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ITU-T

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H.248.19
Amendment 1
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SERIES H: AUDIOVISUAL AND MULTIMEDIA SYSTEMS

Infrastructure of audiovisual services – Communication procedures

Gateway control protocol: Decomposed multipoint control unit, audio, video and data conferencing packages

Amendment 1: New Text Overlay package and Border and Background package

ITU-T Recommendation H.248.19 (2004) – Amendment 1

ITU-T H-SERIES RECOMMENDATIONS

AUDIOVISUAL AND MULTIMEDIA SYSTEMS

For further details, please refer to the list of ITU-T Recommendations.

ITU-T Recommendation H.248.19

Gateway control protocol: Decomposed multipoint control unit, audio, video and data conferencing packages

Amendment 1

New Text Overlay package and Border and Background package

Summary

This Recommendation describes the functionality of a decomposed multipoint control unit, in particular the interface between a media controller and media processor which is based on ITU-T Rec. H.248. This Recommendation contains guidelines for the use of a decomposed gateway that may support audio, video and data conferencing. This Recommendation contains packages for floor control, volume control, video windows, audio and video mixing for point-to-point, multi-cast and hybrid conferencing scenarios.

Amendment 1 defines two new packages – the Text Overlay Package and the Border and Background Package, which together with the Video Window Package may be used to provide additional conference control capabilities.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

Compliance with this Recommendation is voluntary. However, the Recommendation may contain certain mandatory provisions (to ensure e.g. interoperability or applicability) and compliance with the Recommendation is achieved when all of these mandatory provisions are met. The words "shall" or some other obligatory language such as "must" and the negative equivalents are used to express requirements. The use of such words does not suggest that compliance with the Recommendation is required of any party.

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As of the date of approval of this Recommendation, ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

ITU-T Recommendation H.248.19

**Gateway control protocol: Decomposed multipoint control unit,
audio, video and data conferencing packages**

Amendment 1

New Text Overlay package and Border and Background package

Modifications introduced by this amendment are shown in revision marks. Text unchanged is replaced by elispsis (…). Some parts of unchanged texts (clause numbers, etc.) may be kept to indicate the correct insertion points.

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12.5.6   Error code

None.

12.6   Text Overlay Package

Package Name:	Text Overlay Package
PackageID:	top, 0x00a1
Description:	This package describes a number of properties that allow an MC to specify the text overlaying the video image. This package may be used on its own or together with the Video Window Package to specify text overlay for the individual windows.
Version:	1
Designed to be extended only:	No
Extends:	None

12.6.1   Properties

12.6.1.1   Property Name: Text ID

PropertyID:	textid, 0x0001
Description:	This property is set by the MC to associate inside particular property group parameters of a specific text overlay. If *vwp/wid* is not specified in the property group then text identity shall be unique within a termination. If *vwp/wid* is specified in the property group then text identity shall be unique within all the property groups with the same value of *vwp/wid*.
Type:	Integer
Possible Values:	1 – 65535
Defined in:	Local/Remote
Characteristics:	Read/Write

12.6.1.2   Property Name: Text

PropertyID: text, 0x0002

Description: This property is set by the MC to represent the text to overlay the video image.

Type: String

Possible Values: Any text

Defined in: Local/Remote

Characteristics: Read/Write

12.6.1.3   Property Name: Text X Position

PropertyID: textxp, 0x0003

Description: This property is set by the MC to represent the horizontal "X" position of the bottom left-hand corner of a text. 0 represents the left-hand side of a window, 10000 the right-hand side of a window.

Type: Integer

Possible Values: 0 – 10000

Defined in: Local/Remote

Characteristics: Read/Write

12.6.1.4   Property Name: Text Y Position

PropertyID: textyp, 0x0004

Description: This property is set by the MC to represent the vertical "Y" position of the bottom left-hand corner of a text. 0 represents the left-hand side of a window, 10000 the right-hand side of a window.

Type: Integer

Possible Values: 0 – 10000

Defined in: Local/Remote

Characteristics: Read/Write

12.6.1.5   Property Name: Text Height

PropertyID: texth, 0x0005

Description: This property is set by the MC to represent the vertical height of the text.

Type: Integer

Possible Values: 0 – 10000

Defined in: Local/Remote

Characteristics: Read/Write

12.6.1.6   Property Name: Text Width

PropertyID: textw, 0x0006

Description: This property is set by the MC to represent the horizontal width of a text.

Type: Integer

Possible Values: 0 – 10000

Defined in: Local/Remote

Characteristics: Read/Write

12.6.1.7   Property Name: Text Transparency

PropertyID: texttrans, 0x0007

Description: This property is set by the MC to represent the transparency of the text. 0 means completely opaque, 65535 means completely transparent.

Type: Integer

Possible Values: 0 – 65535

Defined in: Local/Remote

Characteristics: Read/Write

12.6.1.8   Property Name: Text Background Transparency

PropertyID: textbtrans, 0x0008

Description: This property is set by the MC to represent the transparency of the text background. 0 means completely opaque, 65535 means completely transparent.

Type: Integer

Possible Values: 0 – 65535

Defined in: Local/Remote

Characteristics: Read/Write

12.6.1.9   Property Name: Text Colour

PropertyID: textcolor, 0x0009

Description: This property is set by the MC to represent the colour of the text.

Type: sub-list of type integer

Possible Values:

Red	Green	Blue

where:

Red: The level of red component in the colour   *Value: 0 – 65535*

Green: The level of green component in the colour   *Value: 0 – 65535*

Blue: The level of blue component in the colour   *Value: 0 – 65535*

Defined in:	Local/Remote
Characteristics:	Read/Write

12.6.1.10 Property Name: Text Background Colour

PropertyID:	textbcolor, 0x000a
Description:	This property is set by the MC to represent the colour of the text background.
Type:	sub-list of type integer

Possible Values:

Red	Green	Blue

where:

Red:	The level of red component in the colour	*Value: 0 – 65535*
Green:	The level of green component in the colour	*Value: 0 – 65535*
Blue:	The level of blue component in the colour	*Value: 0 – 65535*

Defined in:	Local/Remote
Characteristics:	Read/Write

12.6.1.11 Property Name: Relative text font size

PropertyID:	textfontsize, 0x000b
Description:	This property is set by the MC to represent the relative text font size.
Type:	Enumeration
Possible Values:	small (0x0001)
	normal (0x0002) [Default]
	large (0x0003)

Defined in:	Local/Remote
Characteristics:	Read/Write

12.6.2 Events

None.

12.6.3 Signals

None.

12.6.4 Statistics

None.

12.6.5 Procedures

The *top* package allows the MC to specify the text to be displayed as an overlay to a certain output video stream. This allows the MC to add text labels to the video images. This package may be used together with *vwp* to add text overlay to individual windows. It is possible to add multiple text labels to the same window using *top/textid*. Where multiple text overlays are used the characteristics of each text overlay should be described in separate property groups.

The *top/textid* property assigns an identity to a text overlay that is unique within a termination or within *vwp/wid* if it is specified.

The properties *top/textxp, top/textyp, top/texth, top/textw* describe the positioning of the text in the output stream.

The properties *top/texttrans, top/textbtrans, top/textcolor, top/textbcolor* describe the colour and the transparency level of the text and its border.

The following example represents two windows, the first one contains two labels and the second one contains just one.

Propery group 1

vwp/wid=1, top/textid=1, top/textxp=500, top/textyp=500, top/texth=500, top/textw=8000, top/text="Window 1"

Propery group 2

vwp/wid=1, top/textid=2, top/textxp=500, top/textyp=8500, top/texth=500, top/textw=8000, top/text="Video"

Propery group 3

vwp/wid=2, top/textid=1, top/textxp=500, top/textyp=500, top/texth=500, top/textw=8000, top/text="Window 2"

12.6.6 Error Code

None.

12.7 Border and Background Package

Package Name:	Border and Background Package
PackageID:	bbp, 0x00a2
Description:	This package describes a number of properties that allow an MC to specify the borders and the background of the video image. This package may be used on its own or together with the Video Window Package to specify the borders and the background of the individual windows.
Version:	1
Designed to be extended only:	No
Extends:	None

12.7.1 Properties

12.7.1.1 Property Name: Vertical Border Thickness

PropertyID:	bvthick, 0x0001
Description:	This property is set by the MC to represent the vertical thickness of border of the video image. If the value is 0 then the vertical border is absent. The border size is calculated assuming that the video image has coordinates from 0 to 10000. I.e. if the *bvthick* is 100 then coordinates 0 to 99 and 9901 to 10000 occupied by the border and coordinates 100 to 9900 occupied by the video image.

Type:	Integer

Possible Values:	0 – 10000

Defined in:	Local/Remote

Characteristics:	Read/Write

12.7.1.2 Property Name: Horizontal Border Thickness

PropertyID:	bhthick, 0x0002

Description:	This property is set by the MC to represent the horizontal thickness of border of the video image. If the value is 0 then the horizontal border is absent. The border size is calculated assuming that the video image has coordinates from 0 to 10000. I.e. if the *bhthick* is 100 then coordinates 0 to 99 and 9901 to 10000 occupied by the border and coordinates 100 to 9900 occupied by the video image.

Type:	Integer

Possible Values:	0 – 10000

Defined in:	Local/Remote

Characteristics:	Read/Write

12.7.1.3 Property Name: Border Colour

PropertyID:	bcolor, 0x0003

Description:	This property is set by the MC to represent the colour of the borders of the video image.

Type:	sub-list of type integer

Possible Values:

Red	Green	Blue

where:

Red:	The level of red component in the colour	*Value: 0 – 65535*
Green:	The level of green component in the colour	*Value: 0 – 65535*
Blue:	The level of blue component in the colour	*Value: 0 – 65535*

Defined in:	Local/Remote

Characteristics:	Read/Write

12.7.2 Events

None.

12.7.3 Signals

None.

12.7.4 Statistics

None.

12.7.5 Procedures

The *bbp* package allows the MC to specify the text to be displayed on top of a certain output video stream.

The properties *bbp/bvthick, bbp/bhthick, bbp/bcolor* describe the dimentions and the colour of the border.

The following example represents a window with red border.

vwp/wid=1, bbp/bvthick=100, bbp/ bhthick=100, bbp/bcolor=65535,0,0

12.7.6 Error Code

None.

13 Data conferencing

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