

ISO/IEC 29341-9-13:2008-11 (E)

Information technology_ - UPnP Device Architecture_ - Part_9-13: Imaging Device Control Protocol_ - Scan Service

CONTENTS

FOREWORD	5
ORIGINAL UPNP DOCUMENTS (informative)	7
1 Overview and Scope	9
2 Service Modeling Definitions	10
2.1 ServiceType	10
2.2 State Variables	10
2.2.1 <i>JobName</i>	11
2.2.2 <i>FailureCode</i>	11
2.2.3 <i>State</i>	12
2.2.4 <i>StateReason</i>	12
2.2.5 <i>ImageFormat</i>	12
2.2.6 <i>CompressionFactor</i>	12
2.2.7 <i>ImageType</i>	12
2.2.8 <i>Color Type and BitDepth</i>	13
2.2.9 <i>ColorSpace</i>	14
2.2.10 <i>UseFeeder</i>	14
2.2.11 <i>BaseName</i>	14
2.2.12 <i>AppendSideNumber</i>	14
2.2.13 <i>SideCount</i>	15
2.2.14 <i>SideNumber</i>	15
2.2.15 <i>Destination</i>	15
2.2.16 <i>Resolution</i>	15
2.2.17 <i>ScanLength</i>	15
2.2.18 <i>DeviceID</i>	16
2.2.19 <i>HeightLimit, WidthLimit, XValueLimit, YValueLimit</i>	16
2.2.20 <i>Timeout</i>	17
2.2.21 <i>ErrorTimeout</i>	17
2.2.22 RegistrationID	17
2.2.23 JobID	18
2.2.24 DestinationID	18
2.3 Eventing and Moderation	19
2.4 Action Set	20
2.4.1 (Void) StartScan(RegistrationIDIn, UseFeederIn, SideCountIn, JobNameIn, ResolutionIn, ImageXOffsetIn, ImageYOffsetIn, ImageWidthIn, ImageHeightIn, ImageFormatIn, CompressionFactorIn, ImageTypeIn, ColorTypeIn, BitDepthIn, ColorSpaceIn, BaseNameIn, AppendSideNumberIn, TimeoutIn, ActualTimeoutOut, JobIDOut, ActualWidthOut, ActualHeightOut)	21
2.4.2 (Void) Start(JobIDIn, UseFeederIn, SideCountIn)	22
2.4.3 (Void) Stop(JobIDIn)	23
2.4.4 (Void) Abort(JobIDIn)	23
2.4.5 (Void) SetConfiguration(JobIDIn, JobNameIn, ResolutionIn, ImageXOffsetIn, ImageYOffsetIn, ImageWidthIn, ImageHeightIn, ImageFormatIn, CompressionFactorIn, ImageTypeIn, ColorTypeIn, BitDepthIn, ColorSpaceIn, BaseNameIn, AppendSideNumberIn, TimeoutIn, ActualTimeoutOut, ActualWidthOut, ActualHeightOut)	24
2.4.6 (Void) GetConfiguration(JobNameOut, ResolutionOut, ImageXOffsetOut, ImageYOffsetOut, ImageWidthOut, ImageHeightOut, ImageFormatOut, CompressionFactorOut, ImageTypeOut, ColorTypeOut, BitDepthOut, ColorSpaceOut, BaseNameOut, AppendSideNumberOut, TimeoutOut)	26
2.4.7 (Void) GetSideInformation(SideNumberOut, SideCountOut, ScanLengthOut)	26
2.4.8 (Void) GetDestination(JobIDIn, DestinationOut, DestinationIDOut)	27
2.4.9 (Void) GetState(StateOut, StateReasonOut, FailureCodeOut)	27
2.4.10 Common Error Codes	28
2.5 Theory of Operation	29

2.5.1	Sheet Size and Image Area	29
2.5.2	Flow Example: Feeder-less, Button-less Scan Operation with Pull Image Transfer	30
2.5.3	Flow Example: Feeder-less Scan Operation with Pull Image Transfer	31
2.5.4	Flow Example: Feeder-less Scan Operation with Push Image Transfer	31
2.5.5	Flow Example: Scan Operation with Feeder and Pull Image Transfer	32
2.5.6	Flow Example: Scan Operation with Feeder and Push Image Transfer	32
2.5.7	Scanner Timeouts and Feeder Interactions	33
2.5.8	Scanner Buffer Functionality	37
2.5.9	Using XHTML-Print To Send An Image Directly To A Printer	37
2.5.10	BaseName, SideNumber, AppendSideNumber and Destination	37
2.5.11	Relationship between the Scan Service and the Feeder Service	38
2.5.12	Relationship between the Scan Service and the ExternalActivity Service	39
2.5.13	Extending Scanner Functionality	39
3	XML Service Template for <u>Scan:1.0</u>	40
4	Testing	51
4.1	Syntax Testing	51
4.1.1	Issues	51
4.1.2	<i>StartScan</i> Syntax Test	51
Annex A	(informative) Scan to Print using Multipart MIME	52

LIST OF TABLES

Table 1: State Variables	10
Table 1.1: allowedValueList for FailureCode	11
Table 1.2: allowedValueList for ImageFormat	12
Table 1.3: allowedValueList for ImageType.....	13
Table 1.4: allowedValueList for ColorType	13
Table 1.5: allowedValueList for BitDepth.....	13
Table 1.6: Common Pixel Description Values	13
Table 1.7: allowedValueList for ColorSpace.....	14
Table 1.8: allowedValueList for UseFeeder.....	14
Table 1.9: allowedValueList for BaseName.....	14
Table 1.10: allowedValueList for AppendSideNumber	14
Table 1.11: allowedValueRange for SideCount.....	15
Table 1.12: allowedValueList for SideNumber.....	15
Table 1.13: allowedValueList for Resolution.....	15
Table 1.14: allowedValueRange for ScanLength	15
Table 1.15: allowedValueRange for HeightLimit.....	16
Table 1.16: allowedValueRange for WidthLimit.....	16
Table 1.17: allowedValueRange for XValueLimit	17
Table 1.18: allowedValueRange for YValueLimit	17
Table 1.19: allowedValueRange for Timeout	17
Table 2: Event Moderation.....	19
Table 3: Actions	20
Table 4: Arguments for StartScan	21
Table 5: Arguments for Start	22
Table 6: Arguments for Stop.....	23
Table 7: Arguments for Abort	23
Table 8: Arguments for SetConfiguration	24
Table 9: Arguments for GetConfiguration.....	26
Table 10: Arguments for GetSideInformation.....	26
Table 11: Arguments for GetDestination	27
Table 12: Arguments for GetState.....	27
Table 13: Common Error Codes.....	28
Table 14: Sheet and Image Area Dimensions.....	29
Table 15: Scanner State Transition Table	35
Table 16: Current State vs Service Actions.....	36
Table 17: Destination Names	38