AMENDED CLAIMS
received by the International Bureau on 19 December 2012 (19.12.12)

WHAT IS CLAIMED IS:

1. A method performed by a computer system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program compiled to operate on any one of the plurality of user-computing platform types, the application program operating on the user-computing platform;

wherein transmitting the script causes the script to be interpreted by the application program operating on the user-computing platform to cause the interpreted script to directly decode encoded video data accessible to the user-computing platform into decoded video data comprising one or more frame images.

2. A method according to claim 1 wherein transmitting the script causes the script to be interpreted by the application program to natively display the one or more frame images on the user-computing platform.

3. A method according to claim 1 wherein transmitting the script causes the script to be interpreted by the application program to cause the interpreted script to directly decode encoded audio data accessible to the user-computing platform into decoded audio data.

4. A method according to claim 3 wherein transmitting the script causes the script to be interpreted by the application program to: render the decoded video data by displaying the one or more frame images on the user-computing platform; and render the decoded audio data by playing back the decoded audio data on the user computing platform.

5. A method according to claim 3 wherein transmitting the script causes the script to be interpreted by the application program to: natively render the decoded video

data by displaying the one or more frame images on the user-computing platform; and natively render the decoded audio data by playing back the decoded audio data.

6. A method according to any one of claims 4 or 5 wherein the video data and audio data are associated with one another as parts of a video content item, the one or more frame images comprise a plurality of frame images and wherein transmitting the script causes the script to be interpreted by the application program to cause the interpreted script to directly synchronize the displaying of the frame images with the playback of the decoded audio data.

7. A method according to any one of claim 4 or 5 wherein the video data and audio data are associated with one another as parts of a video content item, wherein the one or more frame images comprise a plurality of frame images and wherein transmitting the script causes the script to be interpreted by the application program to ascertain an audio playback time reference associated with the playback of the decoded audio data and causes the interpreted script to directly synchronize the displaying of the frame images with the playback of the decoded audio data based on the audio playback time reference.

8. A method according to claim 7 wherein synchronizing the displaying of the frame images with the playback of the decoded audio data comprises at least one of: advancing the display of frame images out of order by skipping the display of one or more frame images based on a determination that the rendering of the video data is behind the audio playback time reference by a first threshold amount of time; and causing one or more frame images to be displayed for time periods longer than those dictated by a frame rate of the video data based on a determination that the rendering of the video data is ahead of the audio playback time reference by a second threshold amount of time.

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9. A method according to claim 7 wherein synchronizing the displaying of the frame images with the playback of the decoded audio data comprises: using the audio playback time reference to determine a current frame index; and if the frame image associated with the current frame index is ready to be displayed, displaying the frame image associated with the current frame index.

10. A method according to claim 9 wherein synchronizing the displaying of the frame images with the playback of the decoded audio data comprises determining that the frame image associated with the current frame index is behind one or more other frame images in a frame image queue and if so skipping the displaying of the one or more other frame images.

11. A method according to claim 9 wherein synchronizing the displaying of the frame images with the playback of the decoded audio data comprises determining that the frame image associated with the current frame index is not ready to be displayed and, in dependence on such determination, initiating a drop frame action, the drop frame action comprising one or more of: recording an indication that the frame image associated with the current frame index was not ready for rendering; causing the playback of decoded audio data to be paused or slowed; causing a rate of decoding of the encoded video data to be increased; causing a switch to video data having a lower frame rate; causing a switch to effective down-sampling of the video data by decoding a subset of the image frames.

12. A method according to any one of claims 4 or 5 wherein transmitting the script causes the script to be interpreted by the application program to simulate a multi-threaded execution environment by: iteratively scheduling and performing a first simulated thread which comprises directly decoding the encoded video data into the frame images; and iteratively scheduling and performing a second simulated thread which comprises rendering the video data by displaying the frame images.

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13. A method according to claim 12 wherein transmitting the script causes the script to be interpreted by the application program to simulate a multi-threaded execution environment by: iteratively scheduling and performing a third simulated thread which comprises directly decoding the encoded audio data into the decoded audio data; and iteratively scheduling and performing a fourth simulated thread which comprises implementing an audio renderer interface which supplies decoded audio data to an audio renderer.

14. A method according to claim 4 wherein transmitting the script causes the script to be interpreted by the application program to simulate a multi-threaded execution environment by iteratively scheduling and performing a method which, on each iteration makes one or more logical inquiries into one or more corresponding conditions and, in dependence on the one or more of the corresponding conditions, selects and performs one of:

a first simulated thread which comprises directly decoding the encoded video data into the frame images;

a second simulated thread which comprises rendering the video data by displaying the frame images;

a third simulated thread which comprises directly decoding the encoded audio data into the decoded audio data;

a fourth simulated thread which comprises implementing an audio renderer interface which provides the decoded audio data to an audio renderer.

15. A method according to claim 12 wherein performing the first simulated thread comprises: dividing the first simulated thread into a plurality of sub-components; between the performance of pairs of sub-components, making one or more logical inquiries into one or more corresponding conditions and, in dependence on the one or more corresponding conditions, temporarily interrupting the first simulated thread to select and perform an iteration of one of: the second simulated thread; and another simulated thread which involves implementing an audio renderer interface which provides decoded audio data to an audio renderer.

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16. A method according to any one of claims 4 or 5 wherein rendering the video data by displaying the one or more frame images comprises alpha-blending at least one pair of frame images together.

17. A method according to any one of claims 4 or 5 wherein rendering the video data by displaying the one or more frame images comprises, at each of one or more times between displaying a first one of the frame images and displaying a second one of the frame images, displaying an alpha-blended image comprising an alpha-blend of the first one of the frame images and the second one of the frame images.

18. A method according to claim 17 wherein, at each of the one or more times between displaying the first one of the frame images and displaying the second one of the frame images, displaying the alpha-blended image comprises alpha-blending the second one of the frame images onto a preceding displayed image using an alpha-blending coefficient α provided by:

$$\alpha = [\beta + 1 - \mathrm{mod}(f\#, \beta)]^{-1}$$

where:

- β is a down-sampling factor equal to a number of the one or more times +1;
- $f\#$ is an index referring to a number of a current one of the one or more times; and
- $mod(x,y)$ is a modulo operator which returns the whole number remainder of x divided by y.

19. A method according to any one of claims 1 to 18 wherein transmitting the script causes the script to be interpreted by the application program to cause the interpreted script to directly implement at least a portion of a video data queue monitor which directly monitors a video data queue to determine its status and, in dependence on the determined status of the video data queue, determines whether to fetch more encoded video data.

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20. A method according to claim 19 wherein transmitting the script causes the script to be interpreted by the application program to implement a second portion of the video queue monitor which fetches more encoded video data using an AJAX XMLHttpRequest object.

21. A method according to claim 19 wherein transmitting the script causes the script to be interpreted by the application program to implement a second portion of the video queue monitor which fetches more encoded video data by alternatingly using a plurality of AJAX XMLHttpRequest objects.

22. A method according to any one of claims 4 or 5 wherein transmitting the script causes the script to be interpreted by the application program to directly de-multiplex the video data from the audio data.

23. A method according to any one of claims 1 to 22 wherein transmitting the script causes the script to be interpreted by the application program to cause the interpreted script to directly implement a frame buffer monitor which monitors a frame image buffer to determine its status and, in dependence on the determined status of the frame image buffer, determines whether to decode more of the encoded video data.

24. A method according to any one of claims 1 to 23 wherein transmitting the script causes the script to be interpreted by the application program to cause the interpreted script to directly convert an image file format of at least one of the frame images from a first image file format into a second image file format, the second image file format capable of being natively rendered by the application program.

25. A method according to any one of claims 1 to 24 comprising transmitting the encoded video data to the user-computing platform.

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26. A method according to claim 25 comprising encoding the video content into the encoded video data prior to transmitting the encoded video data to the user-computing platform and wherein encoding the video content comprises:

converting an image file format of at least one of the frame images from a first image file format into a second image file format, the second image file format capable of being natively rendered by the application program operating on the user-computer platform.

27. A method according to claim 25 comprising encoding the video content into the encoded video data prior to transmitting the encoded video data to the user-computing platform and wherein encoding the video content comprises:

for at least a first one of the frame images provided in a first file format: analyzing content of the first one of frame images; selecting one among a plurality of secondary image file formats based on the analysis of the content of the first one of the frame images; and if the first file format differs from the selected one of the secondary image file formats, converting the image file format of the first one of the frame images into the selected one of the secondary file formats; and

for at least a second one of frame images provided in a second file format: analyzing content of the second one of frame images; selecting a different one among the plurality of secondary image file formats based on the analysis of the content of the second one of the frame images; and if the second file format differs from the selected different one of the secondary image file formats, converting the image file format of the first one of the frame images into the selected different one of the secondary file formats;

wherein each of the plurality of secondary image file formats is capable of being natively rendered by the application program.

28. A method according to any one of claims 1 to 27 wherein transmitting the script causes the script to be interpreted by the application program to cause the interpreted script to directly convert at least one of the frame images into a

content-transfer format, the content-transfer format capable of being passed by a script interpreter interpreting the script to the application program.

29. A method according to any one of claims 1 to 27 wherein transmitting the script causes the script to be interpreted by the application program to cause the interpreted script to directly convert at least one of the frame images into a base64 content-transfer format.

30. A method according to claim 25 comprising encoding the video content into the encoded video data prior to transmitting the encoded video data to the user-computing platform and wherein encoding the video content comprises: encoding at least one of the frame images in a content-transfer format whereby the content-transfer encoded frame images can be passed by a script interpreter interpreting the script to the application program.

31. A method according to claim 25 comprising encoding the video content into the encoded video data prior to transmitting the encoded video data to the user-computing platform and wherein encoding the video content comprises: for each of the plurality of frame images: encoding the frame image in a content-transfer format whereby the content-transfer encoded frame images can be passed by a script interpreter interpreting the script to the application program; and padding the content-transfer encoded frame image to a particular size with padding data unrelated to the frame image.

32. A method according to claim 25 comprising encoding video content into the encoded video data prior to transmitting the encoded video data to the user-computing platform and wherein encoding the encoded video data comprises: encoding at least one of the frame images in a base64 content-transfer format.

33. A method according to any one of claims 1 to 32 wherein transmitting the script causes the script to be interpreted by the application program to natively convert

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at least one of the frame images into a corresponding image object capable of being natively rendered by the application program.

34. A method according to any one of claims 1 to 33 wherein the application program comprises an internet browser.

35. A method according to any one of claims 1 to 34 wherein the script is embedded in a HTML document.

36. A method according to claim 3 wherein the one or more frame images comprise a plurality of frame images and wherein transmitting the script causes the script to be interpreted by the application program to: render the audio data by playing back the decoded audio data; and render the video data by selecting a subset of the plurality of frame images and displaying the selected subset of the plurality of frame images.

37. A method according to any one of claims 4 or 5 wherein transmitting the script causes the script to be interpreted by the application program to query one or more characteristics of the user-computing platform and to change a file comprising the encoded video data accessible to the user-computing platform in dependence on the one or more queried characteristics of the user-computing platform.

38. A method according to any one of claims 4 or 5 wherein transmitting the script causes the script to be interpreted by the application program to query one or more characteristics of the user-computing platform and, in dependence on the one or more queried characteristics of the user-computing platform, to modify at least one characteristic of one or more of: the decoding of the encoded video data and the displaying of the one or more frame images.

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39. A method according to any one of claims 4 or 5 wherein transmitting the script causes the script to be interpreted by the application program to determine a data rate at which the encoded video data is transmitted to the user-computing platform and to change a file comprising the encoded video data transmitted to the user-computing platform in dependence on the determination.

40. A method according to any one of claims 4 or 5 wherein transmitting the script causes the script to be interpreted by the application program to determine a data rate at which the encoded video data is transmitted to the user-computing platform and, in dependence on the determination, to modify at least one characteristic of one or more of: the decoding of the encoded video data and the displaying of the frame images.

41. A method executed on a user-computing platform for rendering video content, the method comprising:

receiving a script at the user-computing platform, the script configured to be interpreted by an application program operating on the user-computing platform;

interpreting the script using the application program on the computer platform;

wherein interpreting the script causes the interpreted script to directly decode encoded video data accessible to the user-computing platform into decoded video data comprising one or more frame images.

42 A method according to claim 41 wherein interpreting the script causes the application program to natively display the one or more frame images on the user-computing platform.

43. A method according to claim 41 wherein interpreting the script causes the interpreted script to directly decode encoded audio data accessible to the user-computing platform into decoded audio data.

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44. A method according to claim 43 wherein interpreting the script renders the decoded video data by displaying the one or more frame images on the user-computing platform and renders the decoded audio data by playing back the decoded audio data on the user computing platform.

45. A method according to claim 43 wherein interpreting the script causes the application program to: natively render the decoded video data by displaying the one or more frame images on the user-computing platform; and natively render the decoded audio data by playing back the decoded audio data.

46. A method according to any one of claims 44 or 45 wherein the video data and audio data are associated with one another as parts of a video content item, wherein the one or more frame images comprise a plurality of frame images and wherein interpreting the script causes the interpreted script to directly synchronize the displaying of the frame images with the playback of the decoded audio data.

47. A method according to any one of claims 44 or 45 wherein the video data and audio data are associated with one another as parts of a video content item, wherein the one or more frame images comprise a plurality of frame images and wherein interpreting the script ascertains an audio playback time reference associated with the playback of the decoded audio data and causes the interpreted script to directly synchronize the displaying of the frame images with the playback of the decoded audio data based on the audio playback time reference.

48. A method according to claim 47 wherein synchronizing the displaying of the frame images with the playback of the decoded audio data comprises at least one of: advancing the display of frame images out of order by skipping the display of one or more frame images based on a determination that the rendering of the video data is behind the audio playback time reference by a first threshold amount of time; and causing one or more frame images to be displayed for time periods

longer than those dictated by a frame rate of the video data based on a determination that the rendering of the video data is ahead of the audio playback time reference by a second threshold amount of time.

49. A method according to claim 47 wherein synchronizing the displaying of the frame images with the playback of the decoded audio data comprises: using the audio playback time reference to determine a current frame index; and if the frame image associated with the current frame index is ready to be displayed, displaying the frame image associated with the current frame index.

50. A method according to claim 49 wherein synchronizing the displaying of the frame images with the playback of the decoded audio data comprises determining that the frame image associated with the current frame index is behind one or more other frame images in a frame image queue and if so skipping the displaying of the one or more other frame images.

51. A method according to claim 49 wherein synchronizing the displaying of the frame images with the playback of the audio data comprises determining that the frame image associated with the current frame index is not ready to be displayed and, in dependence on such determination, initiating a drop frame action, the drop frame action comprising one or more of: recording an indication that the frame image associated with the current frame index was not ready for rendering; causing the playback of decoded audio data to be paused or slowed; causing a rate of decoding of the encoded video data to be increased; causing a switch to video data having a lower frame rate; causing a switch to effective down-sampling of the video data by decoding a subset of the image frames.

52. A method according to any one of claims 44 or 45 wherein interpreting the script simulates a multi-threaded execution environment by: iteratively scheduling and performing a first simulated thread which comprises directly decoding the encoded video data into the frame images; and iteratively scheduling and

performing a second simulated thread which comprises rendering the video data by displaying the frame images.

53. A method according to claim 52 wherein interpreting the script simulates a multi-threaded execution environment by: iteratively scheduling and performing a third simulated thread which comprises directly decoding the encoded audio data into the decoded audio data; and iteratively scheduling and performing a fourth simulated thread which comprises implementing an audio renderer interface which supplies decoded audio data to an audio renderer.

54. A method according to any one of claims 44 or 45 wherein interpreting the script simulates a multi-threaded execution environment by iteratively scheduling and performing a method which, on each iteration makes one or more logical inquiries into one or more corresponding conditions and, in dependence on the one or more corresponding conditions, selects and performs one of:

a first simulated thread which comprises directly decoding the encoded video data into the frame images;

a second simulated thread which comprises rendering the video data by displaying the frame images;

a third simulated thread which comprises directly decoding the encoded audio data into the decoded audio data;

a fourth simulated thread which comprises implementing an audio renderer interface which provides the decoded audio data to an audio renderer.

55. A method according to claim 52 wherein performing the first simulated thread comprises: dividing the first simulated thread into a plurality of sub-components; between the performance of pairs of sub-components, making one or more logical inquiries into one or more corresponding conditions and, in dependence on the one or more corresponding conditions, temporarily interrupting the first simulated thread to select and perform an iteration of one of: the second simulated thread;

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and another simulated thread which involves implementing an audio renderer interface which provides decoded audio data to an audio renderer.

56. A method according to any one of claims 44 or 45 wherein rendering the video data by displaying the one or more frame images comprises alpha-blending at least one pair of frame images together.

57. A method according to any one of claims 44 or 45 wherein rendering the video data by displaying the one or more frame images comprises, at each of one or more times between displaying a first one of the frame images and displaying a second one of the frame images, displaying an alpha-blended image comprising an alpha-blend of the first one of the frame images and the second one of the frame images.

58. A method according to claim 57 wherein, at each of the one or more times between displaying the first one of the frame images and displaying the second one of the frame images, displaying the alpha-blended image comprises alpha-blending the second one of the frame images onto a preceding displayed image using an alpha-blending coefficient α provided by:

$$\alpha = [\beta + 1 - \mathrm{mod}(f\#, \beta)]^{-1}$$

where:

- β is a down-sampling factor equal to a number of the one or more times +1;
- $f\#$ is an index referring to a number of a current one of the one or more times; and
- $mod(x,y)$ is a modulo operator which returns the whole number remainder of x divided by y.

59. A method according to any one of claims 41 to 58 wherein interpreting the script causes the interpreted script to directly implement at least a portion of a video data queue monitor which directly monitors a video data queue to determine its

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status and, in dependence on the determined status of the video data queue, determines whether to fetch more encoded video data.

60. A method according to claim 59 wherein interpreting the script implements a second portion of the video queue monitor which fetches more encoded video data using an AJAX XMLHttpRequest object.

61. A method according to claim 59 wherein interpreting the script implements a second portion of the video queue monitor which fetches more encoded video data by alternatingly using a plurality of AJAX XMLHttpRequest objects.

62. A method according to any one of claims 44 to 45 wherein interpreting the script causes the application program to natively de-multiplex the video data from the audio data.

63. A method according to any one of claims 41 to 62 wherein interpreting the script causes the interpreted script to directly implement a frame buffer monitor which monitors a frame image buffer to determine its status and, in dependence on the determined status of the frame image buffer, determines whether to decode more of the encoded video data.

64. A method according to any one of claim 41 to 63 wherein interpreting the script causes the interpreted script to directly convert an image file format of at least one of the frame images from a first image file format into a second image file format, the second image file format capable of being natively rendered by the application program.

65. A method according to any one of claims 41 to 64 wherein interpreting the script causes the interpreted script to directly convert at least one of the frame images into a content-transfer format, the content-transfer format capable of being passed by a script interpreter interpreting the script to the application program.

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66. A method according to any one of claims 41 to 64 wherein interpreting the script causes the interpreted script to directly convert at least one of the frame images into a base64 content-transfer format.

67. A method according to any one of claims 41 to 66 wherein interpreting the script causes the application program to natively convert at least one of the frame images into a corresponding image object capable of being natively rendered by the application program.

68. A method according to any one of claims 41 to 67 wherein the application program comprises an internet browser.

69. A method according to any one of claims 1 to 68 wherein the script is embedded in a HTML document.

70. A method according to claim 43 wherein the one or more frame images comprise a plurality of frame images and wherein interpreting the script renders the audio data by playing back the decoded audio data and renders the video data by selecting a subset of the plurality of frame images and displaying the selected subset of the plurality of frame images.

71. A method according to any one of claims 44 or 45 wherein interpreting the script queries one or more characteristics of the user-computing platform and changes a file comprising the encoded video data accessible to the user-computing platform in dependence on the one or more queried characteristics of the user-computing platform.

72. A method according to any one of claims 44 or 45 wherein interpreting the script queries one or more characteristics of the user-computing platform and, in dependence on the one or more queried characteristics of the user-computing

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platform, modifies at least one characteristic of one or more of: the decoding of the encoded video data and the displaying of the one or more frame images

73. A method according to any one of claims 44 or 45 wherein interpreting the script determines a data rate at which the encoded video data is received by the user-computing platform and changes a file comprising the encoded video data accessible to the user-computing platform in dependence on the determination.

74. A method according to any one of claims 44 or 45 wherein interpreting the script determines a data rate at which the encoded video data is received by the user-computing platform and, in dependence on the determination, modifies at least one characteristic of one or more of: the decoding of the encoded video data and the displaying of the one or more frame images

75. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising:

a server computing device for transmitting a script to the user-computing platform, the script configured to be interpreted by an application program compiled to operate on any one of the plurality of user-computing platform types; and

wherein transmitting the script causes the script to be interpreted by the application program operating on the user-computing platform to cause the interpreted script to directly decode encoded video data accessible to the user-computing platform into decoded video data comprising one or more frame images.

76. A system according to claim 75 comprising any of the features or combinations of features of claims 2-40.

77. A system for rendering video content on a user-computer platform, the system comprising a processor configured to provide:

a decoding element for decoding encoded video data accessible to the user-computing platform into decoded video data comprising one or more frame images; and

wherein the processor is configured to provide the decoding element by executing an application program on the user-computing platform, the application interpreting a cross-platform script which causes the interpreted script to directly decode the video data.

78. A system according to claim 77 comprising any of the features or combinations of features of claims 42-74.

79. A method executed by a computer system for rendering video content embodied by video data and associated audio data received by a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program compiled to operate on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

render the video data by displaying frame images which make up the video data;

playback the associated audio data;

ascertain an audio playback time reference associated with the playback of the associated audio data; and

cause the interpreted script to directly synchronize the displaying of the frame images with the playback of the associated audio data based on the audio playback time reference.

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80. A method according to claim 79 comprising any of the features or combinations of features of claims 1-40.

81. A system for rendering video content embodied by video data and associated audio data received by a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising:

a server computing device for transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

render the video data by displaying frame images which make up the video data;

playback the associated audio data;

ascertain an audio playback time reference associated with the playback of the associated audio data; and

cause the interpreted script to directly synchronize the displaying of the frame images with the playback of the associated audio data based on the audio playback time reference.

82. A system according to claim 81 comprising any of the features or combinations of features of claims 1-40.

83. A method executed on a user-computing platform for rendering video content embodied by video data and associated audio data received by the user-computing platform, the method comprising:

receiving a script at the user-computing platform, the script configured to be interpreted by an application program operating on the user-computing platform;

interpreting the script using the application program the application program to;

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render the video data by displaying frame images which make up the video data;

playback the associated audio data;

ascertain an audio playback time reference associated with the playback of the associated audio data; and

cause the interpreted script to directly synchronize the displaying of the frame images with the playback of the associated audio data based on the audio playback time reference.

84. A method according to claim 83 comprising any of the features or combinations of features of claims 41-74.

85. A system for rendering video content embodied by video data and associated audio data received by a user-computing platform, the system comprising a processor configured to execute an application program on the user-computing platform, the application program interpreting a cross-platform script to:

render the video data by displaying frame images which make up the video data;

playback the associated audio data;

ascertain an audio playback time reference associated with the playback of the associated audio data; and

cause the interpreted script to directly synchronize the displaying of the frame images with the playback of the associated audio data based on the audio playback time reference.

86. A system according to claim 85 comprising any of the features or combinations of features of claims 41-74.

87. A method executed by a computer system for rendering video content embodied by encoded video data received by a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

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transmitting a script to the user-computing platform, the script configured to be interpreted by an application program compiled to operate on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to simulate a multi-threaded execution environment by:

iteratively scheduling and performing a first simulated thread which comprises decoding the encoded video data into decoded video data comprising one or more frame images; and

iteratively scheduling and performing a second simulated thread which comprises rendering the decoded video data by displaying the one or more frame images.

88. A method according to claim 87 comprising any of the features or combinations of features of claims 1-40.

89. A system for rendering video content embodied by encoded video data received by a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising:

a server computing device for transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to simulate a multi-threaded execution environment by:

iteratively scheduling and performing a first simulated thread which comprises decoding the encoded video data into decoded video data comprising one or more frame images; and

iteratively scheduling and performing a second simulated thread which comprises rendering the decoded video data by displaying the one or more frame images.

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90. A system according to claim 89 comprising any of the features or combinations of features of claims 1-40.

91. A method executed on a user-computing platform for rendering video content embodied by encoded video data received by the user-computing platform, the method comprising:

receiving a script at the user-computing platform, the script configured to be interpreted by an application program operating on the user-computing platform;

interpreting the script using the application program on the computer platform;

wherein interpreting the script simulates a multi-threaded execution environment by:

iteratively scheduling and performing a first simulated thread which comprises decoding the encoded video data into decoded video data comprising one or more frame images; and

iteratively scheduling and performing a second simulated thread which comprises rendering the decoded video data by displaying the one or more frame images.

92. A method according to claim 91 comprising any of the features or combinations of features of claims 41-74.

93. A system for rendering video content embodied by encoded video data received by a user-computing platform, the system comprising a processor, the processor configured to execute an application program on the user-computing platform, the application program interpreting a cross-platform script to provide a simulated multi-threaded execution environment by:

iteratively scheduling and performing a first simulated thread which decodes the encoded video data into decoded video data comprising one or more frame images; and

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iteratively scheduling and performing a second simulated thread which renders the decoded video data by displaying the one or more frame images.

94. A system according to claim 93 comprising any of the features or combinations of features of claims 41-74.

95. A method executed by a computer system for rendering video content embodied by encoded video data received by a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

decode the encoded video data into decoded video data comprising a plurality of frame images; and

render the decoded video data by displaying the frame images;

wherein rendering the decoded video data by displaying the frame images comprises alpha-blending at least one pair of frame images together.

96. A method according to claim 95 comprising any of the features or combinations of features of claims 1-40.

97. A system for rendering video content embodied by encoded video data received by a user-computing platform that is one type of a plurality of different user-computing platform types the system comprising:

a server computing device for transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

decode the encoded video data into decoded video data comprising a plurality of frame images; and

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render the decoded video data by displaying the frame images;

wherein rendering the decoded video data by displaying the frame images comprises alpha-blending at least a pair of frame images together.

98. A system according to claim 97 comprising any of the features or combinations of features of claims 1-40.

99. A method executed on a user-computing platform for rendering video content embodied by encoded video data received by the user-computing platform, the method comprising:

receiving a script at the user-computing platform, the script configured to be interpreted by an application program operating on the user-computing platform;

interpreting the script using the application program;

wherein interpreting the script:

decodes the encoded video data into decoded video data comprising a plurality of frame images; and

renders the decoded video data by displaying the frame images; and

wherein rendering the decoded video data by displaying the frame images comprises alpha-blending at least a pair of frame images together.

100. A method according to claim 99 comprising any of the features or combinations of features of claims 41-74.

101. A system for rendering video content embodied by encoded video data received by a user-computing platform, the system comprising a processor configured to execute an application program on the user-computing platform, the application program interpreting a cross-platform script to:

decode the encoded video data into decoded video data comprising a plurality of frame images; and

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render the decoded video data by displaying the frame images;

and

wherein rendering the decoded video data by displaying the frame images comprises alpha-blending at least a pair of frame images together.

102. A system according to claim 101 comprising any of the features or combinations of features of claims 41-74.

103. A method executed by a computer system for rendering video content embodied by encoded video data on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types, the application program operating on the user-computing platform;

encoding a series of frame images to provide encoded video data, wherein encoding the frame images comprises encoding the frame images into a content-transfer format whereby the content-transfer encoded frame images can be passed by a script interpreter interpreting the script to the application program; and

transmitting the encoded video data to the user-computing platform;

wherein the script is further configured to cause the script to be interpreted by the application program to:

decode the transmitted encoded video data into decoded video data comprising the content-transfer encoded frame images; and

render the decoded video data by displaying the frame images.

104. A method according to claim 103 comprising any of the features or combinations of features of claims 1-40.

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105. A system for rendering video content embodied by encoded video data on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising:

a server computing device configured to:

transmit a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types;

encode a series of frame images to provide the encoded video data, wherein encoding the frame images comprises encoding the frame images into a content-transfer format whereby the content- transfer encoded frame images can be passed by a script interpreter interpreting the script to the application program; and

transmit the encoded video data to the user-computing platform;

wherein the script is further configured to cause the script to be interpreted by the application program to:

decode the transmitted encoded video data into decoded video data comprising the content-transfer encoded frame images; and

render the decoded video data by displaying the frame images.

106. A system according to claim 105 comprising any of the features or combinations of features of claims 1-40.

107. A method executed by a computer system for rendering video content embodied by encoded video data on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types, the application program operating on the user-computing platform;

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encoding a series of frame images to provide the encoded video data,

wherein encoding the frame images comprises:

for at least a first one of the frame images provided in a first file format:

analyzing content of the first one of frame images;

selecting one among a plurality of secondary image file formats based on the analysis of the content of the first one of the frame images; and

if the first file format differs from the selected one of the secondary image file formats, converting the image file format of the first one of the frame images into the selected one of the secondary file formats; and

for at least a second one of frame images provided in a second file format:

analyzing content of the second one of frame images;

selecting a different one among the plurality of secondary image file formats based on the analysis of the content of the second one of the frame images; and

if the second file format differs from the selected different one of the secondary image file formats, converting the image file format of the second one of the frame images into the selected different one of the secondary file formats;

wherein each of the plurality of secondary image file formats is capable of being natively rendered by the application program; and

transmitting the encoded video data to the user-computing platform;

wherein the script is further configured to cause the script to be interpreted by the application program to:

decode the transmitted encoded video data into decoded video data comprising the frame images; and

render the decoded video data by displaying the frame images.

108. A method according to claim 107 comprising any of the features or combinations of features of claims 1-40.

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109. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising any of the features or combinations of features of claims 107-108.

110. A method executed by a computer system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

encoding a series of frame images to provide encoded video data, wherein encoding the frame images comprises converting the frame images into a content-transfer format;

transmitting the encoded video data to the user-computing platform, wherein transmitting the encoded data results in a script interpreter of an application program operating on the user-computing platform interpreting a script to: decode the transmitted encoded video data into decoded frame image data in the content-transfer format; and pass the decoded frame image data in the content transfer format to the application program in order that the decoded frame image data be rendered.

111. A method according to claim 110 comprising any of the features or combinations of features of claims 1-40.

112. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising any of the features or combinations of features of claims 110-111.

113. A method executed by a computer system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising: encoding a series of frame images to provide encoded video data, wherein encoding the frame images comprises converting the frame images into a content-transfer format, whereby the content-

transfer encoded frame images can be passed from a script interpreter of an application program operating on the user-computing platform to the application program when the script interpreter interprets a script to decode the encoded video data into decoded video data comprising the content-transfer encoded frame images and render the decoded video data by displaying the frame images.

114. A method according to claim 113 comprising any of the features or combinations of features of claims 1-40.

115. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising any of the features or combinations of features of claims 113-114.

116. A method performed by a computer system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

query one or more characteristics of the user-computing platform; and

transmit a request to receive a first type of encoded video data embodying the video content selected from a plurality of types of encoded video data embodying the video content, the selection being made in dependence on the one or more queried characteristics of the user-computing platform.

117. A method according to claim 116 wherein the script is further configured to cause the script to be interpreted by the application program to:

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decode the first type of encoded video data into first decoded video data comprising one or more first frame images upon receipt of the first type of encoded video data at the user-computing platform; and

render the first decoded video data by displaying the one or more first frame images.

118. A method according to claim 116 wherein the script is further configured to cause the script to be interpreted by the application program to:

decode a second type of encoded video data from among the plurality of types of encoded video data and received at the user-computing platform into second decoded video data comprising one or more second frame images; and

render the second decoded video data by displaying the one or more second frame images;

wherein decoding the second type of encoded video data and rendering the second decoded video data occur prior to transmitting the request to receive the first type of encoded video data.

119. A method according to claim 118 wherein the second type of encoded video data is different from the first type of encoded video data.

120. A method according to claim 117 wherein the plurality of types of encoded video data comprises at least two types of encoded video data, each of the at least two types of encoded video data comprising a corresponding encoded series of frame images represented in a corresponding image format and wherein the corresponding image formats of the at least two types of encoded video data are different from one another.

121. A method according to any one of claims 116 to 120 comprising any of the features or combinations of features of claims 1-40.

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122. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising:

a server computing device for transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

query one or more characteristics of the user-computing platform; and

transmit a request to receive a first type of encoded video data embodying the video content selected from a plurality of types of encoded video data embodying the video content, the selection being made in dependence on the one or more queried characteristics of the user-computing platform.

123. A system according to claim 122 wherein the script is further configured to cause the script to be interpreted by the application program to:

decode the first type of encoded video data into first decoded video data comprising one or more first frame images upon receipt of the first type of encoded video data at the user-computing platform; and

render the first decoded video data by displaying the one or more first frame images.

124. A system according to claim 122 wherein the script is further configured to cause the script to be interpreted by the application program to:

decode a second type of encoded video data from among the plurality of types of encoded video data and received at the user-computing platform into second decoded video data comprising one or more second frame images; and

render the second decoded video data by displaying the one or more second frame images;

wherein decoding the second type of encoded video data and rendering the second decoded video data occur prior to transmitting the request to receive the first type of encoded video data.

125. A system according to claim 124 wherein the second type of encoded video data is different from the first type of encoded video data.

126. A system according to claim 123 wherein the script is further configured to cause the script to be interpreted by the application program to perform at least one of:

configuring a decode characteristic of the decoding of the first type of encoded video data, the configuration of the decode characteristic being made in dependence on the one or more queried characteristics of the user-computing platform; and

configuring a display characteristic of the displaying of the one or more first frame images, the configuration of the display characteristic being made in dependence on the one or more queried characteristics of the user-computing platform.

127. A system according to any one of claims 122 to 126 comprising any of the features or combinations of features of claims 1-40.

128. A method performed by a computer system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

decode encoded video data embodying the video content and received at the user-computing platform into decoded video data comprising one or more frame images; and

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render the decoded video data by displaying the one or more frame images;

query one or more characteristics of the user-computing platform; and

perform at least one of:

configuring a decode characteristic of the decoding of the encoded video data, the configuration of the decode characteristic being made in dependence on the one or more queried characteristics of the user-computing platform; and

configuring a display characteristic of the displaying of the one or more frame images, the configuration of the display characteristic being made in dependence on the one or more queried characteristics of the user-computing platform.

129. A method according to claim 128 comprising any of the features or combinations of features of claims 1-40.

130. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising any of the features or combinations of features of claims 128-129.

131. A method executed on a user-computing platform for rendering video content on the user-computing platform, the method comprising:

receiving a script at the user-computing platform, the script configured to be interpreted by an application program operating on the user-computing platform;

interpreting the script using the application program;

wherein interpreting the script:

queries one or more characteristics of the user-computing platform; and

transmits a request to receive a first type of encoded video data embodying the video content selected from a plurality of types of encoded video data embodying the video content, the selection being made in dependence on the one or more queried characteristics of the user-computing platform.

132. A method according to claim 131 wherein interpreting the script:

decodes the first type of encoded video data into first decoded video data comprising one or more first frame images upon receipt of the first type of encoded video data at the user-computing platform; and

renders the first decoded video data by displaying the one or more first frame images.

133. A method according to any one of claims 131 to 132 comprising any of the features or combinations of features of claims 41-74.

134. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising any of the features or combinations of features of claims 131-133.

135. A method executed on a user-computing platform for rendering video content on the user-computing platform, the method comprising:

receiving a script at the user-computing platform, the script configured to be interpreted by an application program operating on the user-computing platform;

interpreting the script using the application program;

wherein interpreting the script:

decodes encoded video data embodying the video content and received at the user-computing platform into decoded video data comprising one or more frame images;

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renders the decoded video data by displaying the one or more frame images;

queries one or more characteristics of the user-computing platform; and

performs at least one of:

configuring a decode characteristic of the decoding of the encoded video data, the configuration of the decode characteristic made in dependence on the one or more queried characteristics of the user-computing platform; and

configuring a display characteristic of the displaying of the one or more frame images, the configuration of the display characteristic made in dependence on the one or more queried characteristics of the user-computing platform.

136. A method according to claim 135 comprising any of the features or combinations of features of claims 41-74.

137. A system for rendering video content on a user-computing platform, the system comprising any of the features or combinations of features of claims 135-136.

138. A method performed by a computer system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

decode a first type of encoded video data embodying the video content and received at the user-computing platform into first decoded video data comprising one or more first frame images;

render the first decoded video data by displaying the one or more first frame images;

determine a rate at which the first type of encoded video data is being received by the user-computing platform and perform at least one of:

transmitting a request to receive a second type of encoded video data embodying the video content, in dependence on the determined rate;

modifying a characteristic of the decoding of the first type of encoded video data, in dependence on the determined rate; and

modifying a characteristic of the displaying of the one or more first frame images, in dependence on the determined rate.

139. A method according to claim 138 comprising any of the features or combinations of features of claims 1-40.

140. A system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the system comprising:

a server computing device for transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

decode a first type of encoded video data embodying the video content and received at the user-computing platform into first decoded video data comprising one or more first frame images;

render the first decoded video data by displaying the one or more first frame images;

determine a rate at which the first type of encoded video data is being received by the user-computing platform and perform at least one of:

transmitting a request to receive a second type of encoded video data embodying the video content, in dependence on the determined rate;

modifying a characteristic of the decoding of the first type of encoded video data, in dependence on the determined rate; and

modifying a characteristic of the displaying of the one or more first frame images, in dependence on the determined rate.

141. A system according to claim 140 comprising any of the features or combinations of features of claims 1-40.

142. A method executed on a user-computing platform for rendering video content, the method comprising:

receiving a script at the user-computing platform, the script configured to be interpreted by an application program operating on the user-computing platform;

interpreting the script using the application program, wherein interpreting the script:

decodes a first type of encoded video data embodying the video content and received at the user-computing platform into first decoded video data comprising one or more first frame images;

renders the first decoded video data by displaying the one or more first frame images;

determines a rate at which the first type of encoded video data is being received by the user-computing platform and performs at least one of:

transmitting a request to receive a second type of encoded video data embodying the video content, in dependence on the determined rate;

modifying a characteristic of the decoding of the first type of encoded video data, in dependence on the determined rate; and

modifying a characteristic of the displaying of the one or more first frame images, in dependence on the determined rate.

143. A method according to claim 142 comprising any of the features or combinations of features of claims 41-74.

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144. A system for rendering video content on a user-computing platform, the system comprising a processor, the processor configured to execute an application program on the user-computing platform, the application program interpreting a cross-platform script to:

decode a first type of encoded video data embodying the video content and received at the user-computing platform into first decoded video data comprising one or more first frame images;

render the first decoded video data by displaying the one or more first frame images;

determine a rate at which the first type of encoded video data is being received by the user-computing platform and perform at least one of:

transmitting a request to receive a second type of encoded video data embodying the video content, in dependence on the determined rate;

modifying a characteristic of the decoding of the first type of encoded video data, in dependence on the determined rate; and

modifying a characteristic of the displaying of the one or more first frame images, in dependence on the determined rate.

145. A system according to claim 144 comprising any of the features or combinations of features of claims 41 to 74.

146. A method performed by a computer system for rendering video content on a user-computing platform that is one type of a plurality of different user-computing platform types, the method comprising:

transmitting a script to the user-computing platform, the script configured to be interpreted by an application program operating on any one of the plurality of user-computing platform types and further configured to cause the script to be interpreted by the application program to:

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decode a first type of encoded video data embodying the video content and received at the user-computing platform into first decoded video data comprising one or more first frame images;

render the first decoded video data by displaying the one or more first frame images;

determine a rate at which the first type of encoded video data is being received by the user-computing platform; and

transmitting a request to receive a second type of encoded video data embodying the video content, in dependence on the determined rate.

147. A method according to claim 146 wherein the script is further configured to cause the script to be interpreted by the application program to, after determining the rate and transmitting the request to receive the second type of encoded video data:

decode the second type of encoded video data into second decoded video data comprising one or more second frame images;

render the second decoded video data by displaying the one or more second frame images.

148. A method according to claim 147 wherein the first type of encoded video data is different than the second type of encoded video data.

149. A method according to any one of claims 146 to 148 comprising any of the features or combinations of features of claims 1 to 40.

150. A system for rendering video content on a user-computing platform, the system comprising any of the features or combinations of features of claims 146 to 149.

151. A computer system comprising one or more computers operatively connected using a data communications network adapted to perform any one of the methods of claims 1 to 40, 79, 80, 87, 88, 95, 96, 103, 104, 107, 108, 110, 111, 113, 114, 116-121, 128 and 129.

152. A system according to any one of claims 75, 76, 81, 82, 89, 90, 97, 98, 105, 106, 109, 112, 115, 122-127 and 130 wherein the system comprises one or more computers operatively connected using a data communications network.

153. A computer-readable medium comprising computer executable code that, when executed by a computer system comprising one computer or a plurality of computers operatively connected using a data communications network, cause the computer system to perform any one of the methods of claims 1 to 40, 79, 80, 87, 88, 95, 96, 103, 104, 107, 108, 110, 111, 113, 114, 116-121, 128 and 129.

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