Multimedia Codecs available in Symbian devices

Different S60 devices may have different multimedia codecs. There are similarities between S60 devices, but there are differences, as well. The mere presence of a codec (e.g. mp3) in a device does not tell too much to developers. We need to know what APIs can be used to access that codec.

This page has several purposes:

- Show which codecs are in different S60 devices (3rd edition) and what are the APIs through which they can be accessed
- Provide an application to check this info for upcoming S60 phones.

For the theory behind the tables, please take a look on the following articles and documents:

- S60 Multimedia in FN
- MMF Architecture
- Image and Video capturing

Devices

Click on a device to see detailed info about its codecs.

S60 3rd edition:

30H1

N91, N80, N92, N71, N73, E60, E70, E61, N75, E65, E61i

30H2

3250, 5500, E50, E62

30H3

N93

S60 3rd edition FP1:

31H1

N95, E90

31H2

6290, 6110, N76

S60 3rd edition FP2:

32H1

N78

Audio Codecs

API *(Codec type)*	AMR-WB (True Tones)	RealAudio 1 Voice, 7	RealAudio10	MP3	AAC (both AAC-LC and AAC-LTP)	eAAC+, AAC+	WMA	AMR-NB	VoIP (NB): G.711, iLBC, G729
DevSound, CMdaAudioOutputStream ***(Accelerated HwDevice)***	30H1, 30H3, 31H1	30H1	30H1	30H1, 30H3, 31H1	30H1, 30H3, 31H1	-	-	30H1, 30H3, 31H1	30H1, 30H3, 31H1
DevSound, CMdaAudioOutputStream ***(All-ARM HwDevice)***	30H2, 31H2	-	-	30H2, 31H2	-	-	-	30H2, 31H2	-
DevSound, CMdaAudioInputStream ***(Accelerated HwDevice)***	-	-	-	-	30H3	-	-	30H1, 30H3, 30H2, 31H2,	30H1, 30H3, 31H1

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								31H1	
DevSound, CMdaAudioInputStream ***(All-ARM HwDevice)***	-	-	-	-	-	-	-	-	-
CVideoPlayerUtility API ***(RealPlayer codec/wrapper)***	30H1, 30H2, 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	-	(11)	-	30H1, 30H2, 30H3, 31H2, 31H1	-
CMdaAudioPlayerUtility ***(CMMFController)***	30H1, 30H2, 30H3, 31H2, 31H1	-	-	30H1, 30H2, 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	30H1(7), 30H2(10), 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	-
CMdaAudioRecorderUtility ***(CMMFController)***	-	-	-	-	(1)	-	-	30H1, 30H2, 30H3, 31H2, 31H1	-
CMMFCodec (99) ***(decoder)***	30H1(2), 30H2(3), 30H3, 31H2, 31H1	-	-	30H1(6), 30H2(9), 30H3, 31H2, 31H1	30H1(5), 30H2, 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	30H1, 30H2, 30H3, 31H2, 31H1	30H1(4), 30H2(8), 30H3, 31H2, 31H1	-
CMMFCodec ***(encoder)***	-	-	-	-	30H1, 30H2, 30H3, 31H2, 31H1	-	-	30H1(4), 30H2(8), 30H3, 31H2, 31H1	-

- (1) CMMFCodec-based AAC encoder present, but there is no MMF Controller to use this codec alone. AAC encoding used in capturing video from phone's camera, or getting AAC emcapsulated inside mp4 file format (without video).
- (2) without (not in): N80, N91
- (3) without (not in): 5500
- (4) without (not in): E60, E61, E65, E70, N91
- (5) without (not in): N92,
- (6) without (not in): N91
- (7) without (not in): E60, E61, E70
- (8) without (not in): 5500, E50,
- (9) without (not in): 5500
- (10) without (not in): E62

Video Codecs

API & Codec type	RV 8/9/10	H.263/MPEG-4	H.264
MDF DevVideoRecord (Accelerated HwDevice)	-	30H1, 30H3, 31H1	-
MDF DevVideoRecord (All-ARM HwDevice)	-	30H2(2), 30H3, N75, 31H2, 31H1	-
CVideoPlayerUtility			

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(RealPlayer codec/wrapper)	30H1 (1), 30H2, 30H3, 31H1, 31H2	30H1 (1), 30H2, 30H3, 31H1, 31H2	30H1 (1,3), 30H3, 31H1, 31H2

- (1) RealVideo, H.263/MPEG-4 and H.264 codecs in 30H1 are implemented in DSP
- (2) Without (not in): E62
- (3) Without (not in): Eseries phones (E60, E61, E70)

FAQ

Q: I know that Device X has the codec Y, but the codec is not listed in the tables above. Why?

A: This is because the codec can not be accessed by any of the APIs listed in the tables.

The Application

- SIS file: codecs_public_armv5_v7.SIS
- Sources: Codecs_public_release20061220.zip

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