Claims

[Claim 1] Advertisement digital display method for controlling the display of digital content items by digital display devices (2), comprising:

a) generating, by at least one server (7), playlists based on advertisement display campaigns, each playlist being intended to be read by one or more of said digital display devices (2), each playlist comprising at least one series of identifiers of digital content items to be read sequentially but not comprising loading addresses of digital content items or digital fingerprints of digital content items, each digital display device (2) corresponding to one specific predetermined playlist generated by said at least one server (7);

b) generating, for each digital display device (2), by said at least one server (7), a download manifest comprising at least respective loading addresses of digital content items, said download manifests being larger files than said playlists and being generated less frequently than said playlists by said at least one server (7);

c) updating the playlists and download manifests by the digital display devices (2), comprising:

c1) polling said at least one server (7), at predetermined intervals, by each digital display device (2), in order to determine whether said at least one server (7) has a new playlist corresponding to said digital display device (2) and to determine whether said at least one server (7) has a new download manifest corresponding to said digital display device (2);

c2) if it is determined that said at least one server (7) has a new playlist for said digital display device (2), loading said new playlist; if it is determined that said at least one server (7) has a new download manifest for said digital display device (2), then loading said new download manifest on the digital display device (2);

c3) if a new download manifest has been loaded from the server (7), determining, by said digital display device (2), what new digital content item(s) are referenced in said new download manifest;

c4) downloading, by said digital display device (2), said new digital content item(s) from the corresponding respective address(es) indicated in the new download manifest, and storing said new digital content item(s) on said digital display device (2);

d) reading, by each digital display device (2), the digital content items previously downloaded and corresponding to a playlist in effect for this digital display device (2) and displaying these digital content items on a digital screen (4) belonging to said digital display device (2).

[Claim 2] Method according to claim 1, wherein each playlist and each download manifest is loaded in an encrypted manner by the digital display devices (2).

[Claim 3] Method according to claim 2, wherein each download manifest comprises at least one reference digital fingerprint for each digital content item referenced in said download manifest,
and during step c4), the digital display device (2) determines a digital fingerprint calculated from the downloaded new digital content item, verifies that the calculated digital fingerprint matches the reference digital fingerprint, and validates the downloaded digital content item only if the calculated digital fingerprint matches the reference digital fingerprint.

[Claim 4] Method according to claim 3, wherein, in step c4), the digital display device (2) downloads the new digital content item in an unencrypted manner.

[Claim 5] Method according to claim 4, wherein, in step c4), the digital display device (2) downloads the new digital content item through a proxy server (10) which is in a local area network with said display device and with other digital display devices (2).

[Claim 6] Method according to any one of claims 3 to 5, wherein, in step c4), the digital display device (2) downloads the new digital content item in chunks.

[Claim 7] Method according to any one of the preceding claims, wherein, in step c1), each digital display device (2) polls said at least one server at a predetermined address specific to said digital display device (2).

[Claim 8] Method according to any one of the preceding claims, wherein each digital display device (2) communicates with said at least one server (7) and downloads the new content items via a mobile telephone network (11).

[Claim 9] Advertisement digital display system comprising at least one server (7) and multiple digital display devices (2), wherein:

- said at least one server (7) is adapted to generating playlists based on advertisement display campaigns, each playlist being intended to be read by one or more of said digital display devices (2), each playlist comprising at least one series of identifiers of digital content items to be read sequentially but not comprising loading addresses of digital content items or digital fingerprints of digital content items, each digital display device (2) corresponding to one specific playlist generated by said at least one server (7);

- said at least one server (7) is adapted to generating repetitively, for each digital display device (2), a respective download manifest comprising at least respective loading addresses of digital content items, said download manifests being larger files than said playlists and being generated less frequently than said playlists by said at least one server (7);

- the digital display devices (2) are adapted to updating their playlists and download manifests, this updating comprising:

c1) polling said at least one server (7), at predetermined intervals, by each digital display device (2), in order to determine whether said at least one server has a new playlist corresponding to said digital display device (2) and to determine whether said at least one server (7) has a new download manifest corresponding to said digital display device (2);

c2) if it is determined that said at least one server (7) has a new playlist for said digital display device (2), then loading said new playlist on the digital display device (2); if it is determined that said at least one server (7) has a new download manifest for said digital display device (2), then loading said new download manifest on the digital display device (2);

c3) if a new download manifest has been loaded from the server (7), determining, by said digital display device (2), what new digital content item(s) are referenced in said new download manifest;

c4) and downloading, by said digital display device (2), said new digital content item(s) from the corresponding respective address(es) indicated in the new

download manifest, and storing said new digital content item(s) on said digital display device (2);

- each digital display device (2) is adapted to reading the digital content items previously downloaded and corresponding to a playlist in effect for this digital display device (2) and for displaying these digital content items on a digital screen (4) belonging to said digital display device (2).

[Claim 10] System according to claim 9, wherein the digital display devices (2) are adapted to loading each playlist and each download manifest in an encrypted manner.

[Claim 11] System according to claim 10, wherein each download manifest comprises at least one reference digital fingerprint for each digital content item referenced in said download manifest,

and during the downloading of each new digital content item, the digital display device (2) is adapted to determining a digital fingerprint calculated from the downloaded new digital content item, verifying that the calculated digital fingerprint matches the reference digital fingerprint, and validating the downloaded digital content item only if the calculated digital fingerprint matches the reference digital fingerprint.

[Claim 12] System according to claim 11, wherein the digital display device (2) is adapted to downloading the new digital content items in an unencrypted manner.

[Claim 13] System according to claim 12, wherein several of the digital display devices (2) belong to a local area network (12) also comprising a proxy server (10), and each digital display device (2) in the local area network is adapted to downloading the new digital content items through said proxy server (10).

[Claim 14] System according to any one of the preceding claims 11 to 13, wherein each digital display device (2) is adapted to downloading the new digital content items in chunks.

[Claim 15] System according to any one of claims 9 to 14, wherein each digital display device (2) is adapted to polling said at least one server (7) at a predetermined address specific to said digital display device (2).

[Claim 16] System according to any one of claims 9 to 15, wherein each digital display device (2) is adapted to communicating with said at least one server and for downloading new content items via a mobile telephone network (11).

[Claim 17] Advertisement digital display device (2) comprising a digital screen (4) and having in memory at least:

- a playlist comprising at least one series of identifiers of digital content items to be read sequentially but not comprising loading addresses of digital content items or digital fingerprints of digital content items;

- a download manifest comprising at least respective loading addresses of digital content items;

said digital display device (2) being adapted to:

- updating its playlist and download manifest, this updating comprising:

c1) polling at least one server (7), at predetermined intervals, in order to determine whether said at least one server (7) has a new playlist corresponding to said digital display device (2) and to determine whether said at least one server (7) has a new download manifest corresponding to said digital display device (2);

c2) if it is determined that said at least one server (7) has a new playlist for said digital display device (2), then loading said new playlist on the digital display device (2); if it is determined that said at least one server (7) has a new download manifest for said digital display device (2), then loading said new download manifest on the digital display device (2);

c3) if a new download manifest has been loaded, determining, by said digital display device (2), what new digital content item(s) are referenced in said new download manifest;

c4) and downloading, by said digital display device (2), said new digital content item(s) from the corresponding respective address(es) indicated in the new download manifest, and storing said new digital content item(s) on said digital display device (2);

- reading the digital content items previously downloaded and corresponding to the playlist and displaying these digital content items on a digital screen (4) belonging to said digital display device (2).

[Claim 18] Advertisement digital display server (7) adapted to:

- generating playlists based on advertisement display campaigns, each playlist being intended to be read sequentially by one or more of said digital display devices (2), each playlist comprising at least one series of identifiers of digital content items to be read but not comprising loading addresses of digital content items or digital fingerprints of digital content items, each digital display device (2) corresponding to one specific playlist generated by said server (7);

- repetitively generating, for each digital display device (2), a download manifest comprising at least respective loading addresses of digital content items, said download manifests being larger files than said playlists and being generated less frequently than said playlists by said server (7);

- allow the digital display devices (2) to update their playlists and download manifests, this updating comprising: polling said server (7) at predetermined intervals in order to determine whether said at least one server (7) has a new playlist corresponding to each digital display device (2) and to determine whether said at least one server (7) has a new download manifest corresponding to each digital display device (2), and if it is determined that said server (7) has a new playlist for said digital display device (2), then allowing said digital display device (2) to load said new playlist on the digital display device (2); if it is determined that said server (7) has a new download manifest for said digital display device (2), then allowing said digital display device (2) to load said new download manifest.