/Z123STM_INT/APP Rules

Apprules

Application rules document

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ID	Application rule	Documents for rule deployment	Fulfilment of rule

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DIS: G81001-X3107-L005

Author: Steen Noergaard

ID	Application rule	Documents for rule deployment	Fulfilment of rule
AppRule_124	**1 Change list**		
AppRule_127	**1.1 Version 06**		
AppRule_128	Date: 2014-07-14		
AppRule_129	Author: Frank Elm Jakobsen		
AppRule_130	**changed section:** all **reason for change:** Transfer from Word ver 05 to DOORS New ver. of SyArchSpec to Ver. 14		
AppRule_131	Review: See review documentation (G81001-X3107-L005-06)		
AppRule_170	**1.2 Version 07**		
AppRule_171	Date: 2015-03-09		
AppRule_172	Author: Frank Elm Jakobsen		
AppRule_173	**changed section:** all **reason for change:** Corrections and clarifications to requirements New column "Fulfilment of rule" facilitates apportionment of rules New ver. of SyArchSpec to Ver. 15		
AppRule_179	**1.3 Version 08**		
AppRule_180	Date: 2016-04-07 Author: Jens Peter Haugaard **changed section:** Added AppRule_175, 176, 177, and 178. **reason for change:** Addition of application rules for customized DMI.		
AppRule_182	**1.4 Version 09**		
AppRule_183	Date: 2017-08-14 Author: Steen Nørgaard **changed section:** Changed: All AppRules which refers to documentation has now a reference to the chapters, where they belong Deleted: AppRule_4, 17, 46, 64, 65, 68, 69, 73, 76, 78, 80 - 89, 91 - 95, 175 - 178 99 - 103 (according to BDK Hazard Report) 175 -178 **reason for change:** Adapted to show only rules to the the scope of STM-DK.		
AppRule_185	**1.5 Version 10**		
AppRule_186	Date: 2022-01-27 Author: Brian Beck **changed section:** AppRule_39, 55, 57, 187, 188, 194, 190, 191, 192, 193, 195, 197 and 199. **reason for change:** STMDK 3.01.00 for VE6		

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AppRule_132	**2 Validity and purpose**		
AppRule_133	**Validity** The rules stated in this document are valid for the use of the STM-DK in all other projects. **Purpose** This document states the rules that must be followed to use the STM-DK application in safety related train installations.		

<table>
<tr><th>ID</th><th>Application rule</th><th>Documents for rule deployment</th><th>Fulfilment of rule</th></tr>
<tr><td>AppRule_134</td><td><h2>3 References</h2></td><td></td><td></td></tr>
<tr><td>AppRule_135</td><td><h3>3.3 Terms and Abbreviations</h3></td><td></td><td></td></tr>
<tr><td>AppRule_138</td><td>Universally valid abbreviations are explained in this document:[Glossary]
In addition, the following abbreviations are used here:</td><td></td><td></td></tr>
<tr><td>AppRule_139</td><td><table><tr><th>Abbreviation</th><th>Term</th></tr><tr><td>EVC</td><td>European Vital Computer</td></tr><tr><td>ADSC</td><td>Application Design Safety Case</td></tr></table></td><td></td><td></td></tr>
<tr><td>AppRule_116</td><td><h3>3.4 Input documents</h3></td><td></td><td></td></tr>
<tr><td>AppRule_117</td><td><table><tr><th>Reference ID</th><th>Document incl. Title, Unequivocal identifier and version</th></tr><tr><td>SyArchSpec</td><td>System Architecture specifications
G81001-X3107-R004-20
DOORS: /Z123STM_INT/20_Arch/SyArchSpec baseline 20</td></tr><tr><td>SyValRep</td><td>System Validation Report
G81001-X3107-U010-05</td></tr><tr><td>GASC</td><td>G81001-X3107-U420-01</td></tr><tr><td>BDK Hazard Report</td><td>Fjernbane Onboard Baseline 3 Hazard Record Report,
SP-FB-FOB-006263 from version 9</td></tr></table></td><td></td><td></td></tr>
<tr><td>AppRule_121</td><td><h3>3.5 Output documents</h3></td><td></td><td></td></tr>
<tr><td>AppRule_122</td><td><table><tr><th>Reference ID</th><th>Document incl. Title, Unequivocal identifier and version</th></tr><tr><td>/Maintenance Manual/</td><td>STM-DK Subrack Maintenance Manual, VN 655.00 Q2961 V 1.04</td></tr><tr><td>/Installation Manual/</td><td>STM-DK Subrack Installation Manual, IN 655 00 Q2962 ver. 1.11</td></tr><tr><td>/Safety Case/</td><td>Generic Application Safety Case, G81001-X3107-U420-01</td></tr><tr><td>/SW instruction/</td><td>Software Installation Guide VE6, G81002-E3135-F850-A</td></tr></table></td><td></td><td></td></tr>
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<table>
<tr><th>ID</th><th>Application rule</th><th>Documents for rule deployment</th><th>Fulfilment of rule</th></tr>
<tr><td>AppRule_123</td><td><h2>4 Application rules</h2></td><td></td><td></td></tr>
<tr><td>AppRule_140</td><td>The following table states the rules that has to be followed when using the STM-DK application in a safety relevant train installation.</td><td></td><td></td></tr>
<tr><td>AppRule_1</td><td>Don’t place higher demands on the TCC than stated in
EN50124-1 Pollution degree PD2;
EN50124-1 Excess voltage cat. OV2;
EN 60664-1

The STM-DK must not be used at higher altitude than 4000 meter above sea level.</td><td>/Installation manual/</td><td>Installation</td></tr>
<tr><td>AppRule_2</td><td>Regarding climate requirements don’t place higher demands on the TCC than
EN50155 class TX

If external ventilation of the TCC cabinet is used, special attention may be needed.</td><td>/Installation manual/</td><td>Installation</td></tr>
<tr><td>AppRule_3</td><td>The user of the tiu function shall use an idle cycle timeout that enables reconnecting the profibus connection for the tiu function in less than 1,5 seconds.
This can be understood as a requirement for 1 second timeout value on TIU connections.</td><td>BDK design requirements for the EVC</td><td>EVC requirements</td></tr>
<tr><td>AppRule_5</td><td>The maximum system speed at HS-area shall be covered by trackside engineering</td><td>BDK track engineering</td><td>Bdk Infrastructure</td></tr>
<tr><td>AppRule_6</td><td>The STM shall have the possibility to use indicators on 5 positions on the DMI. The mapping shall be:
<table>
<tr><th>NID_INDPOS</th><th>Position CENELEC</th><th>Position ERA</th><th>Indication</th></tr>
<tr><td>5</td><td>C5</td><td>C2</td><td>DRIFTSBREMSE (yellow)

NØDBREMSE (red)</td></tr>
<tr><td>6</td><td>C6</td><td>C3</td><td>PASS STOP (red)</td></tr>
<tr><td>7</td><td>C7</td><td>C4</td><td>ATC INDE (green)

RANGER (yellow)

YDRE SIGNAL (yellow)

LØS ATC (green)</td></tr>
<tr><td>8</td><td>C2</td><td>C5</td><td>Yellow display</td></tr>
<tr><td>9</td><td>C3</td><td>C6</td><td>Red display</td></tr>
</table></td><td>BDK design requirements for the EVC</td><td>EVC requirements</td></tr>
<tr><td>AppRule_7</td><td>The STM needs to use Buttons on 4 possible positions, the mapping shall be:
<table>
<tr><th>NID_BUTPOS</th><th>Position CENELEC</th><th>Position ERA</th><th>Push Button</th></tr>
</table></td><td>BDK design requirements for the EVC</td><td>EVC requirements</td></tr>
</table>

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<tr><th>ID</th><th>Application rule</th><th>Documents for rule deployment</th><th>Fulfilment of rule</th></tr>
<tr><td>AppRule_7</td><td>
<table>
<tr><td>1.</td><td>F6.</td><td>F8.</td><td>Valg
Afbryd
AFBRYD RANGER
Retur</td></tr>
<tr><td>2.</td><td>F7.</td><td>F9.</td><td>RANGER
YDRE SIGNAL
LØS ATC</td></tr>
<tr><td>3.</td><td>F8.</td><td>F10.</td><td>PASS STOP
LØS BREMSE (Yellow – driftsbremse)
LØS BREMSE (red – nødbremse)</td></tr>
</table>
</td><td></td><td></td></tr>
<tr><td>AppRule_8</td><td>The train data shall be displayed in order of the related N_ITER value in packet STM-179 (starting with the lowest value)</td><td>BDK design requirements for the EVC</td><td>EVC requirements</td></tr>
<tr><td>AppRule_9</td><td>If the ETCS on-board is compatible to Baseline 2.3.0d, it shall additionally fullfill the requirements of UNISIG CR 618.</td><td>BDK design requirements for the EVC</td><td>EVC requirements</td></tr>
<tr><td>AppRule_10</td><td>No higher demands than stated in EN61000-6-2 and EN50121-3-2 shall be placed on the STM.
An extra external filter at the power input is needed. (i.e. SIFI-B).</td><td>/Installation manual/</td><td>Installation</td></tr>
<tr><td>AppRule_11</td><td>No higher demands regarding radiation than stated in EN61000-6-4 and EN50121-3-2 shall be placed on the STM.</td><td>/Installation manual/</td><td>Installation</td></tr>
<tr><td>AppRule_12</td><td>No higher demands regarding ESD than stated in EN61000-6-2 and EN50121-3-2 should be placed on the STM.
It is expected that the STM is only accessed by maintenance staff.</td><td>/Installation manual/
/Maintenance Manual/</td><td>Installation
Maintenance</td></tr>
<tr><td>AppRule_13</td><td>The shields of cables connected to the STM front connectors shall be electrically connected to the cabinet/chassis on both sides.
All cable screens must be connected to the grounding pad before leaving the STM subrack.</td><td>/Installation manual/</td><td>Installation</td></tr>
<tr><td>AppRule_14</td><td>No 24V power supply at the front connectors must be used.</td><td>/Installation manual/</td><td>Installation</td></tr>
<tr><td>AppRule_15</td><td>Relay output contacts on the SRAUS5 shall not be loaded beyond the values stated in the technical specifications.
24V version: Max voltages: Max 31,2 VDC. Max 33,6 VDC for less than 1s. Max current: 1,5 A
110V version: Max voltages: Max 143 VDC. Max 154 VDC for less than 1s. Max current: 0,3 A
All relay outputs shall be secured by fuses of maximum 2A.</td><td>/Installation manual/</td><td>Installation</td></tr>
</table>

ID	Application rule	Documents for rule deployment	Fulfilment of rule
AppRule_15	If the PS is not coming from the battery the allowed voltage tolerance is +- 30 %. Short votages excursions (<1second) up to +40 % is allowed The safety is related to the max. value of +30% and shall not be exceeded. Example: Safety surveillance of interface voltage due to excess voltage in the PS.		
AppRule_16	Inputs to the SRAUS5 bypass relays shall no be loaded beyond their technical specifications. Voltage range 24V version: 16.8 to 31.2 VDC; Voltage range 110V version: 77 to 143 VDC The tolerable voltage variation is +- 30 %. Short (less than 1s) voltages excursions up to +40 % is allowed. The max. value of voltage is safety relevant and this must not be exceeded.	/Installation manual/	Installation
AppRule_18	This rule does not place any requirement to the user. Rule: The limits in data sheet (see Sec. 6.1 in manual) respectively the electrical specifications (see sec. 6.2 in manual) shall not be exceeded. Furthermore one shall take care of the potential separation and the quality of the used PS (see sec. 6.4 and 6.5 in the manual) when connecting to periphery. This could be fulfilled by the use of the TCC PS.	/GASC/	Don't use
AppRule_21	Selection of the required dimension for the connection cable to the SV5 shall be done according to /EN50343/	/Installation manual/	Installation
AppRule_25	Only to be used in special diagnostic cases. A diagnostic interface (SUB-D-9) is available at the module UEBGEN5. When using the diagnostic interface data is transferred through the front connector from UEBGEN5 to TASSE5. The connections defined in this document UEBGEN5-HW-Schnittstelle shall be realised by the front connector wiring. The diagnostic PC shall be connected as described in /TASSE5-HW-Schnittstelle/ and UEBGEN5-HW-Schnittstelle to the Ethernet interface of the TASSE5. The operation of the UEBGEN5 diagnosis interface must be done over the Ethernet diagnosis connection at the TASSE5. During safety relevant TCC operation only the defined diagnosis commands in /Diagnoseschnittstelle/ shall be used.	/Installation manual/	Installation
AppRule_26	Connection of the antenna Use only the following antenna types: S25441-M1-A3 S25441-M1-A4 S25441-M2-A3 S25441-M2-A4 Only shielded cable with specified data shall be used. Isolation min. 60Veff Impulse min. 1032Vp The housing of the antenna must be connected to the vehicle chassis with low impedance. The values for the antenna isolation between housing and internal electronics can be considered the same as for the cable. This is given for the mentioned	/Installation manual/	Installation

ID	Application rule	Documents for rule deployment	Fulfilment of rule
AppRule_26	antennas above. At the connection points it shall be ensured that re-inforced insulation to other potentials is sufficient according to EN50124-1 When connecting the two wires (Fahrtrichtung A and Fahrtrichtung B) to the module (Uebgen5) the following apply: - The two 100kHz connections shall be galvanic insulated from each other - The two 50kHz connections shall be galvanic insulated from each other		
AppRule_27	This rule does not place any requirement to the user. rule:The limitations in the electric specification of the Profi5 on the data sheet (see sec. 2.1 in the manual) shall not be exceeded.	/GASC/	Don't use
AppRule_28	When the TCC including the SV5 is used without cabinet (steel cabinet) the cable shielding of the SV5 connections shall also be connected near to the frame of the module.	/Installation manual/	Installation
AppRule_29	An external filter (SIFI-E or similar) shall be inserted into the power connection to the SV5 power supply The filter shall be dimensioned according to power supply voltage and power consumption of the ZUB123-STM	/Installation manual/	Installation
AppRule_31	The power cable for the SV5 shall be protected by a circuit breaker (over-current protection)	/Installation manual/	Installation
AppRule_32	Make sure that the over-current protection for the SV5 works as follows: It shall protect the connected wires from overload. The inrush current shall not release circuit breaker The cable resistance shall not prevent releasing in case of short circuit.	/Installation manual/	Installation
AppRule_34	The ETCS Onboard shall support the STM Functions • STM CONTROL • CLOCK • TIU • BIU • ODOMETER • JRU • DMI CAB A • DMI CAB B	BDK design requirements for the EVC	EVC requirements
AppRule_35	No higher mechanical demands should be placed on STM-DK than stated in EN50155 and IEC60571-1	/Installation manual/	Installation
AppRule_36	No higher demands regarding fluctuations in power source should be placed on STM-DK than defined in /EN50155/	/Installation manual/	Installation

ID	Application rule	Documents for rule deployment	Fulfilment of rule
AppRule_37	Check after first start up and after maintenance work that the STM-DK starts up correctly. Verify that the self test has been run without errors.	/Installation manual/ /Maintenance Manual/	Installation Maintenance
AppRule_38	No module should be pulled out while power is on for the STM-DK.	/Installation manual/ /Maintenance Manual/	Installation Maintenance
AppRule_39	When loading software to the Data processing module the following items must be used in the version mentioned or newer: Target Tool Set, Release 5.0.0: genesis.exe 1b09b86a1bb719ae50b2abb4a0fc91bf babbl.exe f2cfd6ee2f5f4bd2443674a343749eb4 exodus.dll 84ee294c70ab5247b20c0eb6e515be7d	/SW instruction/	Production
AppRule_40	After loading software and before operation is started the operator must make sure at the first startup of the new software that: • the program memory is sealed • the correct software version is loaded. • the loading session has ended • the software has stated up correctly	/SW instruction/	Production
AppRule_41	Do not use the "prüfgeräte" test input connection at the TASSE5 during safe operation.	/Installation manual/	Installation
AppRule_42	Unused connector on Uebgen module must not be used: Two FUE outputs could be used for non safety purposes only to indicate pass of a balise. Outputs are relay contacts If used the max. current shall externally be limited to 20mA and voltage to 24V+30% Shielded cable shall be used.	/Installation manual/	Installation
AppRule_43	UEBGEN5: Tuning of the antennas shall be done from the application. Tuning shall be done when: - First usage of STM-DK - After all service and maintenance - By exchange of module. - By exchange of antenna. - By changing the cable connection - By moving the cables - When module is used in other cabinets - If the position of the antenna has changed. - Recommendation: Maintenance once each year. Conditions for Antenna Tuning: - The antenna shall not be closer than 2 meters to any balises or loops. - The vehicle shall stand on a normal type of track, i.e. without any extra metal parts within 2 m from the antenna. - The vehicle shall be in thermal equilibrium with the surroundings. The temperature shall be in the interval between -10°C and +40°C. To ensure the thermal equilibrium, the vehicle can be placed in the specified temperature interval for approximately 4 hours.	/Installation manual/ /Maintenance Manual/	Installation Maintenance

ID	Application rule	Documents for rule deployment	Fulfilment of rule
AppRule_47	The user must confirm by tests that the PROFIBUS bandwidth used by the ZUB123-STM is compatible with the ETCS on-board equipment.	BDK design requirements for the EVC	EVC requirements
AppRule_48	The DK-STM shall be installed in a locked cabinet not accessible for travellers and service staff.	/Installation manual/	Installation
AppRule_49	The cabinet for the DK-STM shall correspond to IP54 in EN60529	/Installation manual/	Installation
AppRule_51	Perform "sealing" of the DK-STM software due to the following reasons: - Prevent inadvertent writing in Flash memory from loading interface. - Prevent inadvertent changes of RAM contents from diagnosis commands. - Prevent read out of encrypted data.	/SW instruction/	Production
AppRule_52	Short circuits between any conductors in the brake cables can compromise safety and shall be taken into consideration with respect to the wanted safety target	/Installation manual/	Installation
AppRule_53	Rule already fulfilled by the STM-DK rule:In Abhängigkeit der angegebenen Ausfalloffenbarungszeiten (AOZ) ist anwendungsspezifisch, unter Berücksichtigung des angestrebten Sicherheitsziels, die Abfallfähigkeit der Relais zu überprüfen (s. Kapitel 3.7.1 c) und 5.1.1 des Manuals). English translation: The ability of the relay to drop off must be supervised under consideration of the assigned hazard rate and taking account of the the stated error disclosure time.	/GASC/	GASC
AppRule_54	UNILINK interface. To be used with loading of DK-STM software rule: Auf der Frontplatte der CPU-Baugrupe ist eine /Lade-und Herstellerdiagnosedatenschnittstelle/ (UNILINK) ohne spezielle Schutzmaßnahmen vorhanden. Wird ein Diagnosegerät an einen unter Sicherheitsverantwortung laufenden TCC-Kern angeschlossen,muß zusätzlich im Diagnosegerät eine HW-Entkopplung vorgesehen werden, die eine ausfallbedingte gleichzeitige Rückwirkung auf den sicheren Rechner verhindert. English translation: A loading and manufaturer diagnostic interface is found on the front of the CPU module. If diagnosis equipment is connected to a TCC computer, which is performing safety relevant tasks, it must be ensured that the hardware connection prevents simulationus impact on the safe computer. See rule 55	/Installation manual/ /SW instruction/	Installation Production
AppRule_55	UNILINK interface. To be used in special diagnostic cases. The data processing module, VE6, has a diagnosis "UNILINK" interface on the front. External components must not be connected to the UNILINK interface while the ZUB123-STM carries responsibility for the safety of the train.	/Installation manual/ /SW instruction/	Installation Production

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AppRule_56	TASSE5: Only to be used in special diagnostic cases. When using the diagnosis connection on the TASSE5 the PC shall be isolated from the train battery in accordance with EN50124-1 -basic isolation . The Ethernet connection at the Diagnosis PC must comply with this basic isolation. Tip: As a rule fulfilled by the laptop PS.	/Installation manual/ /Maintenance Manual/	Installation Maintenance
AppRule_57	Software download on VE6: The download tool must check if a software package exist (BUNDLE-BAB) with the name "Product". If this is the case the full software package must always be downloaded and programmed into the module. Optimized algorithms, which filter away unchanged data, are not allowed (delta download). If the above mentioned package is not found then the mode is "lab-mode". Delta download is only allowed in this mode. The person performing download must be sure that "lab-mode" is not used for download of safety relevant software.	/SW instruction/	Production
AppRule_58	The user must ensure that PROFIBUS node addresses and SAP numbers are unique in the entire system (/Subset-35) Id 14.5.1.9.)	BDK design requirements for the EVC	EVC requirements
AppRule_61	If the STM CONTROL-Function connection is disconnected, the ETCS Onboard shall apply the safe action. The safe action shall be the emergency brake.	BDK design requirements for the EVC	EVC requirements
AppRule_62	Only authorised staff may use the UNILINK interface for the provided online diagnostic facilities. After use of the UNILINK connection the DK-STM must be restarted.	/Installation manual/	Installation
AppRule_63	Whether the Emergency brake is connected in parallel or in serial depends on train type. The brake shall be applied if the connection between these pins is open, it shall be released if the connection is closed.	/Installation manual/	Installation
AppRule_66	After receiving the state order HS (or DA, when HS is not used), the DK-STM uses 2s to activate the train antenna. With maximum speed of 200 km/h this means: The distance between the Transition Location and the first Zub123 Balise (danish ATC balise) shall be greater than 110 meter	BDK track engineering	Bdk Infrastructure
AppRule_67	The STM train specific data values are safety relevant. The ETCS Onboard shall implement a safe STM specific data entry procedure for data to the legacy ZUB123-STM software. The safety level for this ETCS function is SIL4. Safe data input from driver is to be realized by ETCS Onboard	BDK design requirements for the EVC	EVC requirements
AppRule_70	Train data entered by Driver on the DMI shall be secured using proper data protection.	BDK design requirements for the EVC	EVC requirements
AppRule_71	The DMI shall have a MTBF of at least 10000 hours	BDK design requirements for the EVC	EVC requirements
AppRule_72	To maintain the SIL-level of 4 of the TCC platform, the DK-STM must not continuously be in state DA for more than 48h This is fulfilled by software. The Calculations are performed in the GASC	/GASC/	GASC
AppRule_74	Regarding storage and transport (as a component) of the DK-STM no higher demands as defined in EN60721-3-2 class 2M2 and 2K2 should be placed on the DK-STM.	/Installation manual/	Installation

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AppRule_75	DK-STM is not responsible for the use of the emergency brake bypass function. The use of emergency brake bypass functionality shall be handled in the system safety case for the train.	ADSC train type	Installation
AppRule_77	Diagnosis interface: Standard EIA RS232 for connection of RS232 serial interface ser_02 must be followed	/Installation manual/	Installation
AppRule_79	For the emergency braking relay, a Hazard Rate contribution of 3,9*10^12/hour must be used in a system safety case. This is not a requirement for the user. The calculations are performed in the GASC	/GASC/	GASC
AppRule_90	After the installation the correct functionality of the system STM-DK must be shown in a field test with the aspects speed measurement and receiving of track information, The train speed during the test must be up to 200 km/h including reading and treatment of balise pairs with a mutual distance of 21m.	BDK field test spec	Acceptance test
AppRule_97	After the installation the integration test on the vehicle must show that the connection ZUB123 STM does not disturb other Profibus participants.	/Installation manual/	Installation
AppRule_104	For STM to STM-Transitions, the ETCS Onboard shall follow the definitions of [SUBSET-035] including the definitions regarding STM TRIP situation (conditional CS order).	BDK design requirements for the EVC	EVC requirements
AppRule_105	In case of a STM-STM-Transition, the ETCS Onboard shall follow the requirements of [SUBSET-035] regarding the "conditional cold standby".	BDK design requirements for the EVC	EVC requirements
AppRule_108	The Clock used in ETCS Onboard must have the safety relevant THR=10-9/h or better.	BDK design requirements for the EVC	EVC requirements
AppRule_110	General STM-DK conditions: Unless explicitly stated differently in the documentation it must be esured that no higher voltages that 60V can be applied to hardware interfaces of DK-STM even in case of failure of the connected equipment	/Installation manual/	Installation
AppRule_112	The fulfilment of the requirement for /HW_ProzessAnschaltung-PROFI5/ for products or equipment which makes use of the module PROFi5 must be shown by the relevant products or equipments. This is not a requirement for the user. The analysis is performed in the GASC	/GASC/	GASC
AppRule_174	Working procedures shall ensure reading out and noting down train type information after any access to the DK-STM maintenance menu during installation and maintenance work. This will prevent inadvertent changes to train type, which might be hazardous.	/Installation manual/ /Maintenance Manual/	Installation Maintenance
AppRule_187	The STM-DK can be started by applying power to the unsupplied SV5 Power Supply.	/Installation manual/	Installation
AppRule_188	The STM-DK can be turned off by switching off the power supplied to the SV5 Power Supply.	/Installation manual/	Installation
AppRule_194	When changing a STM-DK TCC board, it shall be ensured that the new board has the identical data/software as the old one. Only then the STM-DK can be used for operation.	/Maintenance Manual/	Maintenance
AppRule_190	Basically STM-DK TCC board shall not be repaired on location but sent to the manufacturer.	/Maintenance Manual/	Maintenance

ID	Application rule	Documents for rule deployment	Fulfilment of rule
AppRule_191	Before the STM-DK with Release 03.01.00 (VE6) can be used for operation, it shall first successfully pass following qualification test (EGO, Experience Gathering Operation): - Read/pass 5000 balises.	BDK field test spec	Acceptance test
AppRule_192	When using the UPort interface on the VE6 board, the connected Laptop shall be CE marked. The Laptop and cable shall be secured against unauthorized access.	/Maintenance Manual/	Maintenance
AppRule_193	The identical revision level of the BIOS has to be loaded on all channels of the VE6 board. BAB name/subname: bootblock/VE6_600MHz Signature: 889ba0953140250e3d3f439086d42d50 When VE6 is started up, the BIOS outputs the header of the bootblock BAB to the diagnostic interface. This has to be compared for all participating channels.	/SW instruction/	Production
AppRule_195	The storage life of the SV5 is limited to 10 years because of the components used (electrolytic capacitors).	/Installation manual/	Production
AppRule_197	The user of this TCC release must consider the document /NoticeFile_OSS/. Note: The license conditions for components from this release are stored in the Black Duck Code Center under the following entry: Name: SIMIS® TCC Version: 4.1 Note: Angaben zu External Software (OSS und COTS) in Zulieferungen müssen bewertet und entsprechend den Lizenzbedingungen an Kunden weiter gegeben werden. Dazu dienen sog. "ReadMe_OSS"-Dokumente , die für die entsprechenden Komponenten erstellt und als Kundendokumente weiter gegeben werden müssen. Betroffene Komponenten sind beispielsweise NVC, EVC, DMI, E5K, Odomterie-Tools.	/SW instruction/	Production
AppRule_199	Security rule: All threats and risks which have been exported to the user as security-related application conditions have to be considered by the user during risk assessment to identify possible impact on system safety. The exported security rules are: AppRule_48 and AppRule_192. Motivation: A threat may lead to a hazard if safety functions are assets to the user. Possible Solution: The user may perform a threat and risk analysis (TRA) to analyze all received security-related application conditions in regard to possible impact on system safety.	BDK procedures and instructions	Specific application