

Operator Reports 2.n

User Guide

GS0897 Issue 12



acis
informing communities

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About ACIS

Since its formation almost 10 years ago, ACIS' innovative and dynamic forward thinking has turned it into one of Europe's leading suppliers of Real Time Passenger Information (RTPI) and Bus Operator fleet management. Dedicated to the improvement of public transport through technology, it is the UK's biggest provider of traffic signal priority systems for the public transport and traffic control sectors, using both General Packet Radio Service (GPRS) and Private Mobile Radio (PMR) technologies.

ACIS is able to offer a complete package of IT solutions, systems design and configuration, high-end engineering assembly and installation, project management and delivery, as well as a dedicated customer services team and vital ongoing maintenance and software support staff.

The UK-based company employs over 120 people to design, develop, supply and maintain RTPI systems to Public Transport Operators, Local Governing Authorities, vehicle manufacturers and passengers. With over 33 major systems across the UK, Holland and Scandinavia, ACIS tracks over 4000 vehicles and delivers information to over 30,000 information points, both on and off route.

ACIS' award-winning BusNet product range offers diversity, choice, efficiency and reliable information solutions. From visual displays to web and mobile communications, ACIS has taken a lead with its investment in new technologies such as Web, WAP, SMS and voice messaging. It continues to develop products, investing over £1 million a year on Research and Development.

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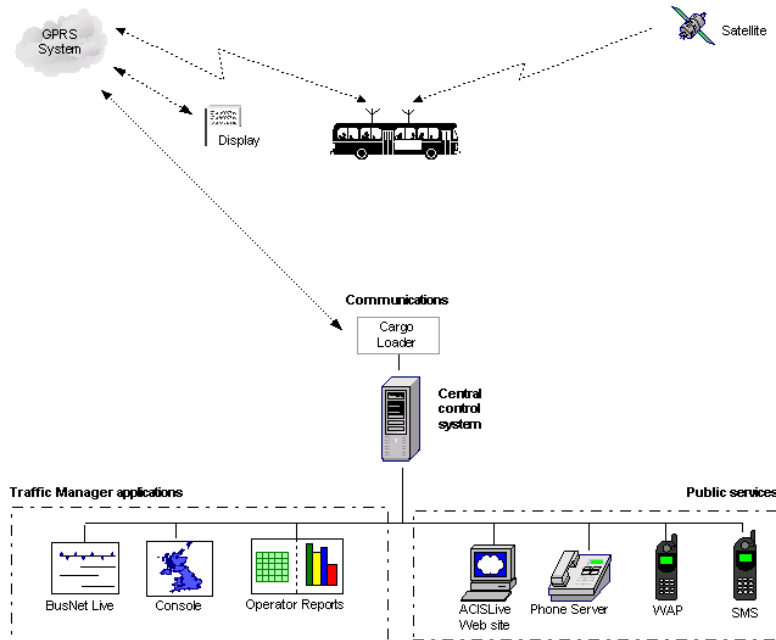
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BusNet system overview

BusNet is a real-time solution for managing public transport systems. BusNet consists of a number of components, linked by either radio and leased lines (PMR) or GPRS, which together provide a range of benefits for the transport operator, local authorities and the travelling public.

BusNet system overview (GPRS system)

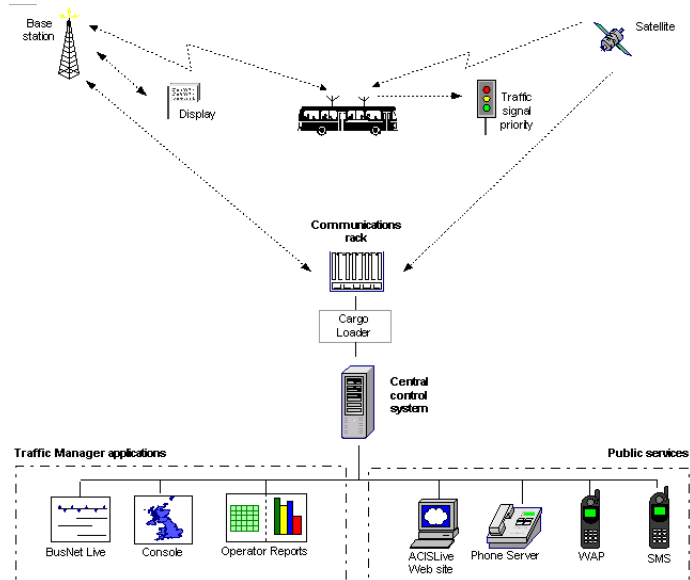


The system is configured by loading service information (for example timetable, service, vehicle and driver IDs) to the central control system and to equipment on the vehicle.

On-vehicle GPS equipment determines the vehicle's location, and the on-vehicle computer sends regular location updates and service information to ACIS Cargo Loader, via a third-party GPRS system, and Cargo Loader passes this information to the central control system. The central control system uses this vehicle information to plot the vehicle's location against schedule and service information, and generates arrival-time predictions. It then sends the arrival-time predictions and schedule information to displays, and makes the same information available to public web site, telephone, WAP and SMS services.

Web-based user interface components communicate with the central control system in order to enable operators and managers to access real-time information on the location of vehicles in their system, as well as historical reports for the services.

BusNet system overview (PMR system)



The system is configured by loading service information (for example timetable, service, vehicle and driver IDs) to the central control system, displays and equipment on the vehicle.

On-vehicle GPS equipment determines the vehicle's location, and the on-vehicle computer sends regular location updates and service information to the communications rack. The communications rack sends differential GPS (DGPS) updates to the vehicle, which uses them to make its location calculations more accurate. In addition, the communications rack sends appropriate priority values to the vehicle, which the vehicle uses to determine whether to send out a traffic signal priority request.

The communications rack components pass vehicle information to the displays, and the displays use this information to plot the vehicle's location against schedule and service information, and generate arrival-time predictions.

The communications rack also passes the vehicle information to the central control system, over the lease lines, via ACIS' Cargo Loader. The central control system uses this vehicle information to plot the vehicle's location against schedule and service information, and generates arrival-time predictions. It then sends the arrival-time predictions and schedule information to displays, and makes the same information available to public web site, telephone, WAP and SMS services.

Web-based user interface components communicate with the central control system in order to enable operators and managers to access real-time information on the location of vehicles in their system, as well as historical reports for the services.

In a variation on this system, the central control system sends predictions and schedule information to the displays, and configuration does not need to be loaded to the displays.

Related documentation

This document should be used in conjunction with the following documents:

Temtec Executive Viewer User Manual

Full User Manual for Executive Viewer describing all the features in detail.

Conventions

This document employs the following conventions:

Computer typeface	Identifies command-line or configuration file input and display text.
<i>Italic text / Italic text</i>	Indicates parts of input, naming or display text that is replaced with a value appropriate to your system.
Boldface	Used for emphasis and to highlight the names or content of buttons, fields, check boxes and other hardware or graphical user interface components.

On the title page, version numbers refer to product version, the GS number (GS0897) identifies the document in the ACIS system, and issue numbers refer to updates of this document.

1. Introduction

ACIS produces a suite of reports that provide management information on service performance for a particular system or operator. This information is available to operators with vehicles fitted with ACIS hardware via Operator Reports, which enable speedy access to historical data.

Operator Reports are based on On-Line Analytical Processing (OLAP) as a technology for creating fast, flexible interactive reports. Operator Reports are produced from data stored in ACIS Data Warehouse, and are viewed and manipulated using Temtec Executive Viewer user interface.

About this guide

This document describes some of the features available in Executive Viewer as well as basic concepts behind Operator Reports and its components, and outlines how you can begin to customise the reports that ACIS supplies. The content of this guide applies to Operator Reports version 2.0 and later.

- Follow the instructions in the **Getting Started** chapter to run Operator Reports your machine. The **Understanding components** chapter provides background information on how Operator Reports uses Executive Viewer to display reports.
- You can then display the supplied template reports. See the **Report templates** chapter for details of the content of these reports, and suggestions on how you can customise them.
- For more background on how to customise the reports, you are recommended to run through the overview of functionality in the **Using Executive Viewer** chapter.

For full details on using Executive Viewer, see the Temtec Executive Viewer User Guide.

2. Getting started

Before you start

Operator Reports is accessed via the Internet. You need the following installed on your local machine:

- Internet Explorer 5.0 or higher
- Executive Viewer Client (this can be downloaded as a plug-in first time you run)

You also need the following details, which your system administrator can get from ACIS Product Support:

- User name and password for Operator Reports
- URL address / location of the Operator Reports installation

Starting Operator Reports

To start Operator Reports

1. Open Internet Explorer
2. Enter Operator Reports URL address in the address bar.
3. Login page will appear, where you enter you username and password.
4. After you click on 'Login' button Executive Viewer Client appears in the browser as an empty workspace with tool bar at the top. This will be the workspace related to the username and password that you entered.

Note: If you are running Operator Reports for the very first time, when you press the Login button the automatic download of the plug-in shall begin, providing that you are logged on as an with administrator rights.

You are ready to start using Operator Reports.

3. Understanding components

To be able to create different reports and configure ones that are already set up you need some understanding of the components that Operator Reports is using.

Every report must consist of dimensions and measures and this chapter helps you understand what they are and how are they set up.

Dimensions in Operator Reports

Dimensions help put the measures in the context and represent the skeleton of the reports. The dimensions describe numerical data and are used to generate the aggregations. You could also look at dimensions as an independent list of labels for the reports.

Every dimension has levels, which form a hierarchy within the dimension. For example, in the **Calendar** dimension, **January** and **February** are members of the **Month** level, **2004** and **2005** are members of **Year** level. You can use the term members to describe either all the members in the entire dimension or only the members of a specific level within dimension.

In restricted dimensions the top level will be either **All** or **Operator Name** depending on user access rights.

In un-restricted dimensions like **Calendar**, **Stop Sequence** or **Clock**, top level is always **All**, which will include all data related to that dimension.

Following is the list of all dimensions available as well as levels and members within those dimensions:

Yellow boxes represent additions in the version 2.1.

Dimensions	Levels	Member Properties
Calendar	All Calendar	
	Dim Year	
	Dim Month Name	
	Dim Date	Day Name
Clock	All Clock	
	Day Time	
Depot	All Depots	
	Operator Name	

Dimensions	Levels	Member Properties
	Depot Name	
Direction	All Directions	
	Direction	
Driver (Optional)	All Drivers	
	Operator Name	
	Driver No	
Journey	All Journeys	
	Operator Name	
	Depot Name	
	Public Service Code	
	Journey Start Time	
Journey Ref (Optional)	All Journey Refs	
	Operator Name	
	Depot Name	
	Public Service Code	
	Journey Ref	
Operator	All Operators	
	Operator Name	
Period	All Periods	
	Fiscal Year	
	Dim Period	
	Dim Week No	
	Dim Date	Day Name
Period 1 (Optional)	All Periods	
	Dim Year	
	Dim Period	
	Dim Week No	

Dimensions	Levels	Member Properties
	Dim Date	Day Name
Period 2 (Optional)	All Periods	
	Dim Year	
	Dim Period	
	Dim Week No	
	Dim Date	Day Name
Running Board	All Running Boards	
	Operator Name	
	Depot Name	
	Running Board	
Service	All Services	
	Operator Name	
	Depot Name	
	Public Service Code	
	Member Name	Long Name, PipID
Variation Category	All Variation Categories	
	Operator Name	(Optional)
	Variation Group	
	Variation Category	Mins From, Mins To
Stop	All Stops	
	County/Area	(Optional)
	Member Name	Long Name, PipID
Stop Category	All Stop Categories	
	Stop Category	

Dimensions	Levels	Member Properties
Stops Matched	All Stops Matched	
	Group	
	Name	
Stop Sequence	All Stop Sequences	
	Stop Seq No	
Stop Type	All Stop Types	
	Stop Type Group	
	Stop Type	
Time Category	All Time Categories	
	Operator Name	
	Time Category	Time From, Time To
Vehicle	All Vehicles	
	Operator Name	
	Depot Name	
	Fleet No	LocalVID, Type
Day	All Days	
	Day Group	
	Day Name	

Note: Security implemented on cubes is restricting user to view some or all of the levels within dimensions. Depending on users rights top level within dimension can be restricted to a particular system or/and operator. For example if Cardiff user is trying to access reports it will be restricted to Cardiff only and cannot view other systems. Also you could have users for operator level and only data for that particular operator is visible.

To create your own report or to configure already existing ones, you need to follow instructions in **Executive Viewer User Manual**.

Measures in Operator Reports

Measures are often described as summarisable numerical values that you use to monitor your business. When looking for numerical information, your first question is which measure do you want to see.

Following is the list of available measures in Operator Reports and short description:

Yellow boxes represent additions in the version 2.1.

Measure	Description
Journey Level Measures	
Actual Journeys	Number of journeys tracked. Note: Journey is classified as tracked if at least 10% of stop observations are recorded along the journey.
Schedule Journeys	Number of scheduled journeys. Note: Number of schedule journeys is calculated from the latest source data provided to ACIS.
Cancelled Journeys	Number of cancelled journeys. Note: Journey can be cancelled from BusNet Live 2.4 and later.
Part Cancelled Journeys	Number of part cancelled journeys. Note: Part of the journey can be cancelled from BusNet Live 2.4 and later.
Journeys Not Tracked	Number of journeys that were not tracked.
Actual Journey Percentage	Percentage of journeys tracked. Note: This is the percentage of number of journeys tracked against the number of scheduled journeys.
Not Tracked Percentage	Percentage of journeys not tracked.
Actual Journey Time	Actual time in minutes, bus has taken to complete journey. Note: This measure only includes journeys for which the first and last stop was recorded correctly. Therefore this measure can be based on less journeys than the number of tracked journeys.

Scheduled Journey Time	Scheduled time in minutes for bus to complete journey. Note: This measure only includes journeys for which the first and last stop was recorded correctly. Therefore this measure can be based on less journeys than the number of scheduled journeys.
Maximum Journey Time	Maximum time bus has taken to complete journey.
Stop Level Measures	
Observations	Number of times bus reported at the stop.
Maximum Earliness	Maximum bus early time.
Maximum Lateness	Maximum bus late time.
Compliance (Renamed from EOL Percentage)	Percentage of buses early, on time or late. Note: To get results using this measure it is necessary that the variation category is selected or the measure will not return any results.
Schedule Deviation	Deviation from schedule time of buses at the stop. Note: This uses departure time for all stops except the destination, which uses arrival time..
Schedule Run Time (Renamed from Schedule Stop Timing)	Cumulative schedule run time. Note: It's the time taken from the beginning of the journey to the particular point along the journey (i.e. to the particular stop) based on the schedule information.
Actual Run Time (Renamed from Actual Stop Timing)	Cumulative actual run time. Note: It's the time taken from the beginning of the journey to the particular point along the journey (i.e. to the particular stop) based on the actual information. This records departure time for each stop.
Drive Time	Drive time between two linked stops along the journey. Note: This time is the time from the departure from one stop to the arrival at the next. It does not include stationary time at the stop, only drive time between two linked stops (these must be consecutive stops).

Passenger Waiting Time	<p>Passenger waiting time at the stop.</p> <p>Note: This time represents the actual frequency of the buses on the same public service. Because Operator Reports only collects the data at the stop, this measure also represents the headway.</p>
Passenger Waiting Time Deviation	<p>Deviation from the scheduled frequency.</p> <p>Note: This time represents the deviation from the specified frequency of the buses on the same public service. Because Operator Reports only collects the data at the stop, this measure also represents the headway deviation. Deviation can be measured only if the scheduled frequency is provided in the source data.</p>
Dwell Time	<p>Dwell time of the buses at the stops.</p> <p>Note: This is calculated by taking the difference between departure and arrival time.</p>

Notes:

- These measures are only meaningful if used with correct dimensions. If wrong dimensions are used to describe the measure you could get misleading information or no information at all. All measures are available for all users and are not restricted in any way. For more how to use measures when creating report, refer to **Executive Viewer User Manual**.

4. Using Executive Viewer

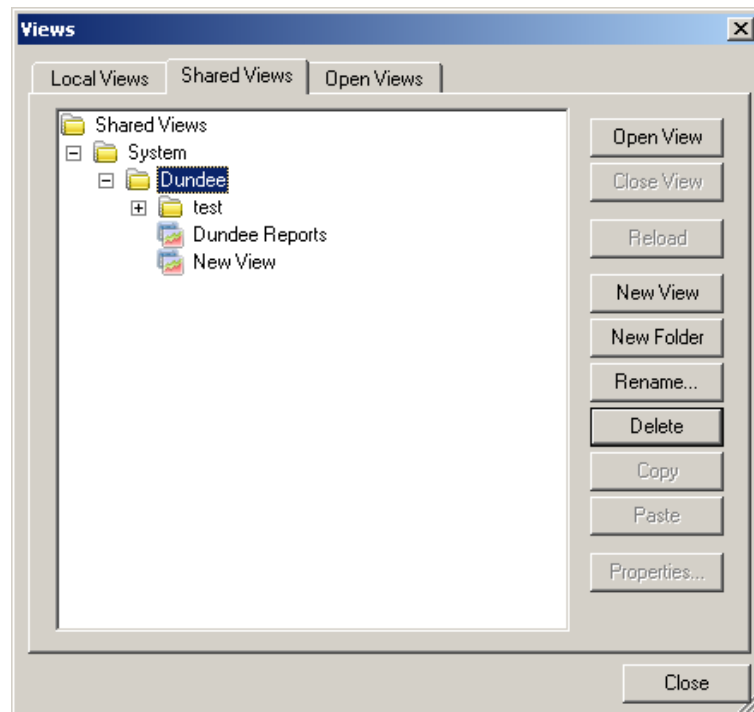
Following chapter describes some of the main functionalities within Executive Viewer. For more functionality areas see the Executive Viewer User Guide.

Create View/Folder

To be able to create new views or folder the user need the right permissions associated with the username and password. The system administrator or ACIS Product Support can give these permissions to the user.

To open a new view with connection to a database:

1. Start Executive Viewer (follow the **Starting Operator Reports** instructions in the **Getting Started** chapter).
2. Click on the **Views** button.
3. The **Views** dialogue is displayed. Highlight where you want to store the new view and click on **New View**. New view is created under the generic name. At this point you may decide to rename the view.

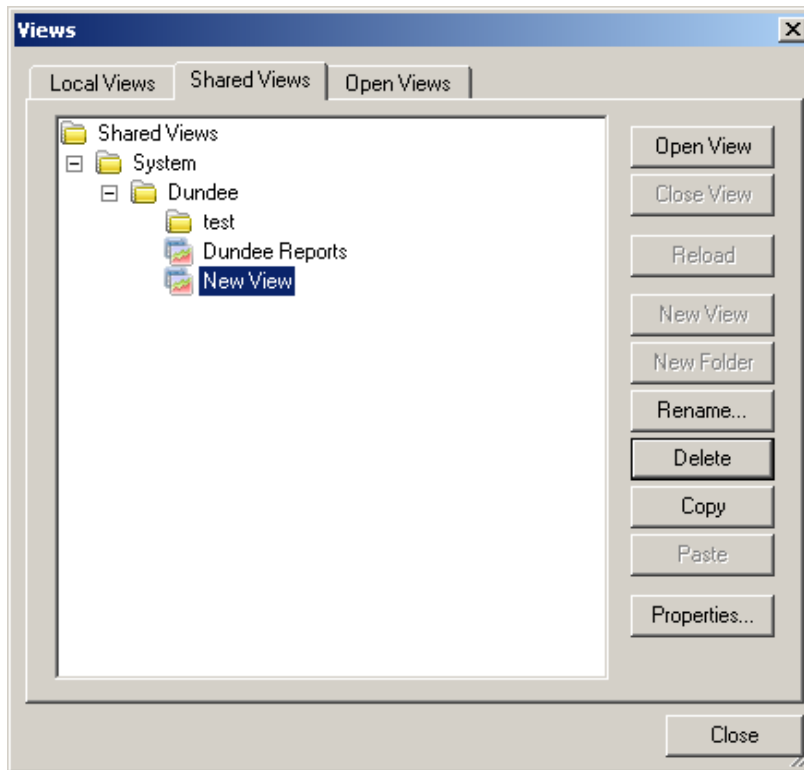


4. To create new folder highlight where you want to store the folder and click on the **New Folder**. New folder is created under the generic name. At this point you may decide to rename the folder.

Working with views

To open, rename or delete a view/folder:

1. Start Executive Viewer (follow the **Starting Operator Reports** instructions in the **Getting Started** chapter).
2. Click on the **Views** button.
3. The **Views** dialogue is displayed.
4. Select a view name or folder name from the **Shared Views** area.



- **To open a view:** Click on the **Open View** button. The view is opened. Also you can double click on any view or folder to open it.

- **To rename a view/folder:** Click on the **Rename** button. The view/folder name is highlighted for you to enter the name for the view. Click outside of the view name to save it.
- **To delete a view/folder:** Click on the **Delete** button. You are prompted to confirm that you want to delete the view/folder. Click on **Yes** to continue.
- **To copy a view:** Highlight the view you wish to copy and click on the **Copy** button. Then highlight the folder to which you want to save the copy and click on the **Paste** button. The copy of the view is created with the generic name. You can choose to rename the view at this point. You can also copy views from shared area into local area using this option.


The ability to copy views to another folder has been designed for those who prepare views for use by others. By placing these views under the shared views they can give others the benefit of prior preparation and analysis. Users can then copy shared views to their local views and modify them according to their individual needs.

Selecting members displayed

Initial member selection

When a database is initially opened, one dimension is put in the columns and measures are put in the rows. This is known as the Inspread selection.


	Cardiff
Maximum Ea...	-1,438.58
Maximum La...	1,263.03
Count Of Var...	5,673,269.00
Actual Stop ...	1,340.00
Count Of Var...	5,530,325.00
Schedule St...	123.00
EOL Percent...	
Average Vari...	1.95
EOL Percent...	
EOL Percent...	



Executive Viewer displays the first dimensions in the OLAP database outline order in the rows and the columns.

The default member of these dimensions will be selected.

The other dimensions are placed in the Offspread area. The members selected in these dimensions are the default members.

Service : Cardiff	Stops : Cardiff
StopSeq : All StopSeq	Direction : Cardiff
Clock : All Clock	Calender : All Calender
	

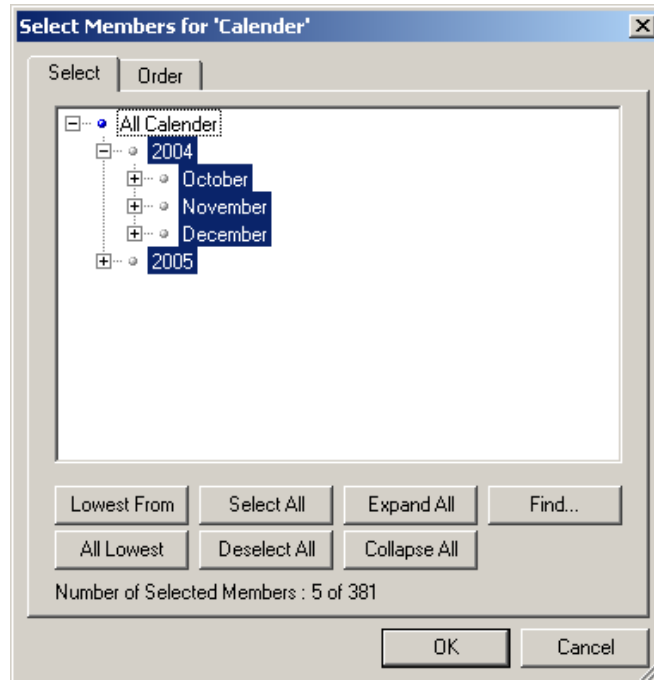
Note: Multiple Hierarchy dimensions are ignored when initially opening a database to simplify the initial view.

Selecting members individually

To select members individually:

1. Open a view. (See **Working with views** section.)
2. Click on a member from a row or column.
3. The **Select Members** dialogue is displayed.

Click on a member's name to select it. Click on a selected member's name to deselect it. (Selected members are highlighted.)



Notes:

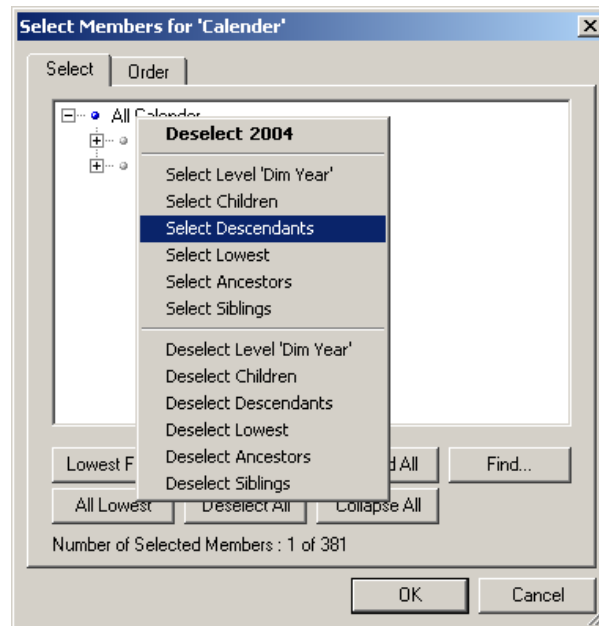
- You can expand or collapse the outline by clicking on the + or – symbols or on the **Expand All** or **Collapse All** buttons. When a member is selected and you click the + symbol, the children will be selected as well.
- To select all members from a dimension, click on the **Select All** button.
- To deselect all members, click on the **Deselect All** button. This comes in handy for a totally new selection.
- To select all lowest members from a dimension, click on the **All Lowest** button.

- To select the lowest members below a particular member, select that member (don't forget to deselect all members first), then click on the **Lowest From** button.
- For details of the **Find** button, see the **Advanced Member Selection** chapter of the **Executive Viewer User Guide**.

Selecting members by group

To select members by group:

1. Open a view. (See **Working with views** section.)
2. Click on a member from a row or column.
3. The **Select Members** dialogue is displayed. Right-click on a member to display a list of group selection options.



4. Click on one of the following options for the members you want to select:
 - **Select Level *LevelName*** (selects members of the same level)
 - **Select Children** (selects members one level below)
 - **Select Descendants** (selects members of all levels below)
 - **Select Lowest**
 - **Select Ancestors** (select members of all levels upwards)
 - **Select Siblings** (select members of the same level with the same parent)

Alternatively, you can deselect a group by clicking on the corresponding **Deselect** options.

Moving dimensions

Drag the dimension from the column to the Offspread area, by clicking on the member with your primary mouse button and dragging and releasing the mouse button on the member you want to put in the columns.

Bookshelf		Save Book	Sheets	Print	Undo	Redo
Service : 12A				Stops : Cardiff		
StopSeq : All StopSeq				Direction : Cardiff		
Clock : All Clock				Lateness Cat : Cardiff		
		January	February			
Cardiff Bus		0.97	0.06			

Swap 'Operator' dimension with 'Service' dimension

The member you move remains selected. When dragging a dimension Inspread (the area of the table with rows and columns), the previous member selection in that dimension is displayed.

This means you can move dimensions around without losing any member selection.

Bookshelf		Save Book	Sheets	Print	Undo	Redo
Operator : Cardiff Bus				Stops : Cardiff		
StopSeq : All StopSeq				Direction : Cardiff		
Clock : All Clock				Lateness Cat : Cardiff		
		January	February			
12A		0.97	0.06			

Dimension 'Service' and 'Operator' now swapped

Member 'Cardiff Bus'

The dimension **Service** is now swapped with the dimension **Operator**. Note that the member we used to swap the two dimensions (**Cardiff Bus** from the **Operator** dimension) remains the selected member in the Offspread area.

Note: You can also drag and drop dimensions in a chart. See the **Charts** chapter in the **Executive Viewer User Guide** for more information.

Stacking dimensions

The examples in this section assume you have opened an Operator Reports view.

Example 1:

In the following example, we stack the **Time Category** dimension on top of the **Calendar** dimension to display the **AMPeak**, **Intermediate** and **PMPeak** values for **January-February**, for operator **Cardiff Bus**.

Service : Cardiff		Stops : Cardiff		Timing P
StopSeq : All StopSeq		Direction : Cardiff		Vehicle :
Clock : All Clock		Time Category : Cardiff		Lateness
	January	February		
Cardiff Bus	1.18	1.42		

1. Click on the **Time Category** dimension and hold the mouse button down.
2. Drag the **Time Category** dimension to the top part of column headers and release the mouse button when the cursor displays the symbol.
3. A blue line is displayed on top or bottom of the **Calendar** dimension, depending on where you want to stack the members (if the **Calendar** dimension is entirely blue-lined, you will swap these dimensions).
4. Release the mouse button.
5. The screen now looks like this:

Service : Cardiff		Stops : Cardiff		Timing Point : Cardiff		W	
Direction : Cardiff		Vehicle : Cardiff		Running Board : Cardiff		Me	
	AMPeak		Intermediate		PMPeak		
	January	February	January	February	January	February	
Cardiff Bus	1.35	0.95	1.28	1.62	1.82	2.10	

Note: In this example, the members **AMPeak**, **Intermediate** and **PMPeak** are selected because they were previously selected in the Inspread. For more details on member selection, see the **Basic Member Selection** chapter of the **Executive Viewer User Guide**.

Example 2:

You can also stack dimensions in rows. In this example, we stack the **Service** dimension to the right of the **Operator** dimension.

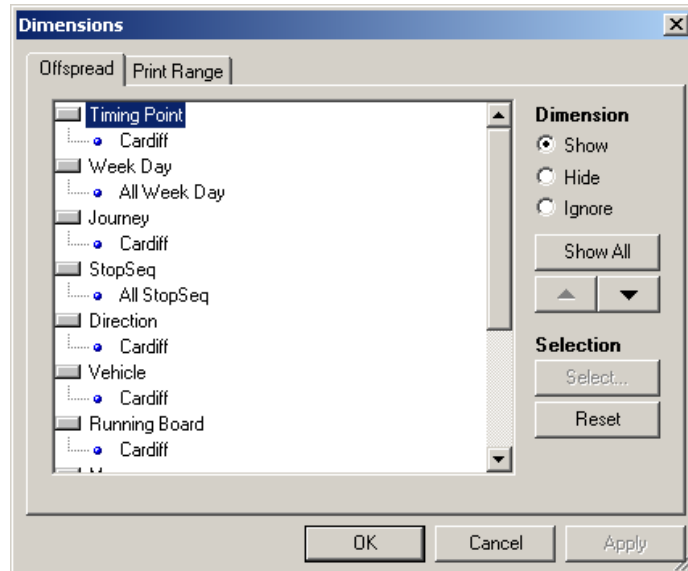
1. Click on the **Service** dimension and hold the mouse button down.
2. Drag the **Service** dimension to the **Operator** dimension until the cursor displays the symbol.
3. A blue line is displayed on the left or right of the **Operator** dimension, depending on where you want to stack the members (if the **Operator** dimension is entirely blue-lined, you will swap these dimensions).
4. Release the mouse button to stack the two dimensions.
5. The screen now looks like this:

Timing Point : Cardiff		Week Day : All Week Day		Journey : Cardiff		StopSeq : A	
Running Board : Cardiff		Measures : Average Variation		Clock : All Clock		Lateness C	
		AMPeak		Intermediate		PMPeak	
		January	February	January	February	January	February
Cardiff Bus	1	0.53	0.55	1.17	1.50	2.62	3.34
	12	1.05	0.42	-0.12	-0.02	0.38	0.59
	12A	1.44	0.28	0.64	0.82	2.09	1.79
	13	1.44	1.17	1.03	2.38	0.93	1.13
	13A	1.09	0.72	-0.58	0.42	1.52	1.34

Showing and hiding dimensions

To determine which dimensions are visible on your screen:

1. Open a view. (See **Working with views** section.)
2. Right-click on the table and select **Dimensions**.
3. The **Dimensions** dialogue is displayed.

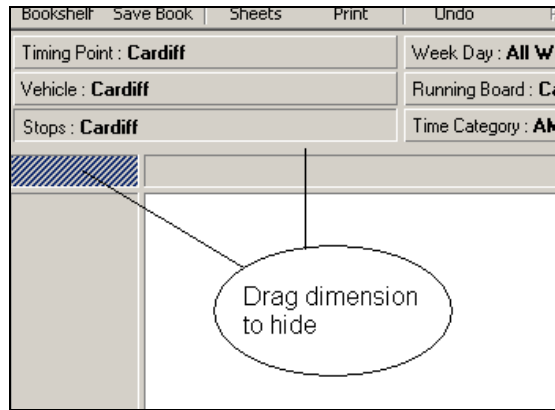


4. You can now change which dimensions are displayed:
 - **To show or hide a particular dimension:** Click on the dimension to select it, then select **Show** or **Hide** from the **Dimension** option list on the right of the dialogue. (For information about ignoring dimensions, see the **Advanced Navigation** chapter of the **Executive Viewer User Guide**.)
 - **To show all dimensions:** Click on the **Show All** button.
 - **To change the order that dimensions are displayed:** Click on a dimension to select it, then click on the Up or Down arrows on the right of the dialogue.
 - **To specify which members of a dimension to select Offspread:** Click on a member of the dimension to select it, then click on the **Select** button. The **Select Offspread Member for DimensionName** dialogue is displayed, and you can select the members and click on **OK**.
 - **To revert to the dimensions displayed when the database was opened:** Click on the **Reset** button. (See the **Basic Member Selection** chapter of the

Executive Viewer User Guide for more information about the member selection when a database is initially opened.)

Alternative way to hide dimensions:

You can also hide dimensions by dragging it to the empty space at the top of the rows.



Suppressing missing rows or columns

When all values in a row and/or column are missing you can automatically suppress these rows and/or columns from your display.

Running Board: Cardiff		Measures: Average Variation				Clock: All Clock	
	AMPeak		Intermediate		PMPeak		
	January	February	January	February	January	February	
1	0.53	0.55	1.17	1.50	2.62	3.34	
12	1.05	0.42	-0.12	-0.02	0.38	0.59	
12A	1.44	0.28	0.64	0.82	2.09	1.79	
13	1.44	1.17	1.03	2.38	0.93	1.13	
13A	1.09	0.72	-0.58	0.42	1.52	1.34	
2G							
30D							

Fields with missing values.

To suppress missing rows or columns:

1. Open a view. (See **Working with views** section.)
2. Right-click and select **Options**.
The **Options** dialogue is displayed.

Options

Chart Options | Actions | Print

Data | Numbers | Layout | Format | Headers | Chart Type

Data

Automatically Retrieve Data
 Refresh Data in Data Entry mode
 Audit Report

Suppress Rows Containing **Suppress Columns Containing**

Zero Zero
 Missing Missing
 No Access No Access

DynaSelect

Apply DynaSelect on Load
 Apply DynaSelect on Offspread Changes

OK Cancel

- On the **Data** tab, check the **Missing** box from either or both of the **Suppress Rows Containing** and **Suppress Columns** containing lists of options.

Note: In the case of stacked dimensions, this option can result in an asymmetrical view. To make an asymmetrical selection, use the **Remove Missing Rows/Columns from Selection** option. See the **Data Selection** chapter of the **Executive Viewer User Guide** for more details.

- Click on **OK**. The missing rows of columns are now suppressed from the selection:

Timing Point : Cardiff		Week Day : All Week Day				Journey : Cardiff	
Running Board : Cardiff		Measures : Average Variation				Clock : All Clock	
	AMPeak		Intermediate		PMPeak		
	January	February	January	February	January	February	
1	0.53	0.55	1.17	1.50	2.62	3.34	
12	1.05	0.42	-0.12	-0.02	0.38	0.59	
12A	1.44	0.28	0.64	0.82	2.09	1.79	
13	1.44	1.17	1.03	2.38	0.93	1.13	
13A	1.09	0.72	-0.58	0.42	1.52	1.34	

Working with tables and charts

Displaying a table and chart at the same time

To display both a table and a chart on one screen:

- Open a view. (See **Working with views** section.)
- Right-click on the current table or chart, and select **View As Table and Chart**.
- The screen will be divided in two sections, one showing the table and one showing the chart

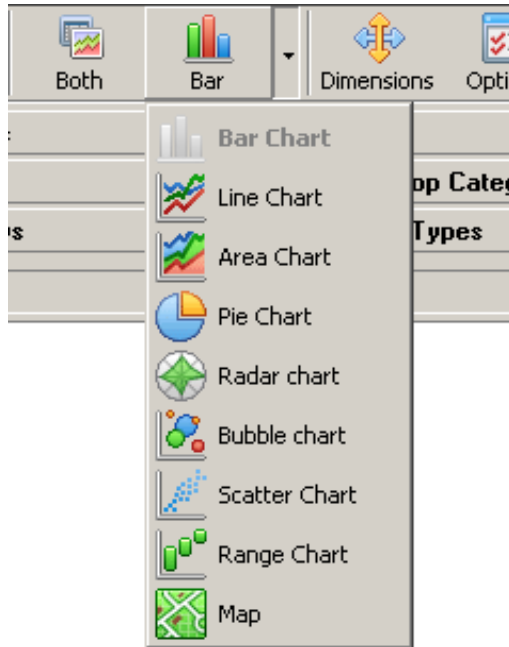
You can change the size of the table or the chart by dragging the splitter in the middle of the screen to the required position.

Creating a chart

To create a chart:

- Open a view. (See **Working with views** section.)

2. Select the members you want to display as a chart. For example, select the **Average Variation** value of five services over two months.
3. Click the Chart button on the toolbar to display your data as a chart. (This button is labeled with the type of chart currently selected:



Use the drop-down list on this button to select the chart type that you want to display.

4. You can now edit your chart:
 - **To add new members to the chart:** Click on a member to display the **Select Members** dialogue. Select the members to display, then click on **OK**. (See the **Selecting members displayed** section for details.)
The members are added to the chart.
 - **To change to a table view:** Click on the Table button on the tool bar. Your table will change accordingly when you select new members for the chart.

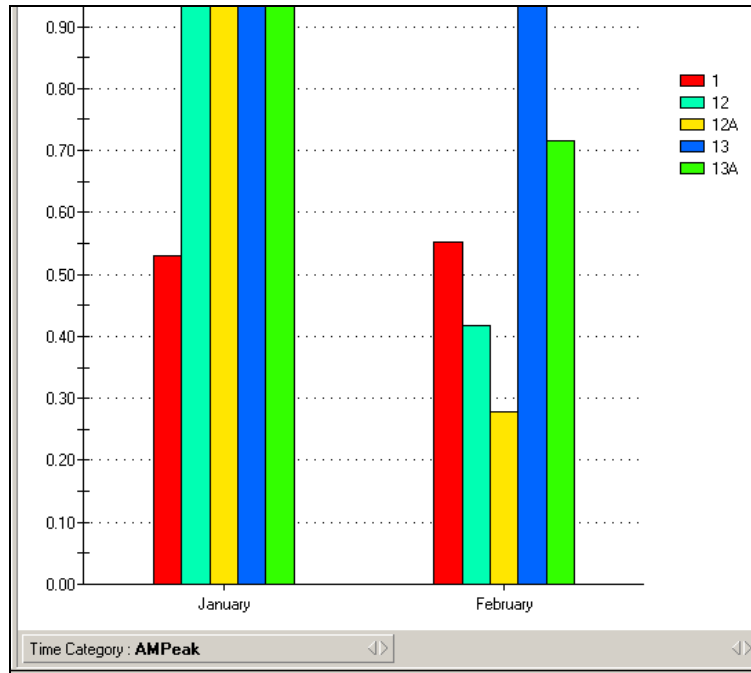
Note: You can still select other members in the Offspread dimensions when you have a chart on screen. This means that you can display the same chart easily for different member combinations.

Creating a chart over stacked dimensions

When your table has stacked dimensions in rows or in columns, the chart will be based on the most inner dimensions.

The outer dimensions are moved to the bottom of the chart sheet with the selected members retained.

Timing Point : Cardiff	week Day : All week Day				Journey : Cardiff	
Running Board : Cardiff	Measures : Average Variation				Clock : All Clock	
	AMPeak		Intermediate		PMPeak	
	January	February	January	February	January	February
1	0.53	0.55	1.17	1.50	2.62	3.34
12	1.05	0.42	-0.12	-0.02	0.38	0.59
12A	1.44	0.28	0.64	0.82	2.09	1.79
13	1.44	1.17	1.03	2.38	0.93	1.13
13A	1.09	0.72	-0.58	0.42	1.52	1.34



Example:

In this example, the table has both a **Calendar** and **Time Category**, where **Time Category** is stacked on **Calendar** (as in the table screenshot earlier in this section). The chart displays the months, by **Calendar**, with the **Time Category** as selection members in the bottom section of the chart (the Chart Bar), with the first member selected (in this case, **AMPeak**). ,

- If you click on the name of the **Time Category** the **Select Members** dialogue is displayed, and you can display the chart for other members in the dimension.
- To move to the next **Time Category**: Click on the arrows next to the name in the Chart Bar

Adding calculations**To add a new calculation:**

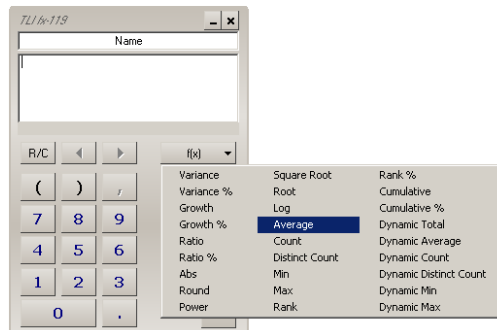
1. Open a view. (See **Working with views** section.)
2. Click on the **Calculator** button in the toolbar.
3. You can now use the calculator for your calculation.

Example calculation:

As an example we want to get average compliance percentage over the period of 10 days (between 10/02/2005 and 20.02/2005) for services 1, 12, 12A and 13 (see the table screenshot later in this section for a view of the table displayed).

To calculate:

- i. Click on **f(x)** (functions) button, and select **Average** from the list of functions.



- ii. On the sheet, click on all members between **10/02/2005** and **20/02/2005**.
- iii. In the name area at the top of the calculator, change the name of the calculation to **Average Compliance**.
- iv. Click on the **=** button to perform the calculation.

v. Click on the **x** at the top of the calculator to close it.

	10/02/2005	11/02/2005	12/02/2005	13/02/2005	14/02/2005	15/02/2005	16/02/2005	17/02/2005	18/02/2005	19/02/2005	20/02/2005
1	62.39	53.30	56.38	88.17	60.88	63.88	62.09	58.47	59.58	67.96	91.53
12	68.71	71.13	54.36	81.28	64.23	65.91	66.81	67.20	52.76	68.67	93.85
12A	63.98	62.85	68.56	68.33	65.97	73.52	60.91	70.38	68.60	68.85	
13	56.44	72.04	74.18	81.95	69.10	69.89	65.72	72.90	61.26	78.13	89.05

TLL/bs-113

Average Compliance

Average Compliance = Average(10/02/2005, 11/02/2005, 12/02/2005, 13/02/2005, 14/02/2005, 15/02/2005, 16/02/2005, 17/02/2005)

R/C () , Del C

7 8 9 / +

4 5 6 * +

1 2 3 - =

0 .

4. The calculation is added to your table.

A new member called **Average Compliance** is added to the columns and shows the average compliance percentage over the period you selected for services 1, 12, 12A and 13.

Vehicle : Cardiff	
Time Category : Cardiff	
10/02/2005	Average Compliance
91.53	65.87
93.85	68.63
	67.19
89.05	71.88

When you save the view, the calculation is stored, so that it is available when you re-open the view later. The calculation is added to the dimension as a member, but will only appear on this sheet. (Note that on the **Select Members** dialogue, calculations are included at the end of the list.)

Notes:

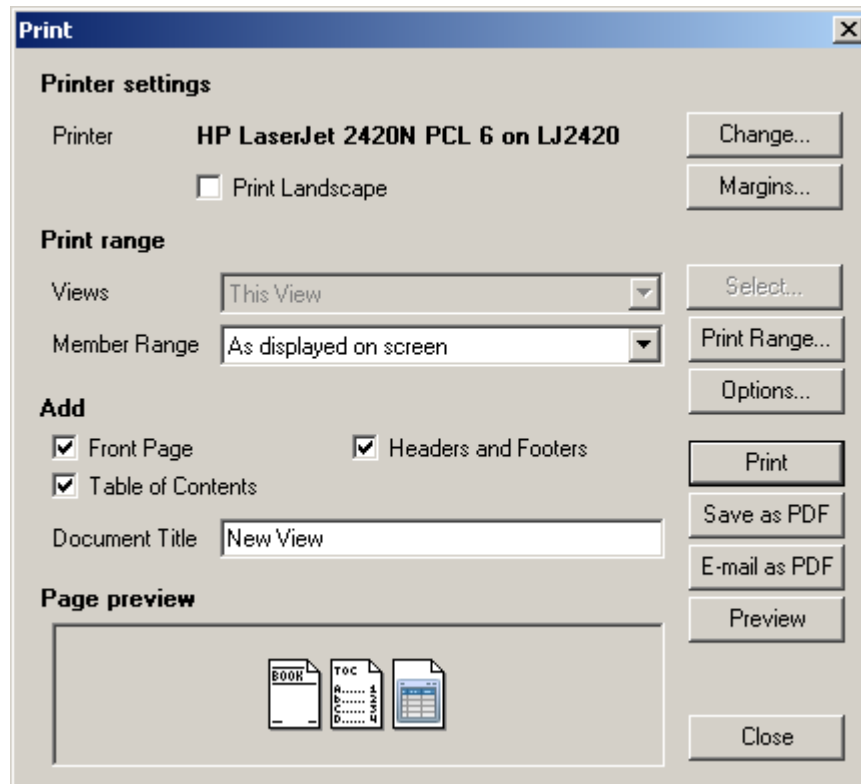
- Calculations you add can be used like any other member. They can be formatted, moved, used in other calculations or used in the Offspread. Calculations do not have a Level or Generation.
- If you do not press the **+** button or any other of the operator buttons between two members or values, a plus sign will be added automatically.

Printing and exporting sheets

You can print sheets or export to PDF or Excel.

To print or export a sheet to PDF:

1. Open a view. (See **Working with views** section.)
2. Click on the **Print** button on the tool bar.
3. The **Print** dialogue is displayed.



4. From the **Views** drop-down list, select the views that you want to print out (the options are **This View**, **Some Views** (if you choose this option you are prompted to select the views to print), **All Views**).

You can also select a member range if you don't want to print the same members as displayed on the screen.

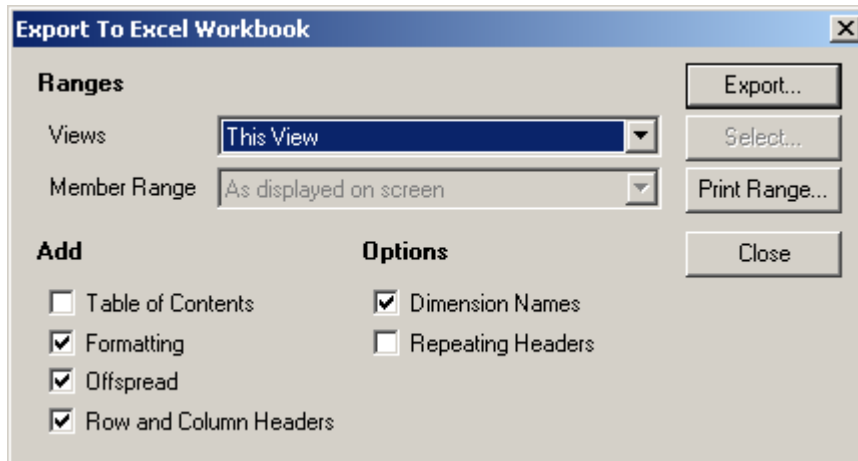
5. From the **Add** options, check or uncheck the boxes to specify whether you want to include a **Front Page**, **Table of Contents** or **Headers and Footers** in the print-out.

6. You can now print or export your selection:

- **To print:** Click on the **Print** button.
- **To export to PDF:** Click on the **Save as PDF** button.
- **To export to PDF and email it:** Click on the **E-mail as PDF** button.

To export to Microsoft Excel:

1. Open a view. (See **Working with views** section.)
2. Right-click on the sheet tab (at the bottom of the window), and select **Export To Excel Workbook**.
3. The **Export to Excel Workbook** dialogue is displayed.



4. From the **Views** drop-down list, select the views that you want to print out (the options are **This View**, **Some Views** (if you choose this option you are prompted to select the views to print), **All Views**).

You can also select a member range if you don't want to print the same members as displayed on the screen.

5. Check or uncheck the **Add** and **Options** boxes to specify what you want to include in the export.
6. Click on the **Export** button to export your selection.

5. Report templates

Once you open Operator Reports you can see the following reports available as views in the template folder.

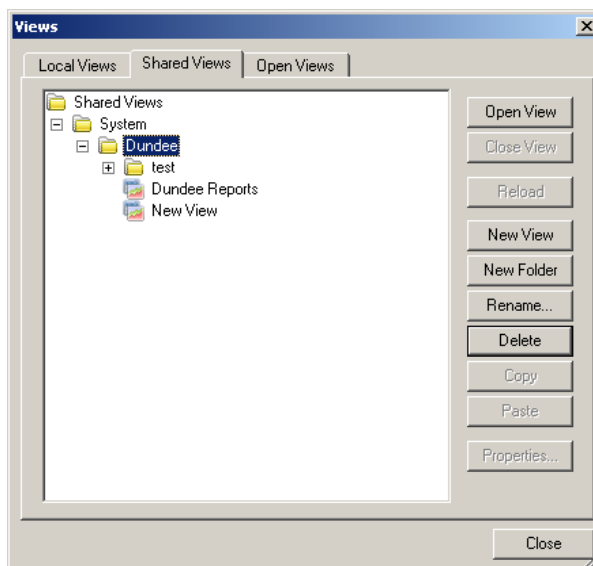
- **Service Compliance**
percentage of Compliant Departures per Service
- **Daily Service Performance**
percentage of vehicles early, on time or late
- **Journey Tracked Analysis**
observed journeys as a percentage of scheduled journeys
- **Journey Time**
average journey time per Service
- **Journey Comparison**
variance from scheduled time for each stop on a journey
- **Week Day Comparison**
variance from scheduled time for each stop on journey, compared by day of the week
- **Journey Survey**
journey performance shown as time progression of the journey at each stop for each day over a specified period of time
- **Ad Hoc Reports**
template reports set up for you to customise

These reports are built from report templates that ACIS supplies. For more information on how to customise reports or add your own reports, see the **Executive Viewer** chapter.

Opening reports

To open a report:

1. Click on **Views** and select **Shared Views** tab.



2. A list of available views is displayed under the Template folder. These views have been created by ACIS as template reports and can be changed by valid user to suite their needs.
3. Select a view or entire folder and double click to open.
4. Operator Reports opens, and you can see the following reports available as views tabs at the bottom of the screen:
 - Service Compliance
 - Daily Service Performance
 - Journey Tracked Analysis
 - Journey Time
 - Journey Comparison
 - Week Day Comparison
 - Journey Survey
 - Ad Hoc Report (empty report)

These reports are built from report templates supplied with Operator Reports. See the **Template Reports** chapter for details of how you can customise the reports.

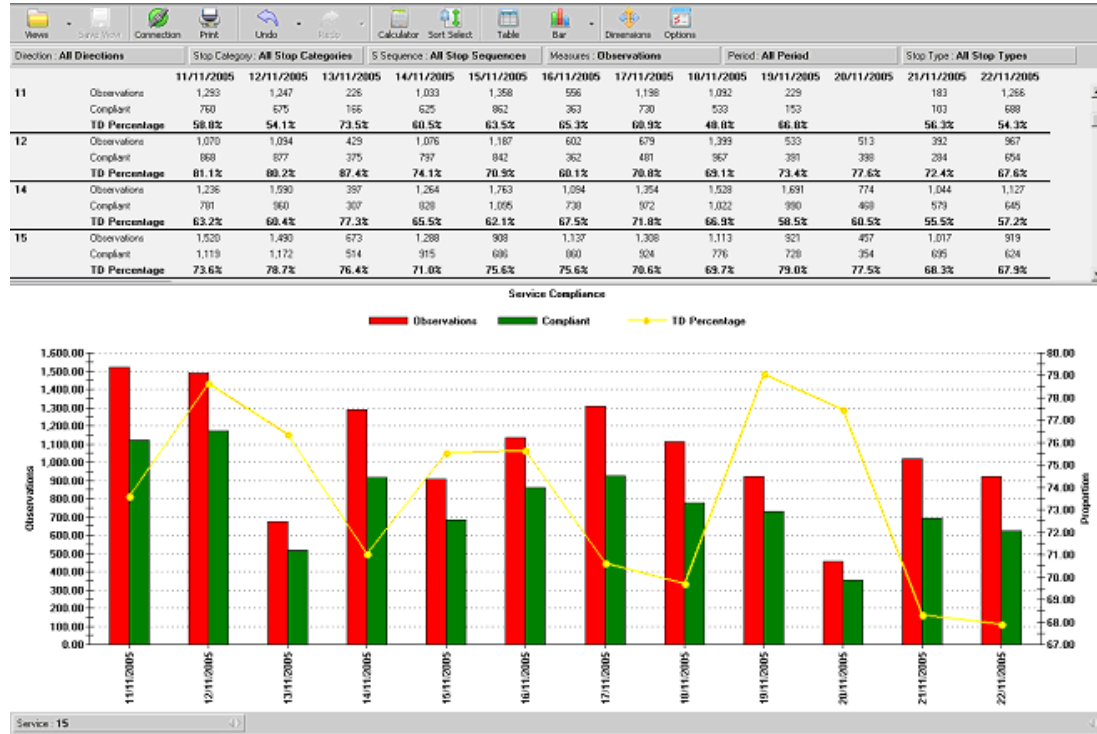
5. Click on a tab to view the report.

Service Compliance report

This report lists for each Service the count of observations, count and percentage of **Compliant Observations** (**Compliant** refers to **On Time** observations; the time range for **On Time** is configurable).

This report gives an immediate view of the performance of each Service for the specified dates. The bar chart that the report displays concerns for a single Public Service. You can click on left and right arrows on the **Service** dimension at the bottom of the chart (e.g. Service: 27 in the example) to scroll between services.

The additional filters available to

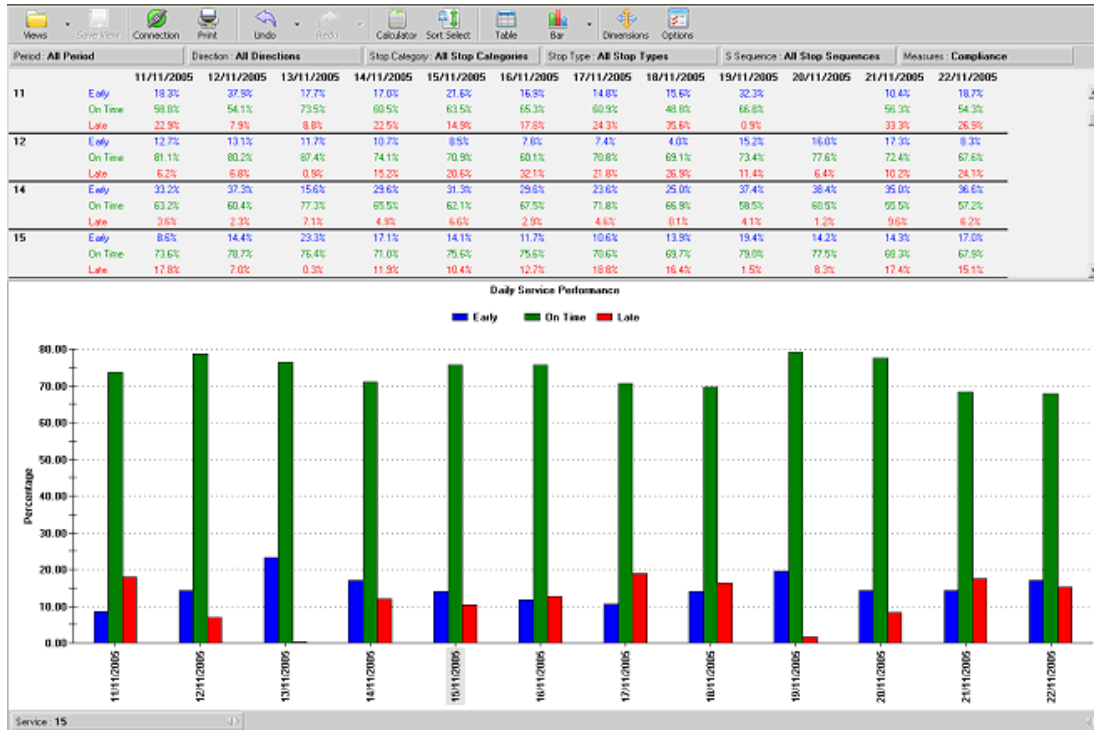


Daily Service Performance reports

This report illustrates:

- percentage of Vehicles Early
- percentage of Vehicles Late
- percentage of Vehicles On Time

The report gives a summary of all services, which can be broken down to each Service. The report covers every vehicle and every stop listed in the stop sequences and therefore provides an unsurpassable level of service monitoring.



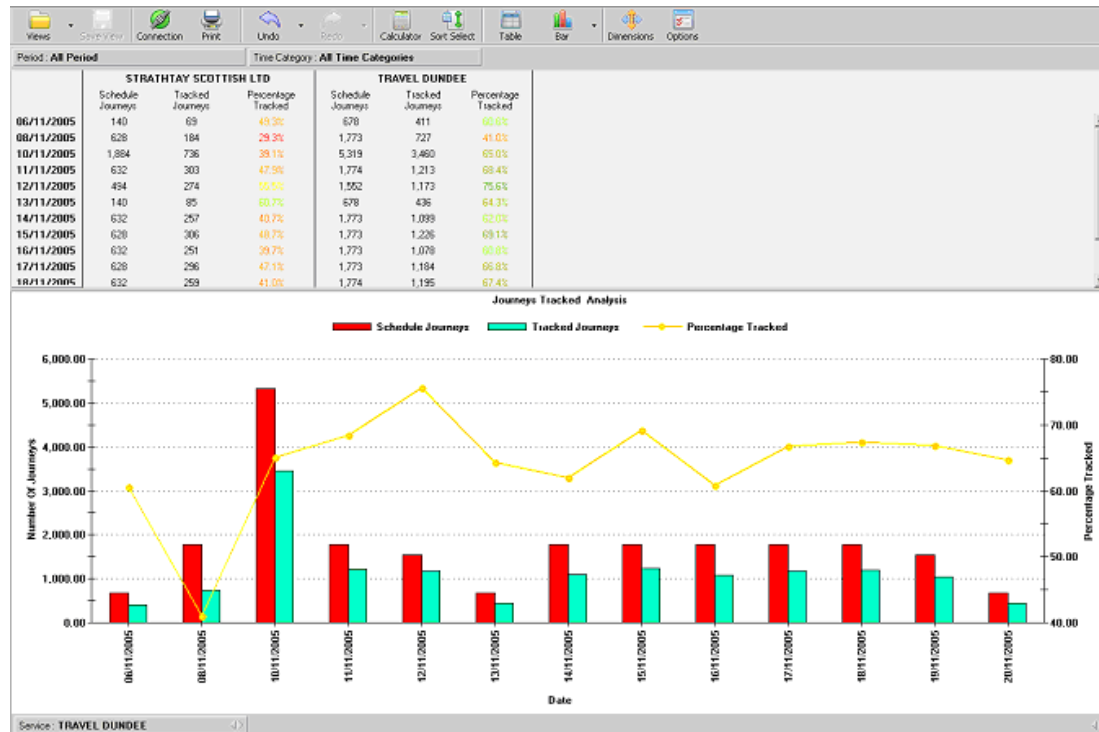
Journey Tracked Analysis report

This report produces a table and chart, which list the number of scheduled journeys compared to the number of actual journeys (i.e. journeys that have more than 25% of route tracked by BUSNET) and percentage, which have been observed during the different days.

Periods of the day are part of Time Category, which is specified by the customer. This can be used to split the report down to the times of the day.

The report is for the specified period of time and is configurable.

The report displays a bar chart per operator or service. You can click on left and right arrows on the **Service** dimension at the bottom of the chart (Service: First) to scroll between operators or services.



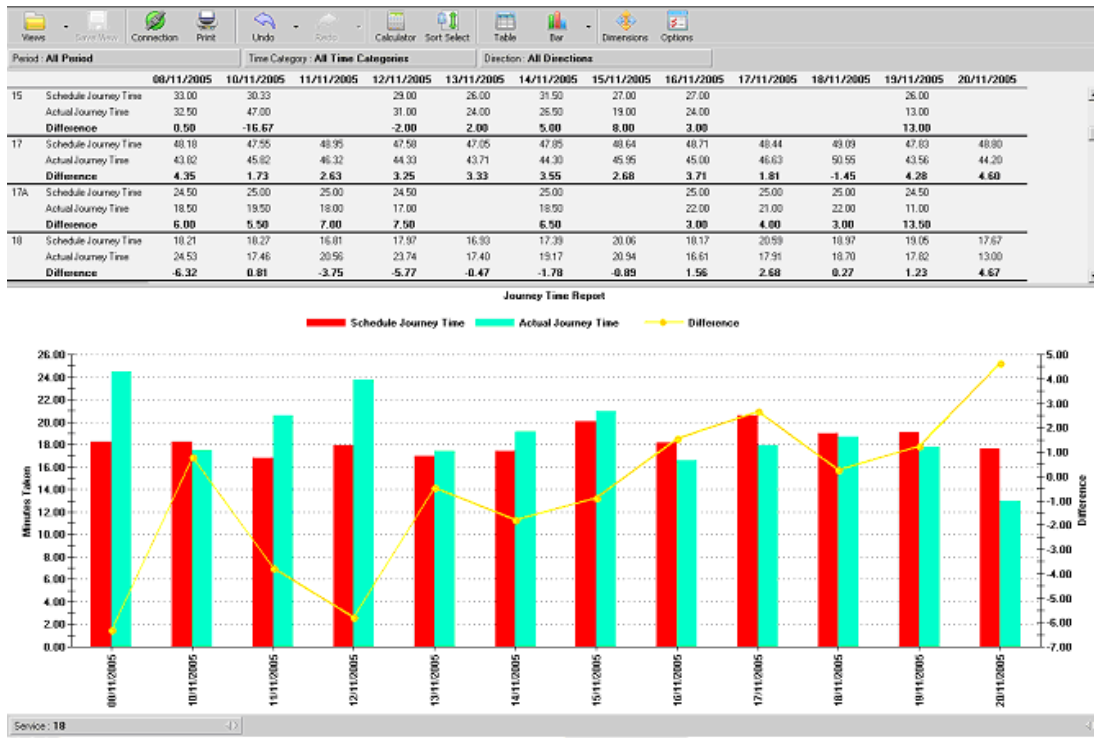
Journey Time report

This report displays a bar chart that shows the actual journey time against schedule journey time for particular Operator or Service for each day in defined period.

The secondary line displays the difference between actual and schedule journey time.

Actual journey time will be an average of complete journeys (i.e. first and last stop picked up) for the selected service or operator. And schedule journey time is average of the same journeys that are included in the actual journey time.

This report displays a bar chart per Public Service. You can click on left and right arrows on the **Service** dimension at the bottom of the chart (Service: 50 in the example) to scroll between services.



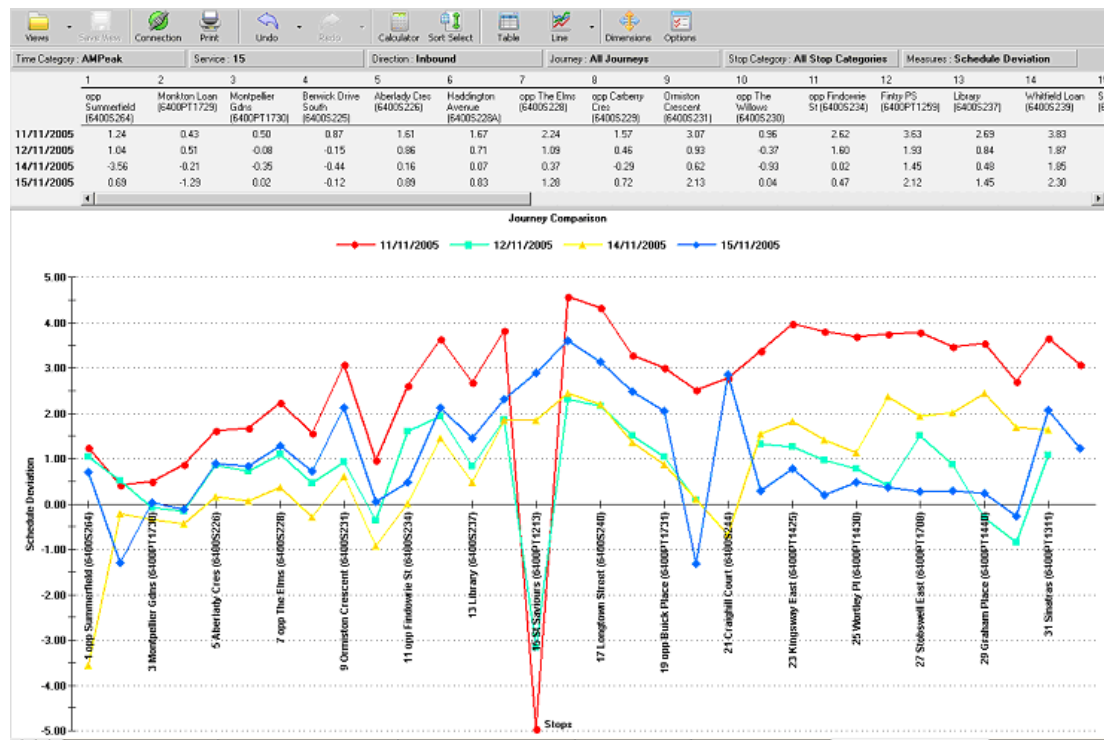
Journey Comparison report

This report is a line chart that compares performance of the journey by logging the number of minutes of variance to the scheduled time at each stop on the journey. It is useful for determining the spread of running time between stops and the performance of the journey on a particular day.

This report displays line chart per service or journey and each line represent different date.

Using Direction dimension the user can filter the service to one direction only.

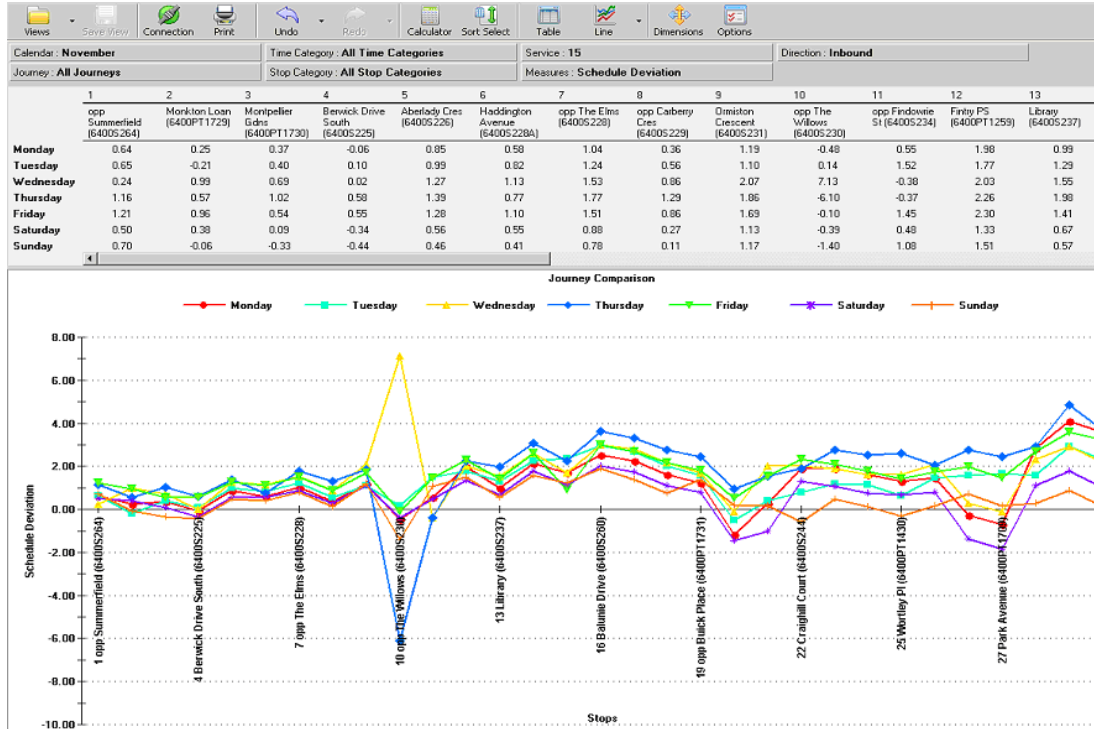
Periods of the day are part of Time Category, which is specified by the customer. This can be used to group the journeys for a particular service by the periods of the day (E.g. AM Peak).



Week Day Comparison report

Like the Journey Comparison report, this report is a line chart that compares performance of service or journey by logging the number of minutes of deviation to the scheduled time at each stop on the journey; in addition, the Week Day Compliance report includes a comparison by day of the week.

Each line on the chart reflects the average time of all the journeys on a particular day of the week. The report is useful for showing whether such events as period ticket sales on Monday or late night shopping day cause delays to buses, that do not occur on the other days in the week.



Journey Survey report

This report shows how a particular journey or service has operated by showing the actual time progression of the journey against the schedule timings at each stop for each day in the specified period of time. A steep incline suggests that bus was delayed, whereas a flat line suggests the bus moved quickly between stops. The "ideal" line is a smooth diagonal line that is almost identical as the schedule stop timings.

This report displays line chart. You can click on the **Calendar** dimension at the top of the report (Calendar: November in the example) to change dates.

