CAP SQL

Published Database

Guide

Microsoft SQL Server

Compatible

September 2014

Contents

1. Overview

The SQL database(s) provided by CAP is a complete Vehicle Database updated via the internet using the CAP "Data Update Application". A separate database is provided for each of the vehicle types: CAR, LCV, HGV and BIKES.

Each Database is divided into seven areas, which are updated dependant on your subscription. An overview of these areas is as follows:-

Vehicle Codes & Descriptions

This section provides the data used to identify and select vehicles. Each vehicle is specified as belonging to a Manufacturer, Range, and Model and is identified at the Derivative level with a unique CAP Code and CAP ID number.

New Vehicle Data

This provides a range of detailed datasets containing the facts and figures for each vehicle available in the UK market from 1999 to current; the dataset is updated daily by a team of researchers talking directly with the manufacturers.

Used Values LIVE (Cars only)

This provides real time trade valuations for all vehicles within the database, along with editorial commentary to support the changes, based on market research. The dataset is published daily. (Used Values LIVE is a separate subscription and is independent of the Used Values Monthly subscription)

Used Values Plus (Cars only)

This provides a short term forecast for the next 3 months to aid part exchange valuations for vehicles over 12 months old at mileage points from 1000 up to 250,000 relative to the age of the vehicle and covers registrations up to five years old. The dataset is published once a month as a minimum. (Used Values Plus is a separate subscription but is reliant on a Used Values Monthly subscription)

Used Values Monthly

This provides current trade valuations for all vehicles within the database, the values are based on market research. The dataset is published once a month.

Used Values Consumer

The Consumer Values dataset provides the equivalent consumer facing values, providing valuations in bands rather than absolute values.

Future Values New Vehicles

This provides future value predictions at defined mileage and month periods for all current production vehicles registered on the current plate. The values are based on research and economic modelling. The dataset is published once a month.
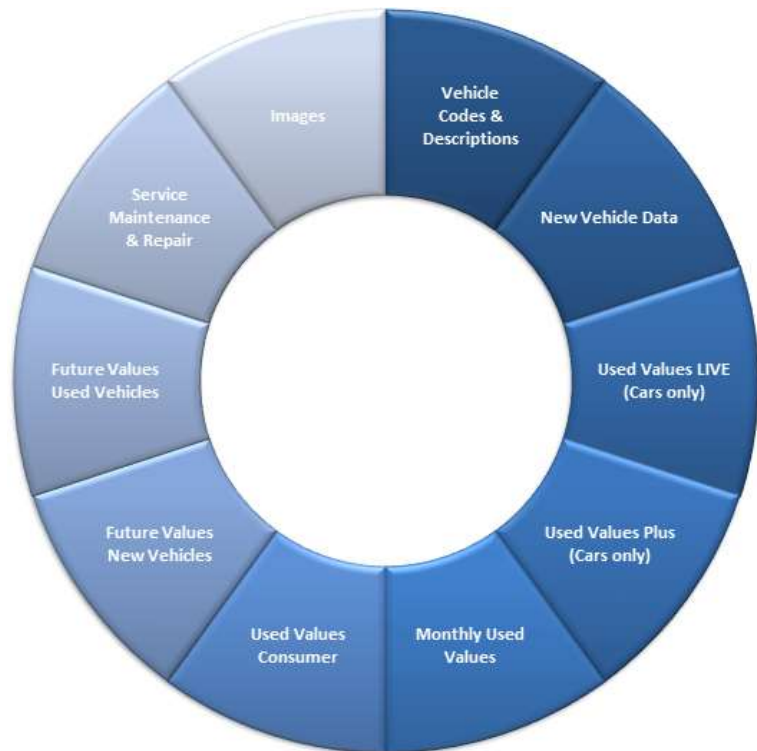
Future Values Used Vehicles

This provides future value predictions at defined mileage and month periods for all used vehicles registered on the previous plate up to a maximum of 5 years of age.

Service Maintenance & Repair (SMR)

The Gold Book New Car SMR data set contains forecast Service, Maintenance & Repair costs for cars registered on the current plate at age points from 1 to 5 years and 10,000 up to 150,000 miles, relative to the age of the vehicle.

Images

These are 1024x768 resolution jpeg files, stored in the database and linked by CAP ID number and model year level. Subscriptions are available as multi-image for Car and Single image for LCV.

2. Vehicle Data Content

This section describes the logical data items available within the database and gives examples of how the data in the various tables are linked.

Vehicle Codes

A numeric CAP_ID number uniquely identifies each individual vehicle, this is given to the vehicle when first added to the database and remains with it, ID numbers are never reused. Each vehicle also has a unique 20 character alphanumeric code, which is semi readable the format is as follows:

Position	Description	Example	
1 - 2	Manufacturer	FO, VA	(Ford, Vauxhall)
3 - 4	Model Name	FO, CO	(Focus, Corsa)
5 - 6	Engine Size (cc/100, rounding to nearest full number)	16	(1596 cc)
7 - 9	Trim level	SPO	(SPORT)
10	Number of Doors	5	
11	Body Type	H	(Hatchback)
12	Fuel Type	P	(Petrol)
13	Fuel Delivery	T	(Turbo)
14	Transmission	M	(Manual)
15	Drive Train	(blank)	(blank)
16	Blank	(blank)	
17	Sequence Number Used as a model sequence number	3	(4th version of Focus)
18 - 20	Blank	(blank)	

(Format shown is for CAR only. LCV, HGV and Bike codes differ)

Vehicle Descriptions and Hierarchy

The database provides four tables that show the hierarchy of vehicles belonging to each manufacturer, these are:

- **Manufacturer**

This table provides all of the manufacturer names each with a unique code. (E.g. AUDI)

- **Range**

This table provides all model ranges, each with a unique code and a reference to the manufacturer code to which they belong. (E.g. A4)

- **Model**

This table provides all the models, each with a unique code and a reference to the manufacturer and model range code to which they belong. (E.g. A4 Diesel Saloon)

- **Derivative**

This table provides all the individual vehicle derivatives, each with a unique code (the CAP ID) and a reference to the manufacturer, range and model code to which they belong. This also provides the 20 characters CAP Code. (E.g. 1.8 T SE 4dr Saloon)

Manufacturer	Range	Model	Derivative
Alfa	A2	3 Series Saloon	316i 3dr
Audi	A3	3 Series Touring	316i 3dr Auto
BMW	A4	3 Series Compact	316i SE
Citroen	3 Series	Z3 Roadster	1.8 2dr
Ford	Z3	Z3 Coupe	1.9 8v 2dr
Honda	5 Series	Z3M Roadster	1.9 2dr
etc.	Saxo	5 Series Saloon	2.0 2dr
	Xsara	5 Series Touring	2.2 2dr
	Xantia	5 Series Estate	2.2 Sport
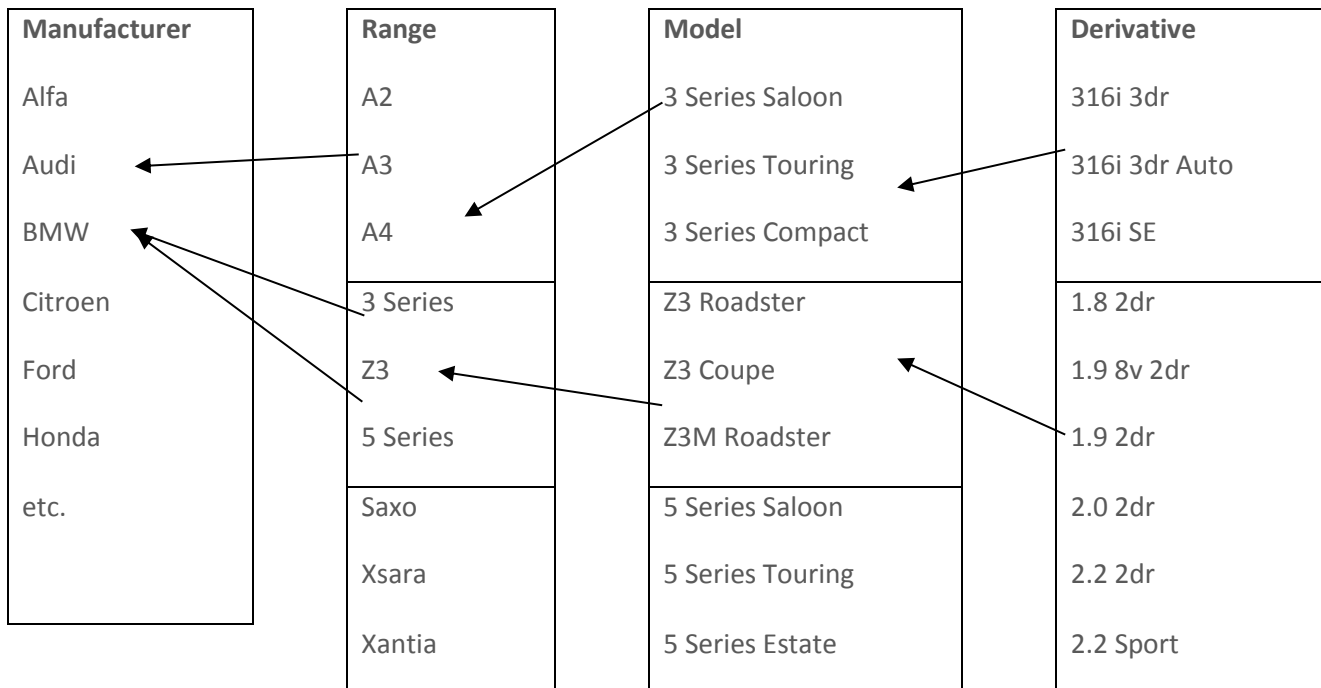
Model Years & Effective From To Dates

Each Vehicle has one or more model year records relating to it, these define the introduction and discontinuation of the vehicle, and show where manufacturer, model year changes occur. Each model year has an effective from and effective to date and a text description (ref) to the manufacturer model year name.

For the options & equipment on each vehicle an effective from and to date is also held, the example below shows a vehicle introduced with a number of options on introduction, over time the cost of individual options may change or they may move from cost to standard or from standard to cost. The dates with the database allow standard and options to be selected at any point in time, to view current vehicles only (i.e. can be bought new today) you would select vehicles where the effective to dates are not set. Current options and equipment for the vehicle will also have the effective to date not set.

| | | 2002 | | | 2003 | |

Z4 Roadster – 2.5i	Cost	Cost	Cost	Cost
6CD Auto changer	275			310
Cruise Control	170			
Heated Seats	230			
Alloy Wheels – Comp Star	1000	900		
Alloy Wheels – Double Spoke	900			

Technical Data

Z4 Roadster – 2.5i	Val	Val	Val
CC	2444		2498
CO2	170	162	
Insurance Group	18		
MPG	28		
BHP	210		250
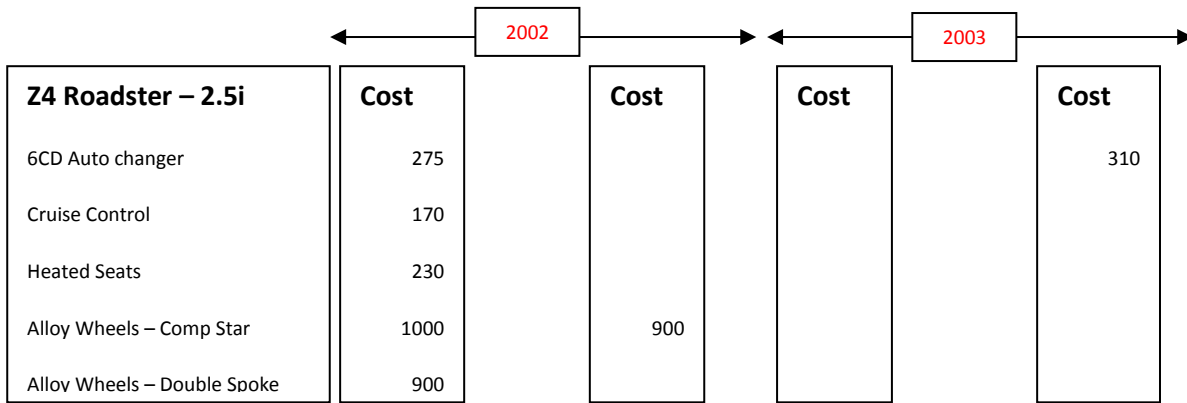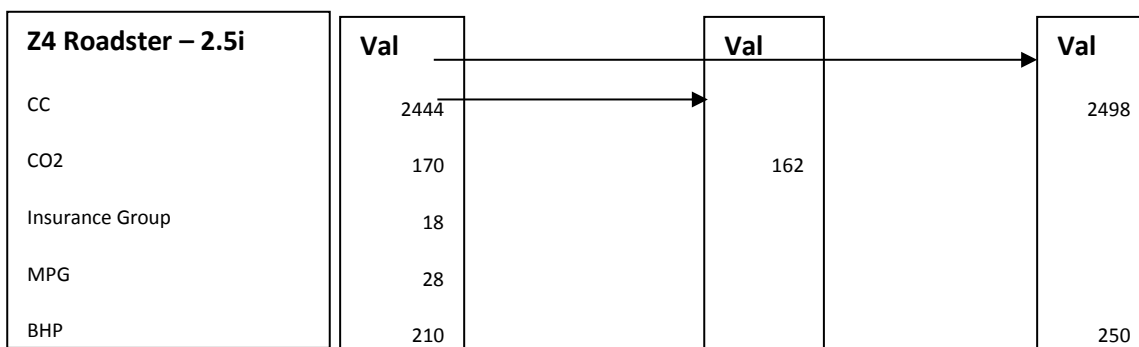
Technical data fields work in the same way as the options and standard equipment, having option codes with a technical dictionary containing the description of the item and the type of value which is provides, with the selectable options the value is a cost.

Dictionaries

All the selectable options, standard equipment and technical data items that can be applied to a vehicle are defined in dictionaries. Options and Equipment definitions are in the *DictionaryOptions* table, technical in the *DictionaryTechnical* table. The dictionary item codes are held against each vehicle with a cross-reference to the text description from within the dictionary.

Dictionary	**Options/Equipment**
1 Air Conditioning	1.**8 2dr L**
2 Sunroof	1 £500
3 Alloy Wheels	2 £0
4 CD Player	3 £600
5 Metallic Paint	6 £350
6 Sony CD Player	**2.0 2dr GLX**
7 etc….	1 £500
	2 £0
	3 £0
	6 £0
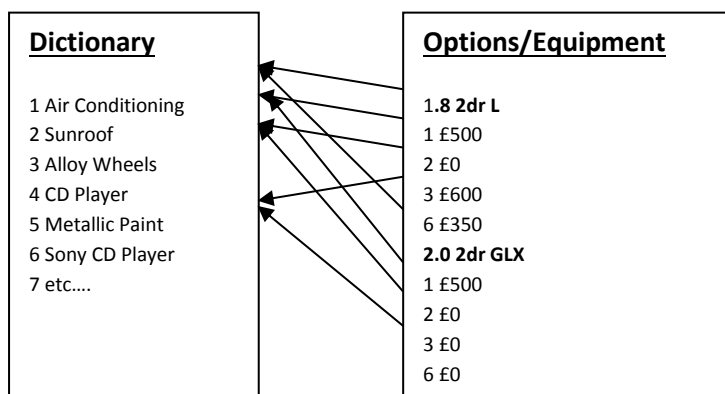
The items in each dictionary are also grouped into categories, the categories are themselves defined in a category dictionary, and this can be used to group options/equipment/technical items into categories. These categories are specified as:

Options Categories

Body Glass	Heating/Cooling/Ventilation	Security
Brakes	Hoods	Service/Warranty
Carpets/Rugs	Interior Features	Towing
Chassis/Suspension	Interior Lights	Transmission
Communication	Packs	Trim - Alcantara Suede
Driver Aids	Paint - Metallic	Trim - Cloth
Driver Convenience	Paint - Mica	Trim - Leather
Driver Information	Paint - Pearlescent	Trim - Part Leather
Driving Mirrors	Paint - Solid	Trim - Vinyl
Embellishment Trims	Paint - Special	Vanity Mirrors
Engine	Paint - Two Tone	Wheels - Alloy
Entertainment	Safety	Wheels - Spare
Exterior Body Features	Seat Piping/Additional Trimming	Wheels
Exterior Lights	Seats	

(Dictionary shown is for CAR only LCV, HGV and Bike dictionaries if applicable may differ)

Each of the options categories are also linked to less specific generic categories, this allows a more general categorisation of options if required:

Generic Categories

Driver Convenience	Entertainment	Exterior Features
Interior Features	On the Road	Packs
Paintwork	Safety	Security
Service	Service/Warranty	Technical
Trim	Wheels	

(Dictionary shown is for CAR only LCV, HGV and Bike dictionaries if applicable may differ)

Generic Categories and Generic Items
Each generic category also has a number of generic Items below it as follows:

Driver Convenience	**Entertainment**	**Exterior Features**
Bluetooth Connection	Audio remote control	Body coloured bumpers
Cruise control	Auxiliary input socket	Electric door mirrors
Front parking sensor	Digital radio	Electric sunroof
Heated front seat	DVD	Fixed panoramic glass roof
Navigation system	Internet connection	Front fog lights
Park assist camera	Media storage	Full size spare wheel
PAS	Mobile phone App interface	Headlight washers

Rear parking sensor

Rear wiper

Reverse parking aid

Self-parking system

Service indicator

Steering wheel mounted controls

Telephone

Trip computer

Interior Features

Air conditioning

Climate control

Electrically adjust. driver's seat

Electrically adjust. passenger seat

Folding rear seats

Front armrest

Front electric windows

Front head restraints

Height adjust. driver's seat

Lumbar support

Rear armrest

Rear electric windows

Rear headrests

Sports seats

Steering wheel rake adjustment

Steering wheel reach adjustment

Radio/Cassette

Radio/CD

Radio/CD Multichanger

Radio/Minidisc

TV

USB/iPod interface

Paintwork

Metallic Paint

Mica Paint

Pearlescent Paint

Solid Paint

Special Paint

Security

Alarm

Central locking

Immobiliser

Remote central locking

Service/Warranty

Service

Warranty

Wheels

Alloy wheels

Spare wheel

Steel wheels

Tyre repair kit

Heated door mirrors

LED headlights

Manual sunroof

Opening panoramic glass roof

Roof rails

Space saver spare wheel

Xenon headlights

Safety

3x3 point rear seat belts

ABS

Blind spot information

Collision avoidance braking

Curtain airbags

Drivers airbag

ESP

Insurance telematics

Isofix child seat anchor points

Lane departure warning

Passenger airbag

Rear airbags

Side airbags

Traction control

Tyre pressure monitor

Trim

Cloth seat trim

Leather seat trim

Partial leather seat trim

(Dictionary shown is for CAR only LCV, HGV and Bike dictionaries if applicable may differ)

These individual items in the generic dictionary also link to the option dictionary items where appropriate, this allows the generic dictionary to be used as a method of searching vehicles for common items and can also be used to do comparisons of vehicles on these common items. The links back to the manufacturer specific options allow you to discover if these options are available on a given vehicle at cost or standard or not available.

To aid with this the *GenericStatus* table gives a full list of generic items for each vehicle identifying if each generic option is either:

- Standard with no cost
- Not available

- Optional with a cost
- Unknown (not researched or data not available

In cases where a generic item may link to multiple options on a given vehicle it is possible that one may be standard and one at cost, in this case the generic item would show as standard. For example:
BMW - Z4 2.0 Sport 2dr

Alloy Wheels £*standard*

Alloy Sport Wheels £*600*

Alloy Super Sport £*900*

All these available options would link to the generic Alloy Wheels; the generic status of Alloy wheels on this vehicle would be standard even though two higher specs are available at cost.

Technical Categories & Technical Items
The technical dictionary also links back to the category dictionary and contains the following items:

Emissions	**Engine and Drive Train**	**Fuel Consumption**
CO	Camshaft	EC Combined (mpg)
CO2 (g/km)	Catalytic convertor	EC Directive 1999/100/EC Applies
HC	CC	EC Extra Urban (mpg)
HC+NOx	Compression ratio	EC Urban (mpg)
Noise Level dB(A)	Cylinders	
NOx	Cylinders layout	**Tyres**
Particles	Cylinders – bore (mm)	Alloys?
Standard Euro Emissions	Cylinders – stroke (mm)	Space saver?
	Engine code	Tyre size front
General	Engine layout	Tyre size rear
Badge engine CC	Fuel delivery	Tyre size spare
Badge power	Gears	Wheel style
Based on Id	Number of valves	Wheel type
Coin description	Transmission	
Coin series		**Vehicle Dimensions**
Insurance group 1		Height
Insurance group 1-50 (Eff Jan 07)	**Performance**	Height (inc roof rails)
Insurance group 2	0-60 mph (secs)	Length
Man corrosion perforation	0-62 mph (secs)	Wheelbase
	Engine power – BHP	

guarantee – years

Man paintwork guarantee – years

NCAP Adult Occupant Protection %

NCAP Child Occupant Protection %

NCAP Front/Side Impact Disc Feb 09

NCAP Overall rating – Eff Feb 09

NCAP Pedestrian rating Disc Feb 09

NCAP Pedestrian Protection %

NCAP Safety Assist %

Safety concerns?

Service interval frequency – months

Service interval mileage

Special edition

Engine power – KW

Engine power – PS

Engine power – RPM

Engine torque – LBS.FT

Engine torque – MKG

Engine torque – NM

Engine torque – RPM

Top Speed

General cont…

Special order

Standard manufacturers warranty - mileage

Standard manufacturers warranty – years

Timing belt interval - months

Timing belt interval – miles

Vehicle homologation class

Width

Width (inc mirrors)

Weights and Capacities

Fuel tank capacity (litres)

Gross vehicle weight

Luggage capacity (seats down)

Luggage capacity (seats up)

Max. loading weight

Max. roof load

Max. towing weight – braked

Max. towing weight – unbraked

Minimum kerb weight

Number of seats

Turning circle – kerb to kerb

(Dictionary shown is for CAR only LCV, HGV and Bike dictionaries if applicable may differ)

Colour & Trim / Hood Combinations

CAP provides a link between paint options and valid trim options, and between paint options and valid hood options. The links themselves are grouped together into time periods and only apply to options within the time period.

| 1/4/2002 | 1/5/2003 | 1/5/2003 | - current - |

Z4 Roadster – 2.5i
Metallic Blue – Black Leather
Metallic Blue – Brown Leather
Metallic Red – Black Leather
Metallic Red – Brown Leather
Metallic Green – Black Leather
Metallic Green – Brown Leather
Metallic Green – Green Leather

Z4 Roadster – 2.5i
Metallic Blue – Black Leather
Metallic Red – Black Leather
Metallic Green – Black Leather
Metallic Green – Green Leather

In the example the Brown Leather option is dropped from 1/5/2003, the Green Leather remains only available with Metallic Green paint.

Pack Contents

A number of the options assigned to individual vehicles represent 'Packs' a pack is a collection of items under one heading for example a vehicle could have a 'Sport Pack' option at a cost this pack could contain

Alloy Wheels and ABS and embossed leather trim. It is possible that the Alloy Wheels and ABS are also listed individually as options on the vehicle. In order to identify this a new feature has been added to the NVD dataset (October 2003) where the pack option has a link table to other individual options that comprise the pack as with colour and trim these links relate to specific time periods.

← 1/4/2002	1/5/2003 →	← 1/5/2003	- current - →

Sport Pack
Alloy Wheels
ABS
Embossed Leather

Sport Pack
Alloy Wheels
ABS
Embossed Leather
Rear Spoiler
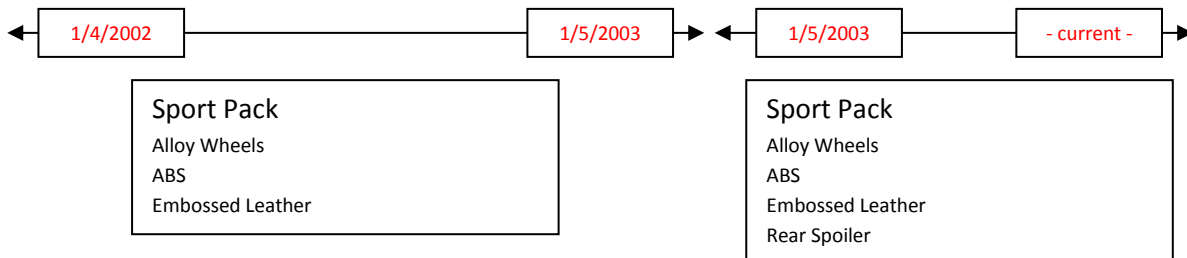
In the example 'Rear Spoiler' was added to the pack on 1/5/2003.

Option Relationships

This dataset presents a number of relationships between options on an individual vehicle, which exist to allow a system to apply the rules to a vehicle ordering type process; the rules will reduce the possibility of the user selecting options on a vehicle that cannot be sensibly ordered.
The relationship rules apply to a specific time period.

← 1/4/2002	1/5/2003 →

Rules	OO	RO	RA	NW	IN	IO
Steel Wheel		x				
Alloy Wheel		x				x
Alloy Sport Wheel		x				
Sony CD/Radio				x		x
Sony Multi Changer			#	#	x	x
Multi Function Steering Wheel			x			
Leather Multi Function Steering Wheel			x			
Mini Fridge					#	
Aqua Paintwork						x
Emerald Paintwork						x
Sport Pack					#	#

In the example;
Only one of the three wheel types should be selected
If the multi changer is selected one of the multi-function steering wheels has to be selected
If the multi changer is selected it requires the Sony CD player
The mini fridge should not be selected with the multi changer
If the sport pack is selected it includes the Alloy wheels, Sony CD and multi changer.
The sports pack includes paintwork which is included at 0 cost.

Option Rules

There is a specific order in which applicable rules should be implemented. Details of which are explained below.

NOTE: in the descriptions below 'Primary' means the first option the rule relates to. All other options linked to this rule are classed as secondary.

The 'One Of' and 'Not With' rules should be applied first, as they will prevent you from selecting other options that are not compatible.

One Of (OO)

Only one of the options in this relationship should be selected. Example: You can only have one type of paintwork/colour.

NOTE: In some cases the rule will be applied to default items, where an alternative selection has _not_ been made, the default option should be maintained.

Not With (NW)

If the selected option has a 'Not With' rule applied then none of the other options in the rule should be selected. Example: If 'Wood Inlay' is chosen, it cannot be accompanied by 'Cloth Trim'

NOTE: If the primary option has a 'not with' rule applied then all of the secondary options in the rule will be excluded. This is used instead of a (OO) rule due to there being fewer or no exclusions rules between the secondary options.

Example: If 'silver roof rails' is chosen, it cannot be combined with silver & grey paint colours but is compatible with black, blue & red paint colours.

The 'Requires One Of' & 'Requires All' should be implemented next:

Requires One Of (RO)

If the primary option is chosen, it must be accompanied by at least one of the secondary options in that rule, which may incur additional costs to the overall vehicle price. Example: If 'Sports Suspension' is chosen, one set of '17" alloys' must also be chosen.

NOTE: Items that are flagged as secondary in this rule, may be flagged as primary in another rule set. Example: The sports suspension selected above requires 17" alloys, which in turn then requires a tyre repair kit.

Requires All (RA)

If the primary option is chosen, it is accompanied by all the secondary options in that rule, which may incur additional costs to the overall vehicle price. Example: If 'TV and Teletext reception' is chosen, it must be accompanied by 'Sat nav + Monitor + Drive info System'.

NOTE: Items that are flagged as secondary in this rule, may be flagged as primary in another rule set. Example: The TV & Teletext option selected above requires Sat nav + Monitor + Drive info System, which in turn then requires a Bluetooth connection.

Finally the 'Included In' & 'Includes One Of' should be implemented:

Included In (IN)
If the selected option has a 'Included In' rule applied then all the other non-primary options in the rule should be selected at no additional cost. This is the same as the 'Requires All' rule except that in this case the individual options costs would not be included.

Example: If 'Sat nav + Monitor + Driver Info System' is chosen, then separate option of 'Driver information system' is included in this option price.

NOTE: Items that are flagged as secondary in this rule, may be flagged as primary in another rule set. Example: The TV & Teletext option selected above includes Sat nav + Monitor + Drive info System, which in turn then either includes or requires a Bluetooth connection.

Include One Of (IO)
If the primary option is chosen, it must be accompanied by one secondary option. The selected secondary option will be included at no additional cost.

Example: If Convenience Pack is selected One Metallic Paint can also be selected at no additional cost.

NOTE: Items that are flagged as secondary in this rule, may be flagged as primary in another rule set. Example: The Convenience Pack selected above includes one metallic paint option, which in turn then either includes or requires a roof rails.

NOTE: Where an 'Includes' rule contains secondary items that have 'requires' rules between those specific secondary items the 'requires' rules will no longer apply as they have been satisfied by the 'includes' rule.

NOTE: A specific option can be the primary option in multiple 'Not With', 'Includes' or 'Requires' rules.

Example: The convenience pack selected above includes auto-dimming interior mirror and auto-dimming exterior mirrors, then the requires rule stating the exterior mirror requires the interior mirror is no longer valid as it has already been satisfied by the selection of the convenience pack.

3. Used Values

There are a number of options available to identify used vehicle valuations, depending on subscription level as described below:

Used Values Monthly (Cars, LCV, Bikes & HGV) & Used Values Consumer (Cars, LCV & Bikes)
Vehicle Descriptions are found using the lookup mechanism (see Vehicle Data Content) to isolate a vehicle description and gets an associated CAP ID

The Used Value tables contain a history of all publications that have been subscribed to. The first step usually is to identify which publication you are wishing to value a vehicle with.

The Publish date is obtained via the 'basetableversions' table, however it is best to access the publish dates via the 'TableVersion' view.

The Fields on the view are described as follows (TableVersions – View):-

Field Name	Description
TV_TableName	Should be set to 'dbo.UsedValuesTrade' for Used Values
TV_PubDate	Shows the date when the data was published.
TV_PubSeq	Used to isolate all records for the specific publication date.
TV_CurrentFlag	Is set to 1 for the latest product that has been published.

The CAP ID enables a vehicle to be isolated. To value a vehicle the Age and Mileage of the vehicle are required.

To identify the Age of a vehicle the Year and Registration Plate are looked up. These can then be linked via the 'yearlettercodes' table back to the 'usedvaluestrade' table (See diagram below).

Once the Year and Registration Plate have been isolated a number of records will be returned that show the basic mileages for the vehicle, these mileages and values are consistent throughout all CAP products for a given publication.

To accurately value a vehicle at a given mileage the 'Used Valuations – Mileage Calculation Rules' should be applied, these calculations are available on the CAP web site and can be used on all Used Valuations products that CAP supply.

There are four basic valuations available – Retail, Clean, Average and Below which are supplied as part of the Used Valuations dataset.

Data Schema for Used Valuations Monthly

Tableversions - view	usedvaluestrade	yearlettercodes
1 TV_TableName	uvt_pubseq	Yc_Year
2 TV_PubDate	uvt_ID (from capder or capvehilces)	Yc_Month
3 TV_PubSeq	uvt_year	Yc_Letter
	uvt_month	
	uvt mileage	

Data Schema for Used Values Consumer

Tableversions - view	usedvaluesInternet	yearlettercodes
1 TV_TableName	uvt_pubseq	Yc_Year
2 TV_PubDate	uvt_ID (from capder or capvehilces)	Yc_Month
3 TV_PubSeq	uvt_year	Yc_Letter
	uvt_month	
	uvt mileage	

Used Values LIVE (Cars only)

The Black Book LIVE Published Database is an Enhanced data package which contains four data tables and along with a table containing commentary.

As with standard Black Book values, to use the Black Book LIVE you will need to isolate a vehicle description and get an associated CAP ID

The CAP ID enables a vehicle to be isolated. To value a vehicle the Age and Mileage of the vehicle are required.

To identify the Age of a vehicle the Year and Registration Plate are looked up. These can then be linked via the 'yearlettercodes' table back to the 'usedvaluestradeplus' table (See diagram below).

Once the Year and Registration Plate have been isolated a number of records will be returned that show the basic mileages for the vehicle, these mileages and values are consistent throughout all CAP products for a given publication.

To accurately value a vehicle at a given mileage the 'Used Valuations – Mileage Calculation Rules' should be applied, these calculations are available on the CAP web site and can be used on all Used Valuations products that CAP supply.

Data Schema for Used Valuations LIVE

UsedValuesLive_Trade

Field name	data type	
Uvlt_PubSeq	Integer	
Uvlt_Id	Integer	(CAP_Id number)
Uvlt_year	Integer	
Uvlt_month	Integer	
Uvlt_mileage	Integer	
Uvlt_retail	Integer	
Uvlt_clean	Integer	
Uvlt_average	Integer	
Uvlt_below	Integer	

UsedValuesLive_Sequence

Field name	data type
Uvls_PubSeq	Integer
Uvls_PubDate	datetime
Uvls_PubMonthly	boolean

UsedValuesLive_CommentLink

Field name	data type	
Uvlcl_PubSeq	Integer	
Uvlcl_Id	Integer	(CAP_Id number)
Uvlcl_CommentCode	Integer	

UsedValuesLive_Comment

Field name	data type
Uvlc_commentcode	Integer
Uvlc_comment	text

Black Book Plus (Cars only)

Included in the Used Valuation suite of products is Black Book Plus (cars only), which provides a 3 month forecast for vehicles within a certain age parameter.

As with standard Black Book values, to use the Black Book Plus values you will need to isolate a vehicle description and get an associated CAP ID.

The Used Value Trade Plus tables contain a history of all publications that have been subscribed to. The first step usually is to identify which publication you are wishing to value a vehicle with.

The Publish date is obtained via the 'basetableversions' table, however it is best to access the publish dates via the 'TableVersion' view.

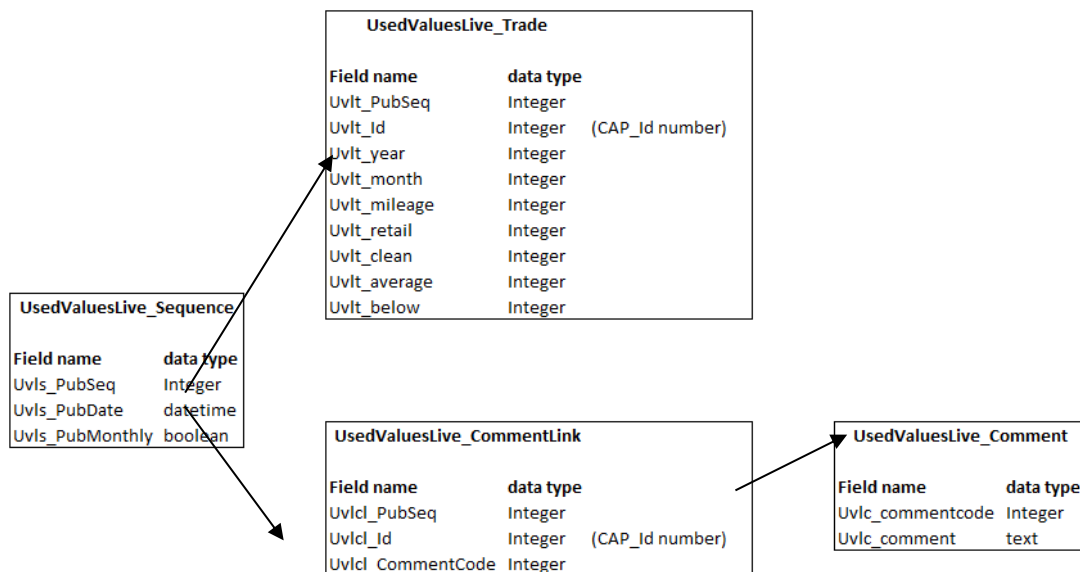| Field Name	Description
TV_TableName	Should be set to 'dbo.UsedValuesTradePlus'
TV_PubDate	Shows the date when the data was published.
TV_PubSeq	Used to isolate all records for the specific publication date.
TV_CurrentFlag	Is set to 1 for the latest product that has been published.

The CAP ID enables a vehicle to be isolated. To value a vehicle the Age and Mileage of the vehicle are required.

To identify the Age of a vehicle the Year and Registration Plate are looked up. These can then be linked via the 'yearlettercodes' table back to the 'usedvaluestradeplus' table (See diagram below).

Once the Year and Registration Plate have been isolated a number of records will be returned that show the basic mileages for the vehicle, these mileages and values are consistent throughout all CAP products for a given publication.

Black Book plus may also contain a number of price updates, depending on market activity. These prices are identified by different effective from dates. No Effective To date is displayed.

To accurately value a vehicle at a given mileage the 'Used Valuations – Mileage Calculation Rules' should be applied, these calculations are available on the CAP web site and can be used on all Used Valuations products that CAP supply.

Black Book plus values are only available in Clean, Average & Below and are displayed as Clean +1, Average +1, Below +1, Clean +2 etc.

Data Schema for UsedValuesTradePlus
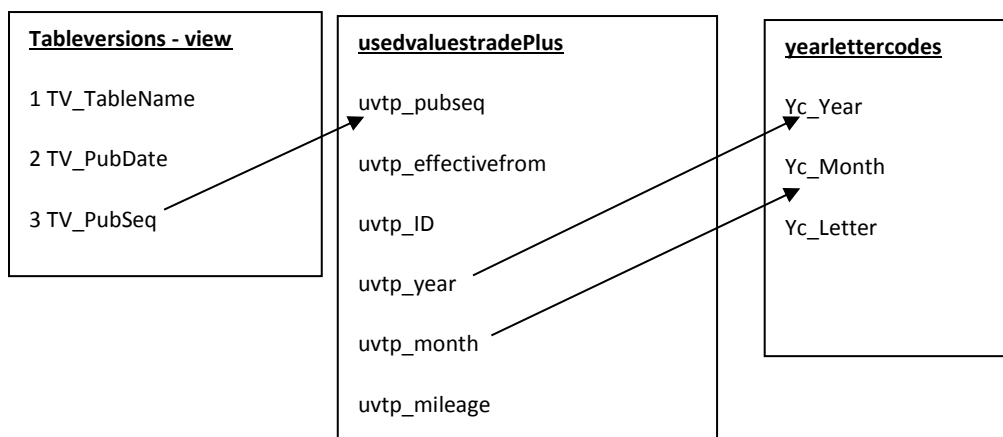
Data Schema for UsedValuesTradePlus_Comment

Tableversions - view	**usedvaluestradePlus_Comment**
1 TV_TableName	uvtpc_pubseq
2 TV_PubDate	uvtpc_effectivefrom
3 TV_PubSeq	uvtpc_ID

4. Future Values New and Used Vehicles

Vehicle Descriptions are found using the lookup mechanism, this isolates a vehicle description and gets an associated CAP ID.

The Future Values table contain a history of all publications that have been subscribed to. The first step usually is to identify which publication you are wishing to value a vehicle with.

The Publish date is obtained via the 'basetableversions' table, however it is best to access the publish dates via the 'TableVersion' view.

The Fields on the view are described as follows (Table versions view):-

Field Name	Description
TV_TableName	Should be set to 'dbo.FutureResidual' for Future Values
TV_PubDate	Shows the date when the data was published.
TV_PubSeq	Used to isolate all records for the specific publication date.
TV_CurrentFlag	Is set to 1 for the latest product that has been published.

The FutureResidual table holds all valuations for both New and Used vehicles, which can be accessed via the CAP ID.

New Vehicles

To isolate New vehicles the fr_year and fr_month fields should be set to 0. The resulting record set enables the creation of a residual value grid which can be used as a basis for working out the future value of the selected vehicle.

Each record has a mileage (fr_mileage) and 6 monthly intervals (fr_6, fr_12, fr_18 etc.) for projected valuations, several records at different mileages build up a grid which is used as a starting point for specific mileage and age based calculations.

To calculate a vehicle value to accurate Age and Mileages refer to the 'Age / Mileage Calculation Rules for Future Values' which is available on the CAP Web site.

Data Schema Future Values New Vehicles

Tableversions - view	futureResidual
1 TV_TableName	fr_pubseq
2 TV_PubDate	fr_ID (from capder or capvehilces)
3 TV_PubSeq	fr_year (Set to 0)
	fr_month (Set to 0)
	fr mileage
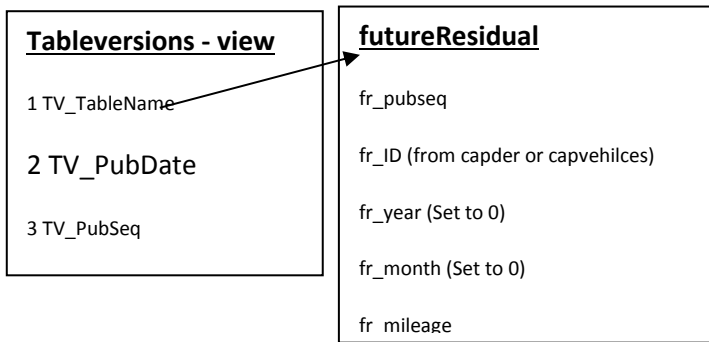
Used Vehicles

To identify the correct valuation records for a vehicle the Age (Year and Registration Plate) requires looking up. The correct Registration Plate can then be looked up via the 'yearlettercodes' table back to the 'FutureResidual' from the 'fr_month' field, this in combination with the Year (fr_year) enable a vehicle to be looked up.

Once the Year and Registration Plate have been isolated a number of records will be returned for a given CAP ID, this record set enables the creation of a residual value grid which can be used as a basis for working out the future value of the selected vehicle.

Each record has a mileage (fr_mileage) and 6 monthly intervals (fr_6, fr_12, fr_18 etc.) for projected valuations, several records at different mileages build up a grid which is used as a starting point for other mileage and age based calculations.

As a rule three mileages are given for a vehicle at a given age, it is possible then to work out the specific mileage via the 'Age / Mileage Calculation Rules for Future Values' document which is available on the CAP Web site.

Data Schema Future Values Used Vehicles

Tableversions - view	futureResidual	yearlettercodes
1 TV_TableName	fr_pubseq	Yc_Year
2 TV_PubDate	fr_ID (from capder or capvehilces)	Yc_Month
3 TV_PubSeq	fr_year	Yc_Letter
	fr_month	
	fr mileage	

5. Codes & Descriptions Package (Cars, LCV, HGV & Bikes)

Codes & Descriptions provide the data to select and identify vehicles; the database gives two methods of accessing this information. The primary method is designed to allow a drill down selection through CapMan -> CapRange -> CapModel -> CapDer.
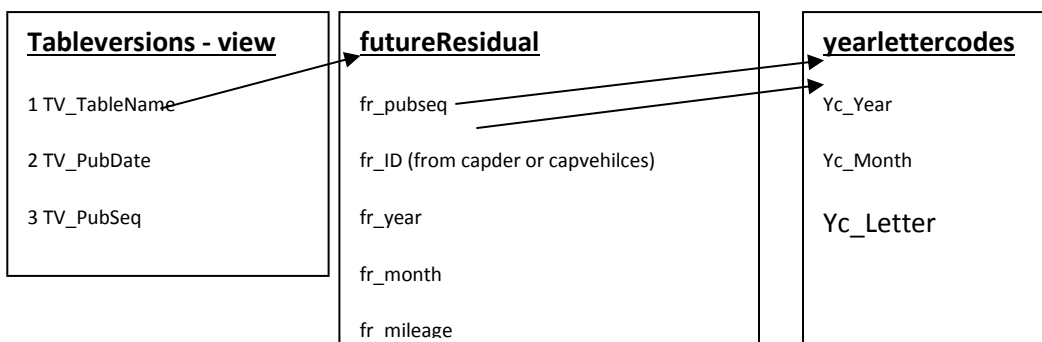
CAPMan

Column Name	Data Type	Length	Nullable
cman_code	int	4	No
cman_name	char(25)	25	Yes
cman_labour	float	8	Yes
cman_orderno	int	4	Yes
cman_manlookupcode	char(2)	2	Yes
cman_Address1	varchar...	50	Yes
cman_Address2	varchar...	50	Yes
cman_Telephone	varchar...	25	Yes

CAPTrim

Column Name	Data Type	Length	Nullable
ctrim_code	int	4	No
ctrim_name	char(50)	50	Yes
ctrim_mancode	int	4	Yes
ctrim_modcode	int	4	Yes
ctrim_rancode	int	4	Yes

CapTrim table provides a derivative trim level look-up.

CAPRange

Column Name	Data Type	Length	Nulla
cran_code	int	4	No
cran_name	char(50)	50	Yes
cran_mantextcode	int	4	Yes

CAPMod

Column Name	Data Type	Length	Nullable
cmod_code	int	4	No
cmod_name	char(50)	50	Yes
cmod_rancode	int	4	Yes
cmod_mancode	int	4	Yes
cmod_orderno	int	4	Yes
cmod_introduced	int	4	Yes
cmod_disconti...	int	4	Yes
cmod_bodystyle	int	4	Yes

NVDBodyStyle

Column Name	Data Type	Length	Nullable
bs_code	int	4	No
bs_description	char(50)	50	No
bs_image	image	16	Yes

CAPDer

Column Name	Data Type	Length	Null
cder_ID	int	4	No
cder_capcode	char(20)	20	Yes
cder_mancode	int	4	Yes
cder_rancode	int	4	Yes
cder_modcode	int	4	Yes
cder_trimcode	int	4	Yes
cder_name	varchar...	50	Yes
cder_introduced	datetime	8	Yes
cder_discontinued	datetime	8	Yes
cder_orderno	int	4	Yes
cder_vehiclesector	tinyint	1	Yes
cder_doors	tinyint	1	Yes
cder_drivetrain	char(1)	1	Yes
cder_fueldelivery	char(1)	1	Yes
cder_transmission	char(1)	1	Yes
cder_fueltype	char(1)	1	Yes

The CAPVehicles table can also be used as an alternative if you already have a dataset containing CAP ID identified vehicles as a quicker/simple method to arrive at vehicle descriptions. The result of both methods is that the CAP ID number of the vehicle is found. (**CAP ID should be used as the primary key field for linking cap data.)**

(The CAP Vehicles table is only available in SQL)

CAPVehicles

	Column Name	Data Type	Length	Nullable
🔑	CVehicle_ID	int	4	No
	CVehicle_ManText	varchar…	50	Yes
	CVehicle_ModText	varchar…	50	Yes
	CVehicle_DerText	varchar…	50	Yes
	CVehicle_ShortModText	varchar…	50	Yes
	CVehicle_ShortDerText	varchar…	50	Yes
	CVehicle_ModIntroduced	int	4	Yes
	CVehicle_ModDiscontinued	int	4	Yes
	CVehicle_DerIntroduced	datetime	8	Yes
	CVehicle_DerDiscontinued	datetime	8	Yes
	CVehicle_ManTextCode	int	4	Yes
	CVehicle_ModTextCode	int	4	Yes
	CVehicle_DerTextCode	int	4	Yes
	CVehicle_ShortModID	int	4	Yes
	CVehicle_ShortDerID	int	4	Yes
	CVehicle_ManOrderNo	int	4	Yes
	CVehicle_ModOrderNo	int	4	Yes
	CVehicle_DerOrderNo	int	4	Yes

Model Years

Currently for use with the NVD dataset, we provide the NVDModelYear table, this identifies OEM model introduction and discontinue dates, the MY_EffectiveTo column will be NULL if the vehicle is still current.

The my_imageid and my_imagenotexactmatch fields are part of the images package described below in the Images section below.

NVDModelYear

	Column Name	Data Type	Length	Nulla
🔑	MY_Id	int	4	No
🔑	MY_EffectiveFrom	datetime	8	No
	MY_EffectiveTo	datetime	8	Yes
	MY_Ref	char(50)	50	Yes
	MY_ImageID	int	4	Yes
	MY_ImageNotE…	bit	1	No

CAP Code Lookups

A number of the tables are provided to allow a CAP code look-up mechanism; these tables present the text descriptions of the individual elements of the cap code.

1 - 2	Manufacturer
3 - 4	Model Name
5 - 6	Engine Size
7 - 9	Trim Level
10	Number of Doors

CAPMan

	Column Name	Data Type	Length	Nullabl
🔑	cman_code	int	4	No
	cman_name	char(25)	25	Yes
	cman_labour	float	8	Yes
	cman_orderno	int	4	Yes
	cman_manlookupcode	char(2)	2	Yes

11	Body Type	

CAPBodyStyle

	Column Name	Data Type	Length	Nullab
🔑	cbs_code	char(2)	2	No
	cbs_description	char(50)	50	Yes
	cbs_cobs_code	char(1)	1	Yes

12	Fuel Type	

CAPFuelType

	Column Name	Data Type	Length	Nullable
🔑	cft_code	char(1)	1	No
	cft_description	char(50)	50	Yes

13	Fuel Delivery	

CAPFuelDelivery

	Column Name	Data Type	Length	Nullable
🔑	cfd_code	char(1)	1	No
	cfd_description	char(50)	50	Yes

14	Transmission	

CAPTransmission

	Column Name	Data Type	Length	Nullable
🔑	ct_code	char(1)	1	No
	ct_description	char(50)	50	Yes

15	Drive Train	

CAPDriveTrain

	Column Name	Data Type	Length	Nullable
🔑	cdt_code	char(1)	1	No
	cdt_description	char(50)	50	Yes

16	Blank
17	Sequence
18 - 20	Blank

CAP Vehicle Sectors (Cars only)

This table provides a vehicle sector definition categories which are used by the monitor product to produce the league tables, but have many other uses. The CVS_Id field links to cder_vehiclesector field in the CAPder table.

CAPVehicleSectors

	Column Name	Data Type	Length	Nullabl
🔑	cvs_iD	tinyint	1	No
	cvs_Description	varchar...	50	Yes

4x4 Large	Estate Small	Prestige Coupe Medium
4x4 Medium	Large	Prestige Coupe Small
4x4 Small	Lower Medium	Prestige Estate Large

Convertible Large	Medium	Prestige Estate Lower
Convertible Medium	MPV Large	Prestige Estate Medium
Convertible Small	MPV Medium	Prestige Larger
Coupe Large	MPV Small	Prestige Lower
Coupe Medium	Prestige Convertible Large	Prestige Premier
Coupe Small	Prestige Convertible Medium	Small
Estate Large	Prestige Convertible Small	Supermini
Estate Medium	Prestige Coupe Large	Upper Medium

CAPOnRunOut

This table provides runout information for vehicles where the manufacturer has stock available to buy after the vehicle has stopped being manufactured.

CAPOnRunout

	Column Name	Data Type	Length	Nullable
🔑	ro_id	int	4	No
	ro_runoutdate	datetime	8	No

NOTE - Not all vehicles will have an entry in this file.

6. New Vehicle Data Package (NVD) (Cars, LCV & Bikes)

New Vehicle Data package provides vehicle price and option data from 1999 to current, covering Vehicle price, options and prices, standard equipment and technical data. The Bike Database only contains data in the Prices and Technical data tables.

NVD Editions

For each ID numbers holds the date of the last deadline (Publish) for each of the datasets within the NVD package.

NVDEditions

	Column Name	Data Type	Length	Nullable
🔑	ED_ID	int	4	No
	ed_capcod…	datetime	8	Yes
	ed_price_la…	datetime	8	Yes
	ED_Options…	datetime	8	Yes
	ED_Standar…	datetime	8	Yes
	ED_Technic…	datetime	8	Yes
	ED_Relatio…	datetime	8	Yes
	ED_CTHL_L…	datetime	8	Yes

NVD Prices

Holds the vehicle price information and the date the price is effective from and to, if the EffectiveTo date is NULL the price is still current.

NVDPrices

	Column Name	Data Type	Length	Nullable
🔑	PR_Id	int	4	No
🔑	PR_Effectiv…	datetime	8	No
	PR_Effectiv…	datetime	8	Yes
	PR_Basic	money	8	No
	PR_Vat	money	8	No
	PR_Delivery	money	8	No
	PR_Modifie…	datetime	8	Yes

NVD Options

Holds the selectable options for each vehicle, each option has its own effective from and to dates. The Opt_OptionCode links to the DictionaryOptions to provide the text description. The Default column identifies any option that is 'Standard' on the vehicle, but can be up/downgraded.

NVDOptions

	Column Name	Data Type	Length	Nullable
🔑	OPT_Id	int	4	No
🔑	OPT_Optio…	int	4	No
🔑	OPT_Effecti…	datetime	8	No
	OPT_Effecti…	datetime	8	Yes
	OPT_Modifi…	datetime	8	No
	OPT_Basic	money	8	No
	OPT_Vat	money	8	No
	OPT_Poa	bit	1	No
	OPT_Default	bit	1	No

NVD Standard Equipment

Holds the standard fit features for each vehicle. The SE_OptionCode column links to the DictionaryOptions to provide the text description.

NVDStandardEquipment

	Column Name	Data Type	Length	Nullable
🔑	SE_Id	int	4	No
🔑	SE_OptionC…	int	4	No
🔑	SE_Effectiv…	datetime	8	No
	SE_Effectiv…	datetime	8	Yes
	SE_Modifie…	datetime	8	No

NVD Technical

Holds the technical dataset values for each vehicle. The Tech_TechCode links to DictionaryTechnical for the description and the data type.

All values are given as a string representation in the Value_String column as well as specific values by type.

The tech_value_status field will normally be set to NULL, however it may be set to:-

N – Not Available
U – Currently Unresearched

In each of the above cases the data is not available.

NVDTechnical

	Column Name	Data Type	Length	Nullable
🔑	TECH_Id	int	4	No
🔑	TECH_Tech…	int	4	No
🔑	TECH_Effec…	datetime	8	No
	TECH_Effec…	datetime	8	Yes
	TECH_Valu…	datetime	8	Yes
	TECH_Valu…	float	8	Yes
	TECH_Valu…	varchar…	50	Yes
	TECH_Valu…	bit	1	Yes
	tech_value…	char(1)	1	Yes
	tech_modifi…	datetime	8	No

Options Dictionary

The options dictionary contains the lookup for the specific manufacturer option and standard equipment items. Each option is also identified as belonging to a specific option category linked via DO_CatCode to the NVDDictionaryCategory table.

NVDDictionaryOption

	Column Name	Data Type	Length	Nullable
🔑	DO_Option…	int	4	No
	DO_ManLevel	int	4	No
	DO_CatCode	int	4	No
	DO_Descrip…	varchar…	150	No
	DO_LongDe…	varchar…	255	No
	do_nonspe…	bit	1	No

Category Dictionary

This contains the category headings for manufacturer specific options, equipment, Technical data and the generic options descriptions. The Type is 'O' for Options, 'G' for Generic, 'T' for Technical or 'U' for uncategorised.

NVDDictionaryCategory

	Column Name	Data Type	Length	Nullable
🔑	DC_CatCode	int	4	No
	DC_Descrip...	varchar...	50	No
	DC_Type	char(1)	1	No
	dc_cth_type	char(1)	1	No
	DC_Generic...	char(1)	1	Yes

Option Category to Generic Category Link

This links each of the options categories to one of the top level generic categories.

NVDDictionaryOptionGenericCatLink

	Column Name	Data Type	Length	Nullable
🔑	OGCL_OptionCatCode	int	4	No
🔑	OGCL_GenericCatCode	int	4	No

Option Dictionary to Generic Dictionary Link

This links manufacturer options to the generic options where appropriate, not all options are linked.

NVDDictionaryOptionGenericLink

	Column Name	Data Type	Length	Nullab
🔑	ogl_optioncode	int	4	No
🔑	ogl_genericcode	int	4	No

Generic Dictionary

This dictionary contains the predefined generic options descriptions.

NVDDictionaryGeneric

	Column Name	Data Type	Length	Nul
🔑	DG_GenericCode	int	4	No
	DG_ManLevel	int	4	No
	DG_CatCode	int	4	No
	DG_Description	varchar...	50	No
	DG_LongDescription	varchar...	255	No

Generic Status

This table offers a predefined view of the status of each of the generic values for every vehicle (ID). This shows if each item is:-
S – Standard   C – Cost
N – Not available   U – Un-researched

NVDGenericStatus

	Column Name	Data Type	Length	Nullable
🔑	GS_Id	int	4	No
🔑	GS_Generic...	int	4	No
🔑	GS_Effectiv...	datetime	8	No
	GS_Effectiv...	datetime	8	Yes
	GS_Status	char(1)	1	No

Colour Option Generic Colour Link

This links colour related options (Paint & Trim) to a series of generic colour definitions.

NVDDictionaryOptionGenericColourLink

	Column Name	Data Type	Length	Nullable
🔑	ogcl_option...	int	4	No
🔑	ogcl_generi...	int	4	No

Generic Colours

This dictionary defines the generic colours to aid comparison.

NVDDictionaryGenericColour

	Column Name	Data Type	Length	Nulla
🔑	DGC_ColourCode	int	4	No
	DGC_Description	varchar...	50	No

Option Features & Benefits

This table contains text content describing the features and benefits for some of the manufacturer specific options. **(This table is no longer maintained).**

NVDDictionaryOptionFeaturesandBenefits

	Column Name	Data Type	Length	Nullable
🔑	FB_OptionC…	int	4	No
🔑	FB_ManCode	int	4	No
	FB_Features	text	16	Yes
	FB_Benefits	text	16	Yes

Colour & Trim Periods

This defines the time periods that the colour and trim combinations relate to for each vehicle.

NVDCTHPeriods

	Column Name	Data Type	Length	Nullable
🔑	cthp_period…	int	4	No
	cthp_id	int	4	No
	cthp_effect…	datetime	8	No
	cthp_effect…	datetime	8	Yes

Colour & Trim Links

This table defines the valid colour and trim combinations for each vehicle within the CTHPeriod.

NVDColourTrimLinks

	Column Name	Data Type	Length	Nullable
🔑	ctl_periodcode	int	4	No
🔑	ctl_colorcode	int	4	No
🔑	ctl_trimcode	int	4	No

Colour & Hood Links

This tables defines the valid colour and hood (soft top) combinations within the CTHPeriod.

NVDColourHoodLinks

	Column Name	Data Type	Length	Nullable
🔑	chl_periodcode	int	4	No
🔑	chl_colorcode	int	4	No
🔑	chl_hoodcode	int	4	No

Technical Dictionary

This dictionary defines the technical features, provides a categorisation and defines the data type of the technical value held.

NVDTechnical

	Column Name	Data Type	Length	Nullable
🔑	TECH_Id	int	4	No
🔑	TECH_TechCode	int	4	No
🔑	TECH_EffectiveFrom	datetime	8	No
	TECH_EffectiveTo	datetime	8	Yes
	TECH_Value_Datetime	datetime	8	Yes
	TECH_Value_Float	float	8	Yes
	TECH_Value_String	varchar…	50	Yes
	TECH_Value_Boolean	bit	1	Yes
	tech_value_status	char(1)	1	Yes
	tech_modifieddate	datetime	8	No

Technical Dictionary Data Types

This dictionary defines the valid data types that can be held for each of the technical fields stored.

NVDDictionaryTechnicalDataType

	Column Name	Data Type	Length	Nulla
🔑	TDT_datatype	char(1)	1	No
	TDT_Name	char(10)	10	No
	TDT_IsNumeric	bit	1	No
	TDT_Precision	int	4	No

Technical Lookup

A number of the technical fields have values that are defined from a pre-set range of possible values, this tables provides the valid lookup for those fields.

NVDDictionaryTechnicalLookup

	Column Name	Data Type	Length	Nullal ▲
🔑	DTL_LookupCode	int	4	No
	DTL_TechCode	int	4	No
	DTL_Description	varchar...	50	No
	DTL_Value	varchar...	50	No ▼

Pack Periods

The Pack Periods table defines the dates the Pack is available overall. It does not relate to when a pack is available on a specific vehicle. The pack code for the 'pack' links back to DO_OptionCode.

If the EffectiveTo date is null the period is current.

NVDPackPeriods

	Column Name	Data Type	Length	Nullal ▲
🔑	PP_PeriodCode	int	4	No
	PP_PackCode	int	4	No
	PP_EffectiveFr...	datetime	8	No
	PP_EffectiveTo	datetime	8	Yes ▼

Pack Contents

For each defined pack period a series of option codes is provided to identify options that form the pack.

NVDPackContents

	Column Name	Data Type	Length	Nullal ▲
🔑	PC_PeriodCode	int	4	No
🔑	PC_OptionCode	int	4	No ▼

Option Relationship Periods (Cars database only)

Defines the time periods that the option relationship is available for each vehicle. If the EffectiveTo date is null the period is current.

NVDRelationshipPeriods

	Column Name	Data Type	Length	Nullal ▲
🔑	RP_PeriodCode	int	4	No
	RP_Id	int	4	No
	RP_EffectiveFr...	smallda...	4	No
	RP_EffectiveTo	smallda...	4	Yes ▼

Relationship Rules (Cars database only)

Provides the rules that are enforceable within the period as described in the Data Content section. (See Option Rules)

NVDRelationshipRules

	Column Name	Data Type	Length	Nullable ▲
🔑	RR_RuleCode	int	4	No
	RR_PeriodC...	int	4	Yes
	RR_RuleType	char(2)	2	Yes ▼

Relationship Items (Cars database only)

Defines the options that are active within the rule, for certain rule types one option will be defined as the primary option.

NVDRelationshipItems

	Column Name	Data Type	Length	Nullal ▲
🔑	RI_RuleCode	int	4	No
🔑	RI_OptionCode	int	4	No
	RI_IsPrimary	tinyint	1	No ▼

NVD Changes

This table records the date various items of data changed and was deadlined on a given vehicle. (it does not identify items that have been deleted.)

NVDChanges

	Column Name	Data Type	Length	Nullabl
🔑	ch_id	int	4	No
	ch_created	datetime	8	No
	ch_pricecreated	datetime	8	Yes
	ch_reintroduced	datetime	8	Yes
	ch_discontinued	datetime	8	Yes
	ch_capcodechange	datetime	8	Yes
	ch_capcode_old	char(20)	20	Yes
	ch_capcode_new	char(20)	20	Yes
	ch_pricechange	datetime	8	Yes
	ch_delcostchange	datetime	8	Yes
	ch_optionchange	datetime	8	Yes
	ch_optionexptchange	datetime	8	Yes
	ch_sechange	datetime	8	Yes
	ch_seexptchange	datetime	8	Yes
	ch_techchange	datetime	8	Yes
	ch_cthchange	datetime	8	Yes
	ch_orchange	datetime	8	Yes
	ch_gschange	datetime	8	Yes
	ch_ptchange	datetime	8	Yes

NVD Changes_Technical

This table records the date key items of Technical Data changed and was deadlined on a given vehicle. Key items are BHP, CO2, EC Combined, EC Extra Urban, EC Urban, Euro Emissions, Gears, Ins Group, NCAP Rating, Seats, Transmission, Tyre Size – Front, Tyre Size – Rear.

NVDChanges_Technical

	Column Name	Data Type	Length	Nullable
🔑	cht_id	int	4	No
🔑	cht_techcode	int	4	No
	cht_datetime	datetime	8	Yes

7. NVD Package – Current (Cars & LCV only)

New Vehicle Data – Current package provides all the same data as described in section 6 New Vehicle Data Package NVD, but only for vehicles that are in current production or on run out (factory stock vehicles).

8. Future Values New & Used Vehicles (Cars, LCV, HGV & Bikes)

FutureResidual

This table provides the (Monitor) future residual values for each ID number. The year/month values are given for used vehicles, these can be linked to the YearLetterCodes table to lookup the 'registration letter'.

For new vehicles (current) the year/month values will be NULL.

FutureResidual

Column Name	Data Type	Length	Nullable
fr_pubseq	int	4	No
fr_pubdate	datetime	8	No
fr_ID	int	4	No
fr_year	int	4	No
fr_month	int	4	No
fr_mileage	int	4	No
fr_6	int	4	No
fr_12	int	4	No
fr_18	int	4	No
fr_24	int	4	No
fr_30	int	4	No
fr_36	int	4	No
fr_42	int	4	No
fr_48	int	4	No
fr_54	int	4	No
fr_60	int	4	No

FutureResidual_PPM (Cars & LCV only)

This table provides the (Monitor) pence per mile values for each ID number. The PPM running costs consists of Depreciation, Service & Fuel use.

This information is supplied for Current New Vehicles only.

FutureResidual_PPM

Column Name	Data Type	Length	Nullable
ppm_pubseq	int	4	No
ppm_pubdate	datetime	8	No
gsp_ID	int	4	No
gsp_mileage	int	4	No
ppm_6	int	4	No
gsp_12	money	8	No
gsp_18	money	8	No
gsp_24	money	8	No
gsp_30	money	8	No
gsp_36	money	8	No
gsp_42	money	8	No
gsp_48	money	8	No
gsp_54	money	8	No
gsp_60	money	8	No

9. Service Maintenance Repair (SMR) (Cars & LCV only

Service, maintenance and Repair costs for vehicles are broken down into Brake, Tyre, Service and Other costs calculated using manufacturers' standard servicing and repair times and associated parts requirements. Fleet biased labour rates and parts discounts have been applied. Tyre costs are based on aggregated average retail prices using premium brands.

Brake Prices

SMR values are forecast from 6 to 60 months for the given mileage.

smrbrake

Column Name	Data Type	Length	Nullable
b_pubseq	int	4	No
b_pubdate	datetime	8	No
b_ID	int	4	No
b_mileage	int	4	No
b_month6	money	8	No
b_month12	money	8	No
b_month18	money	8	No
b_month24	money	8	No
b_month30	money	8	No
b_month36	money	8	No
b_month42	money	8	No
b_month48	money	8	No
b_month54	money	8	No
b_month60	money	8	No

Other Prices

SMR values are forecast from 6 to 60 months for the given mileage.

smrother

Column Name	Data Type	Length	Nullable
o_pubseq	int	4	No
o_pubdate	datetime	8	No
o_ID	int	4	No
o_mileage	int	4	No
o_month6	money	8	No
o_month12	money	8	No
o_month18	money	8	No
o_month24	money	8	No
o_month30	money	8	No
o_month36	money	8	No
o_month42	money	8	No
o_month48	money	8	No
o_month54	money	8	No
o_month60	money	8	No

Service Prices

SMR values are forecast from 6 to 60 months for the given mileage.

smrservice

Column Name	Data Type	Length	Nullable
s_pubseq	int	4	No
s_pubdate	datetime	8	No
s_ID	int	4	No
s_mileage	int	4	No
s_month6	money	8	No
s_month12	money	8	No
s_month18	money	8	No
s_month24	money	8	No
s_month30	money	8	No
s_month36	money	8	No
s_month42	money	8	No
s_month48	money	8	No
s_month54	money	8	No
s_month60	money	8	No

Total Prices

SMR values are forecast from 6 to 60 months for the given mileage.

smrtotal

Column Name	Data Type	Length	Nullable
tot_pubseq	int	4	No
tot_pubdate	datetime	8	No
tot_ID	int	4	No
tot_mileage	int	4	No
tot_month6	money	8	No
tot_month12	money	8	No
tot_month18	money	8	No
tot_month24	money	8	No
tot_month30	money	8	No
tot_month36	money	8	No
tot_month42	money	8	No
tot_month48	money	8	No
tot_month54	money	8	No
tot_month60	money	8	No

Tyre Prices

SMR values are forecast from 6 to 60 months for the given mileage.

smrtyre

Column Name	Data Type	Length	Nullable
t_pubseq	int	4	No
t_pubdate	datetime	8	No
t_ID	int	4	No
t_mileage	int	4	No
t_month6	money	8	No
t_month12	money	8	No
t_month18	money	8	No
t_month24	money	8	No
t_month30	money	8	No
t_month36	money	8	No
t_month42	money	8	No
t_month48	money	8	No
t_month54	money	8	No
t_month60	money	8	No

10.   Used Values (Cars, LCV, HGV & Bikes)

UsedValuesTrade (Cars, LCV, HGV & Bike)

This table contains the used values for each ID number at each year/month period. There will be a maximum of six rows for each year month giving the individual mileage points and the four condition values (Retail, Clean, Average and Below Average)

UsedValuesTrade

Column Name	Data Type	Length	Nullable
uvt_pubseq	int	4	No
uvt_pubdate	datetime	8	No
uvt_ID	int	4	No
Uvt_Year	int	4	Yes
uvt_month	int	4	Yes
Uvt_Mileage	int	4	Yes
uvt_retail	int	4	No
uvt_clean	int	4	No
uvt_average	int	4	No
uvt_below	int	4	No

YearLetterCode (Cars, LCV, HGV & Bike)

This table provides a lookup of the registration 'letter' for each year/month, this separation of the 'registration letter' allows the potential for monthly valuations in the future, currently you will see used values at month 1 and 8 up until 1999 and month 1, 3 and 9 subsequently.

YearLetterCodes

Column Name	Data Type	Length	Nullable
Yc_Sequen...	smallint	2	No
Yc_Year	smallint	2	Yes
Yc_Letter	char(2)	2	Yes
Yc_Month	int	4	Yes

Used Values LIVE (Cars only)

Used Values LIVE provides access to 99% of cars on the road* and reflects value movements 365 days a year.

*Cars 20 years old and over are not covered

The UsedValuesLIVE_Trade table contains the used values for each ID number at each year/month period. There will be a maximum of six rows for each year month giving the individual mileage points and the four condition values (Retail, Clean, Average and Below Average).

usedvalueslive_trade

	Column Name	Data Type	Length	Nullable
🔑	uvlt_pubseq	int	4	No
🔑	uvlt_id	int	4	No
🔑	uvlt_year	int	4	No
🔑	uvlt_month	int	4	No
🔑	uvlt_mileage	int	4	No
	uvlt_retail	int	4	No
	uvlt_clean	int	4	No
	uvlt_average	int	4	No
	uvlt_below	int	4	No

The Used Values Live Sequence table provides the sequence for which the values and comments are published.

usedvalueslive_sequence

	Column Name	Data Type	Length	Nu...
	uvls_pubseq	int	4	No
🔑	uvls_pubDate	datetime	8	No
	uvls_pubM...	bit	1	No

The Used Values Live Comment link table provides the link between Used Values Live Trade and Used Values Live Comment.

usedvalueslive_commentLink

	Column Name	Data Type	Length	Nullable
🔑	uvlcl_pubSeq	int	4	No
🔑	uvlcl_id	int	4	No
🔑	uvlcl_comm...	int	4	No

usedvalueslive_comment

	Column Name	Data Type	Length	Nullable
🔑	uvlc_comm...	int	4	No
	uvlc_comment	varchar...	7500	No

Used Values Plus (Cars only)

The UsedValuesTradePlus table contains the used values for each ID number at each year/month period.

There will be a maximum of six rows for each year month giving the individual mileage points and the four condition values (Retail, Clean, Average and Below Average) for each of the 3 months (Plus1, Plus2, Plus3).

The UsedValuesTradePlus_Comment table provides the supporting commentary to support the published values.

UsedValuesTradePlus

	Column Name	Data Type	Length	Nullable
	uvtp_pubseq	int	4	No
	uvtp_CAPID	int	4	No
	uvtp_effectiveFrom	datetime	8	No
	uvtp_year	smallint	2	Yes
	uvtp_month	int	4	Yes
	uvtp_mileage	int	4	No
	uvtp_clean_plus1	int	4	Yes
	uvtp_average_plus1	int	4	Yes
	uvtp_below_plus1	int	4	Yes
	uvtp_clean_plus2	int	4	Yes
	uvtp_average_plus2	int	4	Yes
	uvtp_below_plus2	int	4	Yes
	uvtp_clean_plus3	int	4	Yes
	uvtp_average_plus3	int	4	Yes
	uvtp_below_plus3	int	4	Yes

UsedValuesTradePlus_Comment

	Column Name	Data Type	Length	Nullable
	uvtpc_pubSeq	int	4	No
	uvtpc_effe...	datetime	8	No
	uvtpc_capid	int	4	No
	uvtpc_plus1	varchar...	8000	Yes
	uvtpc_plus2	varchar...	8000	Yes
	uvtpc_plus3	varchar...	8000	Yes

UsedValuesInternet (Consumer values) (Cars, LCV & Bikes)

This table contains the Consumer used values for each ID number at each year/month period. There will be a maximum of six rows for each year month giving the individual mileage points and the banded retail, private, Clean, Average & Below values suitable for publishing in a consumer facing environment.

UsedValuesInternet

Column Name	Data Type	Length	Nullab
uvi_pubseq	int	4	No
uvi_pubdate	datetime	8	No
uvi_ID	int	4	No
Uvi_Year	int	4	Yes
uvi_month	int	4	Yes
Uvi_Mileage	int	4	Yes
Uvi_RetailHigh	int	4	Yes
Uvi_RetailLow	int	4	Yes
Uvi_PrivateHigh	int	4	Yes
Uvi_PrivateLow	int	4	Yes
Uvi_CleanHigh	int	4	Yes
Uvi_CleanLow	int	4	Yes
Uvi_AverageHigh	int	4	Yes
Uvi_AverageLow	int	4	Yes
Uvi_BelowHigh	int	4	Yes
Uvi_BelowLow	int	4	Yes

11. Images (Cars & LCV only)

NVDImages (Cars & LCV)

This tables stores the actual image data in the ima_image column, the data is a 1024/768 jpeg this can be selected from the database and streamed into a jpg file or delivered as an in memory bitmap/jpeg.

NVDImage

	Column Name	Data Type	Length	Nullable
🔑	ima_imageid	int	4	No
	ima_image	image	16	No

The ima_imageid field can be cross referenced with the NVDModelYear table via the my_imageid field, this enables the images to be linked with the correct CAP iD number.

The my_imagenotexactmatch field is used within the Light commercial database for images used to represent a vehicle that may have either different bodywork or alternative vehicle length from the image shown. The Car database does not use this flag.

NVDModelYear

	Column Name	Data Type	Length	Nulla
🔑	MY_Id	int	4	No
🔑	MY_EffectiveFrom	datetime	8	No
	MY_EffectiveTo	datetime	8	Yes
	MY_Ref	char(50)	50	Yes
	MY_ImageID	int	4	Yes
	MY_ImageNotExactMatch	bit	1	No

NVDDicationaryImage_ViewPoint (Cars only)

The dictionary table defines the viewpoints and identifies the view of the image.

NVDDictionaryImage_Viewpoint

	Column Name	Data Type	Length	Nullable
🔑	div_imageViewpointId	int	4	No
	div_description	varchar...	150	No
	div_isMainImage	bit	1	Yes

NVDImageSet_Viewpoint (Cars only)

The NVDImageSet_Viewpoint table contains all 6 viewpoint images available for the relevant dataset. Viewpoints available:

NVDImageSet_ViewPoint			
Column Name	Data Type	Length	Nullab
🔑 isv_imageSetId	int	4	No
🔑 isv_imageViewpointId	int	4	No
isv_image	image	16	Yes

1 Profile   False
2 Front   False
3 Front Three Quarter   True
4 Rear   False
5 Rear Three Quarter   False
6 interior   False

NVDImageSet (Cars only)

The NVDImageSet table provides a description for the image set.

NVDImageSet			
Column Name	Data Type	Length	Nullable
🔑 is_imageSetId	int	4	No
is_description	varchar...	150	No

The www.capconnect.co.uk demonstration site delivers images directly from the data base re-sampled on the fly to the required resolution and aspect. The following code extract C# - ASP.NET from GetImage.aspx calls the sql stored procedure which returns the image column. The width and height variables are passed as a request for the desired image size.

```
sql.Connection.Open();
// Read the ima_image blob into holding array
byte[] imageblob = (byte[])sql.ExecuteScalar();
sql.Connection.Close();
MemoryStream imgStream = new MemoryStream(imageblob);
Bitmap bmp = new Bitmap(imgStream);
Bitmap thumb = new Bitmap(width,height);
// Create memory GDI resample image via DrawImage & Add some CAP text
Graphics grap = Graphics.FromImage(thumb);
grap.FillRectangle(new SolidBrush(Color.White), 0, 0, width, height);
grap.InterpolationMode=System.Drawing.Drawing2D.InterpolationMode.HighQualityBicubic;
grap.DrawImage(bmp,new Rectangle(0,0,width,height),
                    0,0,1024,768,
                    GraphicsUnit.Pixel,null);
// Set content type & write it out
Response.ContentType = "image/jpeg";
thumb.Save(Response.OutputStream, ImageFormat.Jpeg);
// Force Cleanup now
bmp.Dispose();
thumb.Dispose();
```