VIsuali**Si**ng**I**nfrastructure**MPL**anning
for the adaption of the challenges in the city and rural areas

VISIMPLE Manual

TAKOMAT GmbH (TAO)

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1 Introduction

In this document we describe how you use VISIMPLE with different configurations(chapter 2). The use of the menu is explained in chapter 3. In chapter 4 are shown main actions in the simulation.

You should notice that PUS is now called ++SYSTEMS DEZENT and is shown in the outdated screen captures as PUS. In the configurations of VISIMPLE will be possibly used the old name PUS.

2 User Interface

The user interface gives you many interactions, some of them are listed here. Try out everything possible that you know from the application.

User interaction possibilities:

1. Zooming with the mouse-scroll wheel and moving the map with the right mouse button, similiar to GoogleMaps.
2. Multiple selection of the infrastructure elements by raising the rectangle with the left mouse button.

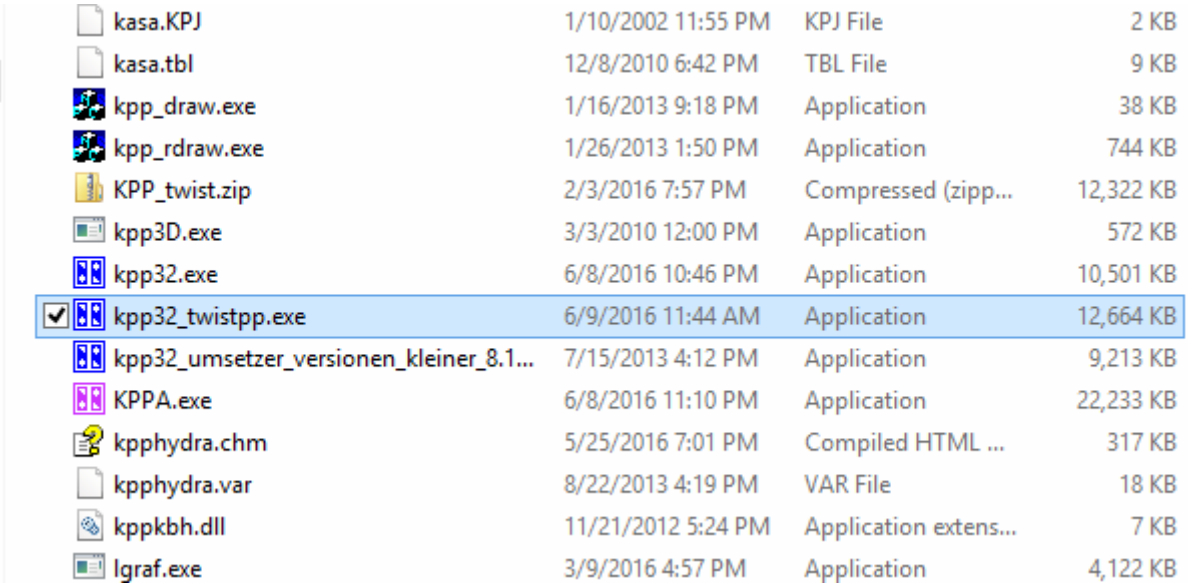
3 Before you start VISIMPLE

You can start VISIMPLE or else configure and use e.g. with SYSTEMS DEZENT. The latter case we describe in the following.

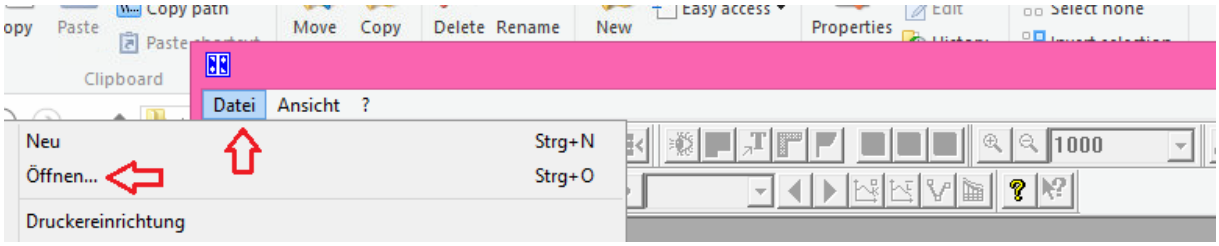
3.1 ++SYSTEMS DEZENT-Preparation

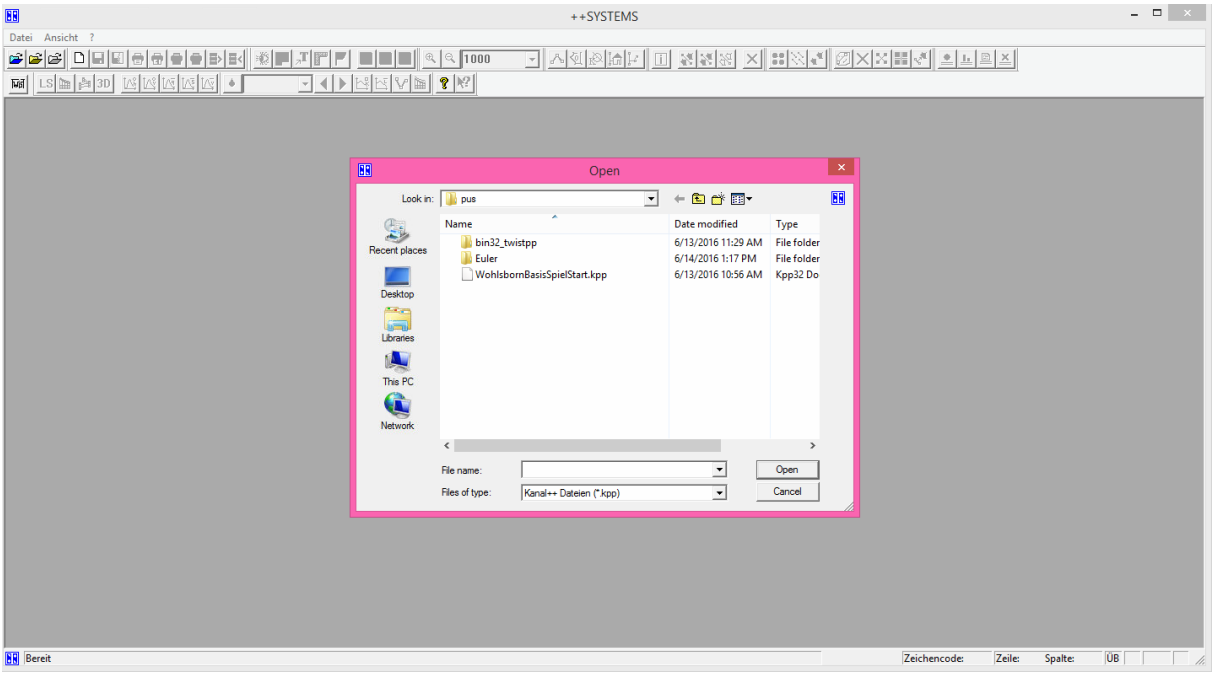
Before you can start VISIMPLE, you have to start and adjust ++SYSTEMS DEZENT.

1. Start ++SYSTEMS DEZENT by clicking on „*kpp32_twistpp.exe*“ .

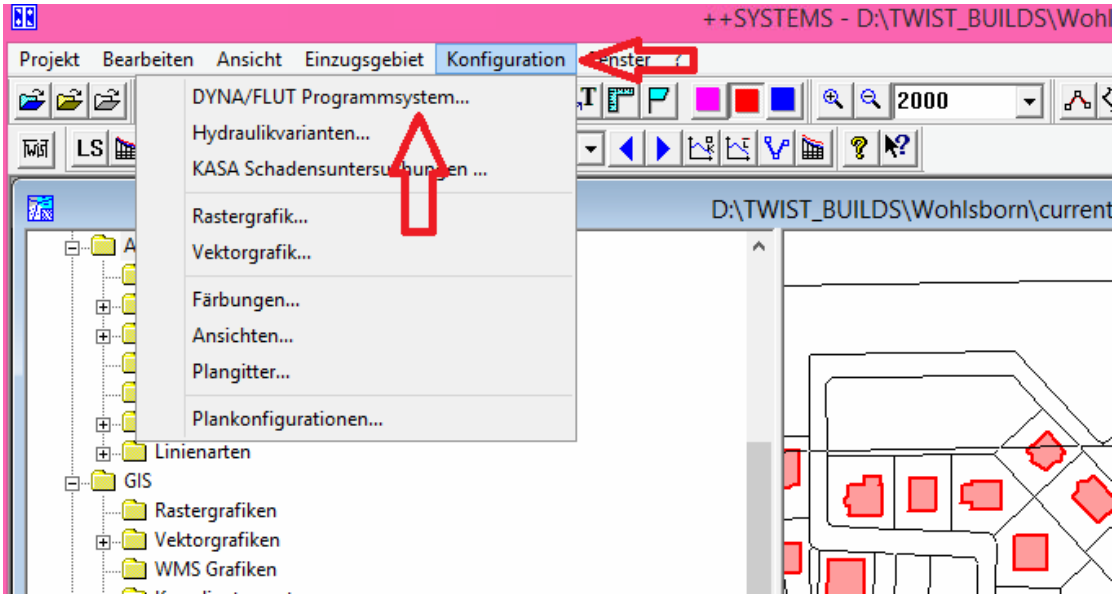


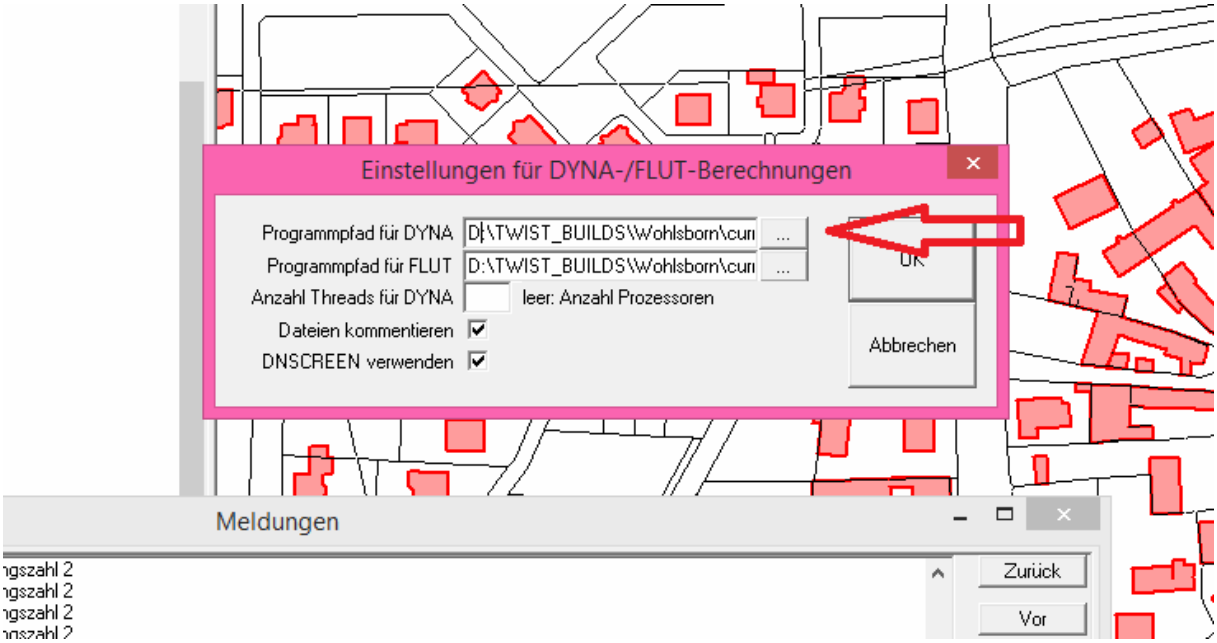
2. Open the .kpp-File via „*Datei -> Öffnen...*“ and choose the .kpp-File.

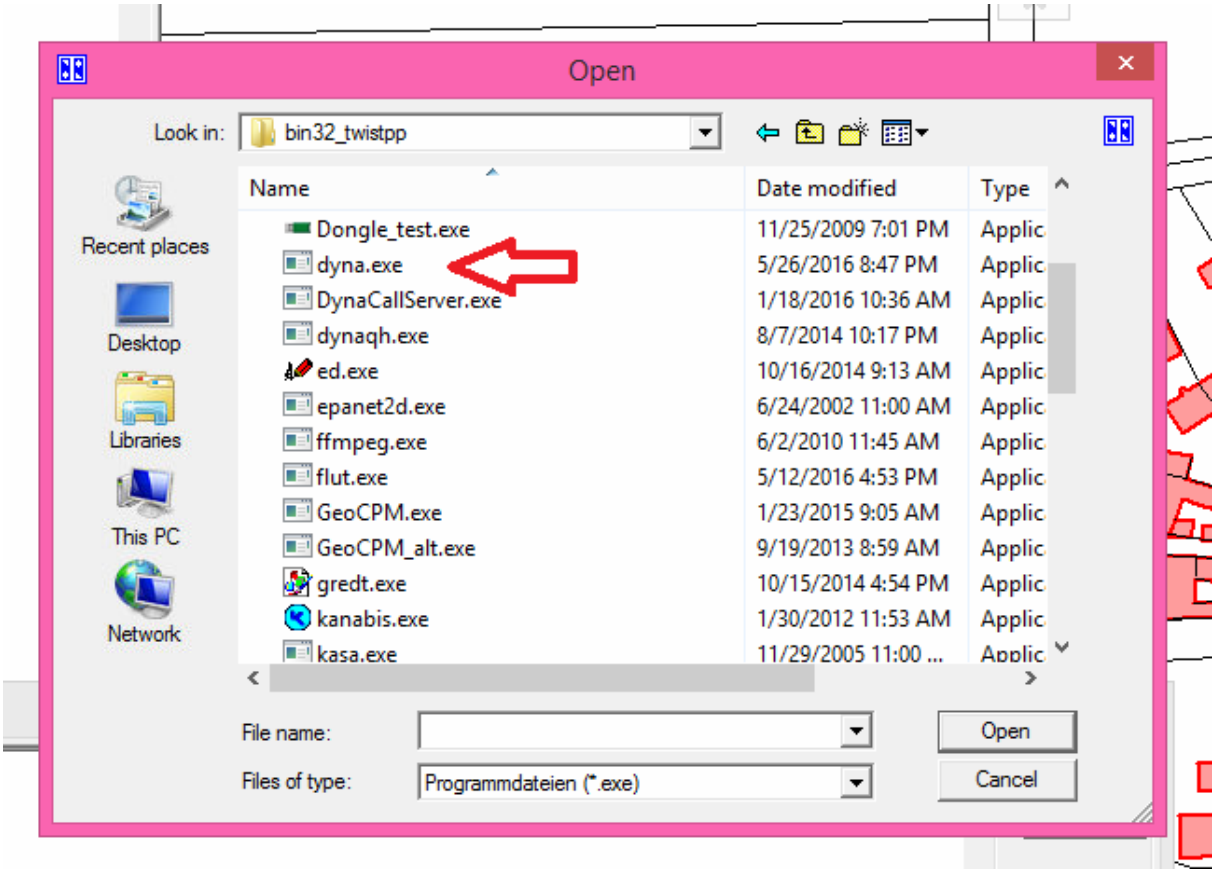


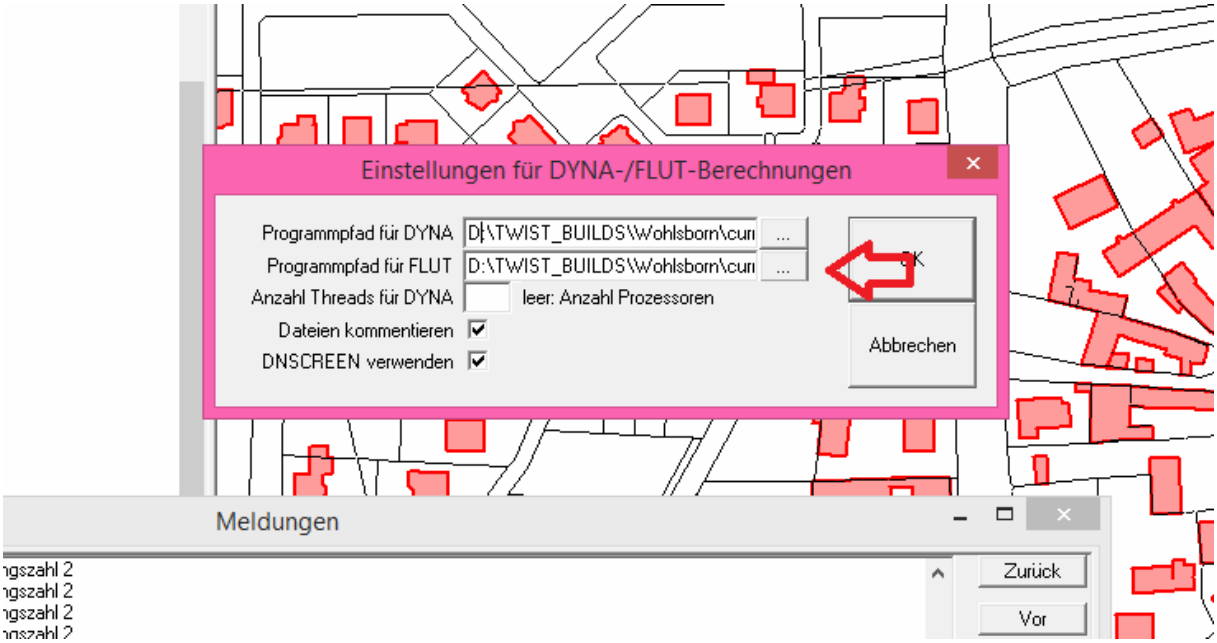


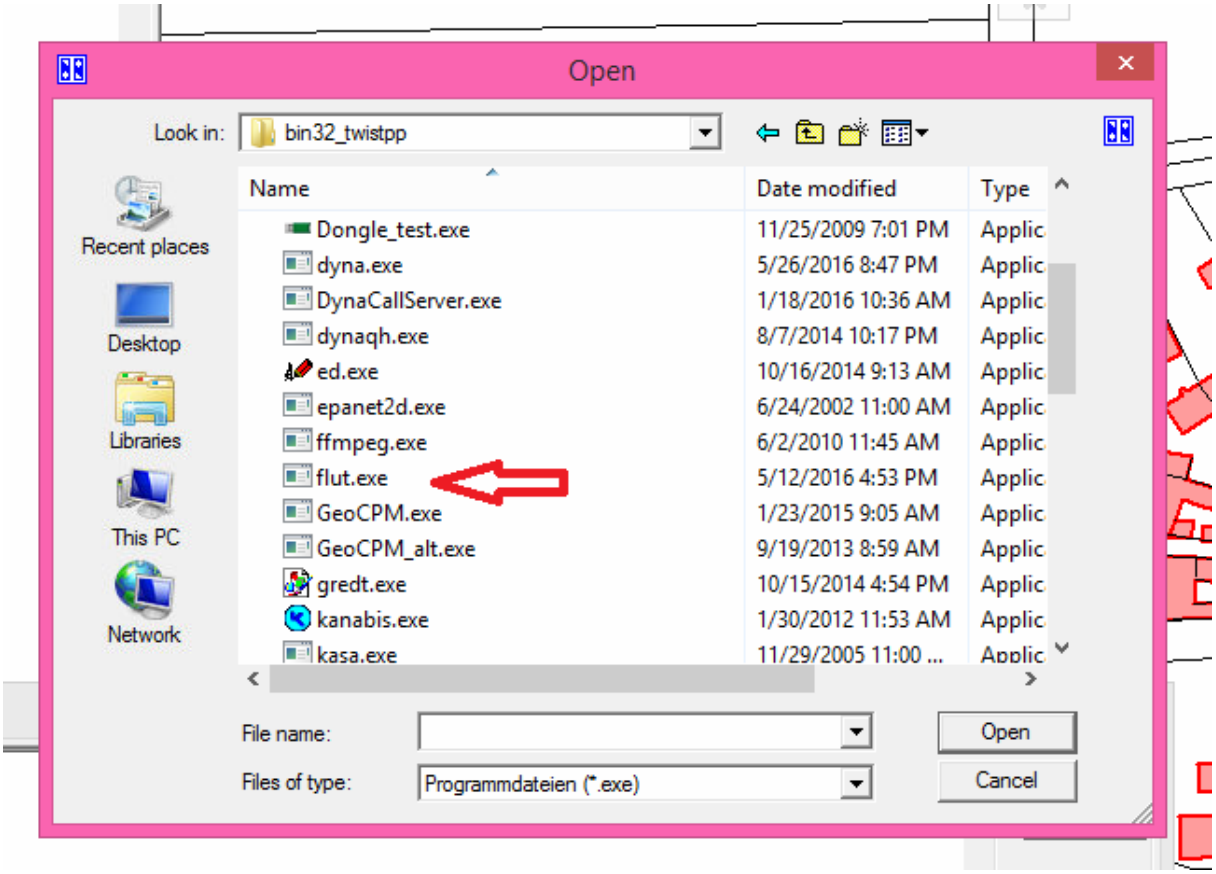
3. ! At the very first start you have to pick „*DYNA/FLUT Programmsystem…*“ under Konfiguration and under „*Programmpfad für DYNA*“ the *dyna.exe* and under „*Programmpfad für FLUT*“ the *flut.exe* in the folder of the engineersoftware.



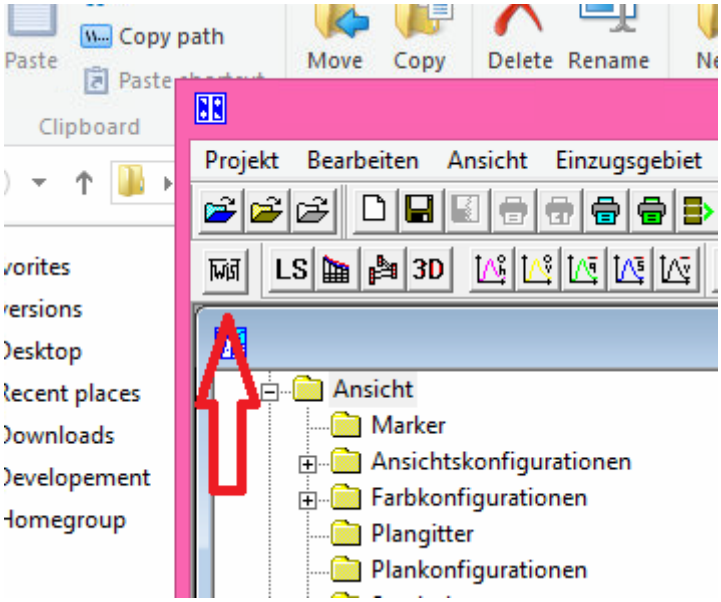

Einstellungen für DYNA-/FLUT-Berechnungen
Programmpfad für DYNA
D:\TWIST_BUILDS\Wohlsborn\cur
Programmpfad für FLUT
D:\TWIST_BUILDS\Wohlsborn\cur
Anzahl Threads für DYNA
leer: Anzahl Prozessoren
Dateien kommentieren
DNSCREEN verwenden
OK
Abbrechen
Meldungen
Zurück
Vor


Open
Look in:
bin32_twistpp
Recent places
Desktop
Libraries
This PC
Network
Name
Date modified
Type
Dongle_test.exe
dyna.exe
DynaCallServer.exe
dynaqh.exe
ed.exe
epanet2d.exe
ffmpeg.exe
flut.exe
GeoCPM.exe
GeoCPM_alt.exe
gredt.exe
kanabis.exe
kasa.exe
File name:
Files of type:
Programmdateien (*.exe)
Open
Cancel

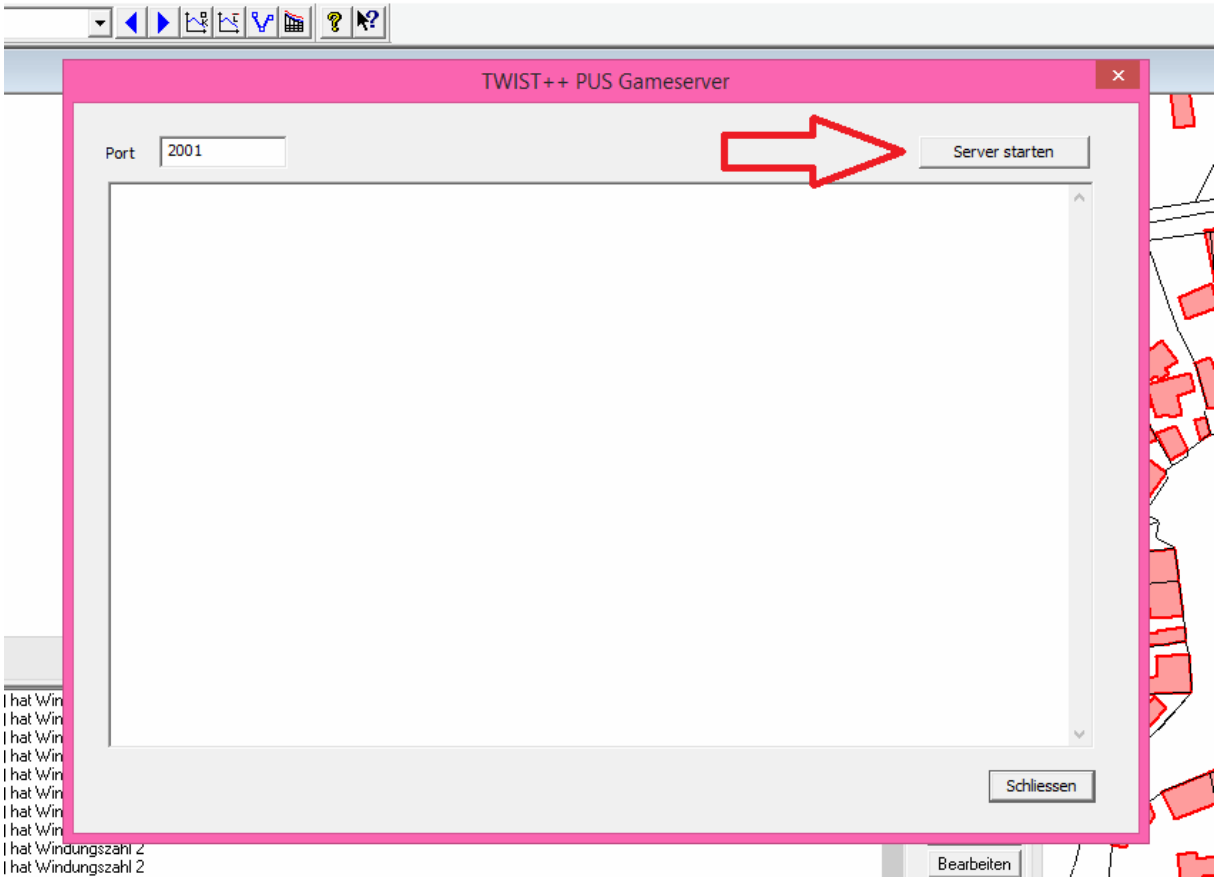




4. Next you have to start the VISIMPLE ++SYSTEMS DEZENT Gameserver. For that click on the VISIMPLE symbol on the top of the bar.



5. Dann „*Server starten*“ auswählen.

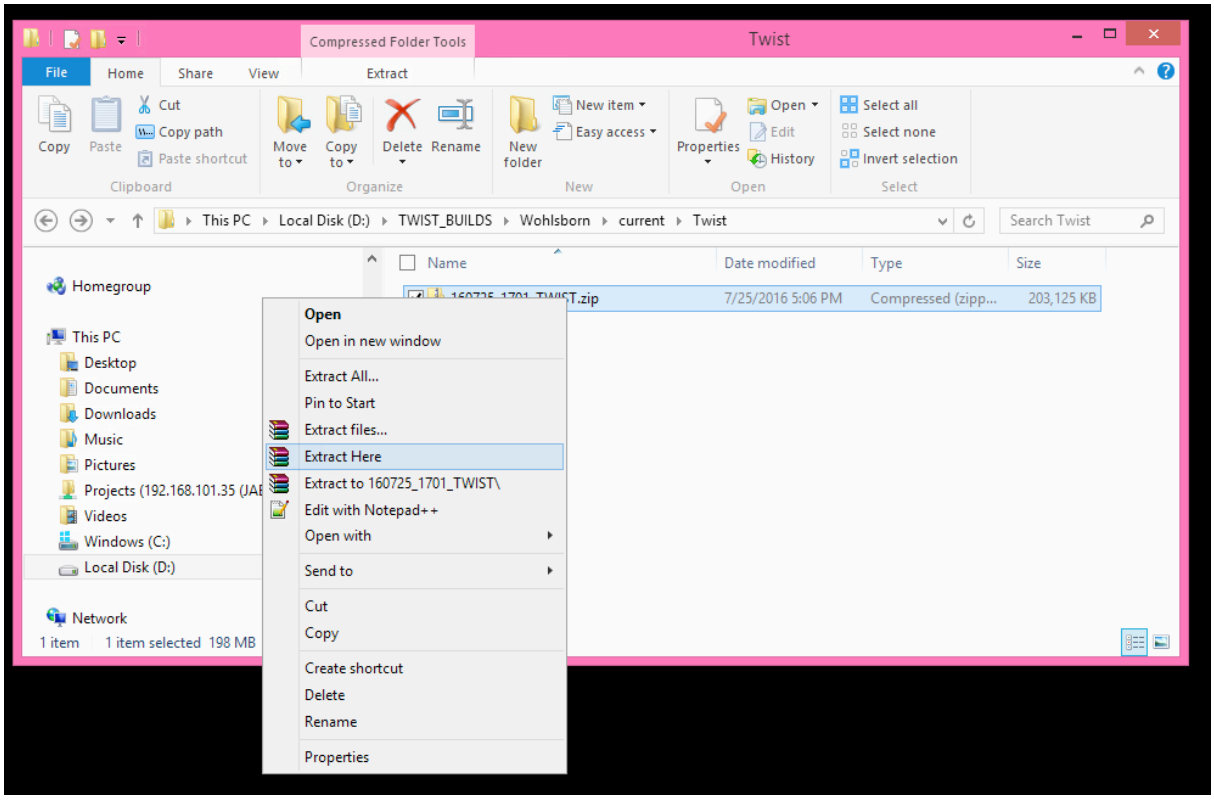


3.2 Preparation for VISIMPLE

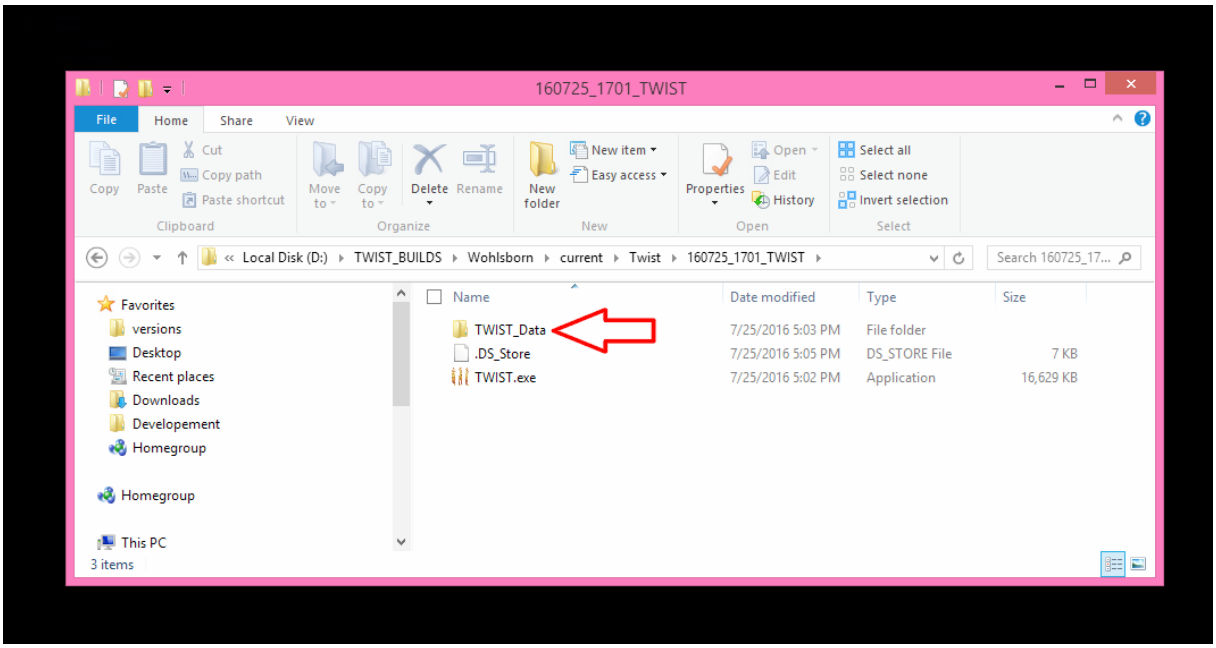
After preparing ++SYSTEMS DEZENT, you have to prepare the game. The following steps have to be done one time before the first start of the current version of VISIMPLE.

3.2.1 Adjust if the game is used with ++SYSTEMS DEZENT

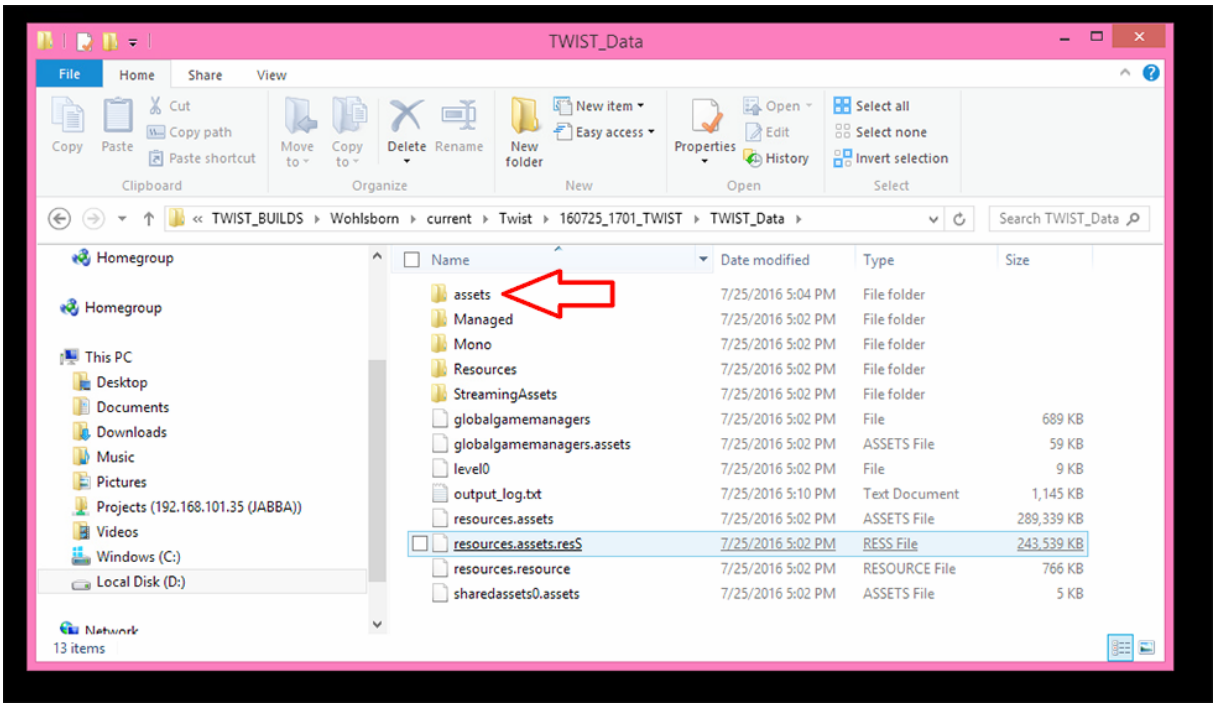
1. First extract the downloaded file in a quick viewable file.



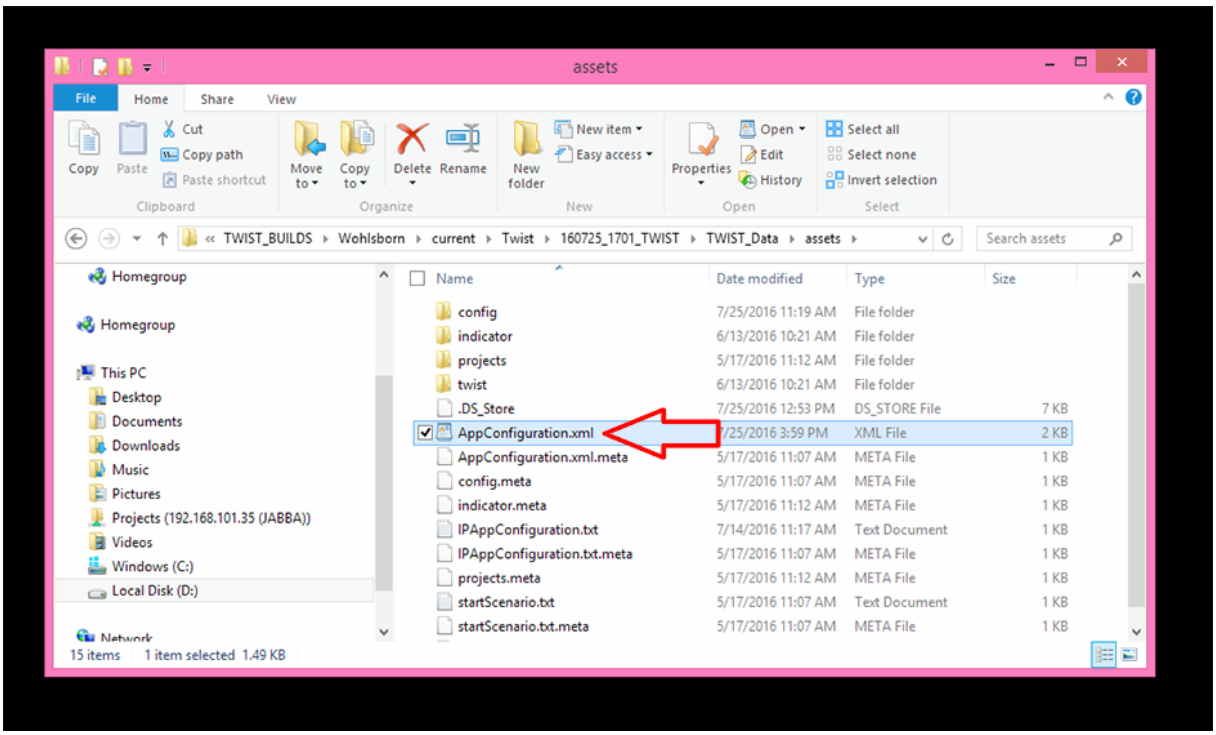
2. In the extracted folder click on the „*VISIMPLE_Data*“.



3. In „*VISIMPLE_Data*“ open the folder „*assets*“.

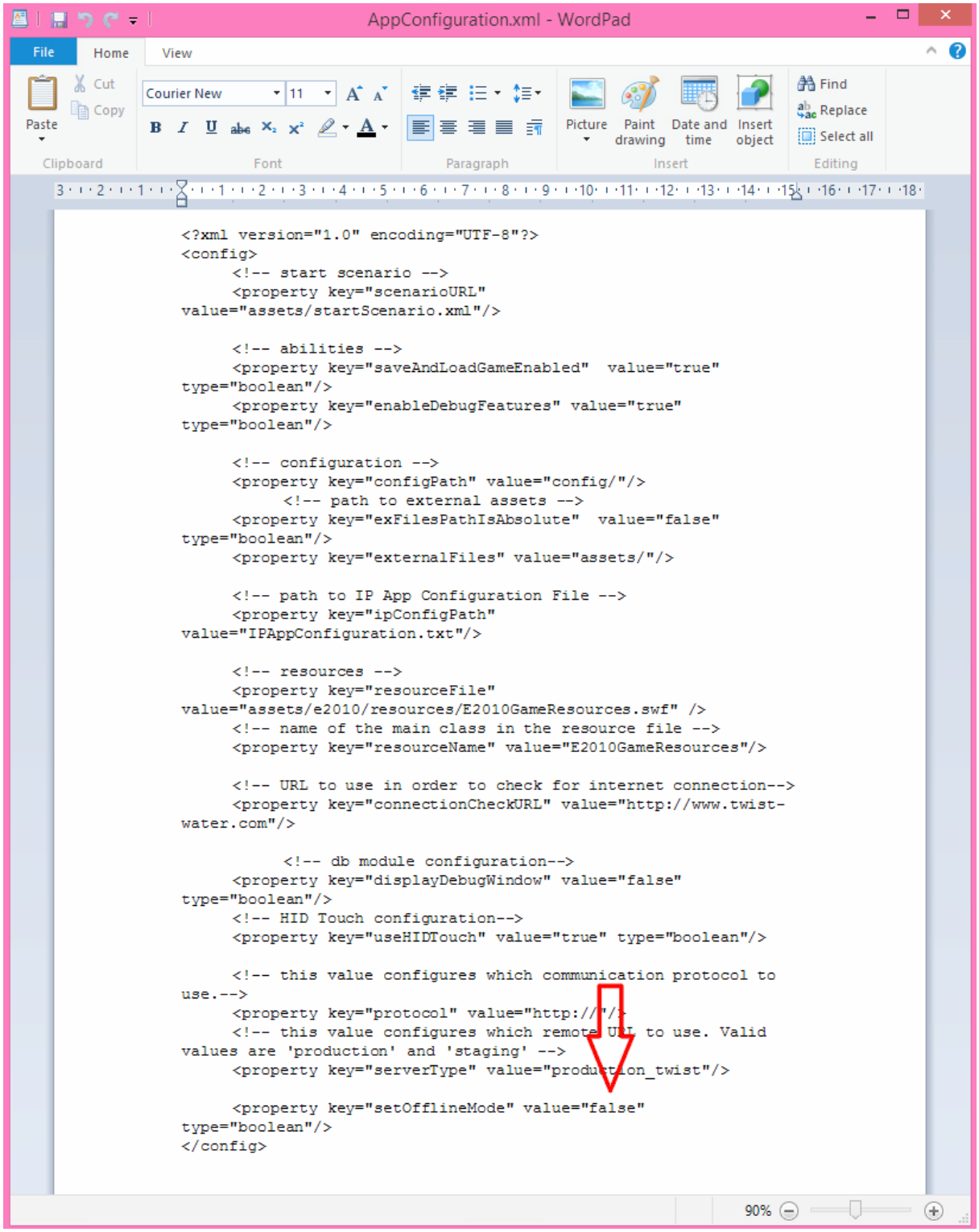


4. Right click on AppConfiguration.xml and pick „*Öffnen mit... -> Wordpad*"n.

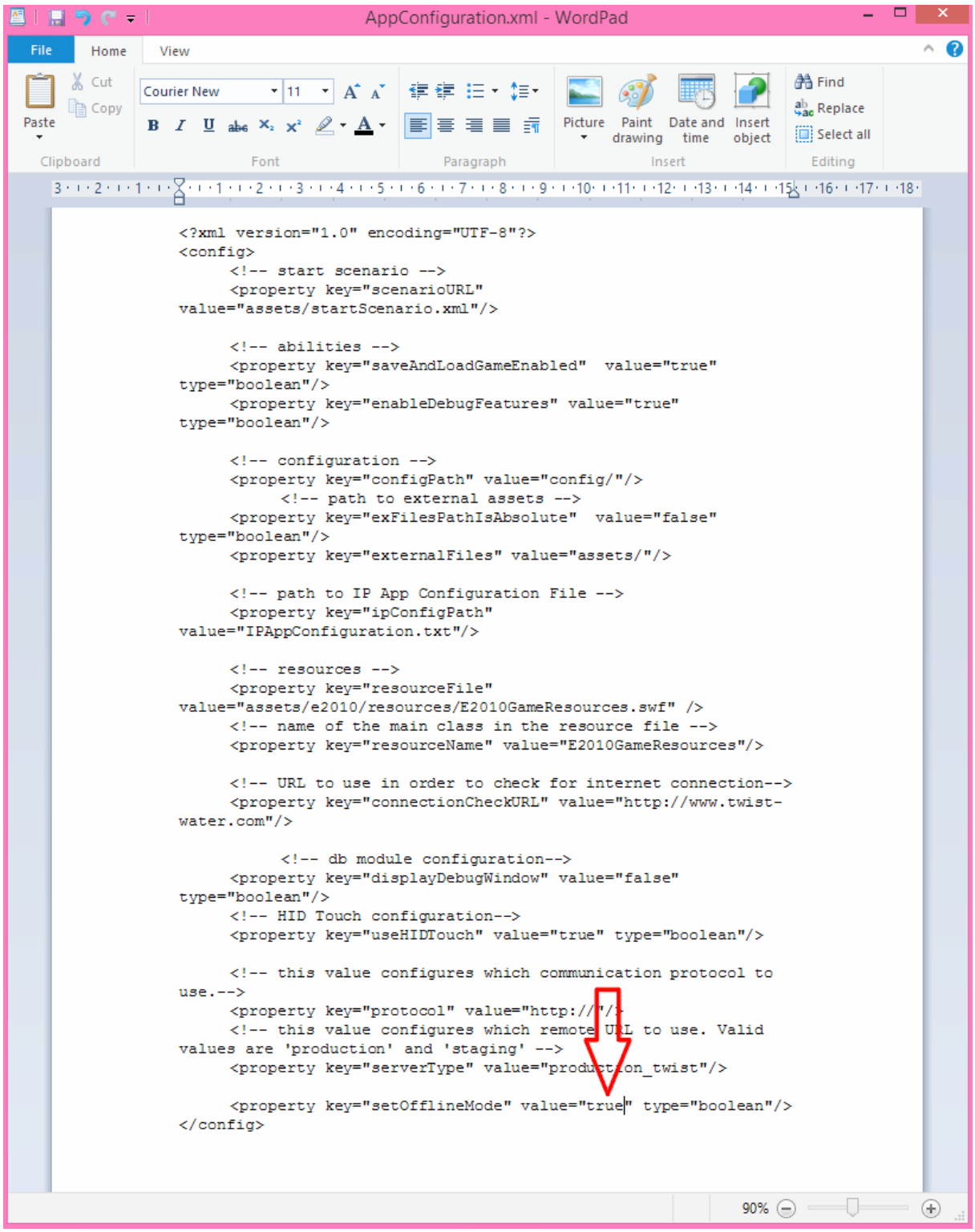


5. In this file you can adjust if you want to use VISIMPLE with or without ++SYSTEMS DEZENT.

5.1. If you want to use VISIMPLE with the ++SYSTEMS DEZENT, enter property key="setOfflineMode" in the row under value="false". (view image)



5.2. If you do not want to use VISIMPLE with the ++SYSTEMS DEZENT, enter property key="setOfflineMode" in the row under value="true". (view image)

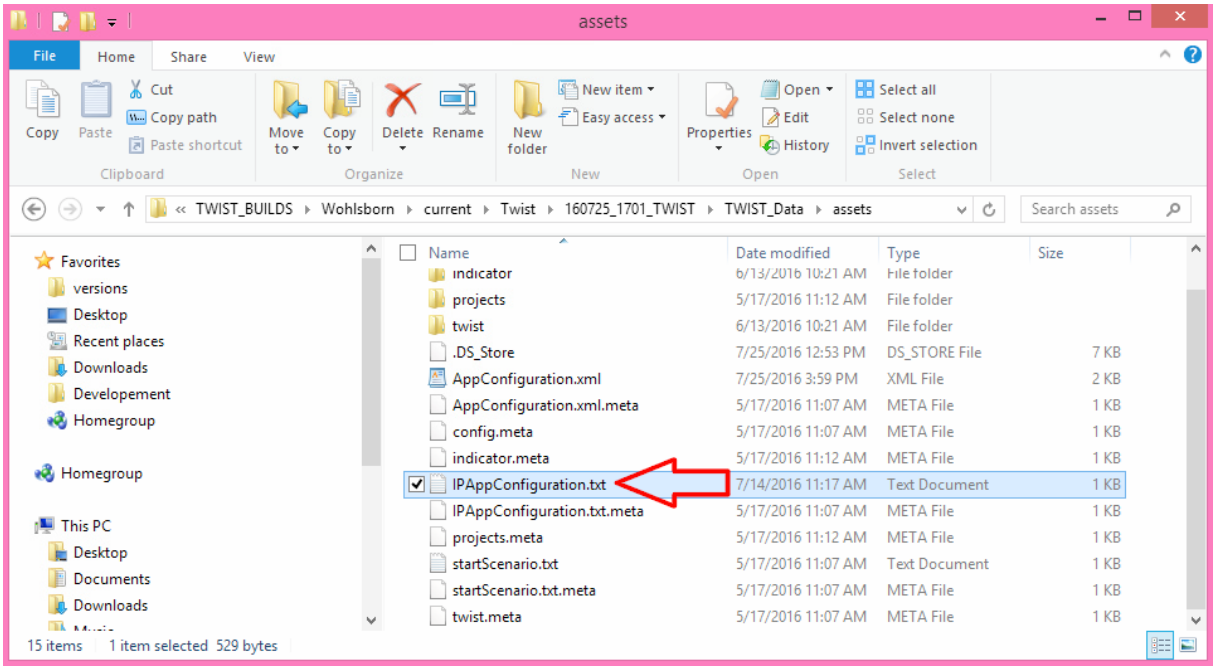


6. Afterwards save the document (do not make changes in the name or the file ending).

3.2.2 Adjust the server/client adresses

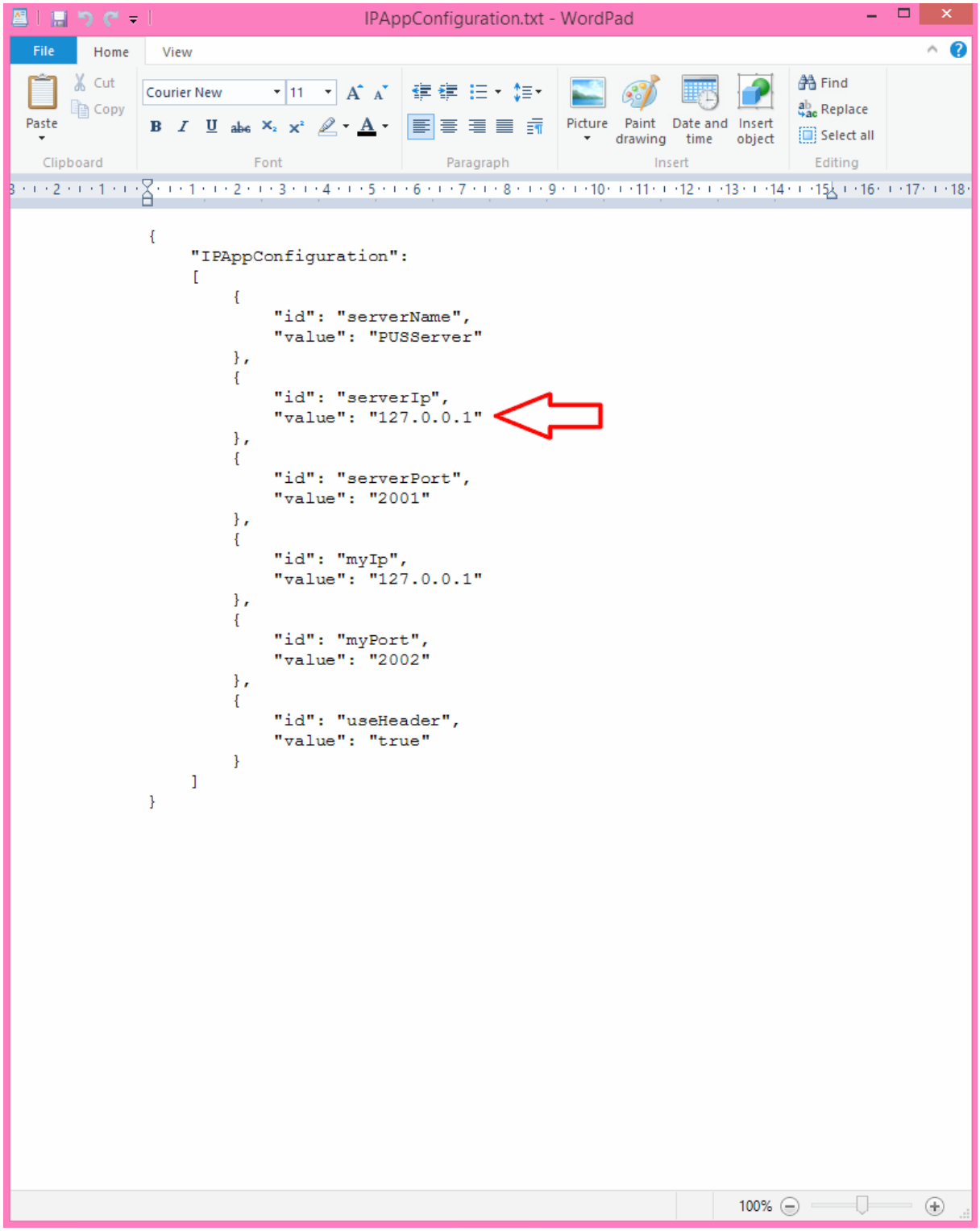
If you use VISIMPLE The Game without ++SYSTEMS DEZENT, you have not to make the following settings. If you want to make an internet connection between ++SYSTEMS DEZENT and VISIMPLE The Game, please go on with step 1.3.

1. In the folder „*assets*“ (view 1.2.1 step 1 to 3) rightclick the file IPAppConfiguration.txt and pick „*Öffnen mit... -> Wordpad*“.

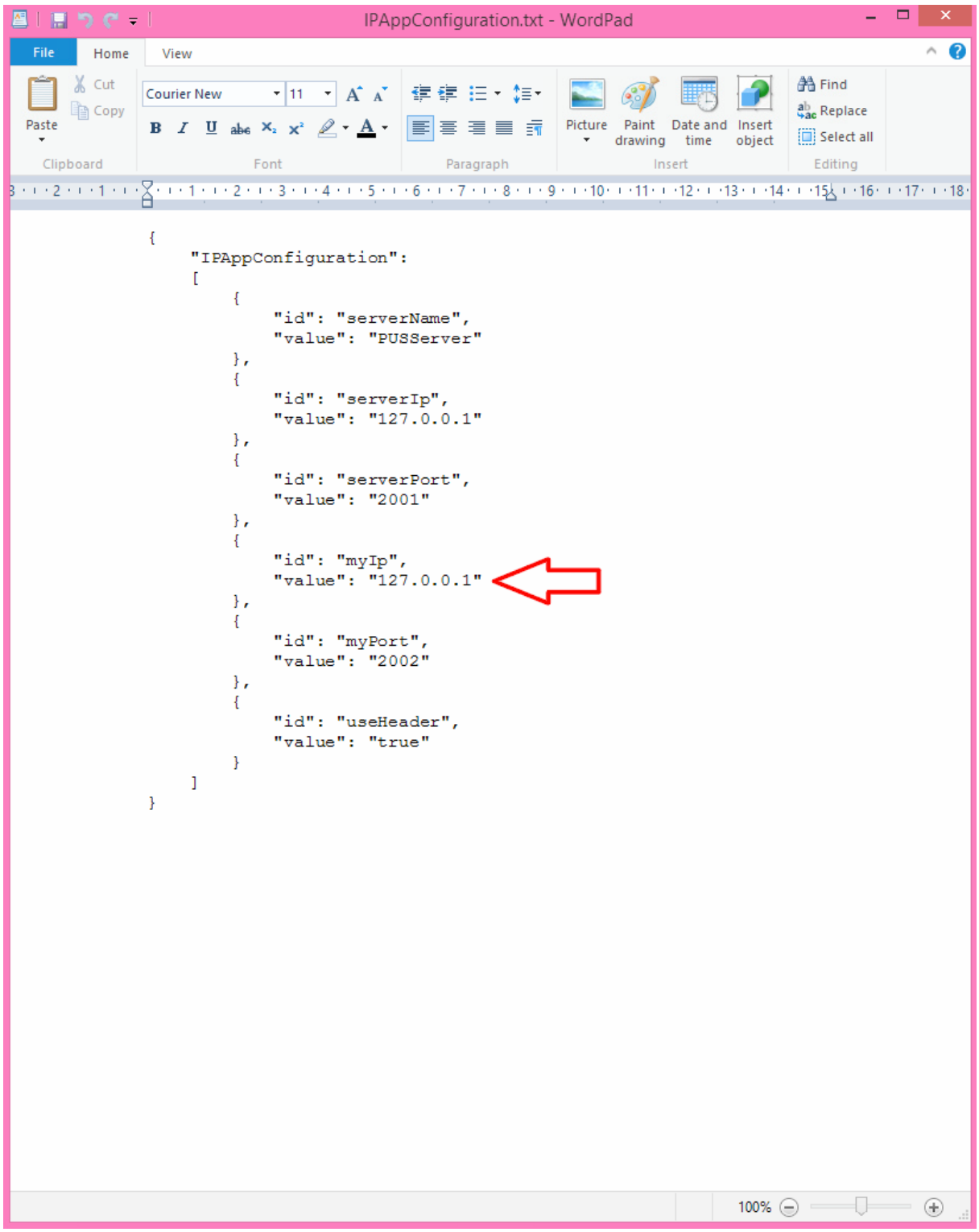


2. What is written here is dependent if you have ++SYSTEMS DEZENT and VISIMPLE The Game on the same computer in one time or on two different computers.

2.1. If you use ++SYSTEMS DEZENT and the game on the same computer view if under "id": "serverIp" at "value": the adresse "127.0.0.1" (with quotation marks – view image) is being registered.



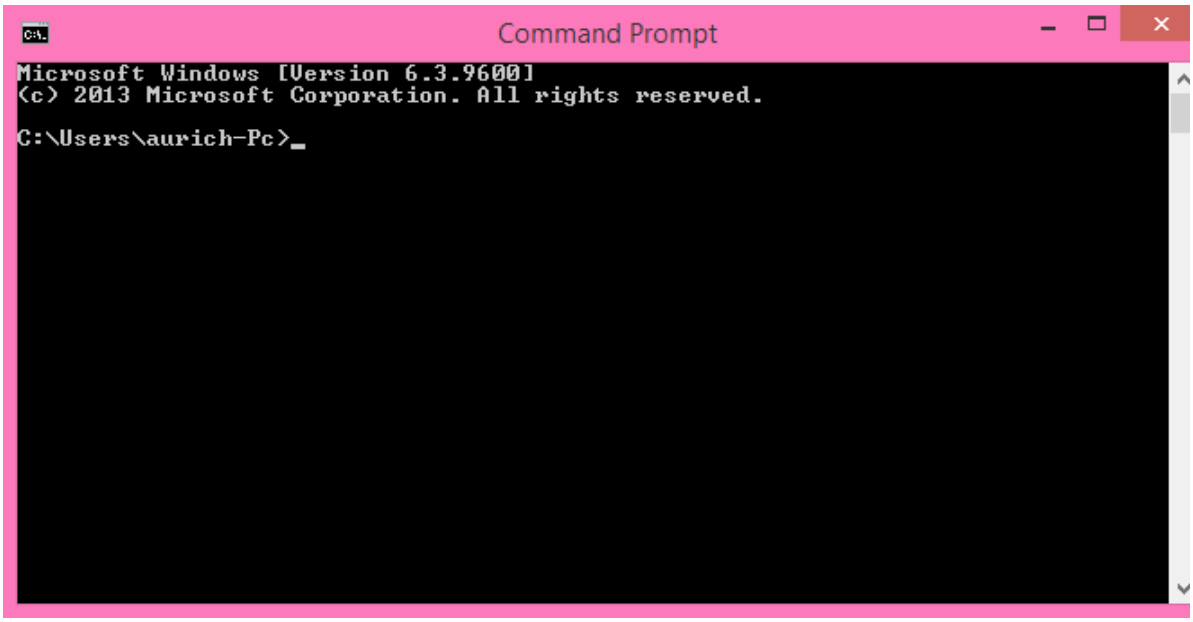
In addition under “id“: “myIp“ in between the quotation marks behind “value“: register the adresse “127.0.0.1“ (with quotation marks – view image).



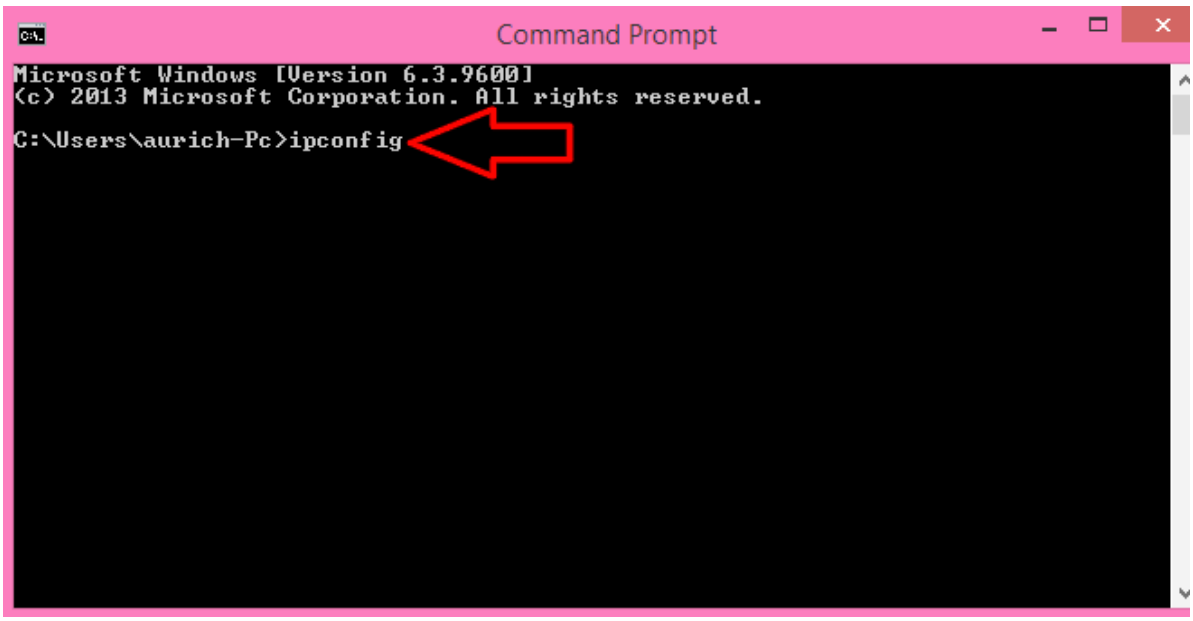
Afterwards you save the document (do not make changes in the name or the file ending)

2.2. If you use ++SYSTEMS DEZENT and the gameon two different computers must be under “id”: “serverIp“ in between the quotation marks behind “value“: the adresse oft he computer being registered on which the ++SYSTEMS DEZENT is runnning.

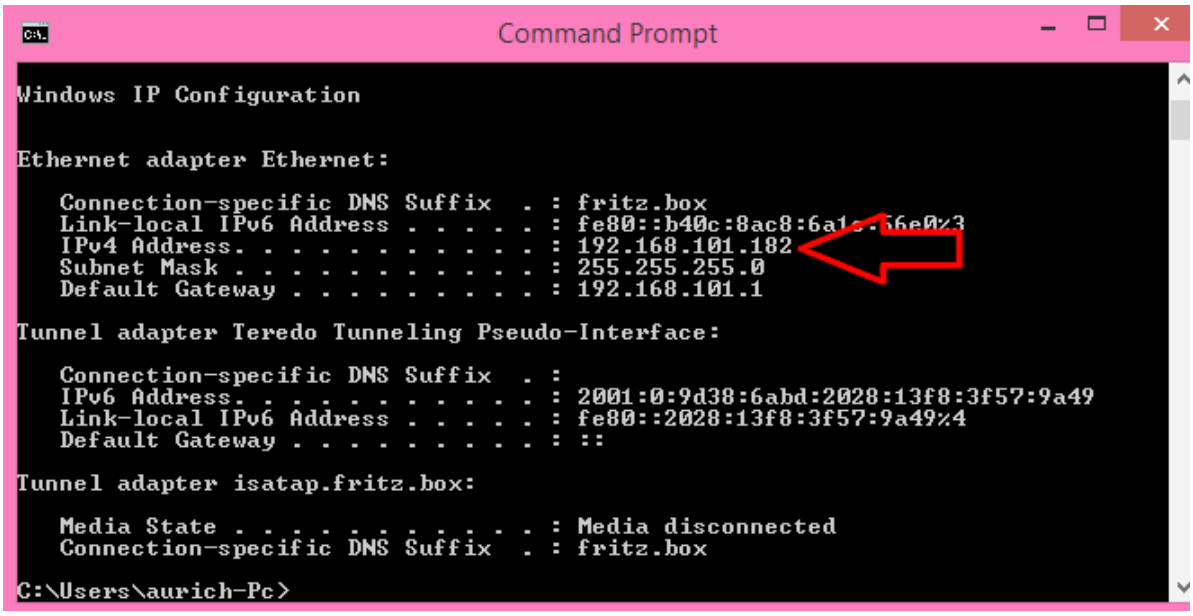
2.2.1. You get to now this on the specific computer when you go under „*Start -> Ausführen*“ (or the magnifiers symbol under Windows 8/10) and click and than write „*cmd*“ and press the enter button. The following window will open:



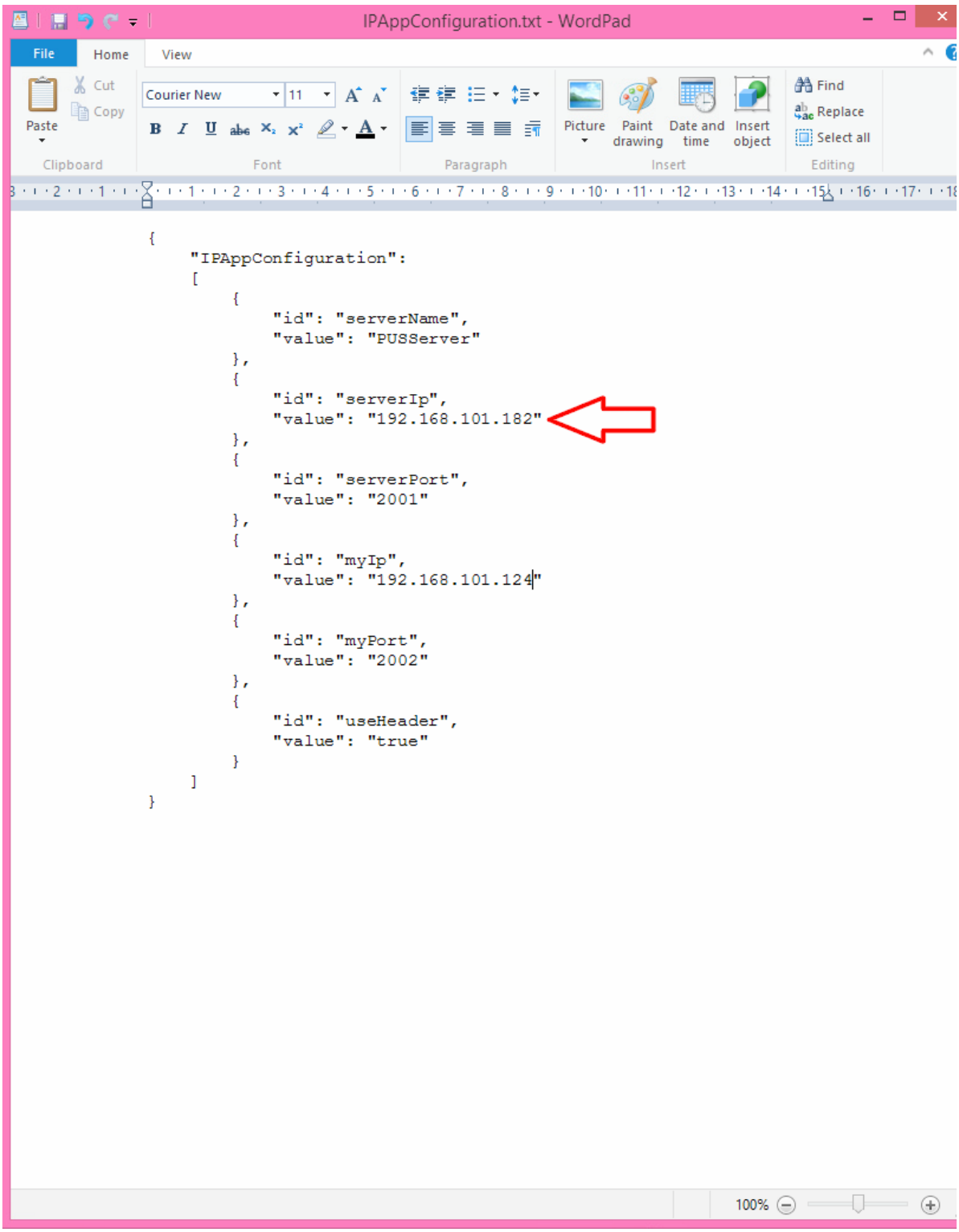
2.2.2. Type „*ipconfig*“ in there and confirm with the enter button.



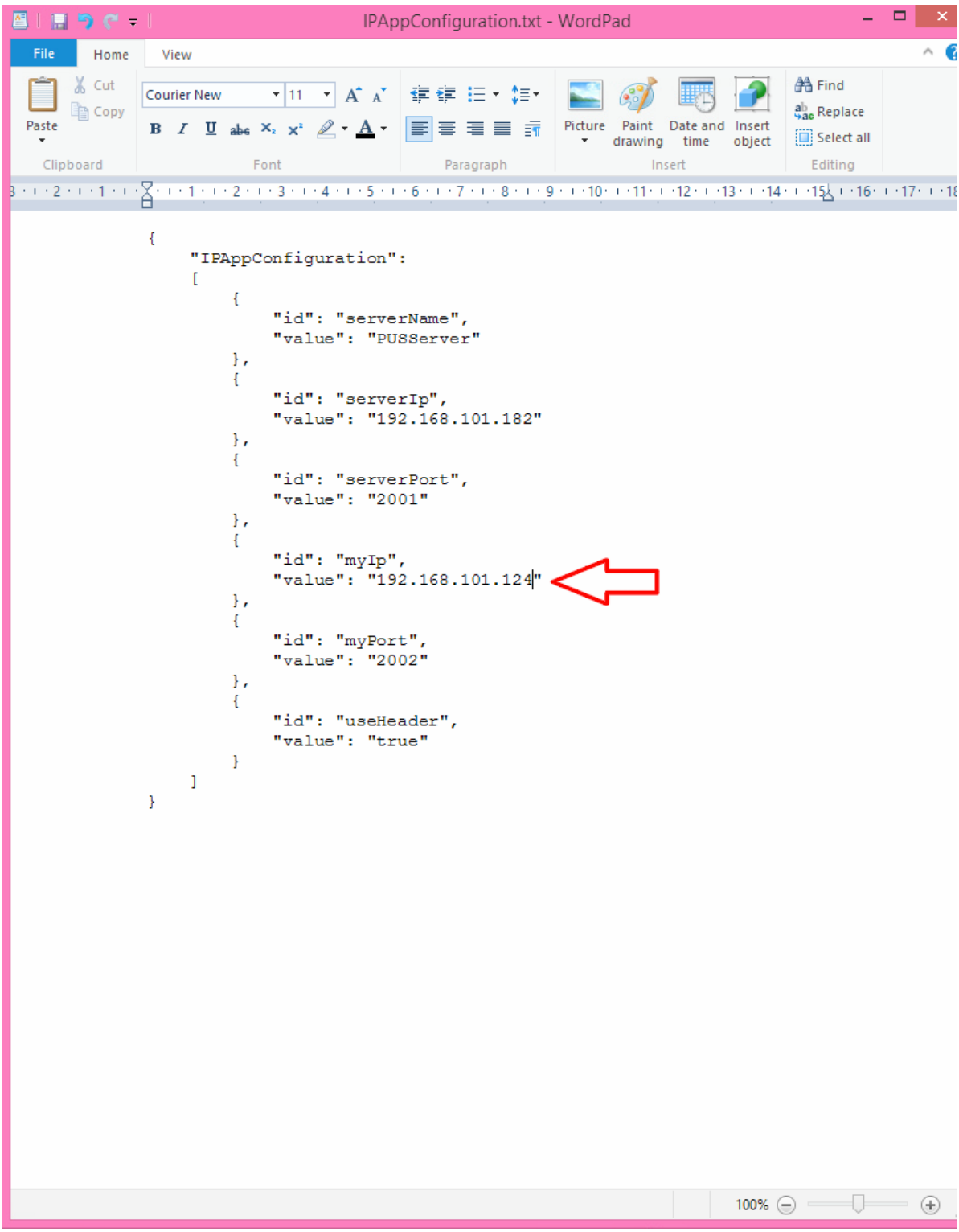
2.2.3. You can see the IP adresse under IPv4 adresse.



2.2.4. You put this IP adresse in the IPAppConfiguration.txt under “id”: “serverIp“ in between the quotations marks and behind “value“.

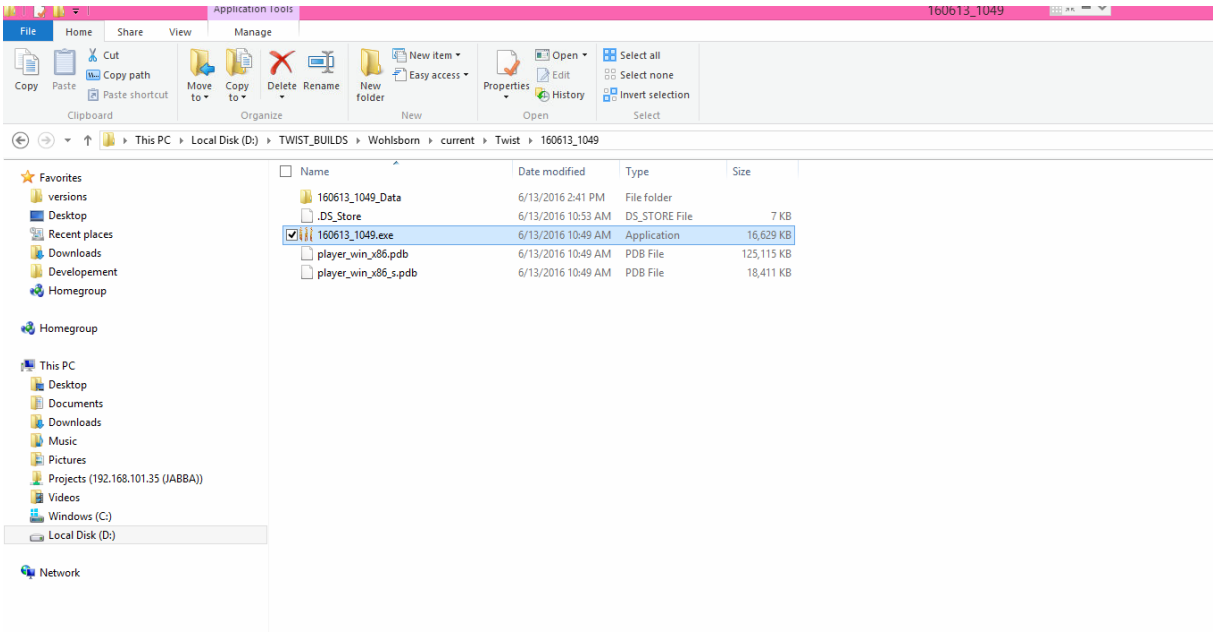


2.2.5. Repeat the steps 2.2.1 to 2.2.3 on the computer with VISIMPLE The Game and register the IP adresse under “id”: “myIp” in between the quotation marks behind “value”: .



2.2.6. Afterwards save the document (do not make changes in the name or the file ending)

VISIMPLE The Game is now configured and ready to start by clicking in the .exe file in the Twist Verzeichnis.

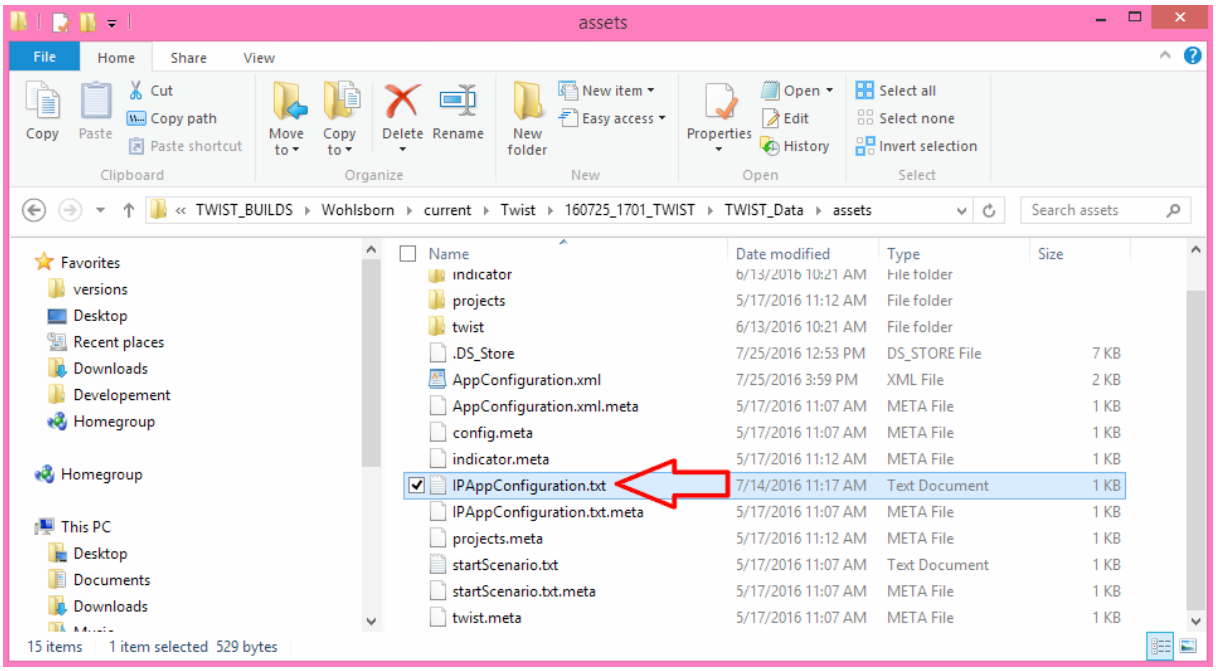


3.3 ++SYSTEMS DEZENT and VISIMPLE The game trough the internet

For playing VISIMPLE The Game trough the internet, you have to adjust the configurationsfile of VISIMPLE The Game and set up a port forwarding for a trouble-free communication.

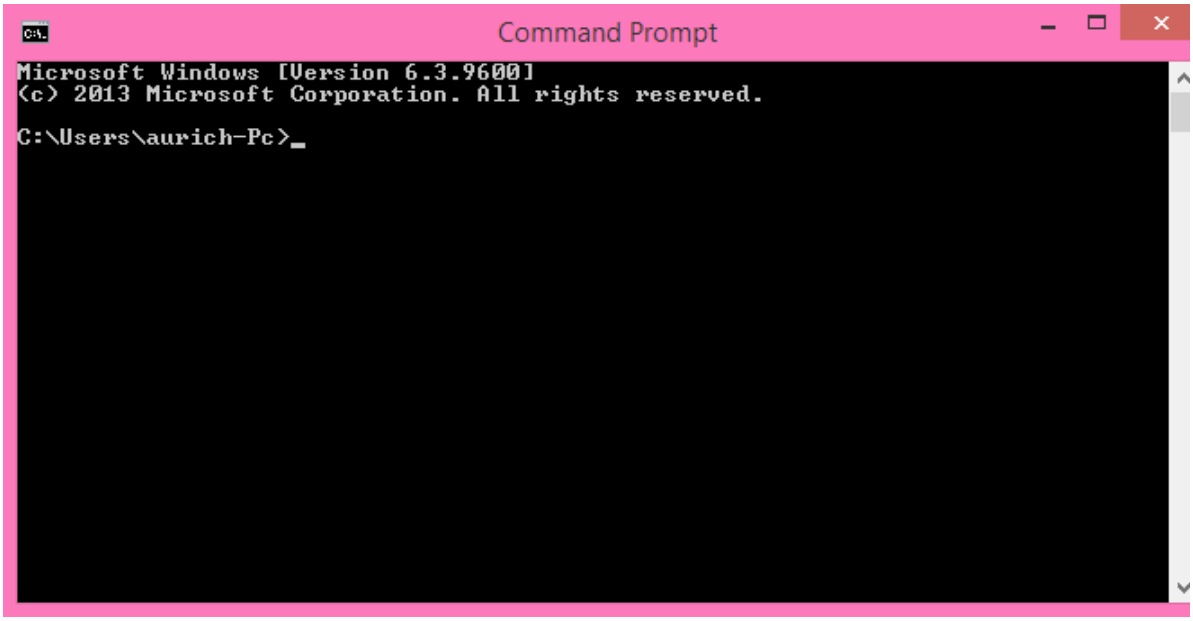
3.3.1 Adjust the server/client adresse

1. In the folder „*assets*“ (view 1.2.1 step 1 to 3) right click the file IPAppConfiguration.txt and pick „*Öffnen mit... -> Wordpad*“.

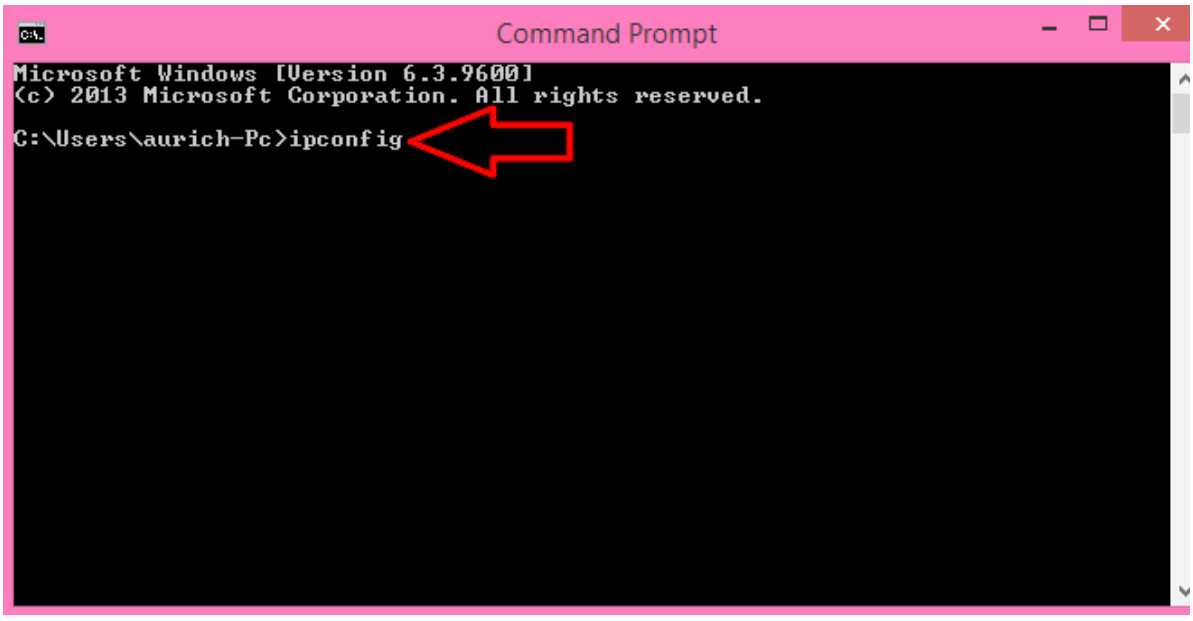


2.3. Under “id“: “myIp“ in between the quotation marks behind “value“: have to be put the adresse oft he computer where VISIMPLE The Game is running.

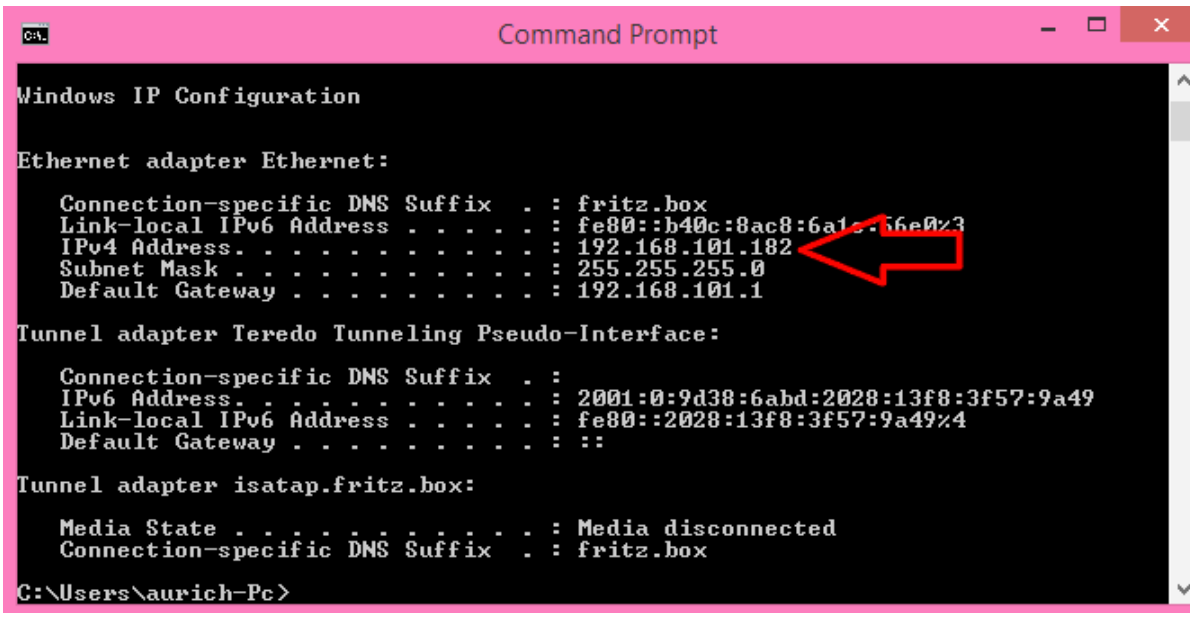
2.3.1. You get to know this at the specific computer when you go to „*Start -> Ausführen*“ (or the magnifiers symbol under Windows 8/10) and than type in „*cmd*“ and press the enter button. The following window will open:



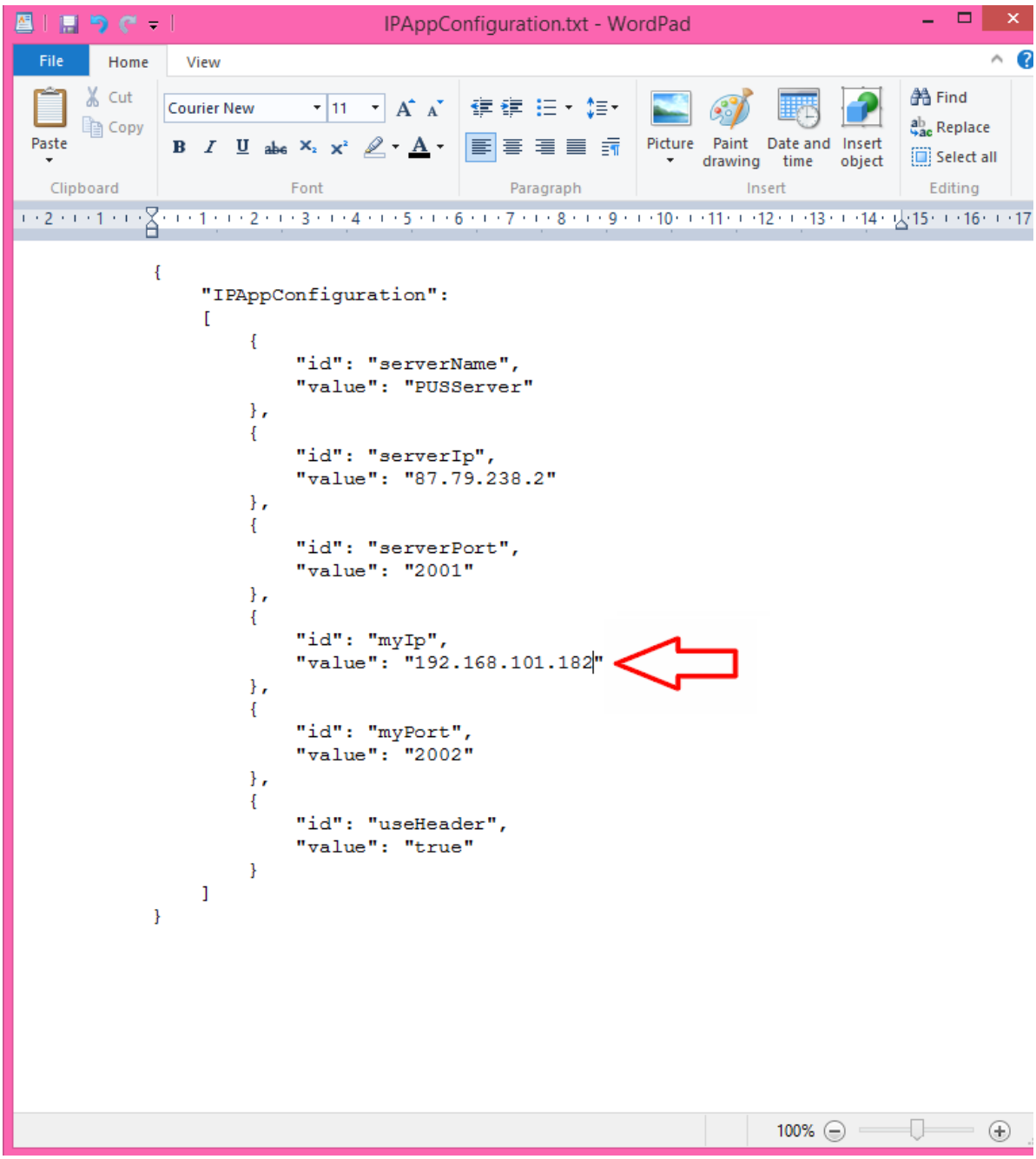
2.3.2. Here yoz type „*ipconfig*“ and press the enter button.



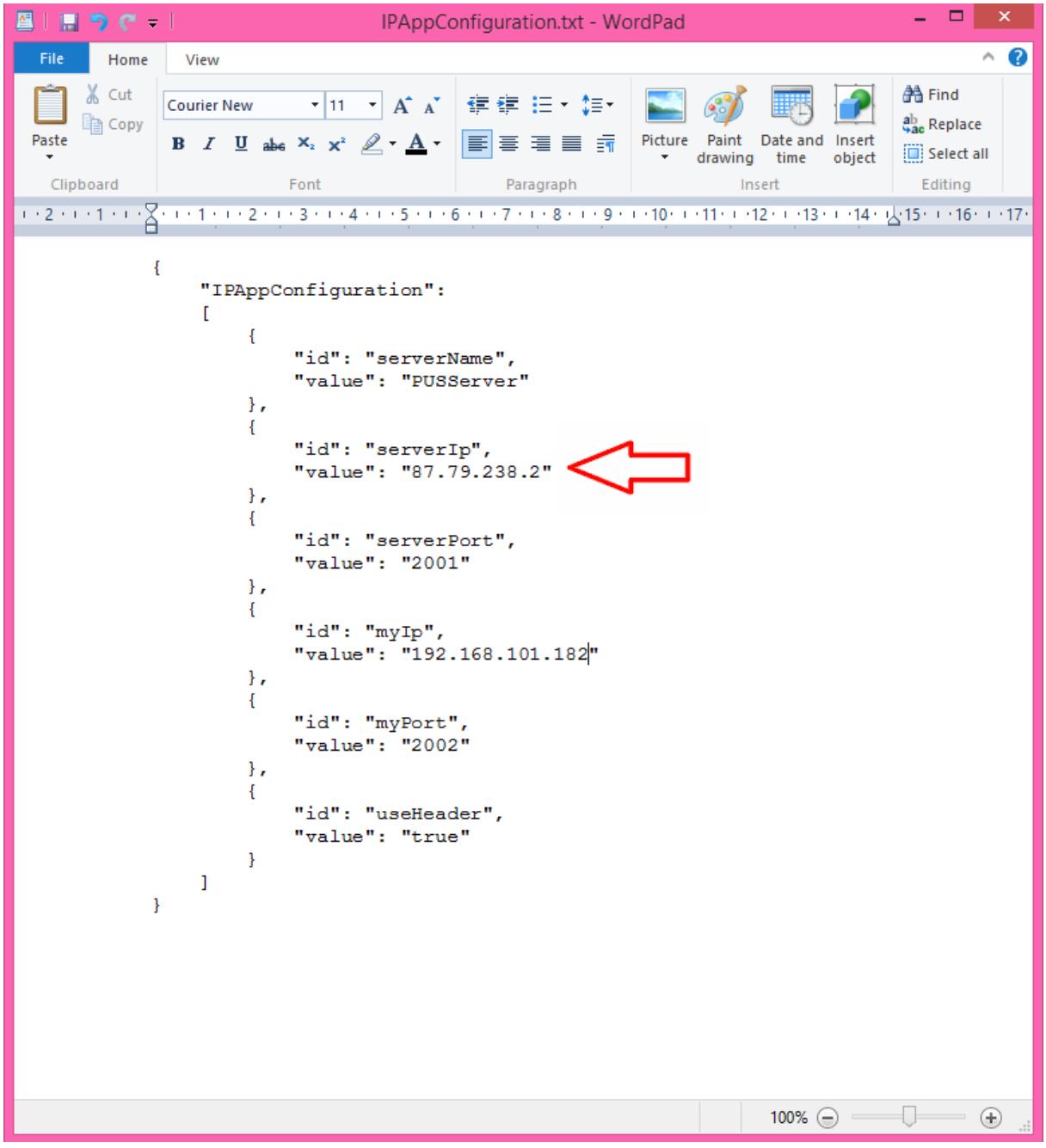
2.3.3.You can see the IP adresse under IPv4 adresse.



2.3.4. You put this IP adresse in the IPAppConfiguration.txt under “id”: “myIp“ in between the quotation marks behind “value“.



2.4. The server IP have to be known by the provider oft he server, important is that it is the external IP and not the internal IP. If you run the ++SYSTEMS DEZENT-Server yourself,you can get to know your external IP about the router or the internet e.g. on the website http://www.whatsmyip.org/. You put this IP in the IPAppConfiguration.txt under “id”: "serverIp“ in between the quotation marks behind “value“.



3.3.2 Port forwarding

For a correct communication between ++SYSTEMS DEZENT and VISIMPLE The Game, the ports 2001 (on the router oft he computer with ++SYSTEMS DEZENT) and 2002 (on the router oft he computer with VISIMPLE The Game) have to forwarded to the specific computer.

For this you have to find out the internal IP oft he specific computer as described in the chapter 1.3.1 in the steps 2.3.1. to 2.3.3. .

If your router is managed by a network admin, ask for the port 2001 (when ++SYSTEM DEZENT is running on your computer) and for the port 2002 (when VISIMPLE The Game is running on your computer) to be forwarded to your internal IP.

If your are manage your router yourself, you have to set up this forwarding yourself. The procedure is different from router to router, but a good general manual you can find here:
http://de.wikihow.com/Eine-Portweiterleitung-einrichten
Put in step 5 your internal IP adresse in and port 2001 as start and end port (when ++SYSTEMS DEZENT is running on your computer) and port 2002 as start and end port (when VISIMPLE The Game is running on your computer).

4 In the menu

- The game needs a bit to load, this is normal and dependent on the choosen place (Wohlsborn is loading faster than Lünen)
- The engineer gives you a little introduction, you have not to read this every time.
- About the button(glass sphere) on the top right you can start directly to play.

- The button underneath opens a overview map, which shows different „Hot Spots“. When you click on them the engineer will tell you more about them.

HOT SPOT
Die im Ort verbauten Absetzgruben nähern sich dem Ende ihrer technischen Lebensdauer. Es mehren sich die Anfragen von besorgten Hausbesitzern, die den Einsturz ihrer Absetzgrube befürchten und nach einer Nachfolgelösung suchen.
KURZINFO
Absetzgruben reinigen Abwasser mechanisch. Die veraltete Technologie erreicht bei weitem nicht die Ablaufwerte moderner Abwasserreinigungsanlagen. Die hiesigen Anlagen haben das Ende ihrer Lebensdauer erreicht und müssen ersetzt werden. Entweder, jeder betroffene Bürger errichtet seine vergleichsweise teure Kleinkläranlage, oder der Abwasserzweckverband nutzt die Chance für eine zeitgemäße integrierte Abwasserbehandlung als flexible und nachhaltige Lösung. Durch Stoffstromtrennung könnten so auch Energiegewinne erzielt werden.

5 Actions in the simulation

5.1 Simulation Options

Before you play the game you can do some settings. You can do this trough changing the slide control.

You have to make the following steps in this view, when you chose with the variant „with ++SYSTEMS DEZENT“:

1. Change the view to ++SYSTEMS DEZENT
2. Check in ++SYSTEMS DEZENT if the map finished loading in the main window and is viewable and that ++SYSTEMS DEZENT do not show a hourglass (Shows you that ++SYSTEMS DEZENT is still loading the map) or other signals, that it is still loading.
3. Change the view to VISIMPLE

! Always make these 3 steps after restarting the simulation

! Never close a ++SYSTEM DEZENT window with the „X“ button. ++SYSTEM DEZENT could not run anymore.

You can start the simulation with the button „Start Simulation“

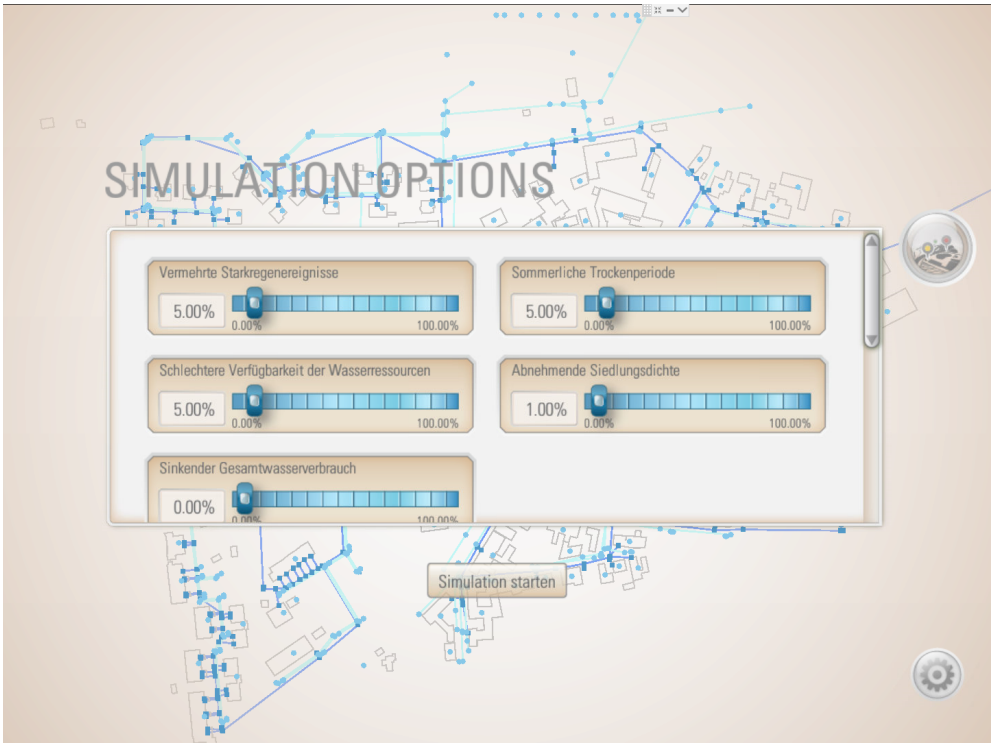
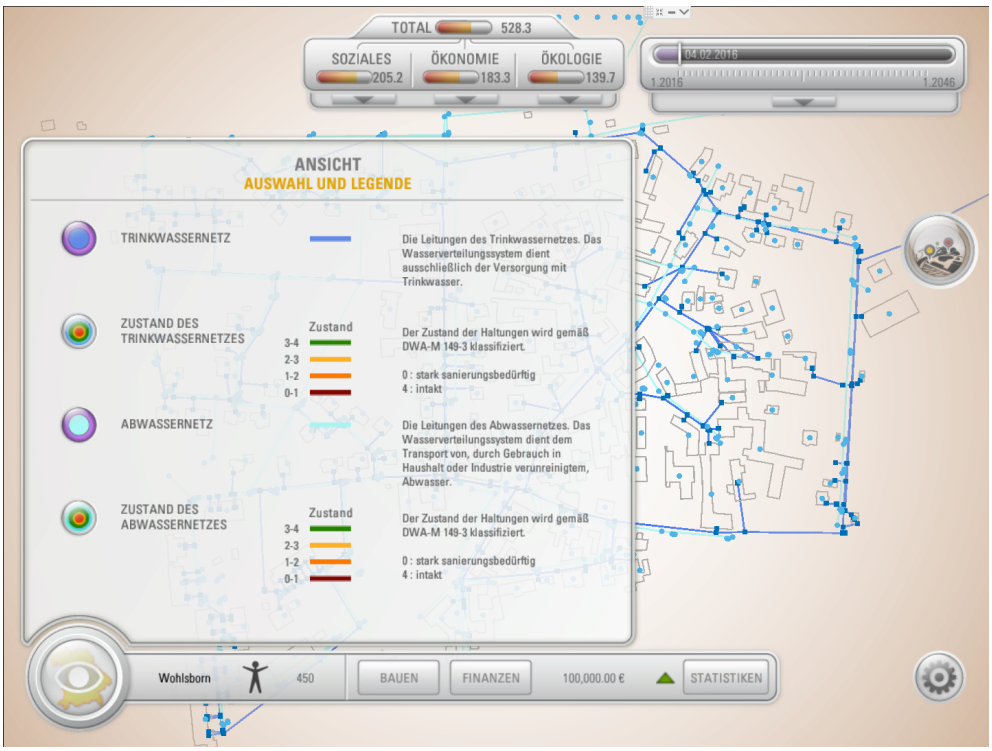


Figure 1 Ansicht für der Eisntellungen der Rahmenbedingungen vor der Simulation

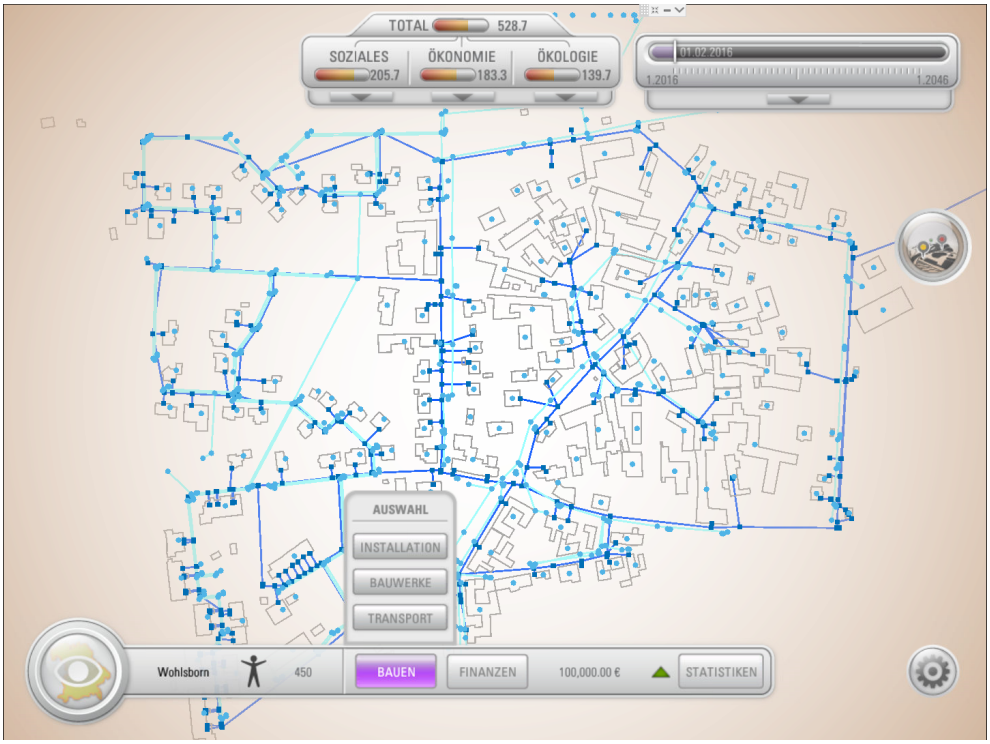
5.2 View in the simulation

With the view button (eye above the map) you can open the legend and a menu with which you can turn different views of the map on and off.

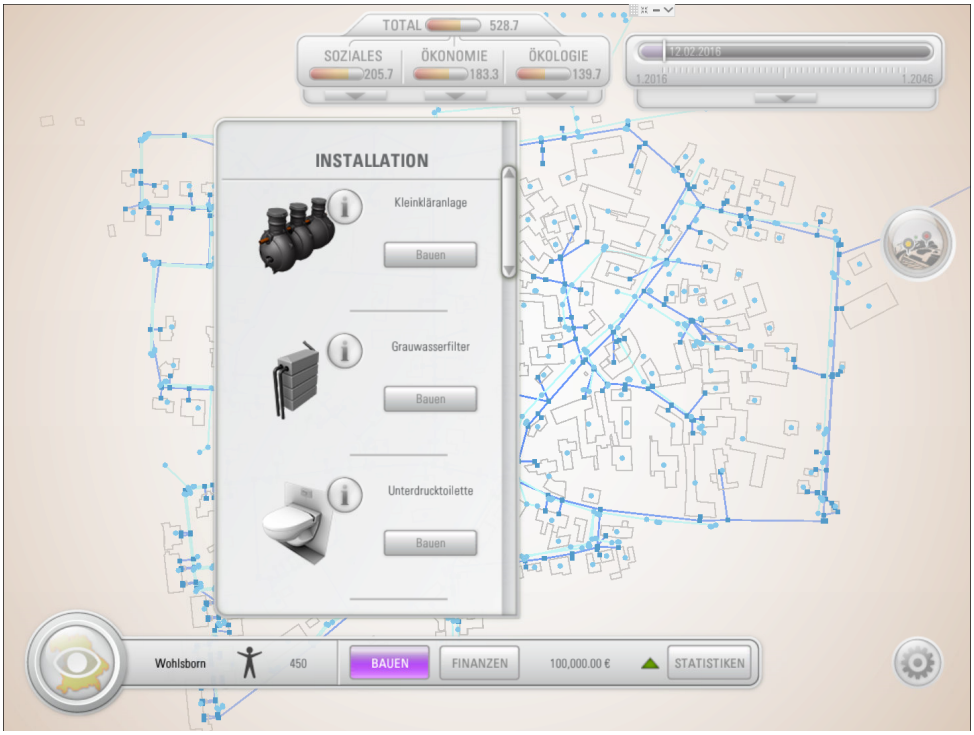


5.3 Build

Trough the build button you can open a menu where you can chose between the categories installation, buildings and transport.



When you chose a category you can see the different objects and trough the button build you can pick the specific objects.



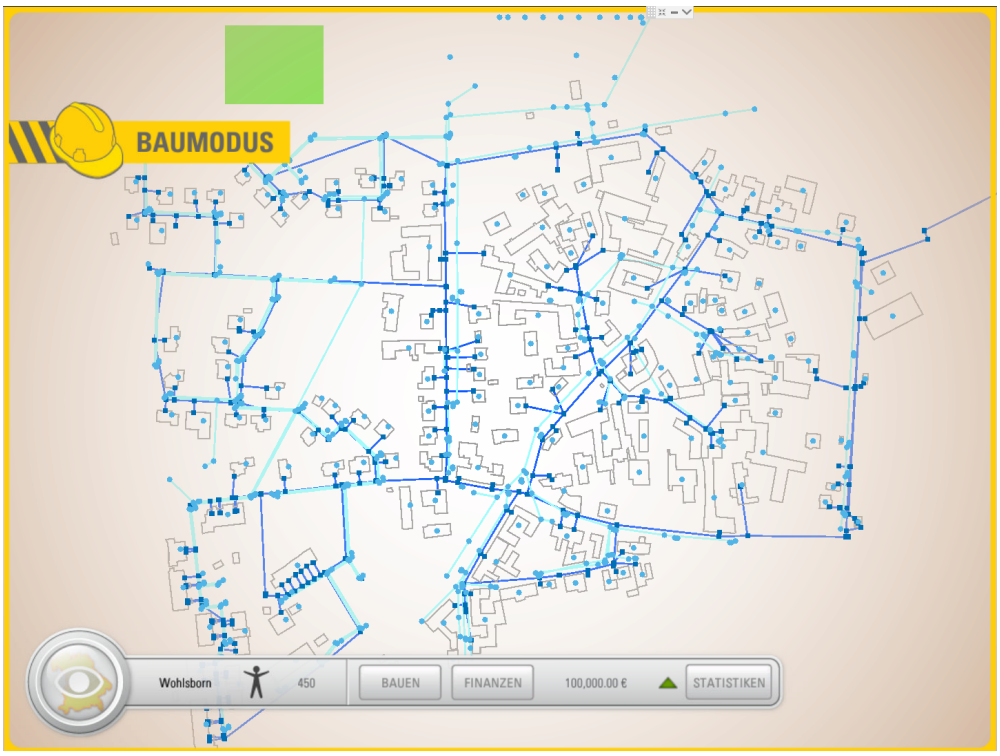
There are 3 different ways of building:

5.3.1 Build – Category: Installations

You install something in an existing building. For this click on the green outlines. You can chose and start several build assignments at the same time.

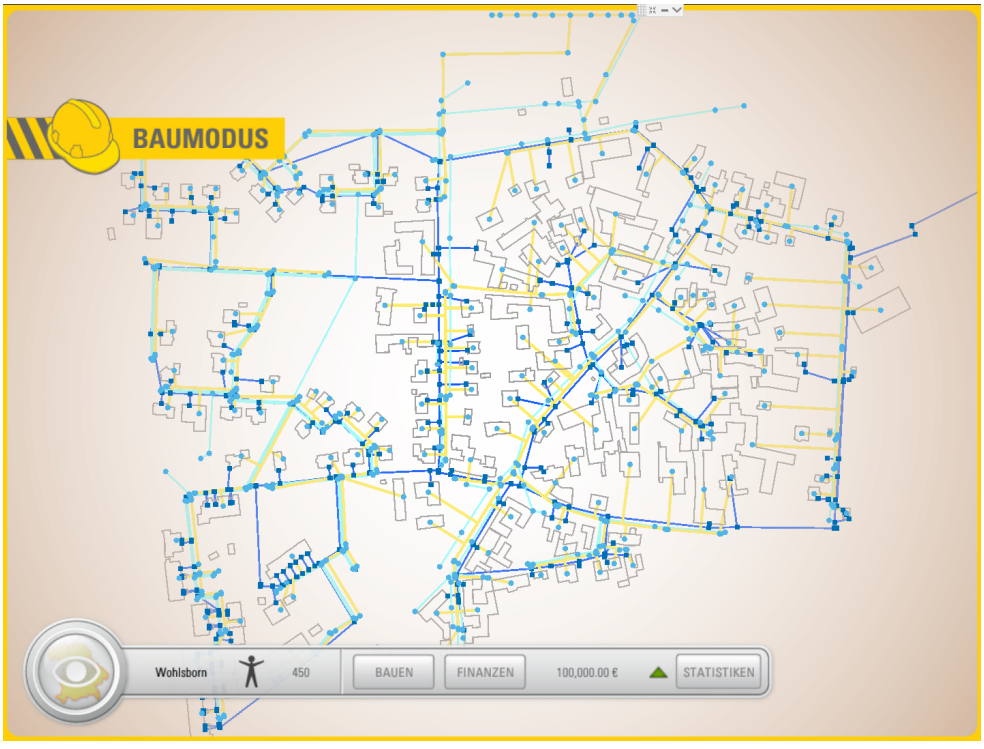
5.3.2 Build – Category: Buildings

You build a new building on a free property. For this click on the green field.



5.3.3 Build – Category: Transport

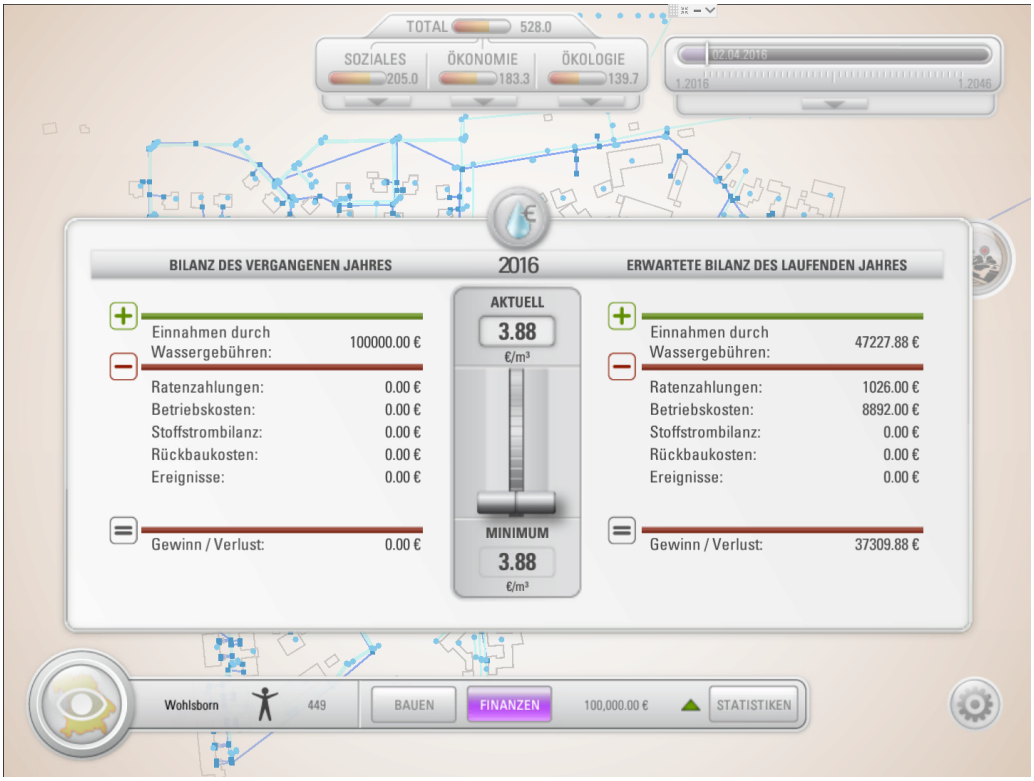
You repair or build new pipe lines. For this you click on the specific pipe line.



You can repair pipe sections automatically in the transport category so you have not to click every pipe section by yourself.

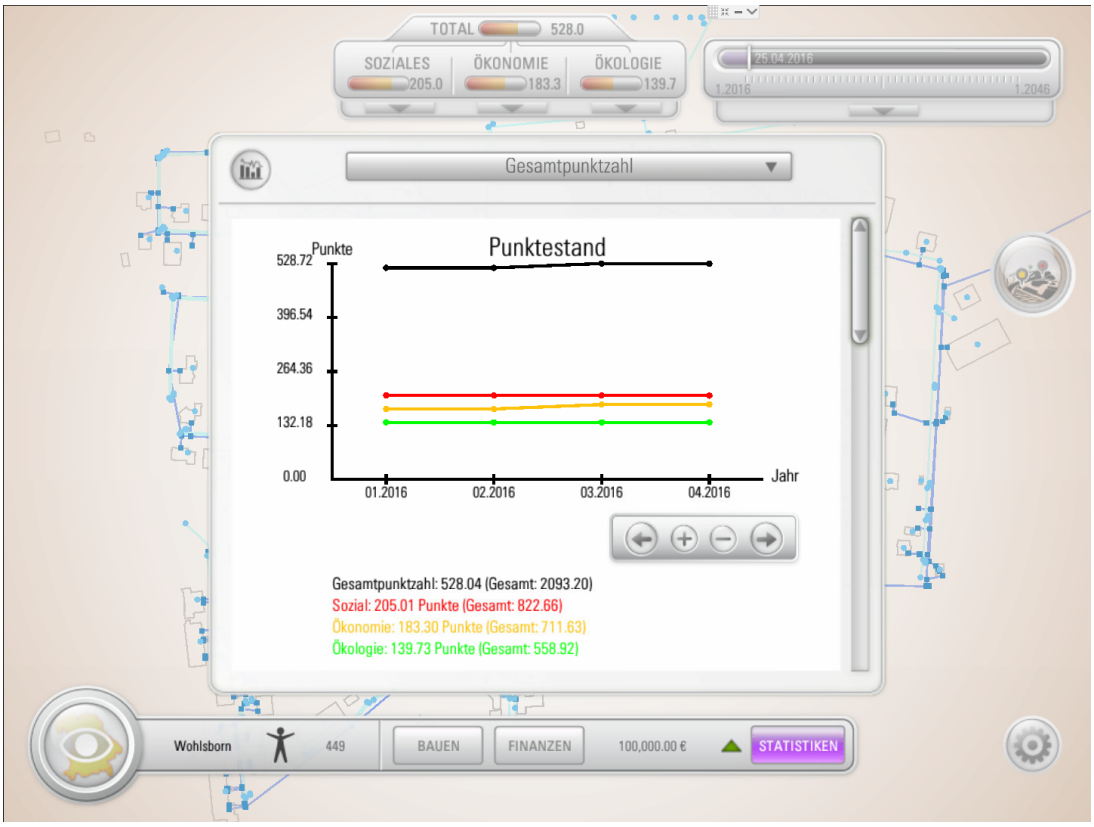
5.4 Finances

With the button finances you can get a balance sheet about your revenue and expenditure fort he past and comming years. Also you can set your water- and sewagefee in this section.



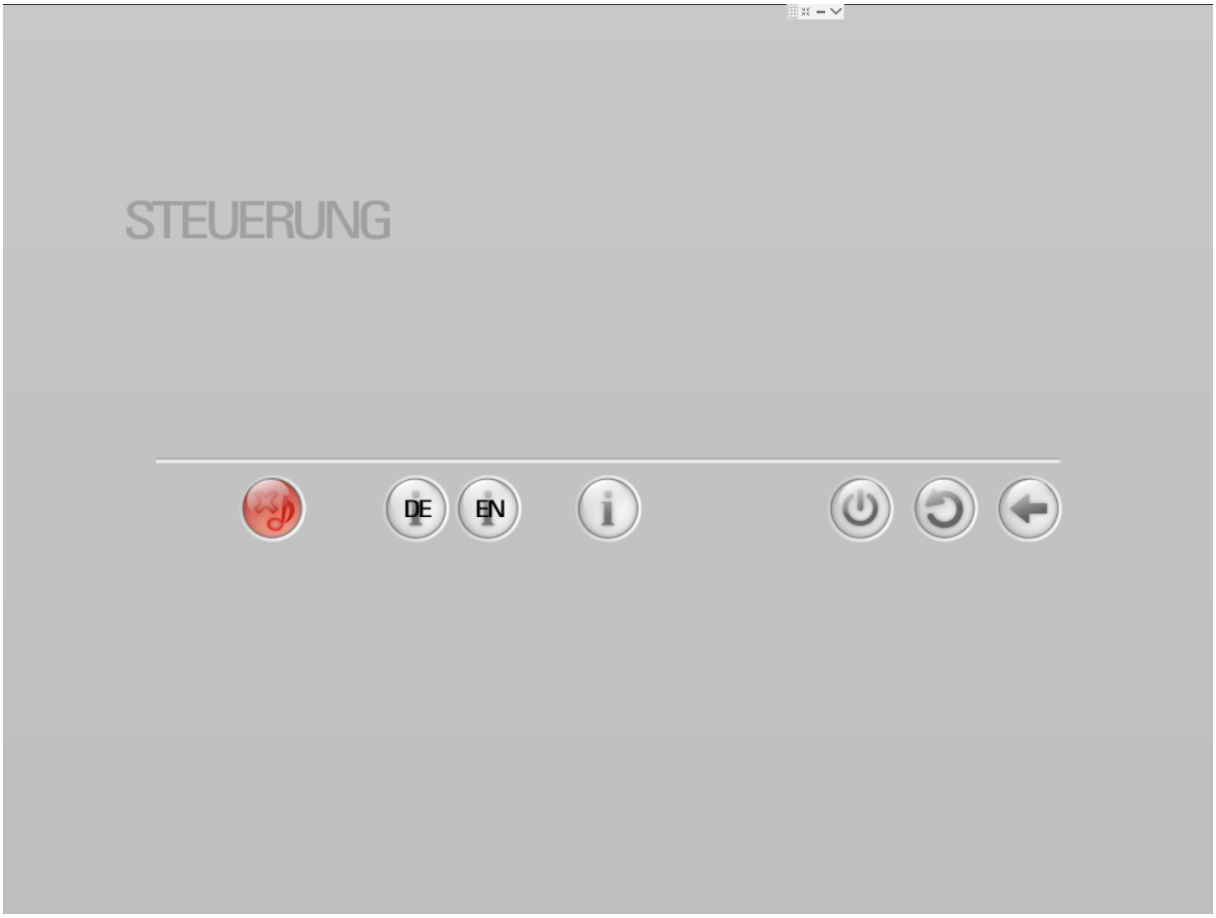
5.5 Statistics

Trough the button statistics you can see graphs for the themes score, finances, water protection and hygenie.



5.6 SETTINGS

With one click on the gear button you switch into a menu where you can turn of the volume, change the language and close the game or restart it.



Have fun planning!

Your takomat Team

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