

# ISO 11783-6:2010-10 (E)

## Tractors and machinery for agriculture and forestry - Serial control and communications data network - Part 6: Virtual terminal

---

Contents	Page
Foreword .....	v
Introduction .....	vi
1 Scope .....	1
2 Normative references .....	1
3 Terms, definitions and abbreviated terms .....	1
4 Technical requirements .....	4
4.1 Overview .....	4
4.2 Operator input and control .....	7
4.3 Acoustic alarm .....	9
4.4 Coordinate system .....	9
4.5 Display areas .....	9
4.5.1 Data Mask .....	9
4.5.2 Soft Key Mask area and Soft Key designators .....	9
4.6 Behaviour .....	12
4.6.1 Object pools .....	12
4.6.2 Working Sets .....	13
4.6.3 Language, formats and measurement units selection .....	14
4.6.4 Initialization .....	14
4.6.5 Working Set object and active masks .....	16
4.6.6 Connection management .....	19
4.6.7 Updating the operator interface .....	21
4.6.8 Special objects .....	21
4.6.9 Relative X,Y positions .....	23
4.6.10 Overlaid objects .....	24
4.6.11 Alarm handling .....	25
4.6.12 Clipping .....	26
4.6.13 Scaling .....	27
4.6.14 Operator input .....	27
4.6.15 Soft key and button activation .....	30
4.6.16 Font rendering .....	31
4.6.17 Filling output shape objects .....	38
4.6.18 Events .....	40
4.6.19 Touch screens and pointing devices .....	40
4.6.20 Proprietary Means .....	41
4.6.21 VT Number .....	41
4.7 Displaying data from Multiple Working Sets on one Mask (Version 4 VT and later) .....	41
4.7.1 General .....	41
4.7.2 User-Layout Data Mask .....	42
4.7.3 Window Mask object .....	42
4.7.4 Window Mask content .....	43
4.7.5 Window Cell Size and Borders .....	44
4.7.6 Window Mask scaling .....	44
4.7.7 Using Window Masks outside User-Layout Data Masks .....	45
4.7.8 User-Layout Soft Key Mask .....	45
4.7.9 Key Group Objects .....	45
4.7.10 Key Cell Size and Borders .....	46

<b>4.7.11</b>	<b>Key Group Scaling .....</b>	<b>47</b>
<b>4.7.12</b>	<b>Using Key Group Objects outside User-Layout Soft Key Masks .....</b>	<b>47</b>
<b>4.7.13</b>	<b>Operator Inputs .....</b>	<b>47</b>
<b>4.7.14</b>	<b>Refreshing on-screen data .....</b>	<b>47</b>
<b>4.7.15</b>	<b>User-Layout Data Mask look and feel .....</b>	<b>48</b>
<b>4.7.16</b>	<b>Uploading New Window Mask and Key Group objects .....</b>	<b>49</b>
<b>Annex A (normative) Object, event, colour and command codes .....</b>		<b>50</b>
<b>Annex B (normative) Object definitions .....</b>		<b>63</b>
<b>Annex C (normative) Object transport protocol .....</b>		<b>149</b>
<b>Annex D (normative) Technical data messages .....</b>		<b>154</b>
<b>Annex E (normative) Non-volatile memory operations commands .....</b>		<b>162</b>
<b>Annex F (normative) Command and Macro messages .....</b>		<b>166</b>
<b>Annex G (normative) Status Messages .....</b>		<b>198</b>
<b>Annex H (normative) Activation messages .....</b>		<b>200</b>
<b>Annex I (normative) Other messages .....</b>		<b>210</b>
<b>Annex J (normative) Auxiliary control .....</b>		<b>211</b>
<b>Annex K (normative) Extended transport protocol .....</b>		<b>245</b>
<b>Annex L (normative) Character sets .....</b>		<b>250</b>
<b>Bibliography .....</b>		<b>258</b>