Maps and Address Lookup in Checkmate

Checkmate uses two types of maps to display information about trips and the whereabouts of vehicles. **Online** maps are available for free through the use of 3rd party service providers. These services are not guaranteed by Geotab, and are subject to the providers' terms and conditions. A high speed Internet connection, Internet Explorer 6.0 or higher with Java Script enabled is required to view online maps in Checkmate however there is no additional software to install.
Offline maps are available through Microsoft MapPoint and ESRI custom maps. Additional software needs to be installed on the machine running Checkmate but the service is always available and no Internet connection is required.

Online Maps currently supported by Checkmate

Microsoft Virtual Earth is a free online map which covers all of the US, Canada, and most of Europe. It supports road, aerial and hybrid views from within Checkmate, as well as visual traffic updates in most North American cities. More details are available on the Microsoft website: http://www.microsoft.com/virtualearth.
OpenStreetMap.org is an open source worldwide community based online mapping service. Registering with OpenStreetMap.org gives you the ability to edit maps. You can sign up and edit a map from within Checkmate by clicking on the edit button. Your edits become available to all users of the web service within 24 hours.
The level of participation in your area will determine coverage. For more information about how to sign up and contribute to this project please visit http://www.openstreetmap.org.

Offline Maps currently supported by Checkmate

Microsoft MapPoint
Checkmate supports Microsoft MapPoint versions 2004, 2006, and 2009. A valid MapPoint license must be obtained for every workstation running the software. Details on licensing and other product information are available on Microsoft's website: http://www.microsoft.com/mappoint. When using MapPoint 2009 from within Checkmate, users must purchase the Fleet edition in order to be compliant with Microsoft's licensing terms. System requirements for MapPoint 2009 are as follows:

- 300 MHz processor
- Windows Vista SP1, Windows XP SP2, Windows Server 2003 SP2 (64bit XP and Server 2003 not supported)
- Internet Explorer 5.5 or higher
- Memory Requirements
    - Windows Vista: 1GB
    - Windows Server 2003: 256MB
    - Windows XP: 128MB
- 2GB of HDD space

Please note that Checkmate does not support any version of Microsoft Streets and Trips.

Custom ESRI Maps

Checkmate supports rendering of ESRI shape (.shp) file-based maps, with the following conditions:

- Datum types: WGS84/NAD83/D_GDA_1994(GDA94). Other datum types are not compatible and must be transformed into WGS84.
- Projection type/unit: GEOGRAPHIC projection/Degrees as the projection unit. Other projection types are not compatible and must be transformed into GEOGRAPHIC/Degrees.
- Shape Types: 1 (point), 3 (line), 5 (polygon) and 8 (multi-point).
  Types 11, 13, 15, 18, 21, 23, 25 or 28 (Z or M shape type features) supported only in Checkmate 5.3.1 and higher.
- Each shape file must be represented as a set of three files with *.shp, *.shx, and *.dbf extensions.

More information regarding Checkmate ESRI map support is available on the Geotab website: http://www.geotab.com/Support/CheckmateDownloads/tabid/119/Default.aspx. Please note, that compiling of a well behaved map package from a set of ESRI shape file - based maps is considered as an advanced and time intensive task that requires an above - average level of understanding of computer mapping principles. Geotab does not provide support in regards to individual ESRI shape file – based map creation or conversion between various datum and or projection types. For support in this area, please refer to www.esri.com or your mapping provider.

Checkmate Address/Coordinate Lookup Functionality (i.e. Geocoding)

Checkmate supports both forward (address) and reverse (coordinate) lookup functionality for its mapping, reporting, and customer importing components.
The following Checkmate reports, support reverse (address) geocoding:

- Activities and Trips
- Auxiliary Status
- Congregation Report
- Time Card
- Go Devices\Vehicles
- Exceptions

Individual address lookup is supported directly from the map through a popup menu accessible with a right mouse click. Coordinate lookup (Find Address) is accessible through the Checkmate toolbar and the customer importing feature.

By default, Checkmate relies on 3rd party application or service providers to obtain all address information displayed in reports and on maps: Microsoft MapPoint desktop application and Microsoft Virtual Earth web service. MapPoint must be installed on the local machine for Checkmate to use its geocoding capability. MapPoint users have the benefit of looking up an unlimited number of addresses, and do not have to be connected to the Internet. If MapPoint is not installed and an Internet connection is available, Checkmate will use the Microsoft Virtual Earth geocoding service. Users must abide by Microsoft's Terms and Conditions outlined on their website:
http://www.microsoft.com/virtualearth/product/terms.html.

When running reports, Microsoft Virtual Earth geocoding service lookups are limited to the first ten rows. Any additional lookups must be manually requested by the user. To request an address, the user must right click on the desired row, and select "Lookup Address" from the pull-down menu. Multiple addresses cannot be requested simultaneously.

Checkmate will automatically choose which geocoding service to use based on whether MapPoint is installed on the local machine.

As an advanced functionality, ESRI custom maps can be integrated and setup to lookup addresses and coordinates if the shape maps provide the required information. For integration information, please refer to **Custom ESRI Maps**

To enable ESRI –based geocoding, follow the steps below.

1) Exit Checkmate completely
2) In Windows 2000/XP, browse to C:\Documents and Settings\<windows user>\Application Data\GEOTAB\Checkmate
   In Windows Vista and later, browse to C:\Users\<windowsuser>\AppData\Roaming\GEOTAB\Checkmate
3) In Data Manager.config, Change From
   <DefaultReverseGeocoder>MapPoint</DefaultReverseGeocoder>
   to
   <DefaultReverseGeocoder>Geo</DefaultReverseGeocoder>
   and
   <DefaultGeocoder>MapPoint</DefaultGeocoder>
   to
   <DefaultGeocoder>Geo</DefaultGeocoder>
4) Open Checkmate