METHOD FOR DISPLAY OF ADVERTISING

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ABSTRACT

Improvements in systems and methods for advertising. Systems and methods according to the invention include specially-adapted computer networks 200, unique data input and acquisition devices 261, and processes for implementing, monitoring, and assessing advertising campaigns. Systems and methods are particularly useful in advertising campaigns directed to multiple locations, and are suitable for use both with fixed or permanent structures and with portable toilets and other temporary or moveable structures.
Fig 1

102 Identify Advertisement
104 Identify Target Audience
106 Identify Structure / Location
108 Select Location for Attachment of Advertisement
110 Attach Advertisement
<table>
<thead>
<tr>
<th>Number</th>
<th>Date (4/25/05)</th>
<th>Duration</th>
<th>Notes</th>
<th>User fields</th>
<th>Attached</th>
<th>Summary</th>
<th>Attached by</th>
<th>MISC/MAY2</th>
<th>Production date</th>
<th>Attached by</th>
<th>MISC/MAY2</th>
<th>Updated on</th>
<th>Attached by</th>
<th>MISC/MAY2</th>
</tr>
</thead>
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<tr>
<td>1</td>
<td>4</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4/25/06 16:15</td>
<td></td>
<td></td>
<td>5/10/06 10:21</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fig. 5
<table>
<thead>
<tr>
<th>Selected Job</th>
<th>Site</th>
<th>Selected Task</th>
<th>Test Task</th>
<th>On Test</th>
<th>Selected Task</th>
<th>Test Task</th>
<th>On Test</th>
<th>Selected Task</th>
<th>Test Task</th>
<th>On Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA-1 Site 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-2 Site 2</td>
<td></td>
<td></td>
<td>DS-3 Site 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-5 Site 5</td>
<td></td>
<td></td>
<td>DS-6 Site 6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-7 Site 7</td>
<td></td>
<td></td>
<td>DS-8 Site 8</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-9 Site 9</td>
<td></td>
<td></td>
<td>DS-10 Site 10</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-11 Site 11</td>
<td></td>
<td></td>
<td>DS-12 Site 12</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-13 Site 13</td>
<td></td>
<td></td>
<td>DS-14 Site 14</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-15 Site 15</td>
<td></td>
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<td>DS-16 Site 16</td>
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<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-17 Site 17</td>
<td></td>
<td></td>
<td>DS-18 Site 18</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-19 Site 19</td>
<td></td>
<td></td>
<td>DS-20 Site 20</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>DS-21 Site 21</td>
<td></td>
<td></td>
<td>DS-22 Site 22</td>
<td></td>
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Fig. 11
Fig. 13
<table>
<thead>
<tr>
<th>Stop Number</th>
<th>Stop Address</th>
<th>Comments</th>
<th>Task Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Start 56 Wistow Rd Edison, NJ 08817</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>325 Central Ave Metuchen, NJ 08840</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>324 Railway Av. South Plainfield, NJ 07080</td>
<td>off Plainfield Av.</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Skytop Drive Scotch Plains, NJ 07076</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>2385 Springfield Ave Vauxhall, NJ 07088</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>1108 Morris Tpke Summit, NJ 07931</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>11 Pomeroy Rd Madison, NJ 07940</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td>247 South St. Morristown, NJ 07960</td>
<td>287 ex 25, go left parking lot on left directly across from East Westem...</td>
<td>1</td>
</tr>
<tr>
<td>Time</td>
<td>Mile</td>
<td>Instruction</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
<td>-------------</td>
<td></td>
</tr>
<tr>
<td>9:00 AM</td>
<td>0.0</td>
<td>Depart Start on Wethersfield Rd (East)</td>
<td></td>
</tr>
<tr>
<td>9:00 AM</td>
<td>0.1</td>
<td>Turn LEFT (North-West) onto Pitch Rd, then immediately turn RIGHT (North-East)</td>
<td></td>
</tr>
<tr>
<td>9:00 AM</td>
<td>1.2</td>
<td>Keep STRAIGHT onto SR-27 (Essex Ave)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Populated Places
- Boundaries
- Transportation
- Parks and Reserves
- Miscellaneous

Fig. 15
Operations – Field Service Management
METHOD FOR DISPLAY OF ADVERTISING

CROSS-REFERENCE TO RELATED APPLICATIONS

0001 This application claims the priority of, and incorporates in full by this reference, each of the following co-pending provisional patent applications, including all appendices and other documents attached thereto:

0002 60/734,750, entitled ADVERTISING DISPLAY FOR PORTABLE STRUCTURE and filed 9 Nov. 2005;

0003 60/734,767, entitled WRAP-AROUND ADVERTISING DISPLAY and filed 9 Nov. 2005;

0004 60/734,766, entitled METHOD FOR DISPLAY OF ADVERTISING and filed 9 Nov. 2005;

0005 60/773,641, entitled ADVERTISING DISPLAY FOR PORTABLE STRUCTURE and filed 16 Feb. 2006;

0006 60/780,869, entitled METHOD FOR DISPLAY OF ADVERTISING and filed 10 Mar. 2006; and

0007 60/796,541, entitled ADVERTISING DISPLAY FOR PORTABLE STRUCTURE and filed 2 May 2006.

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BACKGROUND

0009 The invention relates to advertising, and particularly to methods useful for the display of advertising in portable, relocatable, temporary, or otherwise moveable structures such as portable toilets, trailers, wastep bins, and the like.

0010 Portable or temporary structures, such as portable toilets, wastep bins, trailers, and other moveable accommodations provide surfaces that advertisers can use with unique effectiveness to promote their products or services. Advertising in a portable toilet located at a construction site, for example, could reach male consumers in the 18 to 45 year demographic, which has proven to be a difficult group to target.

0011 Moveable structures such as portable toilets provide particularly effective devices for the display of advertisements, due to their moveable and reusable nature. As is commonly known, such structures can be and commonly are placed temporarily at sporting events, construction sites, and other sites and venues in which people needing the services provided by such structures may be expected to gather.

0012 Among the many advantages offered by advertising on or in such structures are flexibility of determining suitable content selections for advertising to be placed in the structures, options offered for placement of advertisements on or in the structures, and freedom in determining the locations in which the structures to which they are attached are to be placed. It is advantageous, for example, to be able to choose the positions on or within the structures for placing the advertisements, and to determine suitable times and locations for placement of the structures and advertisements. For example, if an advertisement is to be provided on a portable structure at an all day and evening event, it would be advantageous to have the flexibility to locate a structure onto which an advertisement is affixed near a fairground during the day, for example, and perhaps move the structure to be nearer an eating venue in the evening. Similarly, it would be advantageous to be able to change the advertising at different times during the day, or over a period of days or weeks, to suit a particular audience or changes in audiences. For example, general advertising directed to families could be affixed to a portable structure during the day, for example, and advertising not generally suitable for younger children could replace the general advertising later in the evening.

0013 Affixing advertisements to a portable structure presents challenges, however. For example, portable structures are often made of thick and heavy duty plastic molded into multi-planar structures, which makes it difficult to find a mono-planar surface to secure advertising materials. The advertising material has to be durable to withstand cleaning of the structure, such as by power washing using strong currents and/or detergents, and has to be capable of remaining affixed in all weather conditions, such as very hot, stormy, or very cold conditions. Furthermore, since the advertising material will generally be outside in an unsupervised location, the advertising material must be tamper-proof and graffiti-proof. It would also be advantageous to be able to readily change the advertising material.

0014 For purposes of this disclosure, the terms "portable" and "moveable" are synonymous, unless otherwise clearly required by the context of their use.

SUMMARY OF THE INVENTION

0015 The invention relates to advertising, and particularly to methods useful for the display of advertising in moveable or temporary structures such as portable toilets.

0016 Methods according to the invention can be used to transform exterior or interior walls, roofs, ceilings, and other surfaces or portions thereof of temporary, moveable, and/or fixed structures into advertising billboards. The invention has a very wide applicability to a variety of advertising settings. For example, temporary or portable storage buildings or containers, portable toilets, billboards, walls, tents, kiosks, fencing, barricades, and wastep bins, all provide surfaces suitable for use in displaying advertising materials. Moreover, the locations on or within such structures in which advertising is placed may be chosen strategically, in order to maximize the likelihood of the advertising material being considered by the target audience.

0017 Moveable and temporary structures are well adapted for placement in locations likely to be visited by audiences targeted by advertisers, and for the display of suitable advertising materials in such locations. In as much as the use of portable restrooms, wastep bins, and other suitable structures is likely to be desired or even required by such audiences, such structures can in some circumstances offer guaranteed audiences for advertising.
Thus it may be seen that methods according to the invention are useful for maximizing the effectiveness of advertising by, for example, providing selected advertisements to members of selected consumer audiences in circumstances under which it virtually guaranteed that the advertisements will be viewed and considered by such consumers. As will be understood by those skilled in the relevant arts, for example, particular advantages in targeted advertising are provided through the provision of such structures, bearing suitable advertising, at sport, concert, and other public venues and events.

Thus, in one aspect, the invention provides methods for displaying advertisements. The methods comprise features of identifying advertisements to be displayed and target audiences for the advertisements; identifying suitable temporary or portable structures to be used in displaying the advertising, preferably in locations likely to be accessed by the desired audiences; selecting locations for display of the advertisements on the portable structures, and attaching the advertisements to the portable structures in the selected locations. Preferably, the locations on the structures in which the advertisements are attached are selected based at least in part upon expectations that the locations will be within the field of view of users of the structures while the users are using the portable structure. Optionally, the method also comprises identifying suitable time periods for displaying selected advertising material to selected groups in selected locations.

In further aspects the invention provides systems, methods, and computer programming useful in identifying, exploiting, implementing, and controlling advertising campaigns and advertising opportunities.

It is noted that the invention is not to be regarded as being limited to the implementation of advertising campaigns directed toward single events or built upon installation of a single set of advertisements in one or more advertising units over a single defined period of time. Rather, the invention is well suited for the realization of improved efficiencies and effectiveness through the implementation of multi-site campaign(s) and placements of structures and advertisements for indefinite periods of time. Moreover, the invention is not to be regarded as being limited to advertising campaigns involving the installation of advertisements in moveable or permanent structures such as portable toilets or tents. In many aspects the invention provides valuable improvements in efficiency and effectiveness in advertising when implemented in conjunction with fixed advertising structures such as walls or billboards also.

DESCRIPTION OF EMBODIMENTS

FIG. 1 is a schematic diagram of a process for displaying advertisements in accordance with an embodiment of the invention. Process 100 of FIG. 1 begins at 102 with identifying one or more advertisements for display, and at 104 with identifying target audience(s) for the advertisement. Process steps 102 and 104 can be performed, or example, by an advertising manager or other executive decision maker, as for example as part of an advertising campaign. For example, an advertiser wishing to improve sales of a product such as beer may identify an advertisement such as a photographic depiction of a cold glass of beer and a target audience such as males of legal drinking age. As will be understood by those of ordinary skill in the relevant arts, once they have been made familiar with the disclosure herein, a very wide variety of other advertising scenarios, involving a wide variety of products and/or services, and target audiences, are suitable for use in implementing the invention.

At 106 one or more temporary or portable structures suitable for use in displaying the advertisement identified at 102 and a location likely to be visited by the target audience are identified. It may further be advantageous to determine a suitable location for placement of the selected structure. For example, in the beer example described above, a portable toilet located at the scene of a sporting event such as a football or hockey game likely to be attended by a targeted young male audience, or at a construction site likely to be manned by such males, may be selected. Again, a wide variety of suitable structures and locations are suitable for use in implementing this aspect of the invention.

As will be understood by those skilled in the relevant arts, upon being made familiar with this disclosure, particular advantage may be gained by selecting structures providing uses likely to be needed or desired by members of the targeted audience, and placing them in locations in which members of the audience are most likely to need them. Thus, for example, structures such as portable toilets, telephone booths, wastepaper bins, carnival or fair booths and tents, and stands or containers providing foods, beverages, or other necessary or desirable products or services may advantageously be identified for use in implementing various embodiments of the invention, and strategically disposed in suitable locations at sporting events, concerts, etc. As will be further understood by those skilled in the relevant arts, in some circumstances it is advantageous that the structures used for display of advertising in accordance with
the invention be designed or otherwise adapted for serving a primary purpose other than the display of advertising, and preferably a purpose that will from time to time make it necessary or otherwise advantageous for members of a target audience to approach and possibly use the structure. For example, both portable toilets and trash containers are designed to serve primary purposes, other than advertising, necessary or desirable to many people in a variety of circumstances.

[0033] A wide variety of locations for placement of structures bearing advertisements attached in accordance with the invention are suitable for use in implementing the invention. Generally speaking, any location likely to attract audiences to whom advertisers wish to present images, and which are compatible with the presence of temporary or permanent structures, such as portable toilets, temporary telephone booths, wastepaper bins, and the like will serve. For example, such structures and suitable advertising can be located at or within a desired proximity to sporting events, concerts, lectures, weddings, parties, celebrations, street festivals, or any other type of public gathering or venue, as well as construction sites and other work places, and at entrances, exits, or elsewhere within hiking trails, parks, and the like.

[0034] As will be appreciated by those skilled in the relevant arts, an advantage offered by advertising according to the invention is that, due to their temporary or moveable nature, one or more individual temporary or portable structures may be used in a series of related or unrelated advertising campaigns. For example, a portable toilet may be used first in a campaign targeted to patrons of a sporting event, and later, with the same or other advertising and in the same or another location, in a campaign targeted to patrons of a popular music concert, and still later at a construction site, camp site, etc. The ability to re-use and relocate such structures provides significant flexibility in the planning and implementation of advertising campaigns.

[0035] At 108 a location on the identified structure is selected for attachment or other display of the advertisement. Such location(s) may vary, depending upon the nature and particular construction of the temporary or portable structure, the goals and nature of the advertising campaign, and the nature of the particular advertising materials used. In preferred embodiments of the invention, such locations can comprise portions of the structure likely to be within the field of view of a user of the structure while the user is using the structure or availing him/herself of services or facilities provided by the structure. For example, where a selected structure includes a portable toilet, a suitable selection can include a location on or within the structure above or adjacent to or otherwise within comfortable viewing relation to a urinal, sink, or stool likely to be within the field of vision of person using the toilet, sink, etc., or on the door of such a unit where it is anticipated that lines may form. Alternatively, for example, a location adjacent a telephone in a temporary or portable telephone booth could be selected.

[0036] At 110 the selected advertisement is attached to the selected location on the interior or exterior of the identified structure. Preferably, the advertisement is attached in a secure manner, so as to provide protection for the advertisement from vandalism, weather, cleaning and maintenance processes, and the like. Advertisements may be attached to the interiors of enclosed structures, to exteriors, or to any suitable locations. Examples of methods and apparatus suitable for attaching advertisements to temporary or portable structures in accordance with the invention are provided in the incorporated references and in the appendices thereto.

[0037] As will be understood by those skilled in the relevant arts, process steps 106-110 may be performed by or in cooperation with any one or more of property owners or managers, event producers, promoters, advertisers or organizers, and/or other contractors, agents, or entities, including for example content producers and operators of suitable advertising structures.

[0038] FIG. 2 provides a schematic diagram of a system suitable for use in implementing various embodiments of the invention. The system illustrated in the diagram is well adapted for implementation by, for example, one or more parties 280 ("advertising coordinators" or "advertising contractors") operating alone or in cooperation or combination with one or more operators 240 of portable restrooms or other permanent, fixed, moveable or temporary structures ("unit operators"), and/or advertisers 290 and other content suppliers 220 ("advertisers" and/or "content suppliers"), as well as others.

[0039] In the embodiment shown in FIG. 2, arbitrary numbers of advertisers 290, content suppliers 220, unit operators 240, installers 260, event organizers 295, and advertising coordinators 280, can be involved in implementing the various aspects of the invention, each acting independently, or some or all of them in desired degrees of cooperation.

[0040] Physical as well as administrative components of system 200 can be provided in any forms or combinations suitable for use in implementing the communications and other processes disclosed herein. For example, communications can take place via digital computer network, voice telephone, fax, and/or paper copy, singly or in any combinations suitable for use in the circumstances in which the system is to be implemented, between individuals or suitable business entities. For ease of explanation and convenience in disclosing what will in many circumstances be considered a desirable implementation, the disclosure herein will be made generally in terms of systems comprising one or more electronic networks adapted for communication between digital data processors such as computers operated by business entities, using electromagnetic data signals.

[0041] Advertiser(s) 290 can include one or more providers or promoters of any types of goods or services, as for example consumer products and/or commercial or charitable services. Such advertisers can include producers of, for example, commercial goods such as food, beverage, or clothing products, or services such as charitable or government programs.

[0042] Content supplier(s) 220 can provide advertising content from or on behalf of advertiser(s) 290 in form suitable for permanent or removable placement on one or more moveable, temporary, and/or permanent advertising structures. Content supplier(s) 220 can for example provide printing or other manufacturing facilities 291 operable to provide hard copies of advertisements in printed form on paper, polymer, or other products, or in digital format suitable for display on electronic display systems such as
LCD panels. Such content can be provided in any suitable form for permanent or removable attachment to interior or exterior surfaces of structures, wraps adapted for placement on exterior surfaces of structures or on walls, billboards, etc.; or in transient or other form suitable for electronic display on LCD or other digital or analog display devices attached to such structures.

[0043] Unit operator(s) 240 can include operators of any type or types of movable or temporary structures, and/or any other type of advertising structures 230 suitable for use in implementing the invention. Unit operator(s) 240 can comprise, for example, one or more owners, lessees, or other operators of one or any numbers or types of portable toilets 221, waste bins 222, kiosks, booths, or tents 223, and/or billboards, walls, fencing, barricades, or other fixed or movable or temporary or permanent advertising structures 224. Such units 230 can be adapted for static display through for example the use of posters, wraps, or other printed or permanent content, or for active displays such as LCD panels or other electronic displays. Unit operator(s) 240 can provide, for example, for the maintenance and placement of structures 230 pursuant to agreements with event organizers, construction companies, governments, or other entities.

[0044] Installer(s) 260 can comprise individuals or businesses responsible for installing, maintaining, and/or removing advertising copy on or within individual advertising structures 230. Such individuals can for example include employees of unit operator(s) 240 and/or advertising coordinator(s) 280, or they can act as independent contractors. Copy installed by installer(s) 260 can for example be provided by one or more content provider(s) 220 and installed in accordance with instructions received from advertising coordinator(s) 280 directly or indirectly through unit operator(s) 240. Copy can be installed physically by for example placement within frames provided on the inside or outside of structures 230, applied directly to interior or exterior surfaces of structures 230, and/or installed digitally, as for example by installation via digital display devices. Installation of digital copy can also be provided by, for example, advertising coordinator 280 or other parties directly, as for example by wired or wireless communications link.

[0045] Event organizer(s) 295 can include individuals or entities involved in organizing, promoting, and/or implementing social, commercial, sporting, political, musical, artistic, contractual, or other events, including for example sports events, public gatherings, concerts, and building construction projects.

[0046] As will be understood by those skilled in the relevant arts, advertising(s) 290, content supplier(s) 220, unit operator(s) 240, installer(s) 260, event coordinator(s) 295, and advertising coordinator(s) 280 can operate as independent business entities, in more or less formal relationships, as desired. For example, one or more of content supplier(s) 220, unit operator(s) 240, installer(s) 260, and advertising coordinator(s) 280 operate independently, in combination pursuant to formal or informal legal contract or relationship, or one or more of them may be wholly or partially-owned subsidiaries of each other, or of other entities. Likewise, any or all of operators 220, 240, 260, 280, 290, 295 can be divisions, offices, or separate individuals associated with a single entity, or indeed a single person. Except as required by context, no particular relationships are intended or implied to exist between the various operators 220, 240, 260, 280, 290, 295 as described herein. Each of operators 290, 220, 240, 260, 280, 290, 295 can be included in any desired numbers in implementations of system 200.

[0047] As noted above, any or all of parties 290, 220, 240, 260, 295 and 280 can communicate between each other in any desired live, electronic, written, or other fashion. In the embodiment shown in FIG. 2, each of parties 290, 220, 240, 260, 295 and 280 can communicate using electronic advertising processing equipment linked over an electronic communications network (ECN) 250 such as one or more local- or wide-area networks and/or stand-alone computer systems linked over a private or public network such as the Internet. Network 250 and associated systems can be provided using any suitable wireless or wire-line communication devices such as modems, telephone lines, gateways 285 and associated firewalls or other security devices, and wireless towers and other components.

[0048] Each of operators 290, 220, 240, 260, 295 and 280 in the embodiment shown in FIG. 2 operates or otherwise accesses one or more client systems 292, 227, 241, 261, 297, 284, comprising digital data processors linked to the network 250. Such processors can include desktop, laptop, palm, server, or other class computers such as many of those which are now widely available, processing communications and other data using any suitable forms of software programming and other machine instructions. Such client systems can for example include handheld or otherwise portable units as shown at 261 and otherwise described herein, for use by installers 260 and others working from remote or mobile locations.

[0049] A wide variety of digital processors, computer systems, and communications and networking systems and components, as well as appropriate operating systems and programming, suitable for use in implementing the invention, are now commercially available, and will doubtless hereafter be developed. The selection of suitable devices and systems will not trouble those skilled in the relevant arts, once they have been made familiar with this disclosure.

[0050] An example of a method of advertising according to the invention and suitable for implementation according to relationships and using a system such as those shown in FIG. 2 comprises acquiring rights to place advertising on surfaces of moveable or other structures; reaching an agreement with an advertiser and/or one or more other parties for display of at least one advertisement on the surfaces during an event; and causing the at least one advertisement to be placed on the surfaces for display during the event.

[0051] An example of an implementation of such a method comprises acquisition by an advertising coordinator 280 of rights to place advertising provided by a content supplier 220 on behalf of an advertiser 290 on one or more surfaces of a plurality of structures 230 operated by a unit operator 240. For example, an advertising coordinator 280 can approach a unit operator 240 who has for example acquired rights from an event organizer 295 to place structures 230 such as portable toilets 221 and waste bins 222 at the site of an event such as an automobile race, an amateur sporting event such as a local running race, a charitable event such as a church social or a walk to raise funds to seek a cure for a disease, or in a desired location for a definite or
indefinite period of time, such as for example at a construction site during the raising of an office or condominium tower; and acquire from the unit operator 240 and/or the event organizer 295 rights to place one or more advertisements on one or more interior and/or exterior surfaces of the structures 230.

[0052] Accordingly, the invention comprises in various embodiments the provision of contracts and/or agreements between parties including, for example, one or more advertising coordinators 280 and one or more unit operators 240, advertisers 290, content suppliers 220, event organizers 295, and/or installers 260. Such contracts can be used to establish, maintain, and control relationships between such parties in advertising schemes such as that shown in FIG. 2.

[0053] Advertising coordinator 280 can further reach an agreement with one or more advertisers 290 and/or event organizers 295 for the display of advertisements on surfaces of one or more structures 230 during an event, or under some other set of defined circumstances such as for example a defined period of time in a specified location. For example, an advertising coordinator 280 can reach an agreement with a food or clothing advertiser 290 and/or an organizer 295 of an event such as an organization responsible for organizing an auto race, other sporting event, or a contractor responsible for raising a building.

[0054] As will be understood by those skilled in the relevant arts, once they have been made familiar with this disclosure, contracts or other agreements between parties in advertising campaigns according to the invention, including for example campaigns organized using relationship schemes and networks such as those shown in FIG. 2, can include terms of any type agreeable to the parties.

[0055] Such terms may for example govern or address:

[0056] ownership, operation, acquisition, maintenance, control, location, transportation, installation, and removal of stationary, fixed, temporary, movable, and/or portable advertising units, whether existing or after acquired;

[0057] exclusivity or non-exclusivity in control of advertising displayed on or within existing and/or after-acquired advertising units, including for example sponsorship of events or other occurrences; exclusivity of rights of advertisers and other parties for a given period of time, on an event-by-event, location-by-location, industry, goods, services, sponsor, manufacturer, or other basis or bases;

[0058] the content, form, and types of advertising or advertisements; types of advertisements and advertising units 230 used in display, and the location of such units; the duration and/or frequency of display; installation, maintenance, production, design, and development of advertisements; control, maintenance, and upkeep of advertising displayed; control of publicity; and trademark usage;

[0059] access to units and event and unit deployment venues for and installation of advertising in various forms;

[0060] provision, maintenance, and control of power, tools, and other items necessary or desirable for use in installing, maintaining, and removing advertisements;

[0061] compensation schemes, including for example, include one-time installation charges on a group or per advertisement basis, time-based payments, terms based on exposure of advertising units to members of desired target audiences, types of advertisements displayed, royalties, referral fees, in-kind compensation, size, content and nature of markets, and any other mutually-acceptable terms or schemes;

[0062] requirements for cooperation in the above or other issues between any one or more of the parties;

[0063] default and breach; etc.

[0064] As will be understood by those skilled in the relevant arts, such agreements can also advantageously include confidentiality and intellectual property ownership and control terms.

[0065] One particularly useful type of term which may be offered in agreements in accordance with the invention, particularly as a part of agreements involving advertisers 290, includes the possibility of pre-emptive advertising, which can refer to situations in which an advertisement which has been installed in or on an advertising unit for some length of time can be temporarily pre-empted and replaced by another advertisement for a shorter period of time, for example during a particular special event, with suitable accommodations in pricing, etc.

[0066] Thus for example the invention provides methods of advertising which may be practiced by contractors such as advertising coordinators 280 which comprise acquiring from one or more unit operators 240 rights to place advertisements 1010 on surfaces of advertising structures 230 controlled by the operator(s) 240, reaching an agreement with an advertiser 290 for display of at least one first advertisement 1010 on the surfaces during an event, and reaching an agreement with another advertiser 290 for display of at least one other advertisement 1010 on the surfaces during the event, the agreement subject to a right in the advertising contractor to cause substitution of the other advertising with the at least one first advertisement. The second advertisements can for example be permanently or temporarily removed and replaced with the pre-emptive advertisements, or merely permanently or temporarily covered by the pre-emptive advertisements.

[0067] One advantageous feature offered by business plans according to the invention is the use of long term, exclusive contracts between the contractor(s) implementing the plan, e.g., an advertising coordinator 280 and unit operators 240 and/or advertisers 290. Such contracts may require, for example, that unit operator provide exclusive access to specific numbers of advertising units within one or more specified geographical territories for a specified period of time; access to facilities, such as space and utilities useful for the installation and management of advertising; and other terms useful for the installation and management of advertising in portable units.

[0068] Pursuant to any of such agreement(s), the advertising coordinator 280 can obtain from one or more content suppliers 220 advertisements suitable for use in fulfilling the agreement(s) the coordinator 280 has reached with any other parties.

[0069] Advertising coordinator 280 can further cause one or more installers 260 to install advertising materials
acquired from supplier(s) 220 in one or more of the structures 230 in accordance with the coordinator’s obligations under the various agreements.

[0070] Among the many features offered by the invention are various processes, implemented using appropriate software or other means, for expediting the preparation, distribution, display, and control of advertisements and advertising campaigns. Such processes include inventory control and performance management processes, and methods, software, and devices useful in installing and removing advertisements, and in monitoring and controlling them while they are installed.

[0071] The invention provides, for example, inventory control processes, and suitable computer programming, adapted to provide advertisers 290, advertising coordinators 280, and other parties with information regarding available units 230 and surfaces thereon, suitable for installation of advertising materials, and locations and times of events, target audiences, etc., in which such units are or may be made available. Among features offered by such inventory control processes are sales and marketing functions such as associating one or more geographic locations with advertising content and/or associating geographical location and advertising content with demographic information. Corresponding software may enable features related to sales, such as for example access to subcontractor details, features related to operations, such as market scheduling, or features related to finances, such as invoice management or lease management functions. The software may also enable field service management functions useful, for example, in keeping track of work orders and maintenance requests and in sending information relating to daily installation and removal schedules to and receive information regarding completed tasks from handheld or other devices used by in-field staff such as installers 260.

[0072] A particularly advantageous feature offered by such inventory control programs is the possibility of complete integration of communications and management functions between the various contractors and operators, including for example advertising coordinator(s) 280 and the other parties 220, 240, 260, 290, 295. The parties are enabled, for example, to share order, inventory, location, implementation, and other information seamlessly and in real time.

[0073] As will be understood by those skilled in the relevant arts, agreements between parties such as advertising coordinators 280, unit operators 240, advertisers 290, content suppliers 220, event organizers 295, and/or installers 260 such as those described above for establishing and controlling relationships between parties to advertising campaigns such as those described in connection with FIG. 2 can also advantageously include terms requiring the collection, storage, processing, and sharing of data useful in operating such inventory control programs, performance management programs, and other programs described herein.

[0074] Various processes useful in implementing the invention may be illustrated through the description of an advertising campaign. Such a campaign may be implemented using process 100 of FIG. 1 and the system shown in FIG. 2.

[0075] For example, an advertiser 290, alone or in combination with any other parties, including any of parties 280, 220, 240, 260, and 295, can define an advertising campaign to be mounted using system 200. For example, an advertiser 290 can identify possible permanent or temporary advertising locations suitable for use in reaching a target audience with one or more suitable advertisements.

[0076] The identification of target audiences and suitable advertisements and advertising locations can be facilitated using the invention. For example, according to one embodiment, an advertiser 290 can use an advertiser client system 292 to operate software provided by an advertising coordinator 280 to review data regarding available advertisements, advertising facilities, and target audiences, including for example vast amounts and types of demographic and consumer data during given time periods. Such software can be provided on a server system 281, on a client system such as advertiser client system 292, or in any suitable distributed form, and such data may be acquired from any suitable source.

[0077] For example, a user of an advertiser client system 292 can use programming and data provided via a server 281 and associated database(s) 282, and/or on one or more databases available from a public or private source over a network such as network 250, to identify the names, classes, locations, and times and dates associated with particular advertising opportunities. For example, as shown in FIG. 3, an advertiser 290 interested in advertising related to one or more given businesses 303 can access one or more databases of business identification information, including for example name, location, and contact information, to compile maps and/or listings of all such businesses and advertising venues and opportunities meeting certain filter criteria. For example, date filters, proximity searches, and the like can all be employed.

[0078] In the example shown in FIG. 3, an advertiser 290 wishing to identify advertising opportunities within a given proximity of McDonald’s restaurants during a given time period has requested a map of McDonald’s restaurant locations in the city of San Francisco, Calif. The location 304 of each McDonald’s restaurant within the requested map area 306 is shown. The requesting advertiser 290 has also requested a showing of all areas within the map within a proximity of 2500 feet of each of the identified locations 304. The areas 308 within the requested proximity can be shown using any suitable form of distinction, as for example by color differentiation, cross hatching, etc. In the example shown, the proximities are denoted using a highlighting color (e.g., yellow) in conjunction with a perimeter circle.

[0079] In the example shown in FIG. 3, the requestor has further caused the display of possible locations 312, 316 of advertising units 230 under the control of one or more unit operators 240, from or through whom the advertising coordinator 280 providing the data has acquired rights to place advertisements within the requested map area 306 during a designated time period 314. Such locations are designated using first indicia (e.g., circles) 312 if they are unavailable and/or otherwise unsuitable for the type of advertising contemplated by the advertiser 290, and by second indicia (e.g., triangles) 316 if they are available and/or otherwise suitable for the type of advertising contemplated by the advertiser 290. For example, in the example shown in FIG. 3, first indicia 312 can indicate that the corresponding locations are already committed to the display of other
advertising, or are of a physical form unsuitable for the campaign planned by advertiser 290.

[0080] Locations 312, 316 can represent, for example, fixed or permanent advertising structures such as available billboards or walls, or suitable locations for disposition of temporary or moveable structures such as portable toilets, wastebins, kiosks, tents, fencing, barricades, portable signs, etc. Such temporary or moveable structures may already be in place, or may be ready to be placed in such locations by one or more unit operators 240.

[0081] In order to compile the information shown in the map display shown in FIG. 3, a user of a client system 292 such as advertising client 290 has caused the system 292 to issue commands, using for example proprietary software provided by an advertising coordinator 280, to access corresponding data in one or more databases 282 in a form usable by one or more of server 281 and/or client system 292, to display on an output device associated with the client system 292 corresponding maps and/or lists in a form such as that shown in FIG. 3, which can represent, for example, an interactive graphical user interface so compiled and displayed.

[0082] Thus it is seen that the map 306 and listings 318, 319 illustrated in FIG. 3 may be used by an advertiser 290 or other party to identify a plurality of locations 330 that are within a desired proximity of a target venue such as a business (e.g., McDonalds), and ergo within the expected purview of a desired audience, which may be expected to frequent the targeted locations and or to otherwise have a possible interest in advertising associated with the targeted business, during a desired time period or other time frame.

[0083] It will be appreciated by those skilled in the relevant arts that the creation of new databases and/or association of existing databases comprising data representing target business names and locations, demographic information related to target audiences, and locations and physical attributes of advertising opportunities, including the presence and/or availability of both fixed or permanent and moveable or temporary advertising structures, including time periods during which such advertising opportunities are available and the identities of parties associated with placement, maintenance, and control of the structures, businesses, etc., are unique and beneficial aspects of the invention, and they are regarded as such by the inventors. While some of the information included in such data bases has been compiled and made available via network by others, no one has provided for the accessing and association of such data, and its use in identifying advertising opportunities, in the manner described herein.

[0084] FIG. 4 provides a schematic diagram of a graphical user interface suitable for use in implementing the invention. In particular, the interface shown in FIG. 4 can be used, in conjunction with other features and functionality described herein, by parties such as advertisers 290 in developing advertising campaigns such as that developed using the strategies described in conjunction with FIG. 3 above. An advertiser 290 or other party can use a client system such as client system 292 to access one or more databases 282, or other database(s), to compile data showing the location of demographic information such as household or business income level, spending patterns, etc., and to display or otherwise make that information available in the form of a.

map 502 and/or a list or other useful form. Such user(s) can also cause the system 200 to compile data corresponding to locations 504, 510 under the control of one or more unit operators 240 from or through whom the advertising coordinator 280 providing the data has acquired rights to place advertisements within the requested map area 502 during a designated time period 514. Such locations can be designated using first indicia (e.g., circles) 504 if they are unavailable and/or otherwise unsuitable for the type of advertising contemplated by the advertiser 290, and by second indicia (e.g., triangles) 510 if they are available and/or otherwise suitable for the type of advertising contemplated by the advertiser 290. For example, in the example shown in FIG. 4, first indicia 504 can indicate that the corresponding locations are already committed to the display of other advertising, or are of a physical form unsuitable for the campaign planned by advertiser 290.

[0085] In the example shown in FIG. 4, data accessed at the request of client system 292 has been compiled in form suitable for use by client system 292 in displaying a graphical user interface representing a map showing household incomes in various parts of the city of San Francisco during the month of March, according to displayed legend 508.

[0086] Using the information compiled by the processes illustrated in conjunction with FIGS. 3 and 5, an advertiser 290 can identify one or more advertisements suitable for conveying a desired message to a target audience within the indicated regions and desired time periods. For example, a representative of one or more restaurants can determine that one or more advertisements are suitable for use in reaching a desired target audience in the regions shown in those figures, through the medium offered by the available advertising structures and locations 316.

[0087] A further optional feature offered as an aspect of inventory control processes according to the invention includes the storage and control of contractual details in conjunction with the control and maintenance of databases 282, etc., for use, for example, in implementing advertising campaigns such as those enabled by systems such as that illustrated in FIG. 2. For example, FIG. 5 provides a schematic view of a interactive graphical user interface screen 600 useful in implementing embodiments of the invention. Such an interface 600 can, for example, be displayed for a user of a client system such as advertiser client system 292 or an advertising coordinator using an administrative client 284 using data provided by or in conjunction with server 281 using, for example, one or more databases 282. In the embodiment shown, the user of the client system can review and enter or modify data relating to a wide variety of contractual and advertising details, relating for example to deployment of one or more advertising units 230.

[0088] For example, at field 602 interface 600 displays information identifying a contract made between an advertising coordinator 280 and a client unit operator 240"Sky Outdoor Ltd." for the display in advertising units controlled by operator "Sky Outdoor Ltd." of advertisements related to an advertiser "7 Eleven Food Stores", pursuant to a contract covering a time period of four weeks. Pursuant to a related subcontract, as shown, corresponding mall posters are to be displayed at San Francisco/Oakland area malls during the contract period.
Items 604 can include interactive items, the selection of which can enable a user of the client system on which the interface 600 is displayed to view a wide range of data. In the example shown, the user can, by using a pointing device such as a mouse or trackball or other suitable control device(s) elect to review and/or modify data related to the value of the contract and individual portions of it (e.g., the value of various forms or content of the subject advertising), notes entered by any of the parties 280, 292, 291, 240, 295, and/or 260 authorized to enter them; attachments such as images of contracts or other associated documents, or images of advertising units 230 with or without installed advertising; maps such as maps 306, 502; details of selected contracts or subcontracts; etc. Any or all of such contractual details can be used by server 281 and/or various client systems 284, 227, 292, 297, 261, 241 to control any one or more of the various processes described herein.

As will be appreciated by those skilled in the relevant arts, once they have been made familiar with this disclosure, screen 600 and all of the other interface screens described or suggested herein can advantageously be provided, together with related process controls, according to a wide variety of interactive software processes, using a wide variety of input and output devices, many of which are known and others which will doubtless hereafter be developed. For example, the well-known WINDOWS® operating system provided by Microsoft Corporation of Redmond, Wash., provides suitable displays, including items which are selectable using pointing devices such as mouses (mice) or trackballs, and which, upon selection, can cause a wide variety of processing functions, including input, output, storage, and arithmetical or textual processing of values represented by or otherwise associated with the items.

Another example of inventory control processes enabled by the invention includes scheduling features useful in planning and implementing advertising campaigns. For example, FIG. 6 provides an illustration of a graphical user interface 700 adapted to display data showing the status of any number of individual advertising units 230 deployed in various locations, as indicated in field 702, during selected time periods, as shown in calendar field 704. As shown in field 706, such information can be associated with and displayed in accordance with the selection of any one or more distinct contracts or subcontracts, to show the status of such units 230 during periods governed by such contracts.

FIGS. 7 and 8 illustrate further features offered by inventory control processes enabled by the invention. FIG. 7 provides an example of an interactive graphical user interface 800 adapted for accounting functions such as the preparation, delivery (as for example by e-mail, fax, or other automatic transmission), review, modification, and other processing of invoices. Field 802 provides a directory or tree structure providing organized access to data records representing amounts due, paid, and otherwise associated with accounts related to various contracts. For example, as will be readily understood by those skilled in the relevant arts, selection of an item "All Invoices" subordinate to a higher-level item "Financial" in a group "Public Folders" can cause the display in field 808 of a number of data records 812 associated, as for example through the use of suitable data fields, with various identified contracts, along with associated due dates and sent dates 814, 816. Further selection of an item 810 "Mar. 24, 2003 William Jones A..." can cause any of a variety of user-defined further actions, including for example accessing of further data associated with the record 810, which may for example be used to display images of invoices, etc., and/or to create and/or modify related data.

FIG. 8 provides an example of an interactive graphical user interface 900 adapted for use in managing leases or other contracts pursuant to the invention. A user of a client system 284, 227, 292, 241, 297, 261 etc. is enabled to prepare, deliver (as for example by e-mail, fax, or other automatic transmission), review, modify, and otherwise process leases and associated documents or records such as lease payment records. Field 902 provides a directory or tree structure providing organized access to data records representing leases or lease proposals, or otherwise related to various contracts. For example, as will be readily understood by those skilled in the relevant arts, selection of an item 904 "All Lease Payments" subordinate to a higher-level item "Financial" can cause the display in field 908 of a number of data records 912 associated, as for example through the use of suitable data fields, with various identified lease agreements, along with associated due dates, status indicators, and other data 914, 916 etc. Further selection of an item 910 "Feb. 25, 2004 Active 1007 Carlos Jackson..." can cause any of a variety of user-defined further actions, including for example accessing of further data associated with the record 910, which may for example be used to display images of invoices, etc., and/or to create and/or modify related data.

As will be understood by those skilled in the relevant arts, accounting, billing, lease management, and other functions enabled through the use of interfaces 800, 900 etc., can be enabled wholly or partially through the use of known, commercially available accounting, billing, and lease management programs, many of which are now known and others of which will doubtless hereafter be developed. Any such processes can be initiated and controlled using, for example, known application control processes.

As will be further appreciated by those skilled in the relevant arts, any of the data stored in databases 282, etc., and useful in performing any of the processes described herein can be entered and/or modified by any one or more of the parties 280, 292, 291, 240, 295, according to authorizations set by any one or more of them. For example, in some embodiments of systems according to the invention any one or more of advertising coordinator 280 and/or operator 240 are authorized so set authorizations for any one or more other users, in order to maintain the security and control of the contents of the databases 282, etc. Similarly, the security of such data may be protected by restricting access to authorized users using, for example, known data security architectures.

The invention further provides uniquely efficient and effective methods, systems, and tools for aiding in the installation, monitoring, removal, and maintenance of advertisements on advertising units 230.

One feature of the invention that can be particularly useful in promoting the efficiency and effectiveness of installation, monitoring, removing, and maintaining advertisements in accordance with the invention is provided through processes and systems useful for the automatic preparation and dissemination of routing lists, maps and schedules using functions and data available through the
inventory management process. Such process features may, for example, be provided using data entered into databases such as advertising coordinator database 282 by any party or parties involved in the concerned advertising effort. A particularly useful feature of such processes and systems is their ability to process and make use of current (“real time”) information in monitoring the status of installations, removals, and maintenance efforts. Such status information may be provided and updated or otherwise modified by any party using the system and authorized to do so, including for example an authorized unit operator, installer, or content supplier.

An example of the use of such processes to prepare, disseminate, and use such routing lists, maps and schedules may be demonstrated through reference to the figures.

FIG. 9 is a schematic view of an interactive graphical user interface provided by an inventory control system according to the invention. Such an interface can be provided, for example, at a client system accessed by an advertising coordinator 280, a unit operator 240, or an installer 260. By accessing a “Job Manager” function, the user can cause a screen such as screen 1000 to be displayed. By using suitable pointing devices to select items in directory tree, the user can cause data included in data sets stored in database 282 or elsewhere to be displayed in field 1004. Such data can include, for example, data sets comprising data records associated with various advertising campaigns, or “jobs”. At 1006, for example, data associated with selectable item 1008 “AWNY 2006” in tree 1002 has been displayed as a result of selection of item 1008. Data displayed at 1006 comprises information indicating that the job “AWNY 2006” can be described as “AIDS Walk New York”, which has been classified as a special event and is associated with a status of open—that is, that the campaign is still active, as for example from the point of view of the advertising coordinator 280. The item “Total Task Count”, which with respect to the data record associated with item 1008 has a value of “128”, can indicate how many unfinished tasks have been identified as associated with the job.

By activating an appropriately-programmed interface control, a user can cause the server system 181 or any one or more of client systems 284, 292, 261, 291, 241, etc. to display or otherwise present options for accessing and processing data related to the job item 1008. For example, as shown in FIG. 10, “right clicking” a standard Windows®-compatible mouse or other pointing device after selecting an interactive job item 1008 (“Sample for Patent”) can cause a “pop-up” menu 1102 to be displayed, in accordance with standard Windows® functionality. Menu 1102 can provide selectable items corresponding to various command signals, selection of which by a user can cause the inventory management and control system to execute corresponding data processing functions, using corresponding data associated with the selected item 1008. In the example shown, command options provided within menu 1102 include options for editing data associated with the selected job item 1008; adding/removing specific task data records associated with the selected item 1008; assigning various users and/or groups of users of system 200 authority to access and optionally modify the corresponding data, and/or responsibility for performing the tasks indicated; preparing routing/scheduling lists assignable to various users, and to cancel the job associated with the selected item 1008.

Selecting menu item “Route” 1106 from menu 1102 can cause system 200 (e.g., server 281) to issue command signals suitable for causing the display of an interface 1200 such as that shown in FIG. 11. In the interface 1200 shown in FIG. 11, selection of the “Route” command 1106 has caused display in a field 1202 of all cites associated with the job selected at 1008. Such display can be caused, for example, using processes commonly employed in database searching and other data processing, including for example the identification of associated data records through the use of sequentially or otherwise-identified fields within individual data records and data sets. Some or all of the data associated with each site record, which may be associated with multiple task records, can be displayed in one or more fields 1202, 1204.

In the example shown, selection of item 1008 and “Route” command 1106 has caused display in field 1202 of multiple sites associated with the selected item 1008. Such sites can correspond, for example, to the fixed, current, or intended future locations of fixed, temporary, or moveable advertising units 230. Each such site is identified in field 1202 by an assigned name 1206, a physical location which may for example comprise a street address 1208, a cross-street 1210, a city 1214, a number of units located at the site, a number and type of advertisements to be displayed, etc. Also provided in conjunction with each site 1206 is a selectable item 1220, such as a “radio button,” or check box provided as a standard part of the Windows® operating system.

A user can select one or more items 1220 in order to cause the system to display in field 1204 each individual task associated with the selected site(s). In the example shown, a single task 1222 associated with a type or command “Take Down” has been displayed. In this manner the user can build and display in field 1204 a set of associated data records corresponding to a desired set of tasks to be performed, by for example, one or more installers 260.

As will be understood by those skilled in the relevant arts, at each stage of data processing using functions associated with inventory control and management systems according to the invention, review and selection of desired data records can be facilitated through the use of filter sets. Useful forms of such filter sets, which can be used to control review and display of data from databases such as database 282, are well known, and can be applied to implementation of the invention in a straightforward manner.

Once the user has built in a field 1204 a desired set of tasks to be performed by one or more installers 260 or other parties, the user can issue command signals adapted to cause display of a map showing the geographic location of the selected sites. For example, the user can select a mapping command from a command menu such similar to pop-up menu 1102. Selection of such a command can cause the user’s client system to send to a server 281 or other processor signals adapted to cause the processor to access and display a data base of maps, together with indicia showing the location of the selected sites. For example, issuance of such commands can result in display of a map 1300 such as that shown in FIG. 12, which includes both a regional geographic and highway map, as well as indicia 1302 showing the location of selected sites 1222.

A user can further use inventory control and maintenance processes provided by server 281, etc., to create a
route and schedule, which may be optimized to, for example, minimize travel time or travel distance, and which may include directions for proceeding from site to site and for accomplishing the tasks to be performed there.

For example, as shown in FIG. 13, a user can select a command item 1102 "Route" from a command menu 1102, and a further command item 1402 "Create Route" from dependent command menu 1404, in order to cause the user’s client system to issue command signals adapted to cause server 281 to access routing and optimization routines, using selected data and appropriate geographic databases to compile a route or schedule for use in accomplishing tasks associated with implementation of an advertising campaign.

Using information such as desired starting and/or ending times and locations, such routing and optimization routines can, for example, access databases and to identify suitable routes from a starting point to a nearest or most convenient job site, using for example known navigational principles, and to create data sets containing suitable driving or other routing commands, as well as instructions for accomplishing the corresponding task. Such processes can be used, for example, to associate each site and/or task with a step number 1502, a stop address 1504, driving comments 1506, and a task count (i.e., a number of tasks to be completed at the corresponding location), and to compile a suitable routing list 1510, as shown for example in FIG. 14.

Such routines can further provide estimated arrival and departure times for various sites on the route, and estimate travel times between sites.

Routes and schedules so determined can be stored in any desired type of memory, at any desired location, and can be disseminated via network or other means and displayed in desired forms in user interfaces at any desired client systems. They can also be printed in paper or other copy for dissemination.

An example of a user interface displaying such a route/schedule is shown in FIG. 15. Interface 1600 of FIG. 15 comprises a field 1602 which includes a listing of the compiled route and schedule, showing departure and arrival times, distances between points, and direction from points to point. Interface 1600 further comprises a map field 1604 displaying stops, together with their corresponding stop numbers. Field 1606 provides selectable items (e.g., hypertext links) to directory trees and other data sets providing information that might be useful to an installer or other party considering the route/schedule.

In order to facilitate installation, removal, and maintenance of advertisements by installers 260 and/or others, routing and scheduling information can be forwarded to any one or more of client devices 292, 227, 241, 261, 284, 297 etc., via wireless or hard-wired communications circuits or networks, by fax, by mail, or by any other form. In some embodiments of the invention, such routes/schedules are disseminated in digital form by communications networks which can include both wireless and wireline components.

An embodiment of a system useful for disseminating routes, schedules, and other communications useful in installing, monitoring, removing, and maintaining advertisements on advertising units in accordance with the invention is shown in FIG. 16. System 1700 of FIG. 16 comprises a subset of components comprised by system 100 shown in FIG. 1, including for example advertising coordinator system 180 and installer system 260.

In the embodiment shown, installer system 260 illustrates some of the very wide variety of installer client systems 261 that are suitable for use in implementing the invention, including handheld device(s) 1720, digital camera(s) 1706, laptop computer(s) 1708, and telephone(s) 1012, which may be conventional or wireless or of any other form.

Handheld devices 1720 provide significant advantages in implementing various embodiments of the invention. In this aspect the invention provides highly innovative and unique handheld devices adapted for highly efficient installation, removal, maintenance, and monitoring of advertisements, which represent substantial improvements over previously-available devices.

Handheld devices according to the invention can include any or all of radio-frequency identification (RFID), barcode and/or other machine-reading devices; automated positioning equipment such as global positioning systems (GPSs); digital imaging devices such as cameras or video recorders; wireless communications devices; and various input/output devices such as LED, LCD, or other display screens, keyboards, pointing devices, speakers, and the like. The devices can be controlled separately or in any combination using any desired combinations of general- or special-purpose processors, operating system software, firmware, etc., as well as volatile and/or persistent memory devices.

In various embodiments of the invention handheld devices 1720 and/or any other installer client systems 261 are adapted for the wireless or other reception of data sets, including for example data sets useable by the processor(s) and displays provided within the devices for displaying information such as routing lists, schedules, maps, and other directions, as described herein.

A process for installing, removing, monitoring, and maintaining advertisements in advertising units 230 in accordance with the invention is shown in FIG. 17. Process 1800 of FIG. 17 can begin at 1802 with an installer 260, who may for example be an independent contractor or an employee of or otherwise affiliated with any one or more of parties 280, 240, 295, 220, 290 activating his client device 261, which may include a handheld device 1720, and starting an inventory control and management application, including logging in and authenticating him/herself as required or desired.

An example of an interactive user interface suitable for display on a handheld device 1720 is shown in FIG. 18. Interface 1900 is adapted for implementation, for example, as an initial (e.g., "desktop") screen provided by the handheld device upon activation. As illustrated, interface 1900 comprises a selectable item or “icon” 1902, selection of which can be adapted to issue command signals causing handheld unit 1720 and/or server 281 to initiate a routing/task application as described herein.

For example, selection of item 1902 in FIG. 18 can result in presentation of an interface screen such as screen 2000 shown in FIG. 19, which is adapted for inputting in field 2002 of a user name and/or password as part of a log-in process, using suitable commands and input devices such as...
pointing devices and input keys, and further selectable items
2004, 2006, 2104, 2106 can be adapted for performing
“enter” and “cancel” functions compatible, for example,
with standard Windows® functionality.

[0121] Entry of user names, passwords, and the like can
cause data representing such names or passwords to be
transmitted to a gateway 285 associated with advertising
coordinator system 280 and used to supply a secure firewall
to prevent unauthorized access to data stored in database 282
or unauthorized use of commands, etc., for processing data
using server 281, etc.

[0122] With the inventory control application activated,
the installer 260 can access, for example by downloading
from an advertising coordinator server 281 or other source,
a route/schedule listing indicating one or more tasks to be
performed, and the location of the advertising unit 230 with
respect to which such activity is to be performed. The
routing/scheduling information can be displayed in one or
more of the forms shown in FIG. 14 or as otherwise desired
or adapted. For example, a routing list can be displayed in
list form, as shown for example in field 1510 of FIG. 14,
with selectable items or other means for selecting entries and
expanding the amount of data shown, and means for switch-
ing to map views, etc.

[0123] An example of a routing or task list suitable for
presentation on a handheld device 1720 is shown in FIG. 20.
Such a display can be interactive, as herein described, and
can include selectable items 2102, 2104, 2106 for scrolling
through further portions of the route/scheduling list 2108;
2110 for obtaining help or further information, and 2112 for
creating previously-entered data to be accepted and used in
updating and refreshing the display 2100. Items 2102, 2104,
2106, 2112, and 2114 can be adapted for use consistent, for
example, with standard Windows® functionality.

[0124] In addition, a routing/scheduling list may also be
printed in paper or other copy. In some embodiments of the
invention, printed routing/task lists including unique
machine-readable identifiers such as bar codes are provided
in conjunction with individual tasks included in the routing/
scheduling list. When used together with handheld devices
1720 equipped with bar code, RFID, or other machine
reading devices, and with advertising units 230 equipped
with RFID tags, bar codes, or other machine-readable tags
1702, such lists can, as will be described, be used to
automatically associate specific tasks included within the
route/scheduling list with individual advertising units 230.

[0125] Examples of further interface displays suitable for
presentation on for example a handheld unit 1720 are shown
in FIGS. 21a and 21b. In FIG. 21a, an example of a group
work list, to be completed for example by a plurality of
installers, is shown. A display of the type shown in FIG. 21a
is suitable for presentation to, for example a supervisor
employed by an installer 260. By using scrolling buttons and
various other input controls, a user can for example select an
individual task 2204, and by thereafter selecting “View
Details” item 2204, can cause display of an interface such as
that shown in FIG. 21b. The display shown in FIG. 21b
shows a number of details of an individual task. In the
example shown, the task relates to maintenance of an
advertising unit 230, including repainting and replacement
of broken glass Fields 2206 are all adapted for input or
revision of previous input by authorized users. A check box
for indicating completion of the task is also provided, at
2208. By selecting “Save” item 2210, the user can cause the
installer client system 261 to send to coordination server 281
or other desired recipient data indicating any updates or
revisions made to data presented in any of fields 2206, with
corresponding modifications being made to data sets stored
in database 292 and any other desired data sets, including for
example any client-controlled data bases, and appropriate
revisions to any subsequent data processing.

[0126] Displays presented to a user of a handheld device
1720 or other installer client system 261 can further include
lists of supplies required or desired for completing each of
the tasks included in the downloaded list. Such materials,
tools, or supplies lists can be updated in accordance with
revised data sets by for example activating an item 1912 on
a corresponding display screen.

[0127] Having accessed the desired routing or scheduling
list, a user of an installer client system 261 can, as men-
tioned, further access a list of supplies required for complet-
ing the tasks included in the list. Accordingly, at 1802 the
installer can gather any desired or required equipment,
including for example any advertising materials, frames,
wraps, rivets, and other devices. The user can further access
the first stop in his routing/schedule list.

[0128] At 1804 the installer proceeds to the first (or next)
stop on the accessed list. For example, the user of an installer
client device 261 can select item 2116 in list 2108 of FIG.
20, and then item 2118, to cause a handheld unit 1720 to
display a map 1604 and/or driving instructions 1602 and
drive to the indicated site.

[0129] Where multiple advertising units 230 are provided
at a single site, at 1806 the installer can proceed to the
location indicated in the work list as the location of the first
unit 230 to be serviced, and at 1808 determine whether the
unit is present.

[0130] If the advertising unit 230 is not present at the
location indicated in the routing list, at 1810 the installer can
enter an appropriate notation in his/her handheld device
1720 and/or on a printed copy of the routing list, and cause
updated information to be uploaded to database 282, so that,
for example, a representative of advertising coordinator 280
can attempt to contact the responsible operator 240 for
updated information. Thereafter processing can proceed
from step 1840.

[0131] An advantage offered by the invention is that
incidents preventing an installer from completing a task (i.e.,
a “exception” to the task list) appointed by the route/
scheduling list can be reported immediately to one or more
parties authorized to correct the problem. Appropriate fur-
thernotations recording the correction can thereafter be
entered into the database 282 and disseminated to any
affected installers 260, so that tasks may be completed as
rapidly as possible, and in many cases on the same day.
Examples of exceptions include process blocks or steps
1808, 1812, 1816, 1820, and 1824. In general, however,
exceptions can include any occurrence outside the expected
flow of work anticipated by the route/scheduling list. For
example, inability to access a unit 230 due to a locked door
or gate, broken equipment, or use by the unit 230 by others
which renders servicing impracticable.

[0132] For example, in such cases, and in the case of all
exceptions described herein, corrective information
obtained by an advertising coordinator can be entered into database 282, by entry of suitable notations in input fields in for example a task list screen 2106, and selection of upload item 2120 as shown in FIG. 20. This can cause revised data to be uploaded to the server 282 and further processed so that updated routing/scheduling lists can be disseminated to responsible installers 260. In this way routing and scheduling lists can be revised and subsequently acted upon in real time. Thus an installer’s work assignments can be changed during the work day, in order to obtain the most effective and efficient possible completion of tasks included in the routing/scheduling list.

[0133] An advantageous method provided by the invention of marking advertising units according to the invention, and thereby facilitating the efficient and effective tracking of the units for installation, removal, maintenance, and monitoring of advertisements is to attach to the units RFID, barcode, or other machine-readable identification (ID) tags. This permits an installer 260 to read the ID tags using his/her client system 261, and thereafter to send updated information relating to the unit 230 and any installed advertisements to the database 282 for further appropriate processing or reprocessing.

[0134] Accordingly, at 1812 the installer can check to determine whether the unit located on his routing/scheduling list has been tagged and correctly including in the routing/scheduling list. If desired, and if such an ID tag is attached to the unit 230, at 1814 the installer can make a suitable notation on a physical (e.g., paper) list or worksheet for further appropriate action by the advertising coordinator 280 or other suitable party. Thereafter processing can proceed from step 1826.

[0135] If at 1816 the unit has not been so tagged, at 1818 the installer can create suitable identifying information and make an appropriate notation on the worksheet for further appropriate action by the advertising coordinator 280 or other suitable party. Thereafter processing can proceed from step 1826.

[0136] If at 1820 the unit has not been included in a routing/scheduling list, at 1822 the installer can make a suitable notation on his worksheet for further appropriate action by the advertising coordinator 280 or other suitable party. Thereafter processing can proceed from step 1825.

[0137] If at 1824 the structure is not tagged and framed, but is on the route sheet, or if the exception at 1820 applies, at 1825 an ID tag can be installed. For example, and RFID tag 1702 or barcode label can be affixed to an appropriate portion of the advertising unit 230.

[0138] At 1826 any advertisement(s) can be installed in the advertising unit 230, in accordance with directions provided in the route/scheduling list. For example, the list can identify the content and form of the advertisement to be installed, as well as any required tools.

[0139] When the appropriate advertisement(s) have been installed, at 1828 and 1830 appropriate notations, including for example the identification number of the affected advertising unit 230 and an identifier corresponding to the installed advertisements, together with any other desired data and/or notations, can be made in the printed route/scheduling list and, at 1832, via the handheld device 1720 and/or other installer client system(s) 261.

[0140] At 1834 the installer can scan the ID tag attached to or otherwise associated with the advertising unit 230, using a suitable machine reading device such as a handheld unit 1720 according to the invention, and at 1836 the installer can verify that the scanned ID number matches the number listed on the printed routing/scheduling list. The installer can also photograph or otherwise capture an image of the advertising unit 230 with the advertising installed. A suitable image can be obtained using a digital imaging device 1706, which can be incorporated within an installer client device 261 such as a handheld device 1720, or can be communicatively linked to such devices, or otherwise communicatively linked to database 282, using Bluetooth or other wireless technologies. Using suitably-adapted commands on the client device 261, the photograph can be associated with the appropriate installation task, including for example any advertisements 1010, advertising unit(s) 230, etc., and with other identifying data, for further processing by server 281, etc. Digital imaging devices suitable for use in implementing the invention include, for example, electronic digital cameras with or without associated communications devices such as data transfer cables and/or Bluetooth-enabled devices.

[0141] In appropriate fields provided in an installer client system 261, at 1838 the installer can enter the number and types of advertisements installed, together with their physical location on the advertising unit, and can enter commands indicating that the task has been completed.

[0142] At 1840 and 1842 any exceptions noted by the installer, including for example any outstanding required servicing or repairs for the affected advertising unit 230, can be entered for further processing by any appropriate parties 280, 240, 220, etc.

[0143] If at 1844 there remain on the route/scheduling list any further tasks, processing can return to block or step 1804. Process 1804-1844 can repeat until all listed tasks have been completed.

[0144] When all listed tasks have been completed, at 1846 the installer can return to the work yard, employment base, or home, etc. The installer can further synchronize his/her client system 261, including for example his/her handheld device 1720, with the advertising coordinator database 282. For example, at 1848 the installer can dock the handheld device 1720 in an appropriate synchronizing device. At 1850 the handheld can be re-charged, or otherwise refreshed, for service in a subsequent task list. Any software updates can be accomplished using such docking device.

[0145] Alternatively, as described above, exceptions, task completion notations, and other comments can be uploaded through wireless or other communications means, and the database updated on a continuous (e.g. “real time”) basis.

[0146] In addition, at 1852 the installer can provide his/her annotated printed copy of the route/scheduling list to an appropriate administrator, for input at 1854 to the database 282, and/or other processing, including for example follow-up maintenance. At 1856 updated information regarding tasks can be exchanged with the database 282.

[0147] The invention further provides systems, methods, and computer programming which are useful in improving the ability of advertisers 290, advertising coordinators 280,
and others to monitor the status of both individual advertisements and advertising campaigns. 

[0148] For example, the invention includes the provision by advertising coordinators 280 and/or other of network interfaces, or portals, which enable advertisers 290 and others to view images and other various metrics in real time in order to evaluate the status of both individual advertisements and advertising campaigns. 

[0149] For example, through the provision of suitable programming on server 281 and/or various client systems 292, etc., an advertising coordinator 280 or other party can enable an advertiser 290 or other party to access an interface such as interface 2300 shown in FIG. 22 on a client system such as advertiser client system 292. Interface 2300 is suitable for serving, for example, to enable an advertiser or other party to access and review data related to a plurality of advertising campaigns coordinated by the advertising coordinator 280 who has coordinated such campaigns. Access suitable for use by a client system 292 for displaying an interface screen 2300 can be provided, for example, from a secure data base 282 following suitable log-on procedures via gateway 285. For example, a suitably-modified log-on interface corresponding to that shown in FIG. 18 can be provided to elicit a user name and/or password, and to cause corresponding data signals to be sent to gateway 285 for processing to authorize access to the advertising coordination system 280. 

[0150] In the example shown in FIG. 22, an authorized user’s client system has presented an interface enabling access to data related to an advertising coordinator 280 on behalf of an advertiser 290 “Sony Playstation” at three locations in conjunction with various events “Nissan Shootout”, “El Pismo Beach”, and “Dickies 500”. Access to such data may be gained by selection of a corresponding one of items 2302. Alternatively, the user can select one of report items 2304 to access data related to various reports providing data, including metrics by which the user can assess the status and effectiveness of an advertising campaign. 

[0151] Selection of item 2306 “El Pismo Beach”, for example, can result in display of an interface 2400 such as that shown in FIG. 23. Interface 2400 displays several information items useful for assessing the status and effectiveness of an advertising campaign conducted at El Pismo Beach. 

[0152] Images 2402, which can for example include images displayed using data acquired by an installer 260 at the site of an advertising installation using a digital image recording device 1706 and uploaded to advertising coordinator database 282 as described herein, can show one or more advertisements 1010 installed on or in one or more advertising units 230. 

[0153] Descriptions 2404 can provide summary or other information related to the installation. In the examples shown, description 2404 provide data related to the production and interpretation of corresponding images 2402. 

[0154] Location data 2406 can provide the locations of the corresponding installations shown in images 2402. In the example shown, geographic locations in the form of latitude and longitude are provided. Location data can be provided, for example, by an installer 260 at the site of an advertising installation using a processor within a handheld device 1720 to associate an identifier associated with an advertising unit 230 with a location determined by a GPS or other navigational or positioning aid included within or otherwise associated with the handheld device 1720, and uploading the ID and location data to the database 282. For example, by using a machine reading device of a handheld device 1720 to scan an ID tag attached to an advertising unit 230, and a GPS system included within the handheld device in conjunction with suitable command input data, as described herein, the installer can record the location of individual uniquely-identified advertising units 230, and thereafter cause them to be uploaded to and stored within advertising coordinator system 280. 

[0155] By using selectable items 2410, 2412, a user of the client system 292 reviewing the interface 2400 can instruct the server 281 to identify and retrieve or otherwise further process desired data associated with the data shown in fields 2402, 2404, 2406, 2408, as desired. Where more data is available relative to the selected campaign than can be presented on a single interface screen 2400, selectable “page” items 2414 can be provided. Such items 2414 can be used to cause server 281 and/or database 282 to access and provide for display additional data. Such processes can be performed, for example, according to known “paging” functions provided by standard Windows® functionality. 

[0156] Selection of a “select” item 2410 and issuance of a suitable execution command (such as a Windows®-style “enter” command) can cause the client system 292 to issue command signals adapted to cause the client system 292 and/or server 281 to access corresponding data in database 282, and to use the accessed data to present an interface screen such as interface 2500 shown in FIG. 24. 

[0157] Interface screen 2500 of FIG. 24 provides an enlarged image 2502 showing a plurality of advertisements 1010 applied to external surfaces of a plurality of advertising units 221, 230. Screen 2500 further provides a high-angle image 2504 showing the sites 2506 of installation of several advertising units 230, including site 2508 of the plurality of units 221, 230 represented by image 2502. In some embodiments of the invention items 2506 are selectable, such that selection of an item 2506 using suitable pointing and selection devices can cause the client system 292 to issue command signals causing the client system 292 to be provided with data from database 282 suitable for use in displaying an image 2502 representing the selected item 2506. 

[0158] Interface screen 2500 further provides pluralities of selectable items 2510, 2512 which may be used to enable a user to access further data related to the various items shown in the images 2502, 2504. In this way a user of a client system such as client system 292 can be enabled to “navigate” through data representing a large number of installation sites using, for example, known Windows®-style browsing techniques. 

[0159] As mentioned above, various databases external to advertising coordination system 280 can be accessed to provide images and other data shown in databases such as Interface 2500. For example, one or more of several commercially-available databases such as Google Earth and Europe Technologies can be used to provide high-angle photographs such as that shown at 2504 in FIG. 24. 

[0160] Selection of one of items 2304 in FIG. 22 can cause display of an interface screen displaying data related to
various reports providing data, or metrics, by which the user can assess the status and effectiveness of an advertising campaign. For example, selection of “Deployment Report” item 2308 of FIG. 22 can result in presentation of interfaces 2601 and 2602 of FIGS. 25 and 26.

[0161] Data presented in the interface screen of FIG. 25 include a summary of information describing a campaign “Sony Playstation” mounted by an advertising coordinator 280 on behalf of a client “Sony Playstation”. The summary includes indications of the type of campaign coordinated, the start and end dates of the campaign, the type(s) of markets targeted, and the number and type(s) of advertisements 1010 installed. In the illustrated example, 220 interior frame-mounted advertisements (“frames”) and exterior wrap-type advertisements (“wraps”) were installed.

[0162] In the example illustrated in FIG. 26, details of the “Sony Playstation” campaign summarized in the interface illustrated in FIG. 25 performed at the location/event “Nissan Shootout” are displayed. At 2602, a unique contract number assigned by the advertising coordinator 280 who coordinated the campaign is indicated, and at 2604 start and end dates for the campaign. The type(s) of advertisements 1010 installed (in this case, wraps placed on portable toilets 230, 221) are indicated, and at 2606 the site of that portion of the campaign for which details are listed.

[0163] At 2630 is presented a list of each individual advertisement installed. At column 2608 the type of each advertisement is listed, and at 2610 the individual surface of the advertising structure 230 to which the advertisement is attached. A task type is provided at column 2611, together with the date the on which the task is due to be completed in column 2612. Completion of the tasks is confirmed in columns 2614, 2616. Column 2618 indicates the number of days each advertisement was (to be) displayed. This date can be entered manually in anticipation of fulfillment of the contract 2602, or can be determined automatically using the data indicated at columns 2614, 2616. At 2620 the unique identification number of the advertising structure 230 is indicated. This number can be the same, for example, as the number indicated on an attached RFID, barcode, or other machine-readable ID tag, as disclosed herein.

[0164] At 2622 are provided indications of the number of pages (or images or interface screens) comprised by the report as presented.

[0165] At 2624 are provided selectable links to comments and data attachments associated with the campaign described in the displaced data. Such attachments may comprise, for example, further documents or images.

[0166] In FIG. 27 another example of an interface useful for enabling a client system to access related to advertising campaigns is shown. At 2710 information summarizing details of a campaign are provided in terms generally consistent with those described above. At 2702 a map showing a location 2703 corresponding to the address 2705 provided in summary 2710 is displayed, together with at 2704 an image showing “frame-type” advertisements 1010 installed on interior surfaces of a portable toilet 221, 230. As indicated at 2711 and 2712, the frames are 10x30 inch poster type advertisements.

[0167] A further example of interfaces provided by the invention for enabling advertisers 290 and others to monitor and assess advertising campaigns is shown in FIGS. 28-30. The interface shown in FIG. 28 provides an image comprising a map 2802 superimposed on an image representing a large-scale image of a portion of the earth. Map 2802 comprises superimposed user-selectable site item 2804, which represents a site at which advertising has been installed in accordance with the invention, and is associated with data stored for example in database 282 representing information related to the installation of advertising pursuant to the advertising campaign. Such items may for example be displayed only at the request of advertisers 290 or other parties who have been granted access authority by an administrator of the corresponding database(s). As previously discussed, image 2800 can be assembled using data provided, for example, from one or more proprietary and/or commercially-available databases, such as Google Earth.

[0168] Image 2800 can be interactive, so that a user of a client system such as advertiser client system 292 can, for example, by using a suitable pointing/selecting device and computer operating system software, select site item 2804 to cause an enlarged or “zoom” type portion of the image shown in 2800 to be displayed, as shown in FIG. 29. In the “enlarged” image shown in FIG. 29, selectable item 2804 is shown in conjunction with data associated with the selected site. Display of such data can be caused, for example, by enlargement of images 2800, 2900 to a predetermined scale. In the example shown, the data displayed represents a summary of installations of advertisements 1010 at a site “C: Trailer” in association with an event sponsored at the location shown.

[0169] Like image 2800, image 2900 can be interactive, so that a user of a client system such as advertiser client system 292 can, for example, by using a suitable pointing/selecting device and computer operating system software, select site item 2804 to cause a further enlarged or “zoom” type portion of the image shown in 2800, 2900 to be displayed, as shown in FIG. 30. In the further-enlarged image shown in FIG. 30, selectable item 2804 is shown in conjunction with data associated with the selected site. In the example shown, the data displayed includes a more-specific representation of the sites of individual advertising structures 230, 221, together with a summary item 2902 showing images 2904 and details 2906 related to the advertising installation.

[0170] Further examples of client portals enabled by the invention, which are useful, for example, in developing and monitoring advertising campaigns, are shown in FIGS. 31-33.

[0171] Interface screen 3100 provides an interactive map image 2303 adapted for display on for example a client system 297 of an organizer 295 of one or more events and/or an advertiser 290 who may be involved in creating or developing one or more advertising campaigns, and/or monitoring the progress of one or more currently occurring campaigns, and/or assessing a previously-completed campaign. In the example shown map image 3202 comprises a plurality of selectable items 3204 showing the locations of a plurality of venues such as special events coordinated by an event organizer 295 or targeted by an advertiser 290. Interactive items 3204 correspond to interactive hypertext links 3206 provided in a textual list of the venues. Selection of one of items 3200, 3210 associated with data corresponding to a venue “Daytona International Speedway” can cause display of a screen such as that shown in FIG. 32.
Interface 3200 of FIG. 32 provides a number of details of advertising possibilities at the selected venue “Daytona 500”. The details displayed can be interpreted as metrics useful in planning, executing, and/or assessing an advertising campaign. As will be apparent to those skilled in the relevant arts, a large number of such metrics are now known, and will likely hereafter be developed. The invention provides unique methods of gathering and accessing data related to such metrics, particularly in relation to specific venues.

At 3202 a list of total numbers of advertising units available at the selected venue is provided. Such advertising units can comprise, for example, fixed or movable structures such as billboards or walls, and moveable or temporary structures such as portable toilets, wastep bins, or kiosks, and/or locations suitable for the location of such moveable or temporary structures. In the example shown in FIG. 32, list 3202 further comprises indications of the number of such available units that have been sold for a particular time period, such as is associated, for example, with a specific event such as an automobile race, or sold with respect to a given existing agreement; the number of units that have been reserved pending completion of advertising agreements, as disclosed herein, and the number of units yet remaining available for sale pursuant to any such agreements. Field 3204 provides a summary, which can for example be based on calculations made by a server 291 using data representing values associated with the sale of individual advertising spaces during relevant time periods. Field 3206 provides a number of selectable links to data files representing documents providing further information on advertising at the selected venue. Field 3208 provides access to images of individual advertisement(s) 1010 available for display at the venue, for example pursuant to agreements with one or more advertisers 290. Field 3210 provides further information related to agreements in force or contemplated in relation to advertising at the selected venue.

Interactive items 3212 provide links to further information, including for example further summaries of advertising metrics based on past, current, or projected data, and images or text documents representing proposed or executed agreements. For example, selection of item 3214 “Deployment” can result in the presentation of a display 3300 as shown in FIG. 33.

In the example shown, FIG. 33 provides an interactive image 3302 representing a map of the selected venue. Map image 3302 comprises a plurality of selectable items 3304 representing various advertising structures 230 suitable for installation of one or more advertisements 1010. Selection of an item 3304 can for example cause display of an image showing the selected advertising structure 230, with or without desired or proposed advertisements 1010 installed. Field 3306 provides a schedule of proposed events planned to take place at the displayed venue. Individual text items displayed in field 3306 can comprise selectable items linked to data providing further information about the scheduled events, including for example demographics of expected audiences, which may be useful in assessing advertising opportunities connected with the event.

Field 3308 provides selectable links to further information including, for example, documents, images, lists, and blog- or chat-room type discussions of various venues and/or events. For example, item 3310 provides a link to a database comprising one or more documents shared between pluralities of the parties shown, for example, in FIG. 2.

As will be appreciated by those skilled in the relevant arts, an interactive display such as that shown in FIGS. 31-33 provides a powerful tool for establishing and evaluating a wide variety of metrics useful in assessing past, current, or proposed advertising campaigns.

As previously disclosed, the invention in some aspects provides processes useful in monitoring and controlling the installation of advertisements 1010 in or on advertising structures 230, and software useful for implementing such processes using automatic data processing equipment such as that comprised by system 200 shown in FIG. 2, which are useful for allowing advertisers and others to assess advertising campaigns by monitoring exposure to the advertisements by the desired target market. At many events or venues which require portable or other advertising structures 230, for example, attendees will be required to wear event-specific identification tags at all times. This software can be used in conjunction with radio RFID tags placed in or otherwise associated with the advertising inventory and identification tags worn by individual users to determine which particular portable facilities are being used at any particular time, and therefore which advertisements are being viewed or exposed to targets, which can be identified by various demographic classes or even on an individual basis. System (e.g., web-based) access to this information can be provided to advertisers 290 and/or portable restroom operators 240 either in real time or as a collection of stored historical data.

In many embodiments of the invention the use of such processes and software can be significantly facilitated through the acquisition of input relating to advertising structures 230 and advertisements 1010, which may collectively be referred to as inventory, from unit operators 240 and other parties to advertising campaigns as shown, for example, in FIG. 2. Such processes and software, or applications, can be designed to manage high volumes of individual advertising display installations, which are sometimes called “faces.” Both the content of such faces, which may for example be determined by advertisers’ requirements, and the location of the faces, resulting from the regular deployment and redeployment of portable restroom inventories, can change frequently.

To control and monitor the installation of such faces using such applications, and thus establish, maintain and update a database 282 of advertising display opportunities, an advertising coordinator can receive corresponding information from individual unit operators, about the operators’ inventories of advertising structures 230, including:

1. the total number of structures 230 in the operators’ inventories, and each structure’s manufacturer, model and assigned service location;
2. the location, duration and scope (i.e., number of structures deployed) of each advertising agreement governing use of the advertising structures, together with any customer-identified restrictions on advertising associated with such agreements; and
[0183] the specific structures 230 deployed pursuant to each customer's agreement, and the scheduled delivery and removal dates for each such structure at an advertising site.

[0184] To optimize advertising sales, installation and performance monitoring, such processes can be implemented using current data, updated regularly, as for example daily. Thus in consultation with each unit operator 240, an advertising coordinator 280 can design and implement tailored data collection processes suitable for the operator's particular operation and data management systems or processes.

[0185] For unit operators 240 with sophisticated inventory management systems in place, data transfer can be integrated into the operator's existing automation. For example, where inventory management relies on Excel® or other commercially-available tools, inventory management applications according to the invention can accept regular data updates based on the operator's existing data formats. In either case, information required by inventory management systems according to the invention can be collected in the ordinary course of the operators' 230 operations. By using pre-existing data protocols and formats, the advertising coordinator 280 can develop an inventory of faces accurately and in the manner least disruptive to unit operators' 240 operations.

[0186] Inventory management applications according to the invention can for example use three categories of data provided by unit operators 240, or "data feeds". Three such examples are described below: Structure Inventory, Site/face, and Site-Structure Matching data feeds. The advertising coordinator 280 can manage the manner in which these data feeds, once received, are processed by the coordinator's data update tool processes to convert the data into desired formats according to desired protocols.

[0187] Initial implementation of an inventory management application according to the invention can begin with an inventory of a unit operator 240's advertising structures 230, automation of the data-collection process, if required, and creation of individual structure records. Using the a suitably-adapted data update tool, an advertising coordinator 280 can manage the process by which certain data elements provided by the unit operator 240 are initially collected for each structure in the fleet and thereafter updated regularly.

<table>
<thead>
<tr>
<th>TABLE 1-continued</th>
<th>Structure Inventory Data Feed Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 Structure Model</td>
<td>Particularly useful in installing exterior wrap advertisements</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TABLE 2</th>
<th>Site/face Data Feed Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Unit Operator</td>
<td>Master ID</td>
</tr>
<tr>
<td>2 Unit Operator</td>
<td>Contract ID</td>
</tr>
<tr>
<td>3 Unit Operator</td>
<td>Contract Type</td>
</tr>
<tr>
<td>4 Contract Start Date</td>
<td>Date service scheduled to commence.</td>
</tr>
<tr>
<td>5 Contract End Date</td>
<td>Date service scheduled to end, if applicable.</td>
</tr>
<tr>
<td>6 Customer Service Location</td>
<td>For each contract, physical location of structures, as communicated by customer to unit operator, including: for example street address, city, state and postal code.</td>
</tr>
<tr>
<td>7 Structures Ordered</td>
<td>Total number of advertising structures assigned to a contract, by contract type.</td>
</tr>
<tr>
<td>8 Customer Name</td>
<td>Business name of customer.</td>
</tr>
<tr>
<td>9 Customer Contact Name &amp; Number</td>
<td>Customer's designated contact person and telephone information.</td>
</tr>
<tr>
<td>10 Advertising Restrictions</td>
<td>As provided by customer or otherwise determined by unit operator.</td>
</tr>
<tr>
<td>11 Cancellation</td>
<td>Where applicable, date of contract cancellation prior to scheduled end date.</td>
</tr>
</tbody>
</table>

[0188] The site/face data feed can comprise information provided by the unit operator 240, as described below, on the unit operator's customers and their rental or service orders. A unit operator's new customer contracts can generate new advertising sites and advertising faces—and thus new inventory for the advertising coordinator's sales to advertisers.

[0189] The advertising coordinator 280 can use the site-structure matching feed to match actual advertising units 230 with the sites to which they are assigned by the unit operator 240 when fulfilling rental or other agreement terms. A display opportunity in (1) a specific advertising structure 230, identified with a unit operator Structure ID, (2) at a specific location, (3) for a known duration (e.g., "two days," "60 days" or "indefinite, but at least 12 months") creates an advertising face for an advertising coordinator's advertising sales inventory.

[0190] Once the advertising coordinator 280 knows which advertising faces which sites, the coordinator can implement the advertising campaign, by ling personnel and resources necessary to coordinate frame installation and timely and accurate delivery of ads in sufficient volumes, and to the right to fulfill commitments to advertisers.
TABLE 3

<table>
<thead>
<tr>
<th>Site-Structure Matching Feed Data Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1  Unit Operator Master ID</td>
</tr>
<tr>
<td>Unique identifier automatically assigned by advertising coordinator 280 based on the coordinator's standard naming convention (unit operator prefix, indicating market, followed by a numeric identifier (e.g., 0001, 0002, etc.) for each unit operator).</td>
</tr>
<tr>
<td>2  PRO Contract ID</td>
</tr>
<tr>
<td>Identifies each contract; can be used by advertising coordinator in internal order or contract numbering schemes.</td>
</tr>
<tr>
<td>3  Assigned Structure(s) ID</td>
</tr>
<tr>
<td>For each advertising structure 230 assigned, its particular unit operator Structure ID.</td>
</tr>
<tr>
<td>4  Structure Delivery &amp; Removal Date</td>
</tr>
<tr>
<td>For each structure assigned, the date of delivery to and removal from the site.</td>
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[0191] As previously mentioned, it may be advantageous in implementing advertising campaigns according to the invention for one or more parties 280, 290, 295, 240, 260, or others to create contracts or other agreements which require unit operators 240 or other parties to provide information such as that described above, as for example in electronic form, as data formatted according to protocols useful in implementing various aspects of the invention.

[0192] In implementing advertising campaigns involving multiple advertising units 230, it has further been found advantageous, in some circumstances, to provide highly-coordinated teams of installers 260, well provided with all required tools in convenient and easily-deployed configurations. For example, shipping containers or other modular transportation units can be converted into installation workshops including all power, tool, storage, lighting, and other requirements for the rapid deployment of installation personnel and installation of advertisements 1010. For example, suitably-modified shipping containers can be placed on trailers and moved rapidly to venues selected for advertising campaigns, to rendezvous with affected advertising units 230, for rapid and efficient installation of advertisements 1010.

[0193] Thus a particular advantage offered by the invention is the use of containerized installation and management units, in routine deployments or in association with rapid deployment and special event installations. Such units are preferably portable and may include all the tools, communications devices, advertising content, and other resources necessary to organize and install advertisements at a particular location. For example, in one class of embodiments office, administrative, and installation facilities are installed in modified shipping containers of the type used in multimodal transport, and/or in dedicated trailers, as shown in the incorporated references. Such containerized installation units can be based at one or more dispersed, advantageous locations, as for example adjacent to convenient and efficient transportation facilities such as highways, railways, or air or seaports, and held in readiness for rapid deployment to installation, maintenance, and/or removal sites, and used in the installation etc., of, for example, frame-mounted advertisements placed on walls or other surfaces of the portable advertising units, and in the installation of wrap-around advertisements as shown in the incorporated references. Further description of the installation of framed and wrap-around advertisements is provided in the incorporated references. They may also be used to install active displays, such as solar- or other low-power consumption displays, such as LCD and/or LED displays, which can display animated or still advertising in, for example, “slide show” format.

[0194] Thus, as described, advantageous features provided by the invention include but are not limited to long term exclusive contracts between desired combinations of parties such as those shown in FIG. 2, inventory management processes and software, performance management processes and software, RFID tagged advertising inventory, handheld inventory control/placement units, containerized installation and management units, rapid deployment and special event teams, pre-emptive advertisements, and solar-powered low power consumption displays. As will be understood by those skilled in the relevant arts, the use of such features in implementing advertising campaigns as described herein is in many cases optional. Moreover, a wide variety of additional features, and alternative means and methods for accomplishing the purposes described, may be employed without departing from the scope of the invention.

[0195] May be seen that many aspects of the invention, and features of the various embodiments, are not restricted to particular forms or aspects of advertising campaigns, but are of general advertising utility, whether indoor, outdoor, fixed, or moveable.

[0196] While embodiments of the invention have been described in some detail for purposes of clarity and understanding, it will be appreciated by those skilled in the relevant arts, once they have been made familiar with this disclosure, that various changes in form and detail can be made without departing from the true scope of the invention in the appended claims. The invention is therefore not to be limited to the exact components or details of methodology or construction set forth above. Except to the extent necessary or inherent in the processes themselves, no particular order to steps or stages of methods or processes described in this disclosure, including the Figures, is intended or implied. In many cases the order of process steps may be varied without changing the purpose, effect, or import of the methods described.

What is claimed is:

1. A method of advertising, comprising:
   acquiring rights to place advertising on surfaces of moveable structures;
   reaching an agreement with an advertiser for display of at least one advertisement on the surfaces during an event;
   and
   causing the at least one advertisement to be placed on the surfaces for display during the event.

2. The method of claim 1, wherein at least one of the surfaces comprises at least a portion of an exterior of at least one of the portable toilet units.

3. The method of claim 1, wherein at least one of the surfaces comprises at least a portion of an exterior of at least one of the portable toilet units.

4. The method of claim 1, wherein a plurality of the surfaces comprise at least portions of the exteriors of a plurality of the portable toilet units, and a single copy of the at least one advertisement is displayed on the plurality of surfaces.
5. A method of advertising practiced by an advertising contractor, comprising:
acquiring from an operator of an advertising structure rights to place advertising on surfaces of moveable structures;
reaching an agreement with an advertiser for display of at least one first advertisement on the surfaces during an event;
reaching an agreement with another advertiser for display of at least one other advertising on the surfaces during the event, the agreement subject to a right in the advertising contractor to cause substitution of the other advertising with the at least one first advertisement.
6. A method for displaying advertisements, comprising:
identifying at least one advertisement to be displayed to a target audience in at least one of a specified time and a specified place;
identifying at least one moveable structure to be used in displaying the advertisement, the moveable structure adapted for serving a primary purpose other than advertising;
causing the at least one advertisement to be displayed on a portion of the at least one moveable structure likely to be viewed by a member of the target audience while the member is using the moveable structure for its primary purpose.
7. The method of claim 6, wherein the moveable structure is a portable toilet unit.
8. An advertising method comprising: acquiring advertising rights for the outer surfaces of portable toilet units owned by a portable toilet unit rental company; identifying an event at which the portable toilet units will be in service; approaching an event holder that is responsible for holding the event regarding using the outer surface of the portable toilet units as a backdrop for supporting advertising media during the event; reaching a revenue agreement with the event holder regarding using the outer surface of the portable toilet units as a backdrop for supporting advertising media during the event; and applying non-permanent advertising media to the outer surfaces of the portable toilet units during the event.
9. A method of processing advertising data, comprising:
receiving data identifying a current geographic location of each of a plurality of portable structures and at least one advertisement disposed on at least one of the portable structures;
storing the data in memory;
providing the data to a client system in form useable for display.
10. The method of claim 9, comprising:
receiving data representing a current image of at least one of the portable structures; and
providing the image data to the client system in association with the data identifying the current geographic location of the corresponding portable structure, and
the data identifying the advertisement disposed on the corresponding portable structure.
11. A computer usable medium having computer readable code embodied therein for causing a computer to:
receive data identifying a current geographic location of each of a plurality of portable structures and at least one advertisement disposed on at least one of the portable structures;
store the data in memory in a form useable by a client system for display.
12. The method of claim 11, comprising computer readable code for causing a computer to:
receive data representing a current image of at least one of the portable structures; and
store the data in memory in association with the data identifying the current geographic location of the corresponding portable structure, and the data identifying the advertisement disposed on the corresponding portable structure.
13. An method useful in advertising, comprising:
pursuant to an agreement, causing placement of at least one advertisement on at least one surface of a plurality of portable structures for display during one or more times in which the structures will be in service;
causing the creation of data, in form suitable for processing by a computer, identifying a current geographic location of each of the structures and the at least one advertisement placed on the structures; and
providing the data to a computer system for storage in memory accessible by at least one computer.
14. The method of claim 13, wherein data identifying at least one of the structures is created using an automatic reader.
15. The method of claim 14, wherein the automatic reader comprises a radio-frequency identification device.
16. The method of claim 14, wherein the automatic reader comprises a barcode scanner.
17. The method of claim 13, wherein data identifying the current geographic location of at least one of the structures is created using an automated navigational aid.
18. The method of claim 17, wherein the automated navigation aid comprises a global positioning system.
19. The method of claim 13, comprising:
causing the creation of data representing a current image of at least one of the portable structures; and
providing the image data to the computer system in association with the data identifying the current geographic location of the corresponding portable structure.
20. The method of claim 19, wherein data representing a current image of the at least one of the portable structures is created using a digital imaging device.
21. The method of claim 13, wherein the providing the data to a computer system is performed at least partially using a wireless transmission device.

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