OMSI 2 ADDON

RHEINHAUSEN

The Bus from the Countryside into Town

MANUAL

V 1.0

HALYCON MEDIA

SERIAL NUMBER

OMSI 2 ADDON RHEINHAUSEN

EPILEPSY WARNING

When playing over a long period, you should take a 15-minute break after every hour of gameplay. Please do not play when tired.

Play in a well-lit room, and sit as far away from the screen as possible.

A very small portion of the population have a condition which may cause them to experience epileptic seizures or momentarily lose consciousness when they are exposed to certain kinds of flashing lights or light patterns that are commonly present in our daily environment.

Such people may experience seizures while watching television images or playing certain video games. Players who have not had any previous seizures may nonetheless have an undetected epileptic condition.

If you suffer from epilepsy, please consult your doctor prior to playing computer games. Please speak to your doctor immediately if you encounter any of the following symptoms while playing: vertigo, impaired vision, twitches or any kind of uncontrolled motion, loss of consciousness, disorientation and/or cramps.

CONTENTS

1. SYSTEM REQUIREMENTS

In order to play the add-on "OMSI 2 - Rheinhausen", you need a PC-compatible computer with the following minimum specifications:

- An installed full version of OMSI 2 – The Bus Simulator (version 2.2 or higher)
- Windows Vista or Win 7, Win 8.1 recommended/ 64 bit
- Dual core processor (Core i5 with 2.8 GHz or similar).
- Quad core with 3.0 GHz recommended
- RAM: 4 GB (8 GB recommended)
- 3D graphics card with at least 1.024 MB graphics memory (2.048 MB recommended)
- 4.0 GB of free disk space minimum for installation
- Sound card
- DVD drive, keyboard and mouse
- DirectX 9.0c compatible hardware and software
- The 4GB patch for OMSI 2 is recommended.

2. INSTALLING/UNINSTALLING

Insert the OMSI 2 – Add-on Rheinhausen into your DVD-drive and wait for the installation program to start.

Follow the on-screen instructions to proceed with the installation.

If the auto start function of your drive is deactivated, double-click on the icon "My Computer" on your desktop, then choose the correct drive letter for your DVD-drive and the file Setup.exe to begin the installation.

If you are installing from the download version, please unzip the files into a folder prior to installation.

To do so, double-click on the zip-file, mark all files and copy them into an empty folder.

To install the add-on, start the setup-file from this folder with a double click.

When the installation has started, please follow the instructions on screen to install the game on your computer.

The add-on is installed in the OMSI 2 installation folder.

If it is not selected automatically, please navigate to the appropriate OMSI 2 folder manually.

To uninstall the add-on, click on [programs] in the Windows start menu, choose the group [Halycon Media] and then click on the uninstall icon.

3. TECHNICAL INFORMATION

TIPS TO MAXIMISE PERFORMANCE

This add-on has been optimised for performance by avoiding the inclusion of additional AI bus lines and of moving trains.

The aim was to reach the highest possible game play quality in relation to both technical and visual aspects.

Despite these efforts, game performance may be less than fully satisfactory at times, and you will find a few suggestions for boosting it below.

Stencil buffer effects demand considerable resources, especially for displaying shadows. As such, you may wish to deactivate shadows completely.

Setting the neighbour tile count to a maximum value of 2 can also prove advantageous.

In addition to these graphics settings, you can also reduce the traffic levels in your surroundings.

200 to 300 cars, 50% of them parked, are values which typically give good results.

Reducing the pedestrian count will also speed up your system.

Of course you can also set higher values if the available system resources give you leeway to do so.

Experimenting with different values will show you which settings are ideal for your particular computer.
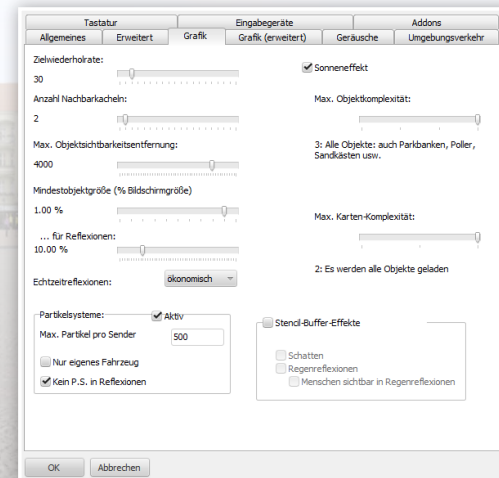
TECHNICAL SUPPORT

Due to the large number of different hardware- and software combinations which exist, using our software may lead to technical difficulties.
Please use the latest drivers for your graphics and sound card.
Start the installation and setup programs with administrator rights.
Otherwise files may not save correctly onto your hard disk.
To use administrator rights, right click on the setup program and choose "Run as administrator".
Consult the FAQ on our website www.halycon.de to see if your problem has already been addressed.
It is quite probable that you will find any difficulties you have encountered described there.
If you do not find what you are looking for, feel free to contact us via the contact page on the website.
In order to help you as quickly as possible, please describe your problem precisely and send us the DirectX log file.
It contains all information relevant to the driver etc.
If you are running Windows, you can use the program DXDIAG to find this file.

To call up DXDIAG, follow these instructions:
1) Click [Start] in the taskbar and choose [Run].
2) Enter "DXDIAG" (without quotation marks) and click on [OK].

The program starts, and you can read off all relevant information and/or save it as a file.

TIP: If you encounter any difficulties, check the FAQs on the Halycon Media website to see if the problem has come up before. These FAQs are continuously expanded and solutions to frequently-reported issues can be found there.

PRODUCT REGISTRATION AT HALYCON MEDIA

You can register this add-on or any other software from Halycon for free on the website www.halycon.de/myhalycon in the MyHalycon area.
Free registration of your Halycon products offers many advantages.
You will receive information about new releases of similar add-ons, successive versions or bonus content.

You will gain access to free bonus content as soon as it is available at Halycon, and you will be entered for our regular competitions.
Additional features are coming soon! Come in and take pot luck!
All you need is a login name and a valid e-mail address.

Please note that each serial number can be used only once for registration.
Do not give your unique serial number to anybody else.

Enjoy MyHalycon!

USING THE 4GB PATCH FOR OMSI 2

White areas on buses, AI vehicles and other 3D objects in OMSI 2 – The Bus Simulator indicate that your RAM is overstretched.

OMSI 2 is a 32-bit application and accesses only 2 GB of RAM, independently of how much RAM the computer actually has.

To reserve more memory for OMSI, you can use the 4GB patch.

This is available from, for example:
www.ntcore.com/4gb_patch.php

Please note that the patch must be reloaded after each OMSI 2 update.

TIP: Register your product in the MyHalycon area of the Halycon website. You will then receive free information about updates, patches and extensions for your program.

4. THE ADD-ON RHEINHAUSEN

Rheinhausen is a fictional medium-sized city we can imagine as being somewhere in the north of Germany. Its 50 kilometre route network includes over 110 stops. This network is served by the transport operator Rheinhausener Verkehrs Betriebe GmbH (rvb).Around 10 bus lines that can be driven by users connect different parts of the city with each other and with locations in the surrounding area.

THE NETWORK

Rheinstraße Depot
Rheinstraße Depot is the main bus depot in the city of Rheinhausen.
All of the rvb bus lines are operated out of this depot, which has space for around 70 buses. It is located in the heart of the city, close to the main train station (Hauptbahnhof). It has its own fuel station where you can fill your vehicle up and get it ready for its next trip, a wash bay hall, a workshop and, last but not least, an administration block.

Line 15
A fairly slow-paced and quiet line. Like all the other lines, this one also takes in the city centre, the busiest part of town. But apart from that, it is fairly stress-free – if one ignores the high number of students it carries: both a grammar school (Gymnasium) and a University of Applied Sciences (Fachhochschule) are located along the route. You can definitely expect support trips to transport students on this line! As it takes around 20 minutes, it is ideal for drivers who don't want to spend long hours at the wheel.

Running time: 20 minutes

Linie 25
This line is somewhat more demanding to drive.
It takes 30 minutes, so it is suitable for drivers interested in medium-length routes.
It connects the city hospital with the town centre and also links the outer suburb Eichstedt and the district Reifenberg with the centre.
As the route takes in two schools, the city zoo (Tierpark) and Rheinpark, a major shopping centre, passenger numbers can be expected to be quite high during daytime hours.

At night, however, the line is naturally much quieter. The route is then truncated and terminates in Reifenberg.

Running time: 30 minutes

Line 35
Line 35 is a typical urban bus line. Its main function is to link the suburb of Breitwehr with the centre of town. But one specific aspect is worth noting: as Line 35 is a loop line, the bus travels through Breitwehr without any layover there. The running time for this line is only 20 minutes – like Line 15, this is a short route and suitable for time-pressed drivers. Your itinerary leads past the city utility company (Stadtwerke) and the county council offices (Landratsamt). As this line is interlined with Line 25, line numbers change during scheduling blocks.

Running time: 20 minutes

Line 45
The most notable thing about Line 45 is the length of the route.
With running time in excess of 40 minutes, it ranks among the longest routes in this add-on. The line is classed as a regional line. This means that it does not operate only within the city limits: the route itinerary also features the nearby city of Oberfeld, which is reached via the motorway. But the line has important functions for Rheinhausen itself as well: the route goes past the State Environmental Authority (Landesumweltamt) and serves the well-heeled residential district Friedrich-Weißler-Siedlung. In the evening, when Eichstedt is no longer served by the 25, it also stops in Eichstedt.

Running time: 40 minutes

Line 31
Line 31, the second regional line, offers the second-longest route in this add-on. In contrast to Line 45, its job is to link the city with its rural hinterland.
It starts at the tram terminus "Wickenberg" in the suburb of Wickenberg and travels westwards to Neundorf, bringing passengers to the shopping centre there. It then goes further out into the countryside. After stops in various villages, it terminates in Gellenberg. The village of Gellenberg is characterised by its half-timbered houses and narrow streets.

Running time: 40 minutes

Line 41

Sharing roadspace with trams is the main issue you will face as a Line 41 driver. The route takes around 30 minutes and leads from the western district of Juliansberg to Reinhardshof in the south east. Together with Line 31, it ensures passengers can avail of high-frequency transit to the town centre and that the theatre in Rheinhausen always has enough patrons. A special feature of this route is that it shares roadspace with trams and offers tram passengers ideal connections to and from buses at the tram terminus Herrenholz.

Running time: 30 minutes

Line 51

This line could also be called the "student line" as its main job is to chauffeur students. At least that is what anybody glancing around the bus in the morning would think. It passes both Robert Koch University and the large campus of Neuweide Technical University. To ensure connections to trams are reached, its route is extended to Herrenholz during the day. Neuweide Technical University collaborates closely with rvb and often has test runs on its own track. Perhaps you will spot something interesting!

Running time: 25 minutes

Night lines

The night lines form the backbone of Rheinhausen's transport network at night. They are all designed as loop lines starting and ending at the same point, the main train station (Hauptbahnhof). Each night bus line takes in several different parts of the city you will be familiar with from your daytime driving. The loops all take around one hour. Their distinctive feature: each night line ends at the stop where the line with the next-highest number starts and then changes line number to start as this next line. So you will never drive the same night route back to back.

Driving time: about 1 hour.

Schools transport

To bring many school pupils to their destinations quickly, Rheinhausen naturally also lays on extra transport for schoolchildren. This mostly takes the form of support services along existing routes like Lines 15, 25 and 51. In addition, a pure school bus route exists with an S as its line number. This route travels (with no intermediate stops) from Domshof/Rathaus to the comprehensive school (Gesamtschule) in Oberfeld. These support services operate at peak travel time in the mornings in the direction in which support is required and take pressure off the normal network. The exact departure times can be checked in the timetable.

5. THE VEHICLE

INTERURBAN BUS: INTRODUCTION

Your RVB interurban bus is based on the current C2Ü (from 2015) used by KVG Stade in Lower Saxony.
Its characteristic features include the single wing pivot-and-slide door at the front, the Inter Star Eco intercity seats and the aerodynamic front end with its smooth transition between the roof and windscreen.
The bus has a state-of-the art Euro VI engine with AdBlue exhaust gas cleaning, a six-speed automatic transmission (ZF Ecolife), level control, an Atron ticket printer, an interior stop display, electric pivot-and-slide doors and, naturally, air-conditioning.

INTERURBAN BUS: TECHNICAL INFORMATION

The ultramodern C2 has been available since 2011 and boasts ESP as standard, daytime running lights, LED exterior lighting and other features you would be more likely to expect in a car.

The same high standards are apparent in the overhauled design of the driver's area, which meets the requirements of the Association of German Transport Operators (VDV).

The strict new Euro VI emissions standard makes catalytic reduction (using AdBlue) and a large condenser necessary.

AdBlue is a water/urea based operating fluid that is injected into the exhaust gas stream to reduce the emission of pollutants.

In contrast to the 2012 version from the add-on "Three Generations", the wing-like profile of the roof is noticeably shorter here.

The buses have single wing doors at the front and double doors at the back. These are operated manually by the driver using pushbuttons.

3 LAWO Benefit LED matrix displays are installed as external displays (full text on both front and back).

With its 39 seats, the bus offers comparatively generous seating. Only interurban and touring buses boast this many seats on 12 metre buses.

A modular tachograph is in use. This means that the recorder is digital and operates independently of the speedometer. The recording is written to a recording sheet in the recording sheet tray.

You will find this tray in one of the built-in compartments above the driver's work area. You can even open it and insert your own recording sheet.

INTERURBAN BUS: OVERVIEW OF DRIVER'S WORK AREA
DRIVER'S AREA CONTROLS

1   Rotary light switch
    Positions 0–3: Lights off, side lamps, dipped beam headlamps. Daytime running lights come on automatically.
    Pull out the switch for fog lamps (front and rear).
2   ASR OFF switch
3   Passenger compartment lighting switch
4   Payment tray light switch
5   Multifunction steering wheel
6   Steering column switch for indicators, horn, windscreen wipers, wash function, main beam, headlamp flasher
7   Speedometer, odometer (km)
8   Indicator lamps, display screen
9   Rev counter, engine control light
10 Pushbutton to unlock the driver's door
11 Gear selector pushbuttons, effective only below 30 km/h
12 Bus stop brake switch
    Level 1 (full) or Level 2 (reduced)
13 Level control pushbutton
14 Hazard warning lamps switch
15 School bus mode switch
16 Front door button
17 Second door button

CONTROLS ABOVE DRIVER'S AREA

18 Digital tachograph
19 Heating/air-conditioning control panel
20 Driver's area light switch

WINDOW CONSOLE CONTROLS

21 Driver's window open/close pushbutton
Opens and closes driver's window when electrics are switched on.
22 Mirror adjustment
No functionality in OMSI.
23 Driver's window heating switch
For side window heat
24 Confirm pushbutton
No functionality in OMSI
25 Blower speed pushbutton
Turns blower on or reverts to automatic settings.
When the engine is switched off, the blower will operate only at minimum speed.
26 Roof hatches pushbutton

No functionality in OMSI
27 Pushbutton disabling emergency door opening
Disables door opening with emergency valve from the outside for about 10 minutes
28 Dashboard adjustment switch
Unlocks the instrument panel so its position can be adjusted using the mouse
Unlocking only works when electric power is available.
29 Drive-off lock emergency release switch
Disables drive-off lock if it fails to release properly.
30 Parking brake valve (handbrake)

STEERING WHEEL BUTTON

On the left-hand side of the steering wheel, you will find the menu button for browsing through the screens in each menu.
Browsing within menus is only enabled when no serious malfunctions have been detected.

INDICATOR LAMPS

1 Left turn indicator lamp
2 Radio indicator lamp
3 Main beam indicator lamp/headlamp flasher
4 Dipped beam indicator lamp
5 Malfunction indicator lamp
6 Hazard warning indicator lamps
7 Door position indicator lamp
8 Right turn indicator lamp
9 DPF indicator lamp
10 Brake system malfunction indicator lamp
11 Wheelchair ramp indicator lamp
12 Stop request
13 Engine control indicator lamp (not illustrated)

DISPLAY SCREEN

For this generation of buses, the manufacturer has created a new driver's workplace based on the well-established VDV standard.

As with previous versions, the design features a display screen which replaces many classic round warning lights, but the newly developed screen is somewhat smaller than its predecessor. In comparison to the old VDV cockpit, some traditional warning lights have been reinstated for the most important functions. The design is now somewhat less reliant on the display screen.

When the electrics are off, the display runs off a battery and displays a goodbye screen with a logo for about 1 minute.

In the original bus, the manufacturer's logo is displayed.

The display has 5 main menus:

The drive and stop menus (see illustration), warnings/malfunctions, pressures, and temperatures. If no malfunctions are present and operating pressure is adequate, the drive and stop menus are automatically launched when the bus is started.

Otherwise the malfunction or pressures display will be displayed until the vehicle is ready for use. You can browse through the screens in each menus with the steering wheel button (on the left). The drive and stop menus automatically alternate in line with the speed and door status of the bus. If a red warning level malfunction occurs, only the malfunctions menu will be displayed.

If multiple malfunctions occur, you can use the steering wheel button to browse through the event notifications in the malfunctions menu.

Some important information remains visible at all times: AdBlue and diesel fill levels on the left, the time of day and the interior/outside temperature at the bottom of the screen, and the current gear/brake status on the right. AdBlue is a water/urea based operating fluid that is injected into the exhaust gas stream to reduce the emission of pollutants.

The bus symbol shows the current door status: doors shown in solid white are open. Looking at the axles shows whether the stop or parking brakes have been applied.

The arrows below the bus show its level control status.

Menu 4 has two different screens: pressures and temperatures.

The pressures screen shows the supply pressure and brake pressure for circuits 1 and 2 separately and amalgamated information for circuits 3 and 4 (the pressures for the parking brake and for door and level control).

The temperature display shows (from top to bottom) coolant temperature (ideal: 80-90°C), engine oil pressure (ideal: 2–4 bar) and battery voltage (ideal: 24–26 V).

DISPLAY SCREEN ICONS

Menu
Shows which menu is displaying.

Multiple screens
Shows steering wheel button can be used to browse through multiple screens

Serious malfunction

Warning

Transmission in neutral

Parking brake

Door open

Door released for passenger operation

Kneeling/level control
Bus not at normal level

Axle braking/drive-off lock

Pushchair request
Disengages automatic door closure when pressed.

Ramp request
Pressing the button next to the middle door instructs the driver to fold the ramp out.

Retarder active

Wheelchair ramp folded out

Bus below normal level

Lower target level reached

ASR off/malfunction

Passenger compartment climate control

No battery charge

Auxiliary heating

Demister

WARNINGS (YELLOW) SHOWN ON DISPLAY SCREEN

Drivers are alerted to warnings by a yellow light and a short buzzing sound. It is generally permissible to continue driving on carefully when a yellow warning level event notification is displayed. Sometimes warnings can be eliminated by resetting the electronics.

If multiple notifications apply, they will automatically be displayed one after the other, or you can use the steering wheel button to browse through them.

Low fuel

Retarder malfunction
The retarder is deactivated when the gearbox temperature rises too high.

Cooling water low
Pay attention to engine temperature

Engine oil refill malfunction

Low AdBlue

No battery charge
Suggests fault with alternator

RED WARNING LEVEL MALFUNCTIONS ON DISPLAY SCREEN

When serious (red warning level) malfunctions have occurred, the vehicle is no longer safe to operate. These event notifications are indicated by a red light and a constant buzzing sound. Other menus are then no longer available. If multiple malfunctions occur, the display screen will cycle through the relevant event notifications automatically, or you can use the steering wheel button to browse through them.

Engine control malfunction or failure
Engine switching to emergency mode

Transmission oil too hot
Avoid full throttle and retarder

Emergency valve for door operated
A buzzer will sound as you drive.

Circuit 1 supply pressure too low
For service brake, front axle

System failure
Diagnostics malfunction

Transmission control failure
Transmission switching to emergency mode

Cooling water too hot
Engine needs to idle to cool down

No oil pressure
Low oil or engine damage

Circuit 2 supply pressure too low
For service brake, rear axles

Electronic injection system malfunction
Engine switching to emergency mode

NOTE: You will find the manual and additional PDF documents in the directory \Rheinhausen\ in the OMSI add-on folder.

OPERATING THE TICKET PRINTER

When the ticket printer has booted, open the cover on top and insert your driver's card.
Once the card is in place, you are logged on to the system and can sell tickets.
The printer should now display that it is "Betriebsbereit" (ready for operation).
If no card has been inserted, tickets cannot be issued.
The card may be added or removed at any juncture after opening the cover.
The printer recognises up to eight kinds of tickets on each OMSI map.
Without the card, all the other ITCS functions, such as announcements, are naturally still fully functional.
Press the green key (Enter) to access the menu.
You can enter your route code, line number and/or destination, or you can skip these steps by confirming with the green key immediately.
You can call up this menu again in the main menu by selecting "Linie/Kurs" (Line/Route) or from the function menu.
To use the stops display and announcements, you must enter a route code.
Enter the bus line and the direction you wish to drive as a route code (for example 1501).
You will find the route codes in the block scheduling for your chosen map.
When a scheduled service is activated in OMSI, the printer cycles through the announcements automatically.
You can also use the yellow arrow buttons for this.
You may also select a destination manually using "Freie Zieleingabe" (Enter destination) or the OMSI menu you are already familiar with.
If you are taking over from an AI bus driver, the printer will already be set up and fully operational.
In that case, you need only confirm with OK button that you are starting your run.

As you drive, the printer rotates between the driving menu (after leaving each stop) and the ticket sales screen (when the bus is stopped and the doors are open).
You can also switch to and fro manually using "Verkauf" (Sales) and "C".

Press the "F" key to enter the Functions menu.
You can see your current ticket takings there or cancel the last ticket sale.
You can also select "Schichtende" (end of shift) to cash up when your shift concludes.
After that, you can lift the cover once again and remove your driver's card.
You will also find menus for changing your bus line and your route/destination in the function menu if you wish to do so while on duty.

DOOR OPERATION

The buses are equipped with electric pivot-and-slide doors.
Both can be directly controlled by the driver using pushbuttons.
Doors do not need to be released by the driver for passenger operation (as in Berlin).
As the driver's door has an electro-magnetic locking system, it can only be unlocked with a pushbutton located towards the top of the instrument panel.
Due to new EU safety regulations, each door has an exterior emergency valve that can be used to open the door from the outside.
If security concerns arise, this function can be deactivated by the driver for 15 minutes using a pushbutton.
An LED entry light and an emergency valve protected by a cover are found above every door.
As has been the case up to now, the door handle for the driver is located behind the front right maintenance cover.

LEVEL CONTROL

The air suspension automatically keeps the bus level and balanced on the road no matter how weight is distributed.
This can also be used to facilitate boarding by lowering the bus in good time, while stopped and while the doors are closed.
The "Automatic kneeling" switch is activated by default to ensure the bus is always lowered when a door is opened.
When the doors are closed, the bus is automatically raised again.
You can also raise the level of the bus on both sides to avoid damage to the bodywork at critical locations.
The level control air pressure symbol shows when the level control supply pressure is inadequate.

LIGHTS, POWER-SAVING, SCHOOL BUS MODE

Lights, power-saving, school bus mode
This is the first city service bus with LED exterior lighting as standard.
The bus also has daytime running lights which switch on automatically when the engine is running and together with the headlamps.
As the destination displays also feature LEDs, they are self-luminous and no longer need to be illuminated.
The rotary light switch switches from 0 (OFF) through 1 (side lamps) to 2 (dipped beam headlamps).
The instrument panel lighting is automatically adjusted to match the exterior lighting.
Daytime running lights are always on when the engine is running.
Pulling out the steering column switch turns on the front and rear fog lamps.
When the headlamps are switched on, the door entry and payment tray lights will switch on automatically when a door is opened.
The power-save function switches over from dipped beams to parking lights when the engine is switched off.
Lights returns to the level selected when the engine is switched on again or the rotary light switch is turned.
The interior lighting also has two brightness levels. Economy mode is activated about 1 minute after the engine has been turned off.
An additional switch to turn on the payment tray light is also available.
The interior lighting at the front only comes on when the front door is open to facilitate boarding. This prevents the driver being blinded or distracted by reflections while driving.
Use the school bus mode switch to activate automatic hazard warning lights when stopped.

When doors are open and the right turn indicator is set, the hazard warning lights will then come on automatically until they are cancelled by moving off with a left turn indicator.
This saves you switching hazard warning lights on and off at school bus stops. The function remains active until the switch is pressed again.

INTERIOR STOPS DISPLAY

The buses each have a two-row stop display showing the respective line and destination.When a route code has been activated in the ticket printer, the display also shows the next stop.

HEATING, VENTILATION, AIR-CONDITIONING

The buses each have a two-row stop display showing the respective line and destination.
When a route code has been activated in the ticket printer, the display also shows the next stop.
Heating, ventilation, air-conditioning
You are bound to have noticed the A/C units on the bus roofs by now.
The bus also has an oil-fired auxiliary heater for cold starts.
The traditional hinged windows can be opened, but should only be used for ventilation when the air conditioning is not running.
Roof-mounted turbo blowers and the front heater have been dispensed with. Instead, the entire bus is heated by sidewall heaters mounted at floor level.
Climate control functions are operated from the climate control panel above the driver's work area.

It's worth addressing a common misunderstanding in this area to begin with: as the small symbol under the three knobs on the left shows, they are only used to regulate ventilation in the cockpit.
To regulate ventilation in the passenger compartment, just press the second pushbutton on the right.
Now let's take a closer look at the control panel, starting with the three knobs on the left used to regulate ventilation in the cockpit.

The left knob is for selecting air vents (footwell only, instrument panel and

footwell, instrument panel only, windows only). The window vents remain open, however, regardless of the selected settings. The second knob is used to set the target temperature. Warm air is generated in the usual manner from thermostat-controlled water circulation around the engine. The third knob is used to adjust the blower speed, which is continuously variable. When the engine is not running, the blower operates only at minimum speed.

FANS ON/OFF PUSHBUTTON

A separate pushbutton is used to regulate the passenger compartment fans.
Pressing the upper part of the button switches on passenger compartment ventilation.
When the engine is not running, the fans run only at low speed.
The fans are automatically turned on when passenger air conditioning is on, air recirculation is deactivated and the set threshold temperature is exceeded.
The fans are always turned off when air recirculation is activated or the interior temperature is too low. Press the lower part of the pushbutton to switch from manually activated ventilation back to the automatic settings.
The pushbuttons on the right-hand side of the control panel regulate automatic air conditioning functions. The integrated indicator lamps show whether these functions are active.

Driver's area cooling links the ventilation of the driver's area with the air conditioning system.

Air recirculation closes the fresh air flaps for 10 minutes.

Passenger compartment temperature regulation activates air-conditioning.

The reheat function quickly defrosts windows.

Auxiliary heating

Driver's area cooling
Driver's area cooling quickly lowers temperatures in the workplace and serves to keep them low in hot weather.
The function can only be activated when the temperature selector is in the blue zone and the outside temperature is above 12°C.

Air recirculation
The fresh air flaps will be closed, e.g. when the air quality outside is poor or to increase the effectiveness of the heating system for a brief period.
Cooling power will be reduced, however.
The flaps open again automatically after 10 minutes (the indicator lamp goes off).

Passenger compartment temperature regulation
The automatic climate control system regulates the speed of the fans to achieve the set temperature in the passenger compartment.
You will find out how to change the target temperature below.
When the engine is not running, the fans run in an economical low-power mode. The fans turn off automatically when the outside temperature drops below a certain level.

Auxiliary heating
The oil-fired auxiliary heater starts only after a warm-up phase. This is shown on the display screen and by means of an indicator lamp on the pushbutton.
It can be used to warm up the engine quickly and to give the heating system an extra boost.
The auxiliary heater cannot be started automatically by the climate control unit. When the engine temperature rises too high, the auxiliary heating temporarily ceases to operate.

Reheat
Blows dehumidified air from the vents at the windows to defrost windows quickly.

Change temperature base value setting
By default, the target temperature is set at 22°C. To re-programme this value for your current bus, hold the passenger compartment temperature regulation pushbutton pressed for several seconds. The indicator lamp will begin to flash. Now you can use the pushbuttons above (air recirculation) and below (auxiliary heat) to adjust the set point up or down in 2°C steps in the range between 18–26°C. The indicator lamps on the other pushbuttons will indicate the set temperature. Briefly press the passenger compartment temperature regulation pushbutton once to confirm the new settings.

6. NOTES AND ADDITIONAL CONTENT

The game includes several documents which you may find useful on your runs. This content is located in the OMSI root directory in the subfolder Addons/Rheinhausen. As well as network maps showing all bus lines in the day and night schedules, you will also find a specially created timetable book and route books for every bus line there. The timetable book gives you an initial overview of each line's running times and frequency intervals. The route books will be your companions on each journey. You will find detailed information here on your depot pull-in and pull-out times, arrival and departure times for each stop, and any special instructions relating to your route.

Example for instructions

If you see instructions at a stop like "Li. 25 von E'stedt (37) abwarten" (Wait for Li. 25 from E'stedt), this means Route 25, coming from Eichstedt, will arrive at your location at 37 minutes past the hour. You must wait to ensure passengers make the connection.

NOTES ON SCHEDULING

In the game, school runs, support drives and interlining (where bus lines change numbers to serve a different route without returning to the depot first) are all simulated in addition to regular services. For this reason, a single route code can sometimes cover more than one bus line. These lines swap destinations at their terminal stops. Some routes also switch over from the day to the night network. Certain daytime lines do not finish at the depot at the end of a shift: instead, they continue to the bus station and proceed as night lines. An overview of all codes and the lines and routes they cover can be found in the document "Kursübersicht.pdf" in the directory listed above.

UNDERSTANDING ROUTE CODES

All route codes begin with the digits of the line they belong to. This line number makes up the first two digits of every route code. The third number in the code counts up sequentially.

151 = Line 15, Route 1.

A 0 at the end indicates that a route switches over from a daytime bus line to a night service.

Some route codes also include letters. These letters give brief information about the route. Note that letters are ignored when route codes are entered on the bus!

O = Runs daily, apart from the evenings before Saturdays, Sundays and public holidays

N = Only runs on the evenings before Saturdays, Sundays and public holidays
    Sa and So indicate Saturday and Sunday routes.

All codes beginning with 9 are school buses or support routes that only operate on school days.

STOPS

Various bus stop designs are simulated in the game. They range from modern bus stops with a special "bus board" for completely barrier-free boarding to traditional stops where the bus simply pulls in at the side of the road. As in real life, buses also terminate in different ways. Both terminal loops with separate layover zones for driver breaks and combined terminus and starting stops are found in this OMSI 2 add-on.

Your duties at stops

Your aim is to allow passengers to board and disembark comfortably. To ensure this is possible, you should follow several rules. Stop so that the front of the vehicle reaches the bus stop. At double stops, take the first free space to ensure colleagues behind you are able to halt.

If you cannot serve a stop normally, perhaps because it is blocked by parked cars, you should stop shortly before or after the stop if this is possible. Some stops count as danger spots at which hazard warning lights should be switched on.

These stops are marked with a red upside-down triangle.

Additional information
The bus stop signs bear letters from A to C. These are frequency symbols.
They show how frequently stops are served.
A is the shortest interval, C the longest.

TRAFFIC SIGNALS FOR BUSES

At some locations, you will encounter special traffic signals that regulate bus traffic. These are special traffic signals which apply only to public transport vehicles. As such, you must follow these signals.

As well as the signals used in the main OMSI 2 game, you will also encounter the following signal: Meaning: You may proceed, albeit yielding to drivers who have priority according to the rules on turning laid out in Section 9 of the German Road Traffic Act (StVO).
All other signals and their meanings are explained in Chapter 6.5 of the main OMSI manual. Bar signals.

CHRONOLOGY EVENTS

Events can be triggered at particular times in OMSI (see the definitions in Chapter 1.7 of the OMSI 2 manual for more information on these time-controlled events.)
This add-on includes three new chronology events.
Each begins on one of the following dates:

From 06/04/2016
From 04/05/2016
From 29/06/2016

Information on these events can be found in the main menu of the game in the dialogue field "Information on chosen time" during the event duration.

OMSI 2 ADDON

BERLIN X10

With the express bus between Bahnhof Zoo and Teltow

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7. CREDITS/LEGAL NOTICE

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Take on the iconic "New Routemaster" in London, driving on the left!

Drive around the venerable imperial city and see its historical buildings by bus.

8. APPENDIX

ROUTE CODES AND NUMBERS

Line 15

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
01500	01 / 02	Rheinaue	Nordbahnhof
	03	Domshof/Rathaus	A.-Einstein-Gym.
	04	Rheinaue	Hauptbahnhof

Line 25

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
02500	01 / 02	Diakonissenkrankenhaus	Eichstedt
	03 / 04	Diakonissenkrankenhaus	Reifenberg
	05	Reifenberg	Hauptbahnhof wN1
	06	Domshof/Rathaus	Pestalozzischule

* wN1 = weiter als Linie N1

Line 35

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
03500	01 / 02	Diakonissenkrankenhaus	Breitwehr
	03	Diakonissenkrankenhaus	Hauptbahnhof

Line 45

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
04500	01 / 02	Rheinaue via Eichstedt	Oberfeld
	03 / 04	Rheinaue	Oberfeld
	05	Rheinaue via Eichstedt	Hauptbahnhof

Line 31

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
03100	01 / 02	Gellenberg via Jul.	Wickenberg
	03 / 04	Gellenberg	Wickenberg
	05	Gellenberg via Jul.	Hauptbahnhof

* Jul. = Juliansberg

Line 41

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
04100	01 / 02	Jul.-Waldhof via Jul.	Reinhardshof
	03 / 04	Jul.-Waldhof	Reinhardshof
	05	Jul.-Waldhof	Herrenholz
	06	Herrenholz	Hauptbahnhof wN2

* wN2 - weiter als Linie N2

Line 51

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
05100	01 / 02	Juliansberg via. Neuw.	Herrenholz
	03 / 04	Juliansberg	Neuweide
	05	Juliansberg	Hauptbahnhof wN3
	06	Hauptbahnhof	Neuweide
	07	Hauptbahnhof	Universität

* Neuw. = Neuweide
* wN3 = weiter als Linie N3

Night lines

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
901	01 / 02	Hauptbahnhof	Neundorf
902	01 / 02	Hauptbahnhof	Eichstedt
	03	Eichstedt	Rheinstraße
903	01 / 02	Hauptbahnhof	Reinhardshof
	03	Reinhardshof	Reinhardshofer Str.

School bus

CODE	ROUTE	FROM	DESTINATION/RETURN FROM
801	01	Domshof/Rathaus	Oberfeld, Gesamtschule

NETWORK MAPS

Busnetz (rvb)

Legende

Haltestelle / Haltestelle mit Umsteigemöglichkeit
Halt nur in Pfeilrichtung
Stichfahrt mit Kehre (kein Endpunkt)
Linie fährt nur zu bestimmten Zeiten
Schulbushaltestelle. Nur mit gültigem Schülerausweis.
Endhaltestelle
Linienwechsel
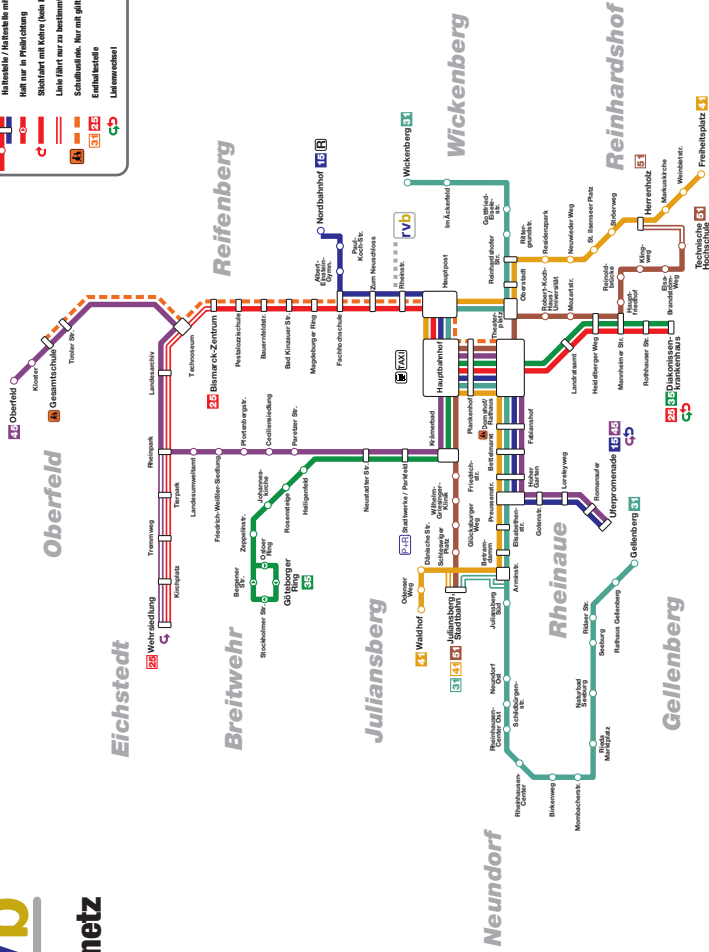
Regions: Oberfeld, Reifenberg, Wickenberg, Reinhardshof, Neuweide, Eichstedt, Breitwehr, Juliansberg, Rheinaue, Gellenberg, Neundorf

Stations include: Oberfeld, Kloster Str., Gesamtschule, Bismarck-Zentrum, Hauptbahnhof, Wehrsiedlung, Waldhof, Julianberg Stadtbahn, Technische Hochschule, Freiheitsplatz, Wickenberg, Herrenhöhe, Diakonissenkrankenhaus, Dornbusch/Rathaus, Uferpromenade, Gellenberg, Rheinhausen-Center, Rheda Marktplatz, Monbachsteig, Birkenweg, Rheinhausen-Center Ost

Nachtbusnetz (rvb)

Legende

Haltestelle / Haltestelle mit Umsteigemöglichkeit
Halt nur in Pfeilrichtung
Einhaltestelle
Linienwechsel (Tag = Nacht)

Lines: N1, N2, N3

Regions: Oberfeld, Reifenberg, Wickenberg, Reinhardshof, Neuweide, Eichstedt, Breitwehr, Juliansberg, Rheinaue, Gellenberg, Neundorf

Stations include: Wickenberg, Nordbahnhof, Hauptbahnhof, Technische Hochschule, Wiesenkirche, Freiheitsplatz, Wehrsiedlung, Rheinhausen-Center, Schöttelgrenstr., Rheinhausen-Center Ost

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