

Zentrale -> PC

VB6 Event / Logfile message	Befehl	Hex	Kapitel-V3.6	Kapitel-V4	Z21	Version	Header	Daten1	Daten2	Daten3	Daten4	Daten5	Daten6	Daten7
Logfile.Warnings / Logfile.Errors	Antworten des Interface 23151	0x01 Meldung	1.5				0x01	Meldung						
InterfaceVersion(ByVal version As String, ByVal code As String)	Versionsnummer des Interface 23151	0x02 VV CC	1.6				0x02	VV	CC					
XpressNetAddress(ByVal address As Byte)	XpressNet Address	0xF2 0x01 ADR	1.7				0xF2	0x01	ADR					
	Interface Status	0xF2 0x01 Daten	2.1				0xF2	0x01	Data					
XpressNetVersion(ByVal version As String)	XpressNet Version	0xF2 0x02 VV	2.2				0xF2	0x02	VV					
InterfaceFreieVerbindungen(ByVal number As Byte)	Verfügbare Freie Verbindungen	0xF2 0x03 AA	2.3				0xF2	0x03	AA					
AllesAn()	BC Alles An LAN_X_BC_TRACK_POWER_ON	0x61 0x01	3.1.1.1	2.4.1	2.8	V3	0x61	0x01						
NotAus()	BC Alles Aus (Notaus ) LAN_X_BC_TRACK_POWER_OFF	0x61 0x00	3.1.1.2	2.4.2	2.7	V3	0x61	0x00						
NotHalt()	BC Alle Loks Aus (Nothalt) LAN_X_BC_STOPPED	0x81 0x00	3.1.1.3	2.4.3	2.14	V3	0x81	0x00						
ProgrammierMode()	BC Programmiermode LAN_X_BC_PROGRAMMING_MODE	0x61 0x02	3.1.1.4	2.4.4	2.9	V3	0x61	0x02						
Feedback(ByVal address As Integer, ByVal Nibble As Byte, ByVal data As Byte)	BC Rückmeldung	0x40+N Adr_1 Dat_1 Adr_2 Dat_2 usw.	3.1.1.5	2.4.5		V3	0x40 + N	Adr_1	DAT_1	Adr_2	DAT2	usw.	usw.	
SwitchFeedback(ByVal address As Integer, ByVal ttBits As Byte, ByVal iBit As Byte, ByVal data As Byte)	BC Rückmeldung ab W1025 LAN_X_TURNOUT_INFO	0x43 AdrH AdrL daten		2.4.6	5.1	V3.8	0x43	AdrH	AdrL	DAT				
Modellzeit(ByVal day As Byte, ByVal hour As Byte, ByVal minute As Byte, ByVal factor As Byte)	BC Modellzeit	0x63 0x03 dddhhhhh Min&stop		2.4.7		V3.8	0x63	0x03	dddhhhhh	Min&stop				
ProgrammierinfoKurzschluss()	P-Info Kurzschluß LAN_X_CV_NACK_SC LAN_X_BC_TRACK_SHORT_CIRCUIT	0x61 0x12 0x61 0x08 (Z21 - BC_TRACK_SHORT_CIRCUIT)	3.1.2.1	2.5.1	6.3 2.10	V3	0x61	0x12						
ProgrammierinfoDatenNichtGefunden()	P-Info Keine Daten LAN_X_CV_NACK	0x61 0x13	3.1.2.2	2.5.2	6.4	V3	0x61	0x13						
ProgrammierinfoZentraleBusy()	P-Info Busy	0x61 0x1F	3.1.2.3	2.5.3		V3	0x61	0x1F						
ProgrammierinfoZentraleBereit()	P-Info bereit	0x61 0x11	3.1.2.4	2.5.4		V3	0x61	0x11						
ProgrammierinfoPageRegister (ByVal EEPromAddress As Byte, ByVal Value As Byte)	P-Info Daten 3 Byte	0x63 0x10 EE Daten	3.1.2.5	2.5.5		V3	0x63	0x10	EE	DAT				
ProgrammierinfoCV(ByVal CV As Integer, ByVal Value As Byte)	P-Info CV1-255 u. 1024	0x63 0x14 CV Daten	3.1.2.6	2.5.6		V3.6	0x63	0x14	CV	DAT				
	P-Info CV256 - 511	0x63 0x15 CV Daten	3.1.2.7	2.5.7		V3.6	0x63	0x15	CV	DAT				
	P-Info CV512 - 767	0x63 0x16 CV Daten	3.1.2.8	2.5.8		V3.6	0x63	0x16	CV	DAT				
	P-Info CV768 - 1023	0x63 0x17 CV Daten	3.1.2.9	2.5.9		V3.6	0x63	0x17	CV	DAT				
	LAN_X_CV_RESULT	0x64 0x14 CVAdr_MSB CVAdr_LSB Value			6.5									
ServiceVariable(ByVal SvAddress As Byte, ByVal SvValue As Byte)	Service Variable melden	0x63 0x20 SV# SVval		2.6		V3.8	0x63	0x20	SV#	SVval				
ZentraleVersion(ByVal version As String)	Softwareversion LAN_X_GET_VERSION	0x63 0x21 Daten1 Daten2	3.1.3	2.7.2	2.3	V3	0x63	0x21	DAT1	DAT2				
NotHalt() / NotAus() / ProgrammierMode() / Logfile.Errors "Ram Check Fehler"	Status Zentrale LAN_X_STATUS_CHANGED	0x62 0x22 Daten	3.1.4	2.8	2.12	V3	0x62	0x22	DAT					
ErweiterteZentraleVersion(ByVal BuildZentrale As String, ByVal VersionRuckMelder As String, ByVal BuildRuckMelder As String, ByVal VersionBootloader As String)	Erw. Versionsinfo	0x67 0x23 ZBldH ZBldL RMver RMBldH RMBldL Bivers		2.9		V3.8	0x67	0x23	ZBldH	ZBldL	RMver	RMBldH	RMBldL	Bivers
PomErgebnis(ByVal LokAddress As Integer, ByVal CvValue As Byte)	PoM Ergebnis melden	0x64 0x24 AdrH AdrL PomValue		2.10		V3.8	0x64	0x24	AdrH	AdrL	PoMval			
Modellzeit(ByVal day As Byte, ByVal hour As Byte, ByVal minute As Byte, ByVal factor As Byte)	Modellzeit melden	0x64 0x25 H&DOW min Faktor		2.11		V3.8	0x64	0x25	H&DOW	min	Faktor			
Logfile.Errors "Übertragungsfehler"	Übertragungsfehler	0x61 0x80	3.1.5	2.12		V3	0x61	0x80						
Logfile.Errors "Zentrale Busy"	Zentrale Busy	0x61 0x81	3.1.6	2.13		V3	0x61	0x81						
Logfile.Warnings "Befehl in Zentrale nicht vorhanden"	Befehl nicht vorhanden LAN_X_UNKNOWN_COMMAND	0x61 0x82	3.1.7	2.14	2.11	V3	0x61	0x82						
Feedback(ByVal address As Integer, ByVal Nibble As Byte, ByVal data As Byte)	Schaltinformation	0x42 Adr daten	3.1.8	2.15		V3	0x42	Adr	DAT					
SwitchFeedack(ByVal address As Integer, ByVal ttBits As Byte, ByVal iBit As Byte, ByVal data As Byte)	Schaltinformation ab W1025	0x43 AdrH AdrL daten		2.16		V3.8	0x43	AdrH	AdrL	DAT				
NormaleLokinfo(ByVal Besetzt As Boolean, ByVal Speedsteps As Integer, ByVal Speed As Integer, ByVal Forward As Boolean, ByVal F0_F4 As Byte, ByVal F5_F8 As Byte, ByVal F9_F12 As Byte)	Normale Lokinfo	0xE4 Kennung Speed FKT0 FKT1	3.1.9.1	2.19.1		V3	0xE4	Kennung	Speed	FKT0	FKT1			
FunctionsZustandF13F20(ByVal F13_F20 As Byte, ByVal F21_F28 As Byte)	F-Zustand F13 ... F28	0xE3 0x52 F13-F20 F21-F28	3.1.9.2	2.19.2		V3.6	0xE3	0x52	F 13-20	F 21-28				
FunctionsZustandF29F68(ByVal F29_F36 As Byte, ByVal F37_F44 As Byte, ByVal F45_F52 As Byte, ByVal F53_F60 As Byte, ByVal F61_F68 As Byte)	F-Zustand F29 ... F68	0xE6 0x53 F29-F36 F37-F44 F45-F52 F53-F60 F61-F68		2.19.3		V4.0	0xE6	0x53	F 29-36	F 37-44	F 45-52	F 53-60	F 64-68	
	MTR-Mitglied	0xE5 Kennung Speed FKT0 FKT1 MTR	3.1.9.3	2.19.4		V3	0xE5	Kennung	Speed	FKT0	FKT1	MTR		
	MTR-Basisadresse	0xE2 Kennung Speed	3.1.9.4	2.19.5		V3	0xE2	Kennung	Speed					
	Lok ist in DTR	0xE6 Kennung Speed FKT0 FKT1 AdrHigh AdrLow	3.1.9.5	2.19.6		V3	0xE6	Kennung	Speed	FKT0	FKT1	Adr High	Adr Low	
	Lok besetzt	0xE3 0x40 AdrHigh AdrLow	3.1.10	2.19.7		V3	0xE3	0x40	Adr High	Adr Low				
FunctionStatusdF0F12(ByVal F0_F4 As Byte, ByVal F5_F8 As Byte, ByVal F9_F12 As Byte)	Funktionsstatus	0xE3 0x50 Status0 Status1	3.1.11	2.19.8		V3	0xE3	0x50	STAT 0	STAT 1				
FunctionStatusdF13F20(ByVal F13_F20 As Byte, ByVal F21_F28 As Byte, ByVal RefreshMode As Byte)	F-status F13 bis F28	0xE4 0x51 Status2 Status3 RStatus	3.1.12	2.20		V3.6	0xE4	0x51	STAT 2	STAT 3	RSTAT			
FunctionStatusdF29F68(ByVal F29_F36 As Byte, ByVal F37_F44 As Byte, ByVal F45_F52 As Byte, ByVal F53_F60 As Byte, ByVal F61_F68 As Byte)	F-status F29 bis F68	0xE6 0x54 Status6 Status7 Status8 Status9 Status10		2.21		V4	0xE6	0x54	STAT6	STAT7	STAT8	STAT9	STAT10	
	Lok-Suchergebnis	0xE3 0x30+K AdrHigh AdrLow	3.1.13	2.22		V3	0xE3	0x30 + K	Adr High	Adr Low				
Fehlermeldung(ByVal value As Byte)	Fehlermeldung	0xE1 0x80+F	3.1.14	2.24		V3	0xE1	0x80 + F						
Z21Lokinfo(ByVal Address As Integer, ByVal Besetzt As Boolean, ByVal Speedsteps As Integer, ByVal Speed As Integer, ByVal Forward As Boolean, ByVal F0_F4 As Byte, ByVal F5_F8 As Byte, ByVal F9_F12 As Byte, ByVal F13_F20 As Byte, ByVal F21_F28 As Byte)	LAN_X_LOCO_INFO	0xEF Lokinfo			4.4									
z21FirmwareVersion(ByVal version As String)	Antwort auf LAN_X_GET_FIRMWARE_VERSION	0xF3 0x0A V_MSB V_LSB			2.15									

Z21: Zentrale => PC

2.7	NotAus()	LAN_X_BC_TRACK_POWER_OFF	0x61 0x00	
2.8	AllesAn()	LAN_X_BC_TRACK_POWER_ON	0x61 0x01	
2.9	ProgrammierMode()	LAN_X_BC_PROGRAMMING_MODE	0x61 0x02	
2.10	ProgrammierinfoKurzschluss()	LAN_X_BC_TRACK_SHORT_CIRCUIT	0x61 0x08	
2.11	Logfile.Warnings "Befehl in Zentrale nicht vorhanden"	LAN_X_UNKNOWN_COMMAND	0x61 0x82	
2.12	NotHalt() / NotAus() / ProgrammierMode() / Logfile.Errors "Ram Check Fehler"	LAN_X_STATUS_CHANGED	0x62 0x22 Status	
2.14	NotHalt()	LAN_X_BC_STOPPED	0x81 0x00	
4.4	Z21Lokinfo(ByVal Address As Integer, ByVal Besetzt As Boolean, ByVal Speedsteps As Integer, ByVal Speed As Integer, ByVal Forward As Boolean, ByVal F0_F4 As Byte, ByVal F5_F8 As Byte, ByVal F9_F12 As Byte, ByVal F13_F20 As Byte, ByVal F21_F28 As Byte)	LAN_X_LOCO_INFO	0xEF Lokinfo	Length klopt niet
5.3	SwitchFeedback(ByVal address As Integer, ByVal ttBits As Byte, ByVal iBit As Byte, ByVal data As Byte)	LAN_X_TURNOUT_INFO	0x43 FAdrMSB FAdrLSB 000000ZZ	
5.6	ExtendedAccessoryInfo(ByVal address As Integer, ByVal Value As Byte, ByVal Status As Byte)	LAN_X_EXT_ACCESSORY_INFO	0x44 FAdrMSB FAdrLSB DDDDDDDD Status	
6.3	ProgrammierinfoKurzschluss()	LAN_X_CV_NACK_SC	0x61 0x12	
6.4	ProgrammierinfoDatenNichtGefunden()	LAN_X_CV_NACK	0x61 0x13	
6.5	ProgrammierinfoCV(ByVal CV As Integer, ByVal Value As Byte)	LAN_X_CV_RESULT	0x64 0x14 CVAdr_MSB CVAdr_LSB Value	
2.3	ZentraleVersion(ByVal version As String)	Antwort auf LAN_X_GET_VERSION	0x63 0x21 XBUS_VER CMDST_ID	
2.15	z21FirmwareVersion(ByVal version As String)	Antwort auf LAN_X_GET_FIRMWARE_VERSION	0xF3 0x0A V_MSB V_LSB	

	->	<-		
2.1			LAN_GET_SERIAL_NUMBER	
2.2			LAN_LOGOFF	
2.3	X		LAN_X_GET_VERSION	0x21 0x21
2.4	X		LAN_X_GET_STATUS	0x21 0x24
2.5	X		LAN_X_SET_TRACK_POWER_OFF	0x21 0x80
2.6	X		LAN_X_SET_TRACK_POWER_ON	0x21 0x81
2.7		X	LAN_X_BC_TRACK_POWER_OFF	0x61 0x00
2.8		X	LAN_X_BC_TRACK_POWER_ON	0x61 0x01
2.9		X	LAN_X_BC_PROGRAMMING_MODE	0x61 0x02
2.10		X	LAN_X_BC_TRACK_SHORT_CIRCUIT	0x61 0x08
2.11		X	LAN_X_UNKNOWN_COMMAND	0x61 0x82
2.12		X	LAN_X_STATUS_CHANGED	0x62 0x22 Status
2.13	X		LAN_X_SET_STOP	0x80
2.14		X	LAN_X_BC_STOPPED	0x81 0x00
2.15	X		LAN_X_GET_FIRMWARE_VERSION	0xF1 0x0A
2.16	*		LAN_SET_BROADCASTFLAGS	
2.17	*		LAN_GET_BROADCASTFLAGS	
2.18		*	LAN_SYSTEMSTATE_DATACHANGED	
2.19	*		LAN_SYSTEMSTATE_GETDATA	
2.20	*		LAN_GET_HWINFO	
2.21	*		LAN_GET_CODE	
3.1	*		LAN_GET_LOCOMODE	
3.2	*		LAN_SET_LOCOMODE	
3.3	*		LAN_GET_TURNOUTMODE	
3.4	*		LAN_SET_TURNOUTMODE	
4.1	X		LAN_X_GET_LOCO_INFO	0xE3 0xF0 LokAdresse
4.2	X		LAN_X_SET_LOCO_DRIVE	0xE4 0x1s LokAdresse Geschwindigkeit
4.3.1	X		LAN_X_SET_LOCO_FUNCTION	0xE4 0xF8 LokAdresse Funktion
4.3.2	X		LAN_X_SET_LOCO_FUNCTION_GROUP	0xE4 Group LokAdresse Funktionsgruppe
4.3.3	X		LAN_X_SET_LOCO_BINARY_STATE	0xE5 0x5F LokAdresse Binarzustand
4.4		X	LAN_X_LOCO_INFO	0xEF Lokinfo
4.5	X		LAN_X_SET_LOCO_E_STOP	0x92 LokAdresse
4.6	X		LAN_X_PURGE_LOCO	0xE3 0x44 LokAdresse
5.1	X		LAN_X_GET_TURNOUT_INFO	0x43 Weichenadresse
5.2	X		LAN_X_SET_TURNOUT	0x53 Weichenadresse Schaltbefehl
5.3		X	LAN_X_TURNOUT_INFO	0x43 FAdrMSB FAdrLSB 000000ZZ
5.4	X		LAN_X_SET_EXT_ACCESSORY	0x54 Zubehordecoder-adresse Zustand
5.5	X		LAN_X_GET_EXT_ACCESSORY_INFO	0x44 Zubehordecoder-adresse
5.6		X	LAN_X_EXT_ACCESSORY_INFO	0x44 FAdrMSB FAdrLSB DDDDDDDD Status
6.1	X		LAN_X_CV_READ	0x23 0x11 CV-Adresse
6.2	X		LAN_X_CV_WRITE	0x24 0x12 CV-Adresse Wert
6.3		X	LAN_X_CV_NACK_SC	0x61 0x12
6.4		X	LAN_X_CV_NACK	0x61 0x13
6.5		X	LAN_X_CV_RESULT	0x64 0x14 CVAdr_MSB CVAdr_LSB Value
6.6	X		LAN_X_CV_POM_WRITE_BYTE	0xE6 0x30 POM-Param, Option 0xEC
6.7	X		LAN_X_CV_POM_WRITE_BIT	0xE6 0x30 POM-Param, Option 0xE8
6.8	X		LAN_X_CV_POM_READ_BYTE	0xE6 0x30 POM-Param, Option 0xE4
6.9	X		LAN_X_CV_POM_ACCESSORY_WRITE_BYTE	0xE6 0x31 POM-Param, Option 0xEC
6.10	X		LAN_X_CV_POM_ACCESSORY_WRITE_BIT	0xE6 0x31 POM-Param, Option 0xE8
6.11	X		LAN_X_CV_POM_ACCESSORY_READ_BYTE	0xE6 0x31 POM-Param, Option 0xE4
6.12	X		LAN_X_MM_WRITE_BYTE	0x24 0xFF Register Wert
6.13	X		LAN_X_DCC_READ_REGISTER	0x22 0x11 Register
6.14	X		LAN_X_DCC_WRITE_REGISTER	0x23 0x12 Register Wert
2.3		X	Antwort auf LAN_X_GET_VERSION	0x63 0x21 XBUS_VER CMDST_ID
2.15		X	Antwort auf LAN_X_GET_FIRMWARE_VERSION	0xF3 0x0A V_MSB V_LSB

Zentrale -> PC

Befehl	Kapitel-V3.6	Kapitel-V4	Version	Header	Daten1	Daten2	Daten3	Daten4	Daten5	Daten6	Daten7
Antworten des Interface 23151	1.5			0x01	Meldung						
Versionsnummer des Interface 23151	1.6			0x02	VV	CC					
BC Rückmeldung	3.1.1.5	2.4.5	V3	0x40 + N	Adr_1	DAT_1	Adr_2	DAT2	usw.	usw.	
Schaltinformation	3.1.8	2.15	V3	0x42	Adr	DAT					
Schaltinformation ab W1025		2.16	V3.8	0x43	AdrH	AdrL	DAT				
BC Rückmeldung ab W1025		2.4.6	V3.8	0x43	AdrH	AdrL	DAT				
BC Alles Aus (Notaus )	3.1.1.2	2.4.2	V3	0x61	0x00						
BC Alles An	3.1.1.1	2.4.1	V3	0x61	0x01						
BC Programmiermode	3.1.1.4	2.4.4	V3	0x61	0x02						
P-Info bereit	3.1.2.4	2.5.4	V3	0x61	0x11						
P-Info Kurzschluß	3.1.2.1	2.5.1	V3	0x61	0x12						
P-Info Keine Daten	3.1.2.2	2.5.2	V3	0x61	0x13						
P-Info Busy	3.1.2.3	2.5.3	V3	0x61	0x1F						
Übertragungsfehler	3.1.5	2.12	V3	0x61	0x80						
DTR-Fehler			V3.6	0x61	0x80 + F						
Zentrale Busy	3.1.6	2.13	V3	0x61	0x81						
Befehl nicht vorhanden	3.1.7	2.14	V3	0x61	0x82						
Status Zentrale	3.1.4	2.8	V3	0x62	0x22	DAT					
BC Modellzeit		2.4.7	V3.8	0x63	0x03	dddhhhhh	Min&stop				
P-Info Daten 3 Byte	3.1.2.5	2.5.5	V3	0x63	0x10	EE	DAT				
P-Info CV1-255 u. 1024	3.1.2.6	2.5.6	V3.6	0x63	0x14	CV	DAT				
P-Info CV256 - 511	3.1.2.7	2.5.7	V3.6	0x63	0x15	CV	DAT				
P-Info CV512 - 767	3.1.2.8	2.5.8	V3.6	0x63	0x16	CV	DAT				
P-Info CV768 - 1023	3.1.2.9	2.5.9	V3.6	0x63	0x17	CV	DAT				
Service Variable melden		2.6	V3.8	0x63	0x20	SV#	SVval				
Softwareversion	3.1.3	2.7.2	V3	0x63	0x21	DAT1	DAT2				
PoM Ergebnis melden		2.10	V3.8	0x64	0x24	AdrH	AdrL	PoMval			
Modellzeit melden		2.11	V3.8	0x64	0x25	H&DOW	min	Faktor			
Erw. Versionsinfo		2.9	V3.8	0x67	0x23	ZBIdH	ZBIdL	RMver	RMBIdH	RMBIdL	Blvers
BC Alle Loks Aus (Nothalt)	3.1.1.3	2.4.3	V3	0x81	0x00						
Fehlermeldung	3.1.14	2.24	V3	0xE1	0x80 + F						
MTR-Basisadresse	3.1.9.4	2.19.5	V3	0xE2	Kennung	Speed					
Lok-Suchergebnis	3.1.13	2.22	V3	0xE3	0x30 + K	Adr High	Adr Low				
Lok besetzt	3.1.10	2.19.7	V3	0xE3	0x40	Adr High	Adr Low				
Funktionsstatus	3.1.11	2.19.8	V3	0xE3	0x50	STAT 0	STAT 1				
F-Zustand F13 ... F28	3.1.9.2	2.19.2	V3.6	0xE3	0x52	F 13-20	F 21-28				
F-status F13 bis F28	3.1.12	2.20	V3.6	0xE4	0x51	STAT 2	STAT 3	RSTAT			
Normale Lokinfo	3.1.9.1	2.19.1	V3	0xE4	Kennung	Speed	FKT0	FKT1			
MTR-Mitglied	3.1.9.3	2.19.4	V3	0xE5	Kennung	Speed	FKT0	FKT1	MTR		
F-Zustand F29 ... F68		2.19.3	V4.0	0xE6	0x53	F 29-36	F 37-44	F 45-52	F 56-63	F 64-68	
F-status F29 bis F68		2.21	V4	0xE6	0x54	STAT6	STAT7	STAT8	STAT9	STAT10	
Lok ist in DTR	3.1.9.5	2.19.6	V3	0xE6	Kennung	Speed	FKT0	FKT1	Adr High	Adr Low	
XpressNet Address	1.7			0xF2	0x01	ADR					
Interface Status	2.1			0xF2	0x01	Data					
XpressNet Version	2.2			0xF2	0x02	VV					
Verfügbare Freie Verbindungen	2.3			0xF2	0x03	AA					