Correspondence table for parameters between ver. 3.0 and ver.3.1

ve.r3.0				Ver.3.1	
Folder	File	Parameter	Item (Measurement hight) [Unit]	Parameter	Item
		YEAR	Year	Year	
		MONTH	Month	—	
		DAY	Day	DOY	Day of year (1-366)
		HOUR	Hour	Time	HHMM
		MINUTE	Minute	Time	HHMM
Met	yyyyu30, yyyyud	Wd_27	Wind dir. (27.4m) [degree]	WD	
		Wd_22	Wind dir. (21.7m) [degree]	—	
		Wd_18	Wind dir. (18.1m) [degree]	—	
		Wd_14	Wind dir. (14.1m) [degree]	—	
		Wd_8	Wind dir. (8.3m) [degree]	—	
		Wd_5	Wind dir. (4.5m) [degree]	—	
		Wd_s0	Wind dir. (1.5m) [degree]	—	
		Ws_40	Wind speed (42.3m) [m s-1]	—	
		Ws_27	Wind speed (27.4m) [m s-1]	WS	
		Ws_22	Wind speed (21.7m) [m s-1]	—	
		Ws_18	Wind speed (18.1m) [m s-1]	—	
		Ws_14	Wind speed (14.1m) [m s-1]	—	
		Ws_8	Wind speed (8.3m) [m s-1]	—	
		Ws_5	Wind speed (4.5m) [m s-1]	—	
		Ws_s0	Wind speed (1.5m) [m s-1]	—	
		T_40	Air temp. (41.3m) [C]	—	
		T_27	Air temp. (27.4m) [C]	Ta_27m	
		T_22	Air temp. (21.7m) [C]	—	
		T_18	Air temp. (18.1m) [C]	—	
		T_14	Air temp. (14.1m) [C]	Ta_14m	
		T_8	Air temp. (8.3m) [C]	—	
		T_5	Air temp. (4.5m) [C]	—	
		T_s0	Air temp. (1.5m) [C]	—	
		y_40	Water vapor density (41.3m) [g m-3]	—	
		y_27	Water vapor density (27.4m) [g m-3]	—	
		y_22	Water vapor density (21.7m) [g m-3]	—	
		y_18	Water vapor density (18.1m) [g m-3]	—	
		y_14	Water vapor density (14.1m) [g m-3]	—	
		y_8	Water vapor density (8.3m) [g m-3]	—	
		y_5	Water vapor density (4.5m) [g m-3]	—	
		y_s0	Water vapor density (1.5m) [g m-3]	—	
		P_40	Atm. pressure (41.3m) [hPa]	Pa	
		Rain_40	Precipitation (41.3m) [mm]	PPT	
		I_40	Global radiation (41.3m) [W m-2]	Rg	
		I_18	Global radiation (17.3m) [W m-2]	—	
		I_14	Global radiation (13.4m) [W m-2]	—	
		I_5	Global radiation (3.9m) [W m-2]	—	
		I_s0	Global radiation at s0 (2.0m) [W m-2]	TRg	
		I_s1	Global radiation at s1 (2.0m) [W m-2]	TRg	
		I_s2	Global radiation at s2 (2.0m) [W m-2]	TRg	
		I_s3	Global radiation at s3 (2.0m) [W m-2]	TRg	
		I_s4	Global radiation at s4 (2.0m) [W m-2]	TRg	
		I_s5	Global radiation at s5 (2.0m) [W m-2]	TRg	
		Rn_40	Net radiation (41.3m) [W m-2]	Rn	
		Rn_18	Net radiation (17.3m) [W m-2]	—	
		Rn_s0	Net radiation (2.0m) [W m-2]	—	
		Rn_S_d_40	Reflected solar radiation (41.3m) [W m-2]	Rg_out	
		Rn_S_d_18	Reflected solar radiation (17.3m) [W m-2]	—	
		Rn_S_d_s0	Reflected solar radiation (2.0m) [W m-2]	—	
		Q_40	PPFD (41.3m) [umol m-2 s-1]	PPFD	
		Q_d_40	PPFD (reflected) (41.3m) [umol m-2 s-1]	RPAR	
		Q_18	PPFD (17.3m) [umol m-2 s-1]	—	
		Q_5	PPFD (3.9m) [umol m-2 s-1]	—	
		Q_s0	PPFD at s0 (2.0m) [umol m-2 s-1]	TPAR	
		Q_s1	PPFD at s1 (2.0m) [umol m-2 s-1]	TPAR	
		Q_s2	PPFD at s2 (2.0m) [umol m-2 s-1]	TPAR	
	yyyye30, yyyyed	eWs_25	Wind speed (25.5m) [m s-1]	—	
		eWd_25	Wind dir. (25.5m) [degree]	—	
		eI_u_25	Global radiation (24.9m) [W m-2]	—	
		eI_d_25	Reflected solar radiation (24.9m) [W m-2]	—	
		eI_s0	Global radiation (2.0m) [W m-2]	—	
		eRn_25	Net radiation (24.9m) [W m-2]	—	
		eQ_25	PPFD (24.9m) [umol m-2 s-1]	—	
		eQ_s0	PPFD (2.0m) [umol m-2 s-1]	—	
		eT_25	Air temp. (25.5m) [C]	—	
		eT_18	Air temp. (18.0m) [C]	—	
		eT_8	Air temp. (8.0m) [C]	—	
		eT_s0	Air temp. (1.5m) [C]	—	

		ey_25	Water vapor density (25.5m) [g m-3]	–
		ey_18	Water vapor density (18.0m) [g m-3]	–
		ey_8	Water vapor density (8.0m) [g m-3]	–
		ey_s0	Water vapor density (1.5m) [g m-3]	–
		eRain_25	Precipitation (25.5m) [mm]	–
		eTG_s0_5	Soil temp. (-5cm) [C]	–
		eTG_s0_10	Soil temp. (-10cm) [C]	–
		eTG_s0_20	Soil temp. (-20cm) [C]	–
		eTG_s0_50	Soil temp. (-50cm) [C]	–
		eSHF_s0_5_1	Soil heat flux (-5cm) [W m-2]	–
		eSHF_s0_5_2	Soil heat flux (-5cm) [W m-2]	–
		eSHF_s0_5_3	Soil heat flux (-5cm) [W m-2]	–
		eSHF_s0_5_4	Soil heat flux (-5cm) [W m-2]	–
		eTDR_s0_5_1	Soil moisture (-5cm) [%]	–
		eTDR_s0_10_1	Soil moisture (-10cm) [%]	–
		eTDR_s0_5_2	Soil moisture (-5cm) [%]	–
		eTDR_s0_10_2	Soil moisture (-10cm) [%]	–
	yyyyd30, yyyydd	Wd_s0	Wind dir. (1.5m) [degree]	–
		Ws_s0	Wind speed (1.5m) [m s-1]	–
		T_s0	Air temp. (1.5m) [C]	–
		y_s0	Water vapor density (1.5m) [g m-3]	–
		Rain_s0	Precipitation at s0 (1.5m) [mm]	–
		Rain_s1	Precipitation at s1 (1.5m) [mm]	–
		Rain_s2	Precipitation at s2 (1.5m) [mm]	–
		I_s0	Global radiation at s0 (2.0m) [W m-2]	–
		I_s1	Global radiation at s1 (2.0m) [W m-2]	–
		I_s2	Global radiation at s2 (2.0m) [W m-2]	–
		I_s3	Global radiation at s3 (2.0m) [W m-2]	–
		I_s4	Global radiation at s4 (2.0m) [W m-2]	–
		I_s5	Global radiation at s5 (2.0m) [W m-2]	–
		Rn_s0	Net radiation (2.0m) [W m-2]	–
		Rn_S_d_s0	Reflected solar radiation (2.0m) [W m-2]	–
		Q_s0	PPFD at s0 (2.0m) [umol m-2 s-1]	TPAR
		Q_s1	PPFD at s1 (2.0m) [umol m-2 s-1]	TPAR
		Q_s2	PPFD at s2 (2.0m) [umol m-2 s-1]	TPAR
		TG_s0_5	Soil temp. at s0 (-5cm) [C]	Ts_5cm
		TG_s0_10	Soil temp. at s0 (-10cm) [C]	Ts_10cm
		TG_s0_20	Soil temp. at s0 (-20cm) [C]	Ts_20cm
		TG_s0_50	Soil temp. at s0 (-50cm) [C]	Ts_50cm
		TG_s1_5	Soil temp. at s1 (-5cm) [C]	Ts_5cm
		TG_s1_10	Soil temp. at s1 (-10cm) [C]	Ts_10cm
		TG_s1_20	Soil temp. at s1 (-20cm) [C]	Ts_20cm
		TG_s1_50	Soil temp. at s1 (-50cm) [C]	Ts_50cm
		TG_s2_5	Soil temp. at s2 (-5cm) [C]	Ts_5cm
		TG_s2_10	Soil temp. at s2 (-10cm) [C]	Ts_10cm
		TG_s2_20	Soil temp. at s2 (-20cm) [C]	Ts_20cm
		TG_s2_50	Soil temp. at s2 (-50cm) [C]	Ts_50cm
		SHF_s0_5	Soil heat flux at s0 (-5cm) [W m-2]	G
		SHF_s1_5	Soil heat flux at s1 (-5cm) [W m-2]	G
		SHF_s2_5	Soil heat flux at s2 (-5cm) [W m-2]	G
		SHF_s3_5	Soil heat flux at s3 (-5cm) [W m-2]	G
		SHF_s4_5	Soil heat flux at s4 (-5cm) [W m-2]	G
		TDR_s0_5	Soil moisture at s0 (-5cm) [%]	SWC_5cm
		TDR_s0_10	Soil moisture at s0 (-10cm) [%]	SWC_10cm
		TDR_s1_5	Soil moisture at s1 (-5cm) [%]	SWC_5cm
		TDR_s1_10	Soil moisture at s1 (-10cm) [%]	SWC_10cm
		TDR_s2_10	Soil moisture at s2 (-10cm) [%]	–
	yyyys30, yyyysd	UVA_40	UV-A (41.3m) [W m-2]	–
		UVB_40	UV-B (41.3m) [W m-2]	–
Flux	yyyyf30	FH_40	Sensible heat flux (41.9m) [W m-2]	–
		FH_27	Sensible heat flux (27.1m) [W m-2]	H
		fFH_27	Flag for FH_27	–
		lE_40_op	Latent heat flux (Open-path) (41.9m) [W m-2]	–
		lE_40_cl	Latent heat flux (Closed-path) (41.9m) [W m-2]	–
		lE_27_op_gf	Latent heat flux (Open-path) gap filled (27.1m) [W	LE
		flE_27_op_gf	Flag for lE_27_op_gf	–
		lE_27_cl	Latent heat flux (Closed-path) (27.1m) [W m-2]	–
		flE_27_cl	Flag for lE_27_cl	–
		NEE_40_op	Net ecosystem exchange (Open-path) (41.9m) [mmol m-2 s-1]	–
		NEE_40_cl	Net ecosystem exchange (Closed-path) (41.9m) [mmol m-2 s-1]	–
		NEE_27_op	Net ecosystem exchange (Open-path) (27.1m) [mmol m-2 s-1]	–
		fNEE_27_op	Flag for NEE_27_op	–
		NEE_27_op_u	Net ecosystem exchange (Open-path) with u* correction (27.1m) [mmol m-2 s-1]	–

		fNEE_27_op_u	Flag for NEE_27_op_u	—	
		NEE_27_cl	Net ecosystem exchange (Closed-path) (27.1m) [mmol m-2 s-1]	NEE	
		fNEE_27_cl	Flag for NEE_27_cl	—	
		NEE_27_cl_gf_u	Net ecosystem exchange (Closed-path) withu* correction, gap filled (27.1m) [mmol m-2 s-1]	—	
		fNEE_27_cl_gf_u	Flag for NEE_27_cl_gf_u	—	
		u_star_40	Friction velocity (41.9m) [m s-1]	—	
		u_star_27	Friction velocity (27.1m) [m s-1]	USt	
	yyyyprf30	CO2_1	CO2 concentration (1.1m) [ppm]	—	
		CO2_3	CO2 concentration (2.8m) [ppm]	—	
		CO2_6	CO2 concentration (5.5m) [ppm]	—	
		CO2_12	CO2 concentration (11.3m) [ppm]	—	
		CO2_16	CO2 concentration (15.7m) [ppm]	—	
		CO2_22	CO2 concentration (22.0m) [ppm]	—	
		CO2_26	CO2 concentration (25.7m) [ppm]	—	
		CO2_32	CO2 concentration (31.5m) [ppm]	—	
		CO2_38	CO2 concentration (37.4m) [ppm]	—	
		CO2_41	CO2 concentration (41.2m) [ppm]	—	
	FxMt_TMK_yyyy_30m_03	NEE	Net ecosystem CO2 exchange [umol m-2 s-1]	NEE	
		Fc	CO2 flux (27m) [umol m-2 s-1]	Fc	
		H	Sensible heat flux (27m) [W m-2]	H	
		LE	Latent heat flux (27m) [W m-2]	LE	
		USt	Friction velocity (27m) [m s-1]	USt	
		Rg	Global solar radiation (incoming) (40m) [W m-2]	Rg	
		Rg_gf	Global solar radiation (incoming) (40m) [W m-2]	Rg_gf	
		Rg_out	Global solar radiation (outgoing) (40m) [W m-2]	Rg_out	
		Rgl	Long-wave radiation (incoming) (40m) [W m-2]	Rgl	
		Rgl_out	Long-wave radiation (outgoing) (40m) [W m-2]	Rgl_out	
		Rn	Net Radiation (40m) [W m-2]	Rn	
		Rn_gf	Net Radiation (40m) [W m-2]	Rn_gf	
		TRg	Transmitted global solar radiation (2m) [W m-2]	TRg	
		ARg	Absorbed global solar radiation [W m-2]	ARg	
		PPFD	Photosynthetic active photon flux density (40m) [umol m-2 s-1]	PPFD	
		PPFD_gf	Photosynthetic active photon flux density (40m) [umol m-2 s-1]	PPFD_gf	
		RPAR	Reflected PAR (40m) [umol m-2 s-1]	RPAR	
		TPAR	Transmitted PAR (2m) [umol m-2 s-1]	TPAR	
		APPFD	Absorbed PAR [umol m-2 s-1]	APPFD	
		WD	Wind direction (27m) [degree]	WD	
		WS	Wind speed (27m) [m s-1]	WS	
		Pa	Barometric pressure (40m) [hPa]	Pa	
		Ta_27m	Air temperature (27m) [C]	Ta_27m	
		Ta_27m_gf	Air temperature (27m) [C]	Ta_27m_gf	
		Ta_14m	Air temperature (14m) [C]	Ta_14m	
		Ta_14m_gf	Air temperature (14m) [C]	Ta_14m_gf	
		VPD_27m	Vapor pressure deficit (27m) [kPa]	VPD_27m	
		VPD_27m_gf	Vapor pressure deficit (27m) [kPa]	VPD_27m_gf	
		VPD_14m	Vapor pressure deficit (14m) [kPa]	VPD_14m	
		VPD_14m_gf	Vapor pressure deficit (14m) [kPa]	VPD_14m_gf	
		RH_27m	Relative humidity (27m) [%]	RH_27m	
		RH_14m	Relative humidity (14m) [%]	RH_14m	
		PPT	Precipitation (40m) [mm]	PPT	
		G	Ground heat flux (0.05m) [W m-2]	G	
		Ts_5cm	Soil temperature (0.05m) [C]	Ts_5cm	
		Ts_5cm_gf	Soil temperature (0.05m) [C]	Ts_5cm_gf	
		Ts_10cm	Soil temperature (0.1m) [C]	Ts_10cm	
		Ts_20cm	Soil temperature (0.2m) [C]	Ts_20cm	
		Ts_50cm	Soil temperature (0.5m) [C]	Ts_50cm	
		SWC_5cm	Soil water content (0.05m) [m3 m-2]	SWC_5cm	
		SWC_10cm	Soil water content (0.1m) [m3 m-2]	SWC_10cm	
		-	-	ZL	Atmospheric stability
		-	-	Alb	Albedo (40m)
		-	-	Alb_PAR	PAR Albedo (40m)
Spectro	MS131_Su_40_yyyymm	Spectral radiation (downward, 40m)		—	
	MS131_Sd_40_yyyymm	Reflected spectral radiation (upward, 40m)		—	
	MS131_S1u_yyyymm	Transmitted spectral radiation (2m)		—	
	MS700_fl_yyyymmdd	Spectral radiation (downward, 40m)		—	
	MS700_up_yyyymmdd	Reflected spectral radiation (upward, 40m)		—	
	MS700_fl_yyyymmdd	Transmitted spectral radiation (2m)		—	
	MS131_vi_yyyy	NDVI		—	
	MS700_vi_yyyy	NDVI		—	
		EVI		—	

The period of resisterd data were from July 1, 2000 to Sept. 8, 2004 in ver.3.0, and from January 1, 2001 to December 31, 2003 in ver.3.1.
Spectral data are provided from Phenological Eyes Network (PEN): http://pen.envr.tsukuba.ac.jp/