

STRICTLY CONFIDENTIAL

**Broadcast Content Delivery
for Connected Television:
UK-DTT Variant**

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1 Introduction

The DTG D-Book specifies the "Requirements for Interoperability" which have been adopted by multiplex operators in implementing digital terrestrial television services within the UK.

This document specifies additional functionality not present in the D-Book that is required to support effective integration of broadcast delivery in a connected television environment.

Note: It is not envisaged that a large number of extensions to the broadcast specification will be needed. Those listed in the present version of this document are in response to requirements identified to date. This document may evolve over time in response to any further requirements that are identified.

2 MHEG-5 Extensions

D-Book 6.2 already allows for broadcast MHEG apps that can access content and services over IP. The following extension allows applications of any type to be launched over IP from a running MHEG application.

Note: Only application types supported by the device will be successfully launched.

2.1 Launching IP Delivered Applications from Broadcast Services

The MHEG engine shall support the ApplicationLaunch resident program, which is defined as follows:

Resident program			Invocation			Reference
			Typical Use		Never Fork	
Description	Name	Call	Fork			
ApplicationLaunch	ApL	✓				see below

ApplicationLaunch Hands control of execution to another application of an arbitrary type.

Synopsis ApL(location, type, [name, value]..., success)

Arguments

in/ out/ in-out	type	name	comment
input	GenericOctetString	location	Location of the application to run
input	GenericInteger	type	Integer indicating the type of application to run
input	GenericOctetString	name	List of name/value pairs to be passed to the application
input	GenericBoolean or GenericInteger or GenericOctetString or GenericObjectReference or GenericContentReference	value	

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in/ out/ in-out	type	name	comment
output	GenericBoolean (Shall provide an IndirectReference to a BooleanVariable)	success	True if the application started successfully, false otherwise.

Description

Causes a new application to be started with the specified arguments.

The MHEG application may continue to run or may be killed.

The application to run is specified by the location parameter and the type of application by the type parameter. The interpretation of the type parameter will be defined in a later revision of this specification.

GenericOctetString and GenericContentReference arguments are treated directly as strings. GenericInteger arguments are converted to strings as decimal integers with no leading zeros. GenericBoolean arguments are converted to the string "true" if true and to "false" if false.

GenericObjectReference arguments are converted to a string consisting of the GroupIdentifier (if any) followed by ",", (0x2C) followed by the ObjectNumber as a decimal integer with no leading zeros.

The resident program takes a variable number of arguments. One or more name/value pairs may be present. In any case where an invalid set of arguments is supplied (such as a missing value argument) the resident program call shall fail in accordance with D-Book 6.2 section 13.10.12.