Format description of the fields in the WSM 2016 database file types wsm2016.xlsx and wsm2016.csv

The table describes the details of each of the 60 fields given for each data record in the Excel-file ws2016.xlsx and the comma separated field file wsm2016.csv. The first column one gives the field name used in the database file, the second column gives an example how an entry might look like, the third column indicates for which type of stress indicator this field is applied, the fourth column gives a detailed description, and the fifth column states the range of possible values for the field. The 60 fields are listed in the sequential order as they occur in the database file for each data record.

Field	Example	Used For	Explanation	Range
ISO	WSM3243	ALL	Data record identification code. ISO is given by the WSM team and is a serial number.	
SITE	EG 13	ALL	Site code as e.g given in publications and reports.	
LAT	46.533	ALL	Latitude (South latitude is negative)	-90° - +90°
LON	-119.682	ALL	Longitude (West longitude is negative)	-180° - +180°
AZI	45	ALL	Orientation of the maximum horizontal stress S_{Hmax} in degrees (clockwise from North)	0° - 180°
TYPE	FMS	FM*	Earthquake focal mechanisms: FMF: formal inversion of several focal mechanisms FMS: single focal mechanism solution FMA: average of p-axis or composite focal mechanism soluations	FMF FMS FMA
		BO*	Borehole breakouts: BO: from analysis of individual breakouts BOC: from analysis or cross-sectional shape of entire well BOT: from televiewer-imaged shapes of individual breakouts	BO BOC BOT
		HF*	Hydraulic fracturing measurement: HF: with no magnitude information HFG: magnitude reported as gradient HFM: magnitude reported for maximum depth HFP: testing of pre-existing fractures (HTPF technique) stress magnitudes from inversion of tests over a depth interval	HF HFG HFM HFP
		OC	OC: overcoring or other strain relief measurement	OC
		GF*	Geologic fault-slip data: GFI: inversion of fault-slip data observed on planes of a variety of trends GFM: paleo-focal mechanism, P-axis measured at 30° to fault in plane of slip vector GFS: orientation from fault attitude and	GFI GFM GFS

			primary sense of offset	
		GVA	GVA: geologic-volcanic vent alignment	GVA
		PC	PC: petal centerline fracture, orientation from mean orientation of petal fractures in oriented core	PC
		SR	SR: strain recovery method; also called wave velocity anisotropy, currently not considered as a reliable stress indicator (available results included as E-quality)	SR
		SW*	SW: shear wave splitting, currently not considered as a reliable stress indicator (available results included as E-quality). SWB – Shear Wave Splitting in Boreholes SWL – Shear Wave Splitting in Laboratory SWS – Shear Wave Splitting in Seismology	SWB SWL SWS
		DIF	DIF: drilling-induced tensile fractures of the borehole wall	DIF
		BS	BS: borehole slotter	BS
DEPTH	1.9	ALL	Depth of measurement or mean depth, e.g. for breakouts in a well [km]	0 - 40
QUALITY	B	ALL	According to WSM Quality Ranking Scheme. Only qualities A-C are considered as reliable stress indicators	A,B,C,D, E
REGIME	TF	ALL	Stress regime defined in the following manner: TF: thrust faulting $S_{Hmax} > S_{hmin} > S_V$ TS: thrust with strike-slip component SS: strike-slip $S_{Hmax} > S_V > S_{hmin}$ NS: normal with strike-slip component NF: normal faulting $S_V > S_{Hmax} > S_{hmin}$ U: unknown stress regime	TF TS SS NS NF U
LOCALITY	R-142	ALL	Name of location or well	
COUNTRY	GERMANY	ALL	The country name according to the listing of the United Nations list.	
DATE	19911223	FM*	Date of earthquake (year month day)	
		BO*	Date of measurement (year month day)	
TIME	03:15:38.2	FM*	Time of earthquake occurrence (UT). If time is given less accurately, please use x at the appropriate digit position (e.g. 16:45:xx.x)	
NUMBER	21	FMF,FMA	Number of focal mechanisms analyzed in inversion, average or composite solutions	
		BO*, HF*, OC*, GF*	Number of orientation observations	
		PC	Number of fractures	
		GVA	Number of volcanic vent alignments	

		DIF	Number of drilling-induced fracs	
SD	17	FMA, FMF, BO, HF, OC, DIF, GF*, GVA, PC	Standard deviation of orientations	0° - 90°
METHOD	MI	FM*	Method used to determine mechanism (blank unless any of the below apply) FM: for first motions MI: for moment tensor inversion AR: for amplitude ratio	FM MI AR
		OC	Method of strain relief measuring technique (blank unless any of the below apply) FJ: Flat jack DS: Doorstopper TR: Triaxial cell	FJ DS TR
S1AZ	28	FM*, HF*, OC, GF*	Azimuth (clockwise from N) of P-axis	0° - 360°
S1PL	85	FM*, HF*, OC, GF*	Plunge (from horiz.) of P-axis	0° - 90°
S2AZ	108	FM*, HF*, OC, GF*	Azimuth of B-axis	0° - 360°
S2PL	10	FM*, HF*, OC, GF*	Plunge of B-axis	0° - 90°
S3AZ	10	FM*, HF*, OC, GF*	Azimuth of T-axis	0° - 360°
S3PL	5	FM*, HF*, OC, GF*	Plunge of T-axis	0° - 90°
MAG_INT_S1	80	HFM, HFG	HFM: maximum magnitude (at greatest depth) in [MPa], or HFG: intercept in [MPa]	
		OC	Maximum magnitude (at greatest depth) in [MPa], or intercept in [MPa]	
			Note: negative stress magnitudes indicate tension	
SLOPES1		HFG	Slope [MPa/km]	
MAG_INT_S2	60	HFM, HFG, OC	Equivalent to MAG_INT_S1	
SLOPES2		HFG	Equivalent to SLOPES1	
MAG_INT_S3	54	HFM, HFG, OC	Equivalent to MAG_INT_S1	
SLOPES3		HFG	Equivalent to SLOPES1	
PORE_MAGIN	20	HFM, HFG, OC	Pore pressure magnitude (at greatest depth) in [MPa], or intercept in [MPa]	
PORE_SLOPE		HFG	Pore pressure slope [MPa/km]	

MAG_TYPE	Mw	FMF, FMS, FMA	Type of magnitude determination (of strongest event for FMF or FMA) mb: body-wave magnitude ML: local magnitude Ms: surface-wave magnitude Mw: moment magnitude	mb ML Ms Mw
EQ_MAGN	5.1	FMF, FMS, FMA	Magnitude (of strongest event for FMF or FMA)	
MOM	5.0	FMS	Mantissa of seismic moment	
MOM_EXP	23	FMS	Exponent of seismic moment [dyne cm]	
EQ_AVG	G	FMA	Averaging method used for groups of focal mechanisms: G: geometric average from stereoplot of P- and T-axes C: composite, i.e. average of p-axis of several single focal mechanisms	G A
TOT_LEN	350	BO*	Total length of breakouts in a well [m]	
		GVA	Total length of volcanic alignments [m]	
		DIF	Total length of drilling induced fracs [m]	
SD_WEIGHT	L	BO*, HF*, OC, GF*, GVA, PC, DIF	Weighting method used for std. deviation: L= length, N= number	L N
SAMP_INT	.03	BO*	Sample interval [m] of measurements	
TOP	1500	BO*	Top of breakout interval [m], please enter top of measurement interval in comments	
		HF*	Top of interval of hydrofrac measurements [m]	
		DIF	Top of drilling induced frac interval [m]	
BOT	2800	BO*	Bottom of breakout interval [m], please enter bottom of measurement interval in comments	
		HF*	Bottom of interval of hydrofrac measurements [m]	
		DIF	Bottom of drilling induced frac interval [m]	
NO_MAG_VEN	7	HF*	Number of magnitude measurements	
		GVA	Total number of volcanic vents	
YOUNG	25	OC, GF*	Young's modulus (GPa)	
POISSON	0.24	OC, GF*	Poisson's ratio	
ROCK	granite	HF*, OC, GF*, GVA, PC	Rock type	
AGE	Quaternary	OC	Age of rock	

		GF*	Age of geological slip occurence	
		GVA	Age of volcanic eruption	
RATIO	0.3	FMF, GFI	Relative stress magnitude ratio R=(S2-S3)/(S1-S3) from: FMF: formal inversion of several single earthquake focal mechanisms GFI: fault-slip inversion from geological data	0....1
DIPAZ		GFS	Dip azimuth of fault plane when only primary sense of offset is known	
DIP		GFS	Dip of fault plane when only primary sense of offset is known	
REF1	ZOBAXX1990A	ALL	First four letters of first author's surname, +first two letters of the second author's surname (use XX if no second author) +year +sequence letter to avoid duplicate ref-codes for different references!	
REF2		ALL	See REF1	
REF3		ALL	See REF1	
REF4		ALL	See REF1	
COMMENT	Coordinates read from the maps	ALL	These comments can be used for noting possible errors with data or conflicting results with some indication of why the particular result was used. The comments can also be used to indicate the number or name of this solution or result in a particular reference, e.g. BELLPO1985#41W-371 would indicate well number #41W-371 in a Bell and Podrouzky (1985) paper, or the time of occurrence of an earthquake (GMT). Use NC if there are no additional comments.	
LAST_MOD	20010730	ALL	Date of the last modification of this database entry. Leave empty (will be entered by the WSM team).	
DIST	234	ALL	Distance in [km] of the stress data point to the nearest plate boundary of the global plate model PB2002 from Bird (2003).	
BOUNDARY	OTF	ALL	Type of plate boundary according to the global plate model PB2002 from Bird (2003): CTF=Continental Transform Fault CRB=Continental Rift Boundary CCB=Continental Collision Boundary OTF=Oceanic Transform Fault OSR=Oceanic Spreading Ridge OCB=Oceanic Collision Boundary SUB=Subdcution zone	
PBE	PBE	FMS	Stands for 'Possible Plate Boundary Event'.	PBE NO