CLAIMS

1. A method of storing and delivering a video bitstream conforming to a video coding standard based on a video file format, the method comprising:

receiving at a file format level separate from encoded media data, a configuration record for decoding a bitstream of video data, wherein the configuration record for the bitstream includes a toolset indication syntax element that includes information identifying, from a set of video decoding tools, tools that are required to decode the bitstream associated with the configuration record;

based on the toolset indication syntax element in the configuration record, determining whether the video file can be decoded by a video decoder; and

based on a determination that the video file can be decoded by the video decoder, retrieving the bitstream associated with the configuration record and outputting the bitstream to the video decoder for decoding.

2. The method of claim 1, further comprising:

receiving a multipurpose internet mail extensions (MIME) type parameter that includes a key value pair, wherein the key indicates that the MIME type identifies the video decoding tools, and the value identifies the tools, from the video decoding tools, that are required to decode the bitstream.

3. The method of claim 1, wherein the bitstream of video data comprises one or more parameter sets, and wherein each of the tools identified in the configuration record as being required to decode the bitstream are enabled in at least one of the one or more parameter sets.

4. The method of claim 1, wherein the toolset indication syntax element that includes information identifying the tools that are required to decode the bitstream associated with the configuration record identifies all tools that are required to decode the bitstream associated with the configuration record.

5. The method of claim 1, wherein the configuration record is formatted in accordance with the essential video coding (EVC) standard.

6. The method of claim 1, wherein the toolset indication syntax element is signaled in a configuration box of file format information.

7. The method of claim 1, wherein the toolset indication syntax element comprises an unsigned 32-bit integer value.

8. The method of claim 7, wherein bits of the unsigned 32-bit integer value each correspond to a unique tool for decoding the bitstream.

9. The method of claim 1, wherein the configuration record for the bitstream includes a profile syntax element before the toolset indication syntax element.

10. The method of claim 1, wherein the configuration record for the bitstream includes a level syntax element before the toolset indication syntax element.

11. The method of claim 1, wherein the configuration record for the bitstream includes a chroma format syntax element after the toolset indication syntax element.

12. The method of claim 1, wherein the file format level configuration record comprises data that encapsulates video coding layer (VCL) level encoded media data in the bitstream of the video data, wherein the VCL level encoded media data includes one or more parameter sets, and wherein each of the tools identified in the configuration record as being required to decode the bitstream are enabled in at least one of the one or more parameter sets.

13. A device for storing and delivering a video bitstream conforming to a video coding standard based on a video file format, the device comprising:
a memory; and
one or more processors implemented in the circuitry, coupled to the memory, and configured to:

receive at a file format level separate from encoded media data, a configuration record for decoding a bitstream of video data, wherein the configuration record for the bitstream includes a toolset indication syntax element that includes information

identifying, from a set of video decoding tools, tools that are required to decode the bitstream associated with the configuration record;

based on the toolset indication syntax element in the configuration record, determine whether the video file can be decoded by a video decoder; and

based on the determination that the video file can be decoded by the video decoder , retrieving the bitstream associated with the configuration record the bitstream and outputting the bitstream to the video decoder for decoding.

14. The device of claim 13, wherein the one or more processors are further configured to:

receive a multipurpose internet mail extensions (MIME) type parameter that includes a key value pair, wherein the key indicates that the MIME type identifies the video decoding tools, and the value identifies the tools, from the video decoding tools, that are required to decode the bitstream.

15. The device of claim 13, wherein the bitstream of video data comprises one or more parameter sets, and wherein each of the tools identified in the configuration record as being required to decode the bitstream are enabled in at least one of the one or more parameter sets.

16. The device of claim 13, wherein the toolset indication syntax element that includes information identifying the tools that are required to decode the bitstream associated with the configuration record identifies all tools that are required to decode the bitstream associated with the configuration record.

17. The device of claim 13, wherein the configuration record is formatted in accordance with the essential video coding (EVC) standard.

18. The device of claim 13, wherein the toolset indication syntax element is signaled in a configuration box of file format information.

19. The device of claim 13, wherein the toolset indication syntax element comprises an unsigned 32-bit integer value.

20. The device of claim 19, wherein bits of the unsigned 32-bit integer value each correspond to a unique tool for decoding the bitstream.

21. The device of claim 13, wherein the configuration record for the bitstream includes a profile syntax element before the toolset indication syntax element.

22. The device of claim 13, wherein the configuration record for the bitstream includes a level syntax element before the toolset indication syntax element.

23. The device of claim 13, wherein the configuration record for the bitstream includes a chroma format syntax element after the toolset indication syntax element.

24. The device of claim 13, wherein the file format level data configuration record comprises that encapsulates video coding layer (VCL) level encoded media data in the bitstream of the video data, wherein the VCL level encoded media data includes one or more parameter sets, and wherein each of the tools identified in the configuration record as being required to decode the bitstream are enabled in at least one of the one or more parameter sets.

25. A computer-readable storage medium storing instructions for storing and delivering a video bitstream conforming to a video coding standard based on a video file format that when executed by one or more processors cause the one or more processors to:

receive at a file format level separate from encoded media data, a configuration record for decoding a bitstream of the video data, wherein the configuration record for the bitstream includes a toolset indication syntax element that includes information identifying, from a set of video decoding tools, tools that are required to decode the bitstream associated with the configuration record;

based on the toolset indication syntax element in the configuration record, determine whether the video file can be decoded by a video decoder; and

based on a determination that the video file can be decoded by the video decoder, retrieving the bitstream associated with the configuration record outputting the bitstream to a video decoder for decoding.

26. The computer-readable storage medium of claim 25, wherein the instructions cause the one or more processors to:

receive a multipurpose internet mail extensions (MIME) type parameter that includes a key value pair, wherein the key indicates that the MIME type identifies the video decoding tools, and the value identifies the tools, from the video decoding tools, that are required to decode the bitstream.

27. The computer-readable storage medium of claim 25, wherein the bitstream of video data comprises one or more parameter sets, and wherein each of the tools identified in the configuration record as being required to decode the bitstream are enabled in at least one of the one or more parameter sets.

28. The computer-readable storage medium of claim 25, wherein the toolset indication syntax element that includes information identifying the tools that are required to decode the bitstream associated with the configuration record identifies all tools that are required to decode the bitstream associated with the configuration record.

29. The computer-readable storage medium of claim 25, wherein the file format level configuration record comprises data that encapsulates video coding layer (VCL) level encoded media data in the bitstream of the video data, wherein the VCL level encoded media data includes one or more parameter sets, and wherein each of the tools identified in the configuration record as being required to decode the bitstream are enabled in at least one of the one or more parameter sets.

30. An apparatus for storing and delivering a video bitstream conforming to a video coding standard based on a video file format, the apparatus comprising:

means for receiving a configuration record for decoding a bitstream of the video data, the configuration record at a file format level separate from encoded media data, wherein the configuration record for the bitstream includes a toolset indication syntax element that includes information identifying, from a set of video decoding tools, tools that are required to decode the bitstream associated with the configuration record;

means for determining whether to retrieve the bitstream associated with the configuration record, the means using the toolset indication syntax element in the

configuration record to determine whether the video file can be decoded by a video decoder;

means for retrieving the bitstream associated with the configuration record in response to the determination that the bitstream associated with the configuration record can be decoded by a video decoder; and

means for outputting the bitstream to a video decoder for decoding.