17	PLUG BACK
18	SQUEEZE CEMENT	18	SQUEEZE CEMENT
19	FISHING	19	FISHING
		20	SPECIALIZED DIRECTIONAL WORK
20	DIR. WORK		
21	RUN/RETRIEVE RISER EQUIP.	21	RUN/RETRIEVE RISER EQUIP.
22	SURFACE TESTING	22	SURFACE TESTING
23	OTHER	23	OTHER
	[unused]	24	NON-PRODUCTIVE TIME
	[unused]	25	OPERATING STATUS
	[unused]	26	SAFETY
	[unused]	27	WELL CONTROL
	[unused]	28	COILED TUBING
A	PERFORATING	29	PERFORATING
B	TUBING TRIPS	30	TUBING TRIPS
C	TREATING	31	TREATING
D	SWABBING	32	SWABBING
E	TESTING	33	TESTING
	[unused]	34	SUBSEA INSTALATIONS

The next agenda item was to review the progress on version 1.0 of the DDR Plus™ schema, which was provided by David Shackleton, IDS. IADC contracted IDS to develop the schema based on the DCS SC's establishment of DDR Plus™ codes and the resulting cascade of sub and sub-subcodes. The original 23 DDR codes were preserved, with an additional 11 added, bringing the total to 34. Codes 35-49 are reserved for future IADC use, and codes 50-99 may be assigned as a user wishes. The DCS defined all 34 main codes.

Of the new codes (24-34), six refer to operations. These are:

- 24: Nonproductive time
- 25: Operating Status
- 26: Safety

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- 27: Well Control
- 28: Coiled Tubing

- 34: Subsea Installations

The rest (29-33) are simply a renumbering of the legacy A-E completion codes. See comparison chart at left.

The project to update the existing IADC Daily Drilling Report (DDR) to the DDR Plus™ followed a survey to contactors, operators, service companies, data providers, and others that indicated a desire for significant improvements to the DDR.

Mr Shackleton reviewed a draft of the XML Guideline for the IADC DDR Plus™, the guide to the schema. The schema is in technical adherence to WITSML, the principle reference for transmitting and sharing wellsite data. Mr Shackleton will clean this document up, and it will be posted on the IADC website.

He reviewed the numerous data objects, their definitions, place within the schema program, and mapping to DDR fields. An email address (IADCsupport@idsdatanet.com) is provided for support from IDS.

The discussion then moved to rolling out the DDR Plus. Co-chair Robert van Kuilenburg, Noble Drilling, recommended that the DDR Plus be promoted as much as possible at IADC's excellent conferences. Mike Killalea said he would work with the conference team to ensure maximum coverage. IADC will also launch campaigns through mailings and solicitations to contractor members and to current eDDR licensees, as well as magazine/newsletter writeups. IADC is seeking a trademark for the terms "IADC DDR Plus" and "DDR Plus."

Subsequent to the SC meeting, dedicated DDR Plus™ landing page has been set up at ddrplus.iadc.org, and at the alias www.iadc.org/ddrplus. IADC has also set up a dedicated email for comments – ddrplus@iadc.org.

The print version for the two-tour and three-tour DDR Plus™ ("2T6" and "3T5", respectively) will phase in during 2019, replacing the existing form by the end of the year. IADC will communicate the plan with print purchasers.

The next agenda item was discussion of a proposed IADC DDR Plus Community. As envisioned, DDR Plus data would be transmitted, with the contractor's permission, to a central database. The data base would be secure, WITSML compliant, cloud based, and securely available to those permitted by IADC. All data would be anonymized, including but not limited to, company name, rig name, well name, specific well location.

Mr Shackleton said that this would provide a significant opportunity for IADC contractors to see anonymized Key Performance indicators, and be able to

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benchmark against contemporary and historical average in their region, and perhaps globally.

Several participants saw the value in this. However, there will be a cost associated with the project, which would either be borne by IADC, the contractor user, or both.

Mr Moralez recommended that a survey be sent out to query the membership about the concept. Mr Shackleton agreed to develop five or six survey questions.

Next on the agenda was rig sensor stewardship, a project in its early days. The intent is to provide industry guidance on best practices in sensor maintenance.

Mr Moralez noted that data, data sharing, and data quality are of keen interest to the industry currently. Properly functioning sensors are key to high-quality data.

As envisioned, the SC would initially develop a short document citing best practices in sensor maintenance for sensors in safety-critical applications on the rig.

Mr Moralez said the next step would be to organize a work group, and to perhaps develop a survey on survey practices and industry opinions. IADC will solicit volunteers for the work group through its newsletter, website, and direct communication.

Then the SC discussed the project Minimum Safety Features for Drilling Rigs. Mr Moralez has developed a [draft document](#) outlining the mission of the project. He said that a work group would scour relevant international standards related to safety by design, and incorporate in a rig-relevant format into a separate IADC guideline. The model for this is the ["IADC Cybersecurity Guidelines for Drilling Assets."](#)

A work group has been organized, with a kick-off meeting scheduled for Friday, 18 January. IADC will publicize the work and solicit additional participants.

The next DCS SC meeting will be the morning of 14 February, at IADC HQ, [3657 Briarpark Drive, Suite 200, Houston, TX 77042](#).

There being no other business, the meeting was adjourned.