4.4 Visualization

4.4.1 TT0750: Status and Control Request (Navette)

Note: Navette means here the normal Navette device and the lift.

4.4.1.1 Purpose of This Telegram Type

With this telegram the Visu requests status information and performance values from the "Navette" and "Navette Lift" device.

4.4.1.2 Sending Direction

Visu -> Navette

4.4.1.3 Sending Time

See topic specific sub chapters.

4.4.1.4 General

Note: The TT0750 have the same length for all defined topics. Not relevant parts need to be set to 0.

4.4.1.4.1 Structure – General Part

No. Byte	Field content		Type
0	Telegram sender ID	MSB	D
1		LSB	
2	Telegram receiver ID	MSB	D
3		LSB	
4	Telegram type	MSB	D
5		LSB	
6	Telegram sub type	MSB	D
7		LSB	
8	Version	MSB	D
9		LSB	
10	Topic	MSB	D
11		LSB	
12	Status request ID	MSW:MSB	D
13		MSW:LSB	
14		LSW:MSB	
15		LSW:LSB	
16	Structure is described in the following details chapters		
17			
18			
:			
199			

4.4.1.4.2 Description of the Fields – General Part

4.4.1.4.2.1 Overview

Field	Description	
Telegram sender ID	241	Visu
Telegram receiver ID	1121 …1124; 1221 …1224 2121 …2124; 2221 …2224 3121 …3124; 3221 …3224 4121 …4124; 4221 …4224 5121 …5124; 5221 …5224 6121 …6124; 6221 …6224	Controller Nxxxx: 4*2*6 = 48 Navette; (naming see 3.3.2.3.3ff)
	1081, 1082 … 1085, *1086* *2081,* 2082 … 2085, *2086* *3081,* 3082 … 3085, *3086* *4081,* 4082 … 4085, *4086* *5081,* 5082 … 5085, *5086* *6081,* 6082 … 6085, *6086*	Controller NLxxxx: 4 x 6 = 24 Navette Lifts (naming see 3.3.2.3.3ff)
Telegram type	750	Status and control request Navette
Telegram sub type	see 4.4.1.4.2.2, "Telegram Sub Type"	
Version	see 4.4.1.4.2.3, "Version"	
Topic	see 4.4.1.4.2.4, "Field “Topic”"	
Status request ID	1 ... 4,294,967,295	distinct status request identifier from Visu
	0	Status reply generated by MFS without request

4.4.1.4.2.2 Telegram Sub Type

The number shows the combination of the TT0750 parts (not used now)

Value[133]	FiV	U	Description
0	≥0	n	Standard

4.4.1.4.2.3 Version

Version value could not be decoded by Visu. Visu will set version number fix to 0.

Value	*U*	*Description*	*Remark*
0	*y*	*standard*	*fixed to this value*

4.4.1.4.2.4 Field "Topic"

Switch for scope selection. Other values are not defined and will be ignored by the Navette.

Value[133]	FiV	U	Description
1	≥0	y	Status request see 4.4.1.5, "Topic = 1 (Navette Status Request)"
2	≥0	y	Control Settings see 4.4.1.6, "Topic = 2 (Navette Control Settings)"
5	≥0	y	Navette OHC values overwrite see 4.4.1.7, "Topic = 5 (Navette OHC values overwrite)"
7	≥0	y	Navette TD values overwrite see 4.4.1.8, "Topic = 7 (Navette TD values overwrite)"
others			not defined

[133] Note: The possible value range of this field is limited to 255, because the MSB of this field will not processed by the Visu driver. Background: The field TST and topic will be merged to one word, using the LSB of both fields.

4.4.1.5 Topic = 1 (Navette Status Request)

4.4.1.5.1 Sending Time

The Navette status can be requested from the Visu at any time. When starting the Visu process, this telegram will usually be sent to the Navette.

Note: The telegram structure is different to other telegrams because special needs of the Navette controller program by LARsys.

4.4.1.5.2 Structure (Topic = 1, Visu)

No. Byte	Field content	Type
16	Status request flags 1	M
17	Status request flags 2	M

4.4.1.5.3 Description of the Fields (Topic = 1, Visu)

4.4.1.5.3.1 Overview (Topic = 1, Visu)

Field	Description
Status request flags 1	see 4.4.1.5.3.2, "Field “Status request flags 1” (Topic = 1, Visu)"
Status request flags 2	see 4.4.1.5.3.3, "Field “Status request flags 2” (Topic = 1, Visu)"

4.4.1.5.3.2 Field “Status request flags 1” (Topic = 1, Visu)

Bit	FiV	U	Description
0		n	
1	≥0	y	Basic Status request; Navette should answer with 1x TT0751, Topic 1 (see 4.4.2.6)
2	≥0	n	*Navette Control Reply (1x TT0751, Topic 2 (see 4.4.2.7)) requested not useful*
3	≥0	y	Warning and messages request; Navette should answer with 1 x TT0751, Topic 6 (see 4.4.2.11) 1 x TT0751, Topic 3 (see 4.4.2.8)
4	≥0	y	Error request; Navette should answer with 1 x TT0751, Topic 6 (see 4.4.2.11) 1 x TT0751, Topic 4 (see 4.4.2.9)
5	≥0	y	Operational hours counter (OHC); Navette should answer with 1 x TT0751, Topic 5 (see 4.4.2.10)
6	≥0	y	Variable Values for Messages, Warnings and Errors; Navette should answer with 1 x TT0751, Topic 6 (see 4.4.2.11)
7	≥0	y	Navette Travel Distance; Navette should answer with 1 x TT0751, Topic 7 (see 4.4.2.12)

4.4.1.5.3.3 Field "Status request flags 2" (Topic = 1, Visu)

Bit	FiV	U	Description
0		n	
1		n	
2		n	
3	≥0	y	C-Desk Status; Navette should answer with 1 x TT0751, Topic 11 (see 4.4.2.12)
4	≥0	y	Detail Status; Navette should answer with 1 x TT0751, Topic 12 (see 4.4.2.14)
5		n	
6		n	
7		n	

4.4.1.6 Topic = 2 (Navette Control Settings)

4.4.1.6.1 Sending Time

Visu sent this telegram after a control button was pressed or a general information status changed. Navette Controller answers with a TT0751, topic 2 (see 4.4.2.7).

4.4.1.6.2 Structure (Topic = 2, Visu)

No. Byte	Field content		Type
16	Visu Button	1 “auto on”	D
17		2 “auto off”	D
18		3 “error reset”	D
19		4 “Home Position”	D
20		5 “Reset OHC”	D
21		6 “Reset TD”	D
22		7	D
23		8	D
24		9	D
25		10	D
26		11	D
27		12	D
28		13	D
29		14	D
30		15	D
31		16	D
32	General Information	1 “Fire alert”	D
33		2	D
34		3	D
35		4	D
36		5	D
37		6	D
38		7	D
39		8	D
40		9	D
41		10	D
42		11	D
43		12	D
44		13	D
45		14	D
46		15	D
47		16	D

4.4.1.6.3 Description of the Fields (Topic = 2, Visu)

4.4.1.6.3.1 Overview (Topic = 2, Visu)

Field	Description
Visu Button	see 4.4.1.6.3.2
General Information	see 4.4.1.6.3.3

4.4.1.6.3.2 Field "Visu Button"

Value	FiV	U	Description
0	≥0	y	button not pressed
1	≥0	y	button pressed
others			not defined

4.4.1.6.3.3 Field "General Information"

Value	FiV	U	Description
0	≥0	y	status not active
1	≥0	y	status active
others			not defined

4.4.1.7 Topic = 5 (Navette OHC values overwrite)

4.4.1.7.1 Sending Time

The Visu will send this telegram automatically, if the received value of TT0751 topic 5 field “Operational total > OHC > total OHC“ is smaller than the stored value by Visu for this device. This may happen after a controller exchange.
Navette / Navette lift controller will overwrite the OHC values (except the day counter) by receiving this telegram.

4.4.1.7.2 Structure (Topic = 5, Navette OHC values overwrite)

No. Byte	Field content				Type
16	Operational Total (not resettable)	OHC	total OHC (Anlage gesamt)	MSW:MSB	D
17				MSW:LSB	
18				LSW:MSB	
19				LSW:LSB	
20			OHC automatic mode (Anlage gesamt)	MSW:MSB	D
21				MSW:LSB	
22				LSW:MSB	
23				LSW:LSB	
24			OHC of the engine in X direction (Motorbetriebsstunden in X-Richtung)	MSW:MSB	D
25				MSW:LSB	
26				LSW:MSB	
27				LSW:LSB	
28			OHC of the engine in Y direction (Motorbetriebsstunden in Y-Richtung)	MSW:MSB	D
29				MSW:LSB	
30				LSW:MSB	
31				LSW:LSB	
32		Axis	Amount of drives (X direction)	MSW:MSB	D
33				MSW:LSB	
34			(Anzahl der Fahrten in X Richtung	LSW:MSB	
35			= Positionierungen)	LSW:LSB	
36			Amount of drives (Y direction)	MSW:MSB	D
37				MSW:LSB	
38			(Anzahl der Fahrten in Y Richtung	LSW:MSB	
39			= Positionierungen)	LSW:LSB	
40		LHD1	Amount of get cycles LHD 1 with bars / gripper (Anzahl der Hole-Zyklen LAM1, mit Zinken/Greifer)	MSW:MSB	D
41				MSW:LSB	
42				LSW:MSB	
43				LSW:LSB	
44			Amount of put cycles LHD 1 with bars / gripper (Anzahl der Bring-Zyklen LAM1, mit Zinken/Greifer)	MSW:MSB	D
45				MSW:LSB	
46				LSW:MSB	
47				LSW:LSB	
48			Amount of get cycles LHD 1 without bars / gripper (at CS) (Anzahl der Hole-Zyklen LAM1, ohne Zinken/Greifer; an FT)	MSW:MSB	D
49				MSW:LSB	
50				LSW:MSB	
51				LSW:LSB	
52			Amount of put cycles LHD 1 without bars / gripper (at CS) (Anzahl der Bring-Zyklen LAM1, ohne Zinken/Greifer; an FT)	MSW:MSB	D
53				MSW:LSB	
54				LSW:MSB	
55				LSW:LSB	
56			Amount of total cycles LHD 1 (sum of the 4 fields above) Anzahl der Zyklen LAM1 (Summe aus den 4 vorherigen Feldern)	MSW:MSB	D
57				MSW:LSB	
58				LSW:MSB	
59				LSW:LSB	

No. Byte	Field content				Type
60		LHD2	Amount of get cycles LHD 2 with bars / gripper (Anzahl der Hole-Zyklen LAM2, mit Zinken/Greifer)	MSW:MSB	D
61				MSW:LSB	
62				LSW:MSB	
63				LSW:LSB	
64			Amount of put cycles LHD 2 with bars / gripper (Anzahl der Bring-Zyklen LAM2, mit Zinken/Greifer)	MSW:MSB	D
65				MSW:LSB	
66				LSW:MSB	
67				LSW:LSB	
68			*Amount of get cycles LHD 2 without bars / gripper (at CS) (Anzahl der Hole-Zyklen LAM2, ohne Zinken/Greifer; an FT)*	MSW:MSB	D
69				MSW:LSB	
70				LSW:MSB	
71				LSW:LSB	
72			*Amount of put cycles LHD 2 without bars / gripper (at CS) (Anzahl der Bring-Zyklen LAM2, ohne Zinken/Greifer; an FT)*	MSW:MSB	D
73				MSW:LSB	
74				LSW:MSB	
75				LSW:LSB	
76			Amount of total cycles LHD 2 (sum of the 4 fields above) Anzahl der Zyklen LAM2 (Summe aus den 4 vorherigen Feldern)	MSW:MSB	D
77				MSW:LSB	
78				LSW:MSB	
79				LSW:LSB	
80	Operational Total (resettable)	OHC	total OHC (Anlage gesamt)	MSW:MSB	D
81				MSW:LSB	
82				LSW:MSB	
83				LSW:LSB	
84			OHC automatic mode (Anlage gesamt)	MSW:MSB	D
85				MSW:LSB	
86				LSW:MSB	
87				LSW:LSB	
88			OHC of the engine in X direction (Motorbetriebsstunden in X-Richtung)	MSW:MSB	D
89				MSW:LSB	
90				LSW:MSB	
91				LSW:LSB	
92			OHC of the engine in Y direction (Motorbetriebsstunden in Y-Richtung)	MSW:MSB	D
93				MSW:LSB	
94				LSW:MSB	
95				LSW:LSB	
96		Axis	Amount of drives (X direction) (Anzahl der Fahrten in X Richtung = Positionierungen)	MSW:MSB	D
97				MSW:LSB	
98				LSW:MSB	
99				LSW:LSB	
100			Amount of drives (Y direction) (Anzahl der Fahrten in Y Richtung = Positionierungen)	MSW:MSB	D
101				MSW:LSB	
102				LSW:MSB	
103				LSW:LSB	
104		LHD1	Amount of get cycles LHD 1 with bars / gripper (Anzahl der Hole-Zyklen LAM1, mit Zinken/Greifer)	MSW:MSB	D
105				MSW:LSB	
106				LSW:MSB	
107				LSW:LSB	
108			Amount of put cycles LHD 1 with bars / gripper (Anzahl der Bring-Zyklen LAM1, mit Zinken/Greifer)	MSW:MSB	D
109				MSW:LSB	
110				LSW:MSB	
111				LSW:LSB	

No. Byte	Field content				Type
112			Amount of get cycles LHD 1	MSW:MSB	D
113			without bars / gripper (at CS)	MSW:LSB	
114			(Anzahl der Hole-Zyklen LAM1,	LSW:MSB	
115			ohne Zinken/Greifer; an FT)	LSW:LSB	
116			Amount of put cycles LHD 1	MSW:MSB	D
117			without bars / gripper (at CS)	MSW:LSB	
118			(Anzahl der Bring-Zyklen LAM1,	LSW:MSB	
119			ohne Zinken/Greifer; an FT)	LSW:LSB	
120			Amount of total cycles LHD 1 (sum	MSW:MSB	D
121			of the 4 fields above)	MSW:LSB	
122			Anzahl der Zyklen LAM1 (Summe	LSW:MSB	
123			aus den 4 vorherigen Feldern)	LSW:LSB	
124		LHD2	Amount of get cycles LHD 2	MSW:MSB	D
125			with bars / gripper	MSW:LSB	
126			(Anzahl der Hole-Zyklen LAM2,	LSW:MSB	
127			mit Zinken/Greifer)	LSW:LSB	
128			Amount of put cycles LHD 2	MSW:MSB	D
129			with bars / gripper	MSW:LSB	
130			(Anzahl der Bring-Zyklen LAM2,	LSW:MSB	
131			mit Zinken/Greifer)	LSW:LSB	
132			*Amount of get cycles LHD 2*	MSW:MSB	D
133			*without bars / gripper (at CS)*	MSW:LSB	
134			*(Anzahl der Hole-Zyklen LAM2,*	LSW:MSB	
135			*ohne Zinken/Greifer; an FT)*	LSW:LSB	
136			*Amount of put cycles LHD 2*	MSW:MSB	D
137			*without bars / gripper (at CS)*	MSW:LSB	
138			*(Anzahl der Bring-Zyklen LAM2,*	LSW:MSB	
139			*ohne Zinken/Greifer; an FT)*	LSW:LSB	
140			Amount of total cycles LHD 2 (sum	MSW:MSB	D
141			of the 4 fields above)	MSW:LSB	
142			Anzahl der Zyklen LAM2 (Summe	LSW:MSB	
143			aus den 4 vorherigen Feldern)	LSW:LSB	
144	Day counter		Amount of total cycles LHD 1	MSW:MSB	D
145	(will be			MSW:LSB	
146	set to 0		Anzahl der Zyklen LAM1	LSW:MSB	
147	by Controller			LSW:LSB	
148	e.g. mid		Amount of total cycles LHD 2	MSW:MSB	D
149	night)			MSW:LSB	
150	(not		Anzahl der Zyklen LAM 2	LSW:MSB	
151	resettable)			LSW:LSB	

Note: SOC doesn't overwrite the "Day counter" values with values from Visu.

4.4.1.7.3 Description of the Fields (Topic = 5, Navette OHC values overwrite)

4.4.1.7.3.1 Overview (Topic = 5, Navette OHC values overwrite)

Unit for all time values: hours

Field description see 4.4.2.10.4.1, "Overview (Topic = 5, Navette OHC)"
Plausibility check in Visu: Don't compare day counter fields!

4.4.1.8 Topic = 7 (Navette TD values overwrite)

4.4.1.8.1 Sending Time

The Visu will send this telegram automatically, if the received value of TT0751 topic 7 field “Operational total > Distances Total > X-Axis“ is smaller than the stored value by Visu for this device. This may happen after a controller exchange.
Navette / Navette lift controller will overwrite the distance values by receiving this telegram.

4.4.1.8.2 Structure (Topic = 7, Navette TD values overwrite)

No. Byte	Field content				Type
16	Operational Total (not resettable)	Distances Total	X-Axis	MSW:MSB	D
17				MSW:LSB	
18				LSW:MSB	
19				LSW:LSB	
20			Y-Axis	MSW:MSB	D
21				MSW:LSB	
22				LSW:MSB	
23				LSW:LSB	
24	Operational Total (resettable)	Distances Total	X-Axis	MSW:MSB	D
25				MSW:LSB	
26				LSW:MSB	
27				LSW:LSB	
28			Y-Axis	MSW:MSB	D
29				MSW:LSB	
30				LSW:MSB	
31				LSW:LSB	

4.4.1.8.3 Description of the Fields (Topic = 7, Navette TD values overwrite)

4.4.1.8.3.1 Overview (Topic = 7, Navette TD values overwrite)

Unit for all time values: meters

Field description see 4.4.2.12.4.1, "Overview (Topic = 7, Navette TD)"