
Appendix E – Vehicle properties and collective addresses

E.1 – List of the static vehicle properties (Version 001.03, valid from 01.03.2009)

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10

General vehicle properties

1	Vehicle has first class seats		x	50/0					
2	Vehicle has second class seats		x	50/1					
3	Vehicle has seats for smokers		x	50/2					
4	Vehicle has seats for non-smokers		x	50/3					
5	Vehicle has equipment for disabled people		x	50/4					
6	Vehicle has a mother and baby compartment		x	50/5					
7	Vehicle has a conference compartment		x	50/6					
8	Vehicle has a guard's compartment		x	50/7					
9	Vehicle is a restaurant car or has seats for meals		x	51/0					
10	Vehicle has a support point for minibar		x	51/1					
11	Vehicle has a support point for catering		x	51/2					
12	Vehicle is a couchette coach or has couchette places		x	51/3					
13	Vehicle is a sleeping car		x	51/4					
14	Vehicle is a special coach (e.g. company coach)		x	51/5					
15	Vehicle is a baggage car or has space for carrying baggage		x	51/6					
16	Vehicle is a postal vehicle or has accommodation for carrying post		x	51/7					
17	Vehicle has sealed toilets	x		22/0					
18	Vehicle has telephone for passenger use		x	52/0					

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
19	Vehicle is pressure tight	x		22/1					
20	Vehicle is a freight wagon		x	52/1					
Doors									
21	Vehicle has side sensitive door locking over the train bus	x		22/2	1.2 1.3 1.9 1.10 1.16 1.18 1.19			20/2-5 20/7 30/1 30/2	
22	Vehicle has side sensitive door locking not over the train bus	x		22/3					
23	Vehicle supports "Close doors"	x		22/4	1.1 1.2 1.17			20/0 20/1 30/0	
24	Vehicle supports monitoring of door closing	x		22/5	1.9 1.10			20/4-5	
25	Vehicle has moveable footsteps		x	52/2					
26	Vehicle supports release of the footsteps		x	52/3	1.11			20/6	
27	Vehicle supports locking of doors of sleeping cars		x	52/4	1.7 1.7A				1007 1A07
28	Vehicle supports common operation of corridor connection doors between adjacent vehicles		x	52/5	1.12 1.12A				1012 1A12
29	Vehicle supports prevention/release of WC use	x		22/6	1.15 1.15A				1015 1A15
Lighting									
30	Vehicle supports control of lighting over the train bus	x		22/7	2.1 2.1A				2001 2A01

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10

Public address									
31	Vehicle supports internal loudspeaker (choice receipt)	x		23/0	3.1			21/0	
32	Vehicle supports internal loudspeaker (obligation receipt)	x		23/1	3.2			21/1	
33	Vehicle supports speech connection with leading vehicle	x		23/2	3.3			21/2	
34	Vehicle supports speech connection between leading vehicle and trailing tractive unit	x		23/3	3.4			21/3	
35	Vehicle has external loudspeaker	x		23/4					
36	Vehicle supports external loudspeaker control	x		23/5	3.5 3.6			21/4 21/5	
37	Vehicle supports public address in individual vehicles/vehicle groups	x		23/6	3.7			22	
Traction									
38	Tractive unit with electric drive	x		24/0					
39	Tractive unit with diesel engine drive	x		24/1					
40	Vehicle has ≤ 2 pantographs	x		24/2					
41	Vehicle has > 2 pantographs independent of each other	x		24/3					
42	Vehicle has a cab for one direction of travel		x	52/6					
43	Vehicle has two cabs for both direction of travel		x	52/7					

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
44	Vehicle can remotely control the drive of other (electric) tractive units with control system 1e over the train bus	x		24/4	4.2R 4.3 4.5 4.5/1 4.5/3 4.5/5 4.7R 4.7/2 4.9R 4.13R 4.50 4.21 4.23/1 4.30	47/1-3 47/5 47/7 64/1 54/0-3 54/4-7 65 66/0-3 64/2 57/0-1 64/3-4 57/2-3 59/6 69/2-3 48/0-1 49+50 47/6			
45	Vehicle can remotely control the drive of other (diesel) tractive units with control system 1d over the train bus.	x		24/5	4.2R 4.11R 4.13R 4.50 4.21 4.23/1 4.30	47/1-3 47/5 47/7 64/1 58/0-1 59/6 69/2-3 48/0-1 49+50 47/6			
46	Vehicle can remotely control the drive of other (electric) tractive units with control system 2e over the train bus	x		24/6	In addition to Serial No. 44: 4.2E 4.7E 4.9E 4.11E 4.13E 4.15E				4002 4007 4009 4011 4013 4015

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
47	Vehicle can remotely control the drive of other (diesel) tractive units with control system 2d over the train bus	x		24/7	In addition to Serial No. 45: 4.2E 4.7E 4.9E 4.13E				4002 4007 4009 4013
48	Vehicle can remotely control the drive of other tractive units with control system 3 over the train bus.	x		25/0	In addition to serial No. 44 or 45: 4.26	53			
49	Drive of the electric tractive vehicle with control system type 1e can be remotely controlled over the train bus	x		25/1	4.1 4.42 4.4 4.6 4.8 4.10 4.22		47/0 47/1-3 47/5 47/7 71/1 48/0-1 53/0-3 53/4-7 54/0 54/1 47/4		
50	Drive of the diesel tractive vehicle with control system type 1d can be remotely controlled over the train bus	x		25/2	4.1 4.42 4.12 4.22		47/0 47/1-3 47/5 47/7 71/1 48/0-1 58/0-1 47/4		

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
51	Drive of the electric tractive vehicle with control system type 2e can be remotely controlled over the train bus	x		25/3	In addition to serial No. 49: 4.2A 4.7A 4.9A 4.13A 4.15A				4A02 4A07 4A09 4A13 4A15
52	Drive of the diesel tractive vehicle with control system type 2d can be remotely controlled over the train bus	x		25/4	In addition to serial No. 50: 4.2A 4.11A 4.13A				4A02 4A11 4A13
53	Drive of the tractive vehicle with control system type 3 can be remotely controlled over the train bus	x		25/5	In addition to serial No. 49 or 50: 4.23/2 4.25 4.27		49+50 47/6	9/4	
54	Vehicle can remotely control the drive of other (tractive) vehicle but not over the train bus	x		25/6					
55	Drive of the (tractive) vehicle can be remotely controlled, but not over the train bus	x		25/7					
56	Vehicle has a speed controller for traction	x		26/0					
57	Vehicle has a train line	x		26/1					

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
58	Vehicle can remotely control the train line over the train bus globally	x		26/2	4.15R 4.15/2	62/4-5 64/6-7			
59	Vehicle can remotely control train line over the train bus selectively	x		26/3	4.15E				4015
60	Vehicle can be train line remotely controlled over the train bus selectively	x		26/4	4.15A				4A15
61	Vehicle supports report "ZS in"	x		26/5	4.16			19/0	
62	Vehicle supports report "ZS earthed"	x		26/6	4.19			19/2	
63	Vehicle supports report "ZS externally supplied"	x		26/7				19/1	
64	Vehicle supports remote control of fan over the train bus	x		27/0	4.14	62/0-1			
65	Vehicle supports compressor remote control over the train bus	x		27/1	4.14	62/2-3			
66	Vehicle supports input of target speed	x		27/2	4.28	51+52			
67	Vehicle supports fault reset	x		27/3		47/0			
68	Vehicle supports "Establish traction readiness"	x		27/4	4.32	47/4			
69	Vehicle supports "Sand"!	x		27/5	4.30	47/6			
70	Vehicle supports "Drive or prepare to drive...!"	x		27/6	4.34	48/2-3	48/2-3		
71	Vehicle supports "Drive through tunnel"	x		27/7	4.35	48/4-7			
72	Vehicle supports high current limitation	x		28/0	4.36/1	55-56			
73	Vehicle supports "Drive through a neutral section"	x		28/1	4.37	57/4			
74	Vehicle supports start train power supply or switch on/switch off or cut out	x		28/2	4.38/1	58/2-3			
75	Vehicle supports preheat coolant	x		28/3	4.39	58/4			
76	Vehicle supports transmission gearchange	x		28/4	4.40	58/5			

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
77	Vehicle supports fast brake command	x		28/5	5.13	59/2			
78	Vehicle supports control of the Mg brake	x		28/6	5.14	59/3			
79	Vehicle supports release of the WB brake	x		28/7	5.15	59/4-5			
80	Vehicle supports control of the WB brake	x		29/0	5.2/2	61			
81	Vehicle supports tilting technology	x		29/1	4.41	63/0-1			
82	Vehicle supports report of high current	x		29/2	4.36/2		55-56		
83	Vehicle supports report of the overhead line voltage	x		29/3	4.8/2		57		
84	Vehicle supports report of the train power supply	x		29/4	4.38/2		58/2-3		
85	Vehicle supports report of preheating operation	x		29/5	4.43		58/4		
86	Vehicle supports report of transmission gear change	x		29/6	4.44		58/5		
87	Vehicle supports report of diesel engine speed	x		29/7	4.12/2		59		
88	Vehicle supports auxiliary control of compressors	x		30/0	4.14/2		60/0-1 71/3-4		
89	Vehicle supports report of max. possible tractive effort value	x		30/1	4.45/1		61-62		
90	Vehicle supports report of max. possible brake force value	x		30/2	4.45/2		63-64		
91	Vehicle supports report of actual traction value	x		30/3	4.24		51+52		

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10

Brakes									
92	Vehicle supports ep-brake over the train bus with control system 1	x		30/4	5.1	59/0-1			
93	Vehicle supports ep-brake over the train bus with control system 2	x		30/5	5.2	60			
94	Vehicle has ep-brakes but they are not controlled over the train bus	x		30/6					
95	Vehicle supports emergency brake shorting over the train bus	x		30/7	5.8 5.9E 5.9A 5.9R 5.10	59/7		24/1 24/0	5009 5A09
96	Vehicle has emergency brake shorting but not over the train bus	x		31/0					
97	Vehicle has magnetic rail brakes	x		31/1					
98	Vehicle supports magnetic rail brakes over the train bus	x		31/2	5.5/1R			23/2-3	
99	Vehicle has motor brakes	x		31/3					
100	Vehicle supports motor brakes over the train bus	x		31/4	(5.3A)				(5A03)
101	Vehicle has eddy current brakes	x		31/5					
102	Vehicle supports eddy current brakes over the train bus	x		31/6	5.5/2R			23/6-7	
103	Vehicle supports automatic brake test	x		31/7	5.3 5.3A 5.4R (5.5/1R) (5.5/2R) 5.7R 5.7E 5.7A			23/0-1 (23/2-3) (23/6-7) 24/3	5003 5A03 5007 5A07
104	Tractive unit reports: motor brake is in service	x		32/0	5.11		48/4		

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10

Completeness of the train									
105	Vehicle supports completeness of the train		x	53/0	6.1			10/0	
106	Vehicle supports tail light operation	x		32/1	6.2 6.2A				6002 6A02
107	Vehicle supports tail light monitoring	x		32/2	6.4			10/1	
108	Vehicle has an automatic coupling on vehicle No. 1 end		x	53/1					
109	Vehicle has an automatic coupling on vehicle No. 2 end		x	53/2					
110	Vehicle supports check of automatic coupling engagement	x		32/3	6.5			10/2	
Air conditioning and heating equipment									
111	Vehicle supports control of air conditioning system(s)	x		32/4	7.1 7.1A				7001 7A01
142	Vehicle supports warm chain	x		23/7					

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
Diagnostics									
112	Vehicle supports diagnostics: flashing defect indicator light and acknowledgement	x		32/5	8.1 8.2 8.2A			25/0-3	8002 8A02
113	Vehicle supports diagnostics: transmission of diagnostic results	x		32/6	8.3 8.3A				8003 8A03
114	Vehicle supports diagnostics: all fault reports to the leading vehicle	x		32/7	8.4R/1 8.3 8.3A			25/4-6	8003 8A03
115	Vehicle supports diagnostics: individual fault reports to the leading vehicle	x		33/0	8.4R/2			26-28	
116	Vehicle supports diagnostics: sum of fault reports	x		33/1	8.7 8.7A				8007 8A07
Passenger information									
117	Vehicle supports electronic train running indicator	x		33/2	9.1 9.1A				9001 9A01
118	Vehicle supports electronic seat reservation		x	53/3	9.2 9.2A				
119	Vehicle supports "next station"	x		33/3	9.3 9.3A				9003 9A03
120	Vehicle supports "train connection at next station"	x		33/4	9.4 9.4A				9004 9A04
121	Vehicle supports transmission of advertising	x		33/5	9.5 9.5A				9005 9A05
122	Vehicle supports train crew call		x	53/4	9.6 9.6A				9006 9A06
123	Vehicle supports "Request stop"	x		33/6	9.7 9.7A				9007 9A07

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
124	Vehicle supports data refreshing in ticket canceller	x		33/7	9.8 9.8A				9008 9A08
125	Vehicle supports FIS-exchange		x	53/5					
Power supplies									
126	Vehicle support "Energy saving" (overall command)	x		34/0	10.1R	62/6			
127	Vehicle supports "Energy saving" (vehicle selective)		x	53/6	10.1 10.1A				A001 AA01
Other items									
128	Vehicle supports "Data channel"	x		34/1	11.1 11.1A				B001 BA01
129	Vehicle supports group addressing		x	53/7				10/3	
130	Vehicle supports report of actual speed value		x	54/0				11-12	
131	Vehicle supports report of date and time	x		34/2					
132	Vehicle has radio clock	x		34/3				13-18	
Identification									
133	UIC-inauguration telegram-version number	x		2					
134	UIC-R-data-version number	x		21					
135	Operating railway	x		5					
136	Owning railway	x		6					
137	National telegram version	x		8					
138	National application identification	x		7					

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
139	Number of vehicles checked	x		9					
140	UIC-identification number of the vehicle (binary code)		x	45-49					
141	Vehicle has a train bus node		x	54/1					
Traction part 2									
142	Vehicle supports warm chain	x		23/7					
143	Vehicle supports „run through washer“	x		34/4	4.35	64/5			
144	Vehicle can remotely control the drive of other tractive units with control system 4 over the train bus.	x		34/5	Serial No. 44 or 45				
145	Drive of the tractive vehicle with control system type 4 can be remotely controlled over the train bus	x		34/6	Serial No. 49 or 50				
146	Vehicle supports report of traction resources	x		34/7	4.20 4.20A				4020 4A20
147	Vehicle supports report of additional informations	x		35/0	4.47 4.47A				4047 4A47
148	Vehicle supports parking mode	x		35/1	4.48 4.49	69/0-1	66/4-5		
Diagnostics part 2									
149	Vehicle supports diagnostics: report of detailed faults to the leading vehicle	x		35/2	8.9 8.9A				8009 8A09
150	Vehicle supports diagnostics: fault correction procedure	x		35/3	8.3A 8.8 8.8A 8.10 8.10A				8A03 8008 8A08 8010 8A10

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appendix A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
151	Vehicle supports diagnostics: tests	x		35/4	8.8 8.8A 8.10 8.10A				8008 8A08 8010 8A10
Safe Data Transmission									
152	Vehicle supports safe data transmission	x		35/5					
Reserve									
	Reserve	x		35/6 - 37/7					
	Reserve		x	54/2 - 56/7					

Change history

Version	Date	Change	Reason for the change
001.01	27.05.04	Admission of 9 new gateway specific static vehicle properties (properties 143-151) and admission of the new telegrams in the column: „Property supports following telegrams“	Inclusion of the new functions concerning the UIC leaflet 647
		Change of the layout according to M1	New layout concerning the UIC principle M1
		Adoption of a change history	Increasing the usability
		Adoption of a revision number	enhancement and redesign of the versioning
001.02	01.08.2005	Modification of the layout	Guidelines of the UIC
		Modification of the appendix numbering	Guidelines of the UIC
001.03	01.03.2009	Insertion of a new gateway specific vehicle property	New appendix L

E.2 – List of the dynamic vehicle properties (Version 001.02, valid from 01.08.2005)

Serial No.	Designation	Property based on		Property is advised by:	Property supports following telegrams				
		Gateway (=Trainset)	Vehicle	Inauguration frame Oct/Bit	Serial No. Appen. A	R1 Oct/Bit	R2 Oct/Bit	R3 Oct/Bit	E Code
1	2	3	4	5	6	7	8	9	10
501	Cancel confirmed configuration	x		10/0					
502	Configuration unknown	x		10/1					
503	UIC-Address placed	x		10/2					
504	Configuration stored	x		10/3					
505	Orientation relative to the TCN Master ("0" = Reference direction is opposite to that of the TCN-Master, "1" = Reference direction is the same as the TCN Master)	x		3/7					
507	Confirmed UIC-address = NN No confirmed UIC address - address unknown	x		11					
508	Confirmed number of vehicles = NN No confirmed number of vehicles known	x		12					
509	Confirmed position of the vehicles that cannot be reached over the train bus	Train		13-20					
510	Vehicle was leading vehicle (before sending of the inauguration frame)	x		10/4					
511	Vehicle wants to be leading vehicle	x		10/5					
512	Vehicle is leading vehicle	x				9/1			
513	Seat reservation number of the vehicle		x	57-58					
514	TCN-inauguration address (... 61 62 63 01 02 03 ...)	x		3/0-6					
515	Request of ("0"=Cab 1, "1"=Cab 2)	x		10/6					
516	Triggering of inauguration by redundancy changeover	x		10/7					

Change history

Version	Date	Change	Reason for the change
001.01	27.05.04	Change of the layout according to M1	New layout concerning the UIC principle M1
		Adoption of a change history	Increasing the usability
		Adoption of a revision number	enhancement and redesign of the versioning
001.02	01.08.2005	Modification of the layout	Guidelines of the UIC
		Modification of the appendix numbering	Guidelines of the UIC

E.3 – List of the collective addresses (Version 001.02, valid from 01.08.2005)

Appendices



Collective address	Meaning	Serial number of the properties from Appendix E.1 or E.2	Properties from R-telegram		
			R1	R2	R3
1	2	3	4	5	6

64	Leading vehicle	512	x		
65	Trailing tractive unit			Octet 47/4	
66	All vehicles	Any			
67	All vehicles that carry passengers	1,2,9,12,13,14			
68	Last vehicle				Octet 10/0
70	All tractive vehicles	38,39			
80	All passenger vehicles	1,2,9,12,13,14,15,16			
81	All vehicles with seats	1,2,14			
82	All 1 st class seated vehicles	1			
83	All 2 nd class seated vehicles	2			
84	Last coach	1,2,9,12,13,14,15,16 \wedge UIC-address = Max			
92	All sleeping cars	13			
93	All couchette coaches	12			
94	All baggage vans	15			

Change history

Version	Date	Change	Reason for the change
001.01	27.05.04	Change of the layout according to M1	New layout concerning the UIC principle M1
		Adoption of a change history	Increasing the usability
		Adoption of a revision number	enhancement and redesign of the versioning
001.02	01.08.2005	Modification of the layout	Guidelines of the UIC
		Modification of the appendix numbering	Guidelines of the UIC