

What is claimed is:

1. A computerized method of calculating an amount of file system space managed by a media sync engine, the method comprising:

determining a total file size for all media files from a last synchronization with a media sync engine;

determining a total folder size of all folders containing only media files from the last synchronization with the media sync engine and having no files or subfolders from a source other than the last synchronization with the media sync engine;

determining a total metadata size of all metadata belonging to media files from the last synchronization with the media sync engine; and

calculating an amount of managed space comprising a sum of the total file size, the total folder size, and the total metadata size wherein the amount of managed space represents a total amount of file system space utilized by the last synchronization with the media sync engine.

2. A computerized method of calculating an amount of future file system space to be managed by a media sync engine after a synchronization, the method comprising:

determining a total selected file size for all media files selected for a future synchronization with a media sync engine;

determining a total predicted folder size of all folders to be created in the file system for the future synchronization with the media sync engine;

determining a predicted total metadata size of all metadata to be created for the media files selected for the future synchronization with the media sync engine; and

calculating an amount of new managed space comprising a sum of the total selected file size, the total predicted folder size, and the total predicted metadata size wherein the amount of new managed space represents a total amount of file system space expected to be utilized by a future synchronization with the media sync engine.

3. A computerized method of calculating an amount of file system space utilized for files from external sources, the method comprising:

querying a capacity of a file system;

querying an amount of free space in the file system;

calculating an amount of file system space utilized by a last synchronization with a media synch engine;

calculating a remaining amount of the capacity of the file system by subtracting from the capacity of the file system both the amount of free space and the amount of file system space utilized by the last synchronization wherein the remaining amount represents an amount of the file system space utilized for files from external sources.

4. A computerized method of determining an amount of file system space, the method comprising:

predict amount of file system space expected to be utilized by media files selected by a user for a future synchronization with a media synch engine;

calculate an amount of file system space utilized for files from external sources ("Other"); and

determining an amount of space remaining in the file system wherein the amount of space remaining represents an amount of space available for the media sync engine to autofill with media files.

5. A computerized method of claim 4, further comprising:

querying a predefined amount of reserved space ("Reserved Space"); and

determining an amount of space remaining in the file system after allocating the Reserved Space, the Other space, and the amount of file system space expected to be utilized by media files selected by a user, wherein the amount of space remaining represents an amount of space available for the media sync engine to autofill with media files.

6. A computer readable medium having computer executable instructions for executing method of predicting future storage space usage in a file system having synchronized media content, the method comprising:

- determine an initial amount of used space in a file system;
- determine what amount of the initial used space is for files from external sources (“Other”) and what amount of the initial used space is for files from a previous synchronization with a media sync engine (“Managed”);
- predict an amount of space for files from a next synchronization with the media sync engine (“New Managed”); and
- determine a future amount of used space by combining the Other and the New Managed space wherein the future amount of used space represents a total amount of file system space expected to be utilized by a future synchronization with the media sync engine.

7. The computer readable medium of claim 6, wherein determining an amount of initial used space for files from the previous synchronization further comprises:

- determining a total file size for all media files from the last synchronization with the media sync engine;
- determining a total folder size of all folders containing only media files from the last synchronization with the media sync engine and having no files or subfolders from a source other than the last synchronization with the media sync engine;
- determining a total metadata size of all metadata belonging to media files from the last synchronization with the media sync engine; and
- calculating an amount of managed space comprising a sum of the total file size, the total folder size, and the total metadata size wherein the amount of managed space represents a total amount of file system space utilized by the last synchronization with the media sync engine.

8. The computer readable medium of claim 6, wherein determining the amount of the initial used space for files from external sources further comprises:

- querying a capacity of a file system;

querying an amount of free space in the file system;
calculating an amount of file system space utilized by a last synchronization with a media synch engine;
calculating a remaining amount of the capacity of the file system by subtracting from the capacity of the file system both the amount of free space and the amount of file system space utilized by the last synchronization wherein the remaining amount represents an amount of the file system space utilized for files from external sources.

9. The computer readable medium of claim 6, wherein predicting the amount of space for files from a next synchronization with the media sync engine further comprises:

determining a total selected file size for all media files selected for a future synchronization with a media sync engine;
determining a total predicted folder size of all folders to be created in the file system for the future synchronization with the media sync engine;
determining a predicted total metadata size of all metadata to be created for the media files selected for the future synchronization with the media synch engine; and
calculating an amount of new managed space comprising a sum of the total selected file size, the total predicted folder size, and the total predicted metadata size wherein the amount of new managed space represents a total amount of file system space expected to be utilized by a future synchronization with the media synch engine.

10. A computer readable medium having computer executable instructions for executing method of managing transfers of files to a destination file system, the method comprising:

receiving one or more selections of media content to transfer to a destination file system;
determining a predicted storage space usage for the one or more selections on the destination file system; and
displaying the predicted storage space usage.

11. The computer readable medium of claim 10 further comprising a determining a storage space usage for files from external sources.

12. The computer readable medium of claim 11 further comprising determining an amount of storage space remaining in destination the file system.

13. An apparatus comprising:

a display;

a processor;

a machine accessible medium to store instructions, the instructions when executed by the processor cause the apparatus to execute a method of synchronizing media content with a destination file system, the method comprising:

receiving a request to synchronize one or more playlists from an music library to a destination file system;

determining an amount of space on the destination file system utilized for files from external sources;

predicting an amount of space on the destination file system to hold the one or more playlists; and

displaying the amount of space utilized for files from external sources and the amount of space to hold the one or more playlists prior to synchronizing with the destination file system.

14. A computerized method of comprising:

receiving a selection of a plurality of files to synchronize with a destination file system; and

predicting an amount of storage space capable of holding the plurality of files on the destination file system by determining a size for the plurality of files to be synchronized and a size for new folders and metadata to be created; and

displaying the amount of storage space prior to synchronizing with the destination file system.

15. The computerized method of claim 14, wherein predicting an amount of storage space further comprises:

calculating a size of each one of the files in the plurality of files and including the size of each one of the files in the amount storage space;

assigning a destination path to each one of the files in the plurality of files;

identifying one or more folders to be created in the destination path each one of the files;

determining a size for the one or more folders and adding the size for the one or more folders to the amount of storage space; and

determining one or more dynamic files to be created for each one of the files in the plurality of files and adding the size of the one or more dynamic files to the amount of storage space.

What is claimed is:

1. An apparatus comprising:

a display;

a processor;

a machine accessible medium storing instructions, the instructions when executed by the processor cause the processor to perform operations comprising:

receiving a request to synchronize one or more playlists from a music library to a destination file system;

determining an amount of space on the destination file system utilized for files from external sources prior to synchronizing the one or more playlists with the destination file system;

predicting prior to synchronizing the one or more playlists with the destination file system an amount of space required on the destination file system to hold the one or more playlists in a successful completion of the synchronization by summing a size for each file in the one or more playlists, a predicted size for one or more folders to be created on the destination file system determined based on predicted destination paths in the destination file system of the files in the one or more playlists, and a predicted size for an amount of metadata to be dynamically created by the destination file system during the synchronization to the destination file system, and using a media synchronization engine to predict the predicted size for the one or more folders and to predict the predicted size for the amount of metadata, at least a portion of the metadata being dynamically created by the destination file system as a result of the synchronization; and

displaying the amount of space utilized for files from external sources and the amount of space to hold the one or more playlists prior to synchronizing the one or more playlists with the destination file system.

2. The apparatus of claim 1 wherein the receiving of the request to synchronize is responsive to user input selecting the one or more playlists from among a group of playlists that are organized by playlist sources, and wherein the at least a portion of the metadata comprises user preference information.
3. The apparatus of claim 1 wherein the operations further comprise dynamically adjusting the displaying of the amount of space responsive to changes in the selecting of the one or more playlists, and wherein the at least a portion of the metadata comprises device setting information.
4. The apparatus of claim 1 wherein the operations further comprise:
 - detecting a lack of space on the destination file system to enable the synchronizing of the one or more playlists; and
 - presenting an option for reducing an amount of reserve space in response to the detecting of the lack of space.
5. The apparatus of claim 3 wherein at least two of the music tracks to be synchronized have identical album metadata but differing artist metadata and the resulting folder created indicates that the contents are part of a compilation album.
6. The apparatus of claim 1 wherein the music library is an iTunes music library.
7. The apparatus of claim 1 wherein the apparatus is a desktop computer system.
8. The apparatus of claim 1 wherein the apparatus is an enterprise server.
9. The apparatus of claim 1 wherein the apparatus is a mobile wireless device having

the media synchronization engine that determines the predicted size for the one or more folders to be created on the destination file system and that determines the predicted size for the amount of metadata to be added to the destination file system.

10. The apparatus of claim 1 wherein each one of the files is a music track and the metadata to be injected into the file includes album art, wherein the one or more folders to be created comprise at least one of folders for artists, folders for albums and folders for compilations, and wherein the destination file system comprises a memory card on a mobile wireless device.

11. The apparatus of claim 1 wherein the mobile wireless device is a smart phone device having the media synchronization engine that calculates a total amount of system file space expected to be utilized by a future synchronization with the media synchronization engine by summing a total selected file size, a total predicted folder size, and a total predicted metadata size.

12. A computerized method, comprising:

receiving, by a mobile device, a selection of a plurality of files to synchronize with a destination file system;

predicting, by the mobile device, prior to synchronizing with the destination file system an amount of storage space required to hold the plurality of files on the destination file system in a successful completion of the synchronization by determining a size for the plurality of files to be synchronized and a size for new folders and metadata to be created and by summing a size for each file in the plurality of files, a predicted size for the new folders to be created on the destination file system determined based on predicted destination paths in the destination file system of the plurality of files, and a predicted size for the amount of metadata to be dynamically created by the destination file system during

the synchronization on the destination file system and using a media synchronization engine to predict the predicted size for the new folders and to predict the predicted size for the amount of metadata, at least a portion of the metadata being dynamically created by the destination file system as a result of the synchronization; and

displaying, by the mobile device, the amount of storage space prior to synchronizing the plurality of files with the destination file system.

13. The computerized method of claim 12, wherein predicting an amount of storage space further comprises:

calculating, by the mobile device, a size of each one of the files in the plurality of files and including the size of each one of the files in the amount storage space;

assigning, by the mobile device, a destination path to each one of the files in the plurality of files;

identifying, by the mobile device, one or more folders to be created in the destination path each one of the files;

determining, by the mobile device, a size for the one or more folders and adding the size for the one or more folders to the amount of storage space; and

determining, by the mobile device, one or more dynamic files to be created for each one of the files in the plurality of files and adding the size of the one or more dynamic files to the amount of storage space.