



Fakulteta prometnih znanosti



Sveučilišta u Zagrebu



ZAGREB, 2014.

at the Faculty of Transport and Traffic Sciences



University of Zagreb





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Mjesta pohrane izvornika

- Dekanat
- Knjižnica
- Izdavačka djelatnost
- Zavodi:
 - Zavod za aeronautiku
 - Zavod za cestovni promet
 - Zavod za gradski promet
 - Zavod za informacijsko komunikacijski promet
 - Zavod za inteligentne transportne sustave
 - Zavod za poštanski promet
 - Zavod za prometno planiranje
 - Zavod za prometnu signalizaciju
 - Zavod za prometno-tehnička vještačenja
 - Zavod za transportnu logistiku
 - Zavod za vodni promet
 - Zavod za zračni promet
 - Zavod za željeznički promet
- Katedra za opće programske sadržaje

- Laboratorijske:
 - Laboratorijske:
 - Ispitni laboratorij Zavoda za prometnu signalizaciju
 - Laboratorij za aerodinamiku
 - Laboratorij za inteligentne transportne sustave
 - Laboratorij za kontrolu zračne plovidbe
 - Laboratorij za modeliranje i optimiranje informacijsko-komunikacijskih mreža i usluga
 - Laboratorij za modeliranje i simulacije u zračnom prometu / upravljanju zračnim prometom
 - Laboratorij za modeliranje i simulacije željezničkih sustava
 - Laboratorij za planiranje i modeliranje u cestovnom i gradskom prometu
 - Laboratorij za primjenjenu ergonomiju u prometu
 - Laboratorij za prometno-tehnička vještačenja
 - Laboratorij za sigurnost i forenzičku analizu informacijsko-komunikacijskog sustava
 - Laboratorij za sigurnost željezničkog prometa
 - Laboratorij za simulacije letenja
 - Laboratorij za sustav georeferenciranog videa
 - Laboratorij za zrakoplovne emisije

Storage Location of the Original

- Dean's office
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 - Department of Aeronautics
 - Department of Road Transport
 - Department of Urban Transport
 - Department of Information and Communication Traffic
 - Department of Intelligent Transport Systems
 - Department of Postal Transport
 - Department of Transport Planning
 - Department of Traffic Signalling
 - Department of Traffic Accidents Expertise
 - Department of Transport Logistics
 - Department of Water Transport
 - Department of Air Transport
 - Department of Railway Transport
 - Chair of Fundamental Courses

- Laboratories:**

 - Department of Traffic Signalling
 - Testing Laboratory
 - Aerodynamics Laboratory
 - Intelligent Transport Systems Laboratory
 - Laboratory for Control of Air Navigation
 - Laboratory for Modelling and Optimizing Information and Communication Networks and Services
 - Laboratory for Modelling and Simulation in Aviation / Air Traffic Management
 - Laboratory for Modelling and Simulation of Railway Systems
 - Laboratory for Planning and Modelling in Road and Urban Transport
 - Laboratory for Applied Ergonomics in Traffic and Transport
 - Laboratory for Traffic Accident Expertise
 - Laboratory for Security and Forensic Analysis of Information and Communication Systems
 - Laboratory for Rail Traffic Safety
 - Flight Simulation Laboratory
 - Laboratory for Georeferencing Video System
 - Laboratory for Aircraft Emissions

Predgovor

Suvremena visokoškolska nastava i znanstveni rad u tehničkom području je nezamisliv bez odgovarajuće programske podrške. Od donošenja Strategije razvoja Fakulteta prometnih znanosti za razdoblje 2012.-2017. iz siječnja 2012. postignut je značajan napredak u opremanju Fakulteta informatičkom i laboratorijskom opremom kao i odgovarajućom programskom podrškom. Na taj način ostvareni su preduvjeti za unapređenje znanstveno-istraživačke djelatnosti Fakulteta što značajno utječe i na stalno usavršavanje obrazovnog procesa na svim razinama studija, kao i na podizanje kvalitete stručnog rada.

Svrha izrade Popisnika računalnih programa je prvenstveno u informiranju studenata, posebno doktoranada, nastavnika, znanstvenika i istraživača Fakulteta o postojanju računalnih programa po zavodima čime se unapređuje planiranje i izvođenje nastavnog, istraživačkog i stručnog rada. Postojanje Popisnika omogućava analizu korištenja postojećih, kao i sustavno planiranje nabave novih računalnih programa. Uz to prikaz opremljenosti Fakulteta pojedinim računalnim programima omogućava potencijalnim partnerima iz drugih visokoškolskih i znanstveno-istraživačkih ustanova te gospodarstva bolji uvid u mogućnosti Fakulteta i služi za poticanje međusobne suradnje u radu na zajedničkim projektima.

Uz tiskani Popisnik računalnih programa, u informacijskom sustavu Fakulteta pohranjen je izvornik u digitalnom formatu koji se redovito osvježava važećim podacima.

Zahvaljujem svim kolegama koji su sudjelovali u izradi Popisnika, od koordinatora pojedinih programske paketa koji su pružili informacije o pojedinom paketu, urednicima koji su objedinili prikupljene opise, do djelatnika koji su oblikovali Popisnik i pripremili ga za tisk.

U Zagrebu, rujan 2014.

DEKAN

Prof. dr. sc. Ernest Bazijanac

Foreword

Contemporary tertiary-level teaching and scientific work in the technical field is unthinkable without appropriate software. Since the adoption of the Strategy for the Development of the Faculty of Transport and Traffic Sciences for the period from 2012-2017, in January of 2012, a considerable advancement in IT and laboratory equipment, especially in necessary software has been made. In this way preconditions for improvement of scientific and research activities of the Faculty have been realized, thus influencing permanent improvement of the educational process at all levels of study as well as raising the quality of professional work.

The purpose of this brochure is primarily to inform our students (especially doctoral students) as well as teachers, scientists and researchers about the software used in particular departments in order to improve planning and carrying out of teaching as well as research and professional work. The existence of this brochure enables analysis of the use of existing and the purchase of new software. Overview of the use of various computer programmes enables potential partners from other academic and research institutions as well as economy to see the possibilities of the Faculty and to enhance mutual cooperation on joint projects.

Besides the printed version of the Register, there is a digital form of the original version which is regularly updated.

I would like to thank all the colleagues who were participating in this project, starting with coordinators of the individual software packages that provided information on particular package, editors who gathered the collected descriptions, and finally the layout and design editors who shaped the document and prepared it for printing.

In Zagreb, September 2014

DEAN

Prof. Ernest Bazijanac, Ph.D.

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▪ Aleph	Knjižnica	str. 29



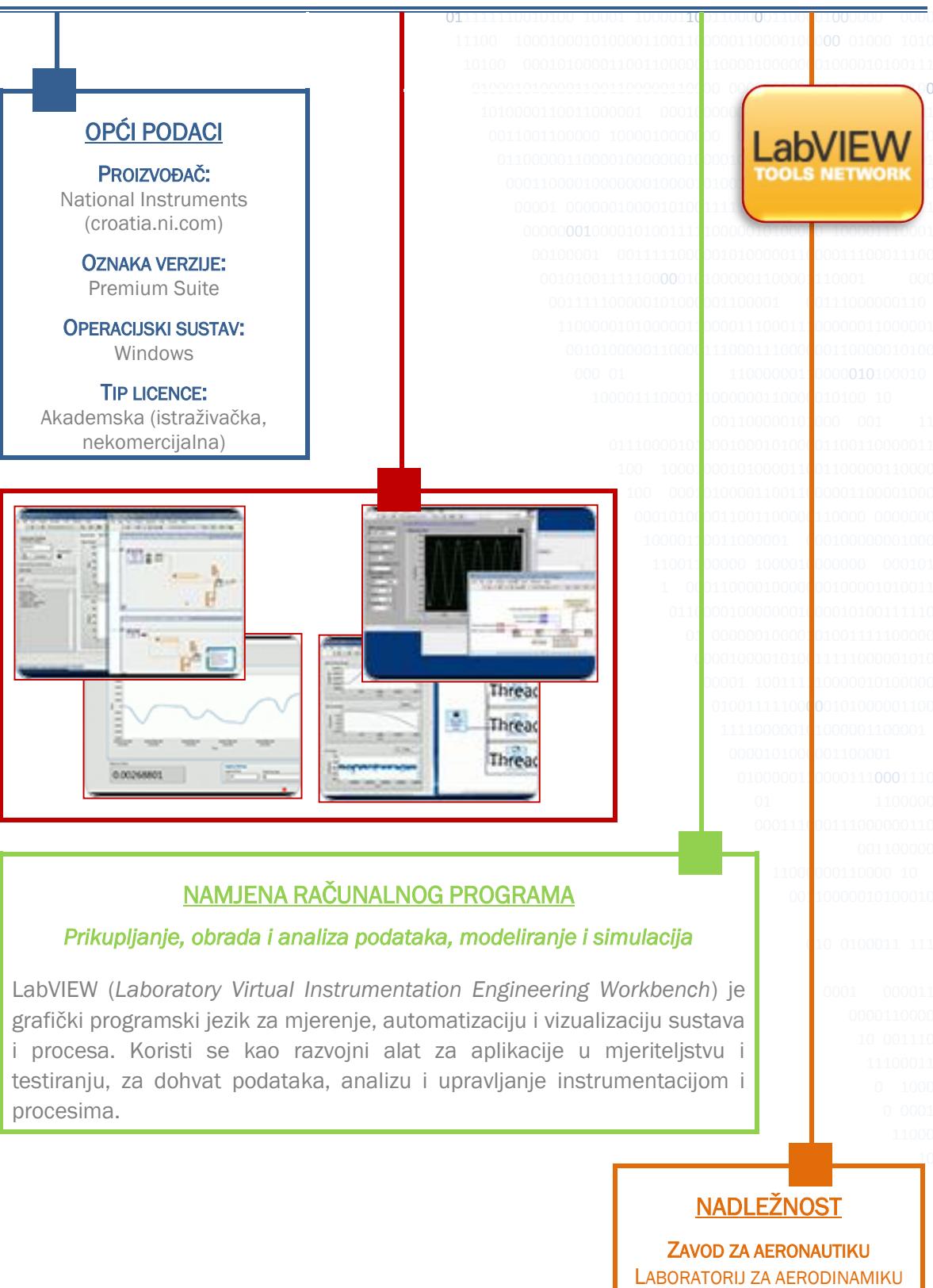
University of Zagreb

Faculty of Transport and Traffic Sciences

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LabVIEW

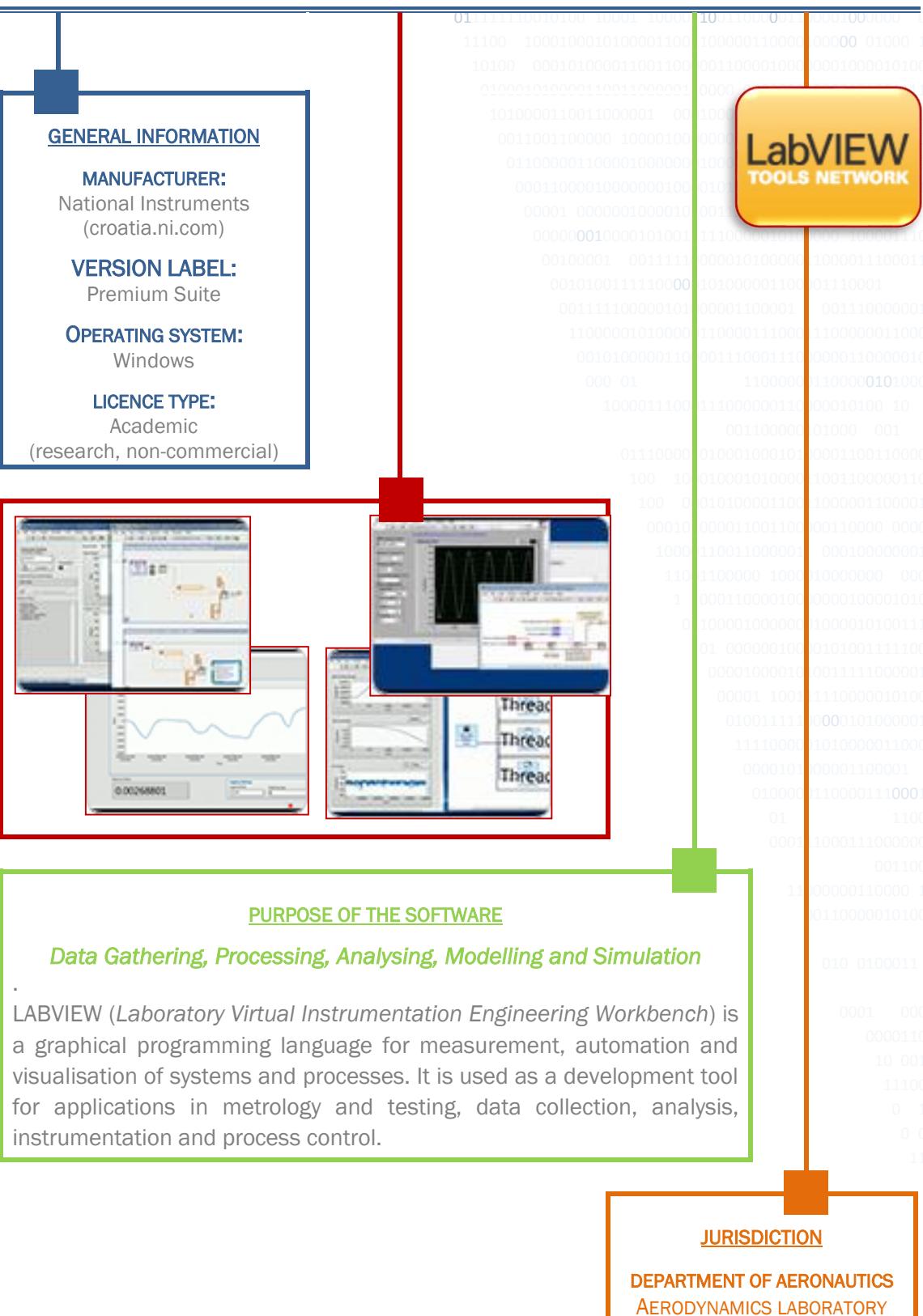




University of Zagreb

Faculty of Transport and Traffic Sciences

LabVIEW



SPSS

OPĆI PODACI

PROIZVODAČ:

BM

(www-01.ibm.com)

OZNAKA VERZIJE:

V22 Premium Faculty Pack

OPERACIJSKI SUSTAV:

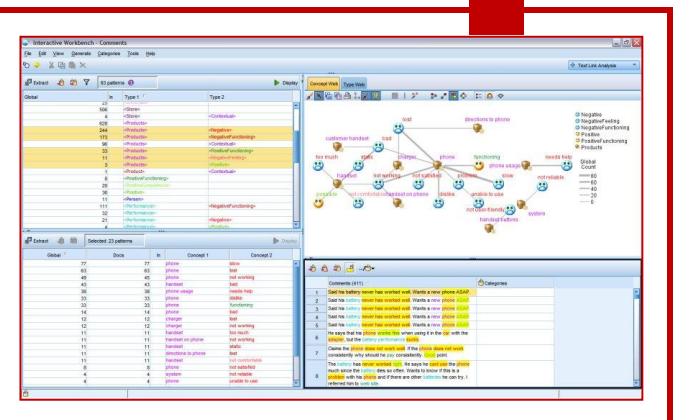
Windows

TIP LICENCE:

Akademска (istraživačка,
nekomercijalna)

SPSS software

Predictive analytics software and solutions



NAMJENA RAČUNALNOG PROGRAMA

Statistička analiza

Računalni program SPSS (*Statistical Package for the Social Sciences*) primarnu namjenu naći će u znanstveno-istraživačkim radovima u području statističke i prediktivne analize kod upravljanja zračnim prometom prilikom obrade podataka, u definiranju varijabli, za provjeru distribucije rezultata, prilikom izračuna pokazatelja deskriptivne statistike te izračuna korelacijskih i regresijskih analiza te za interpretaciju rezultata istraživanja. Program će naći primjenu i u znanstvenim istraživanjima u ostalim granama prometa.

ADLEŽNOST

ZAVOD ZA AERONAUTIKU LABORATORIJ ZA KONTROLU ZRAČNE PLOVIDBE

GENERAL INFORMATION

MANUFACTURER:

IBM

(www-01.ibm.com)

VERSION LABEL

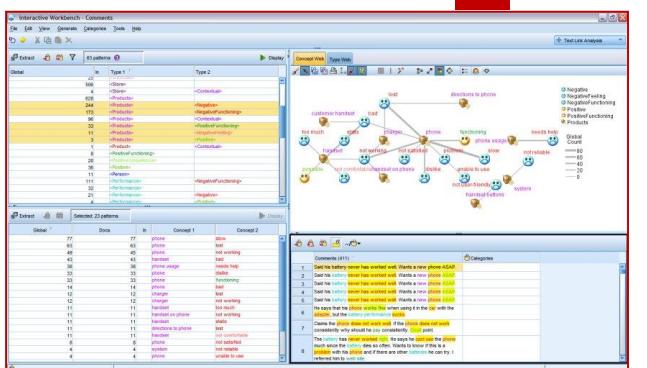
V22 Premium Faculty Pack

OPERATING SYSTEM:

Windows

LICENCE TYPE:

ELIGIBILITY TYPE:
Academic
(research, non-commercial))



PURPOSE OF THE SOFTWARE

Statistical Analysis

SPSS computer programme (*Statistical Package for the Social Sciences*) will be primarily used in scientific and research work in the field of statistic and predictive analysis in air traffic control data processing, defining variables, checking distribution of results, calculating indicators of descriptive statistics and calculation of correlation and regression analyses, and the interpretation of research results. The software will be also used in scientific research in other branches of transport.

JURISDICTION
DEPARTMENT OF AERONAUTICS
LABORATORY FOR CONTROL OF AIR
NAVIGATION

ARCADY Junction

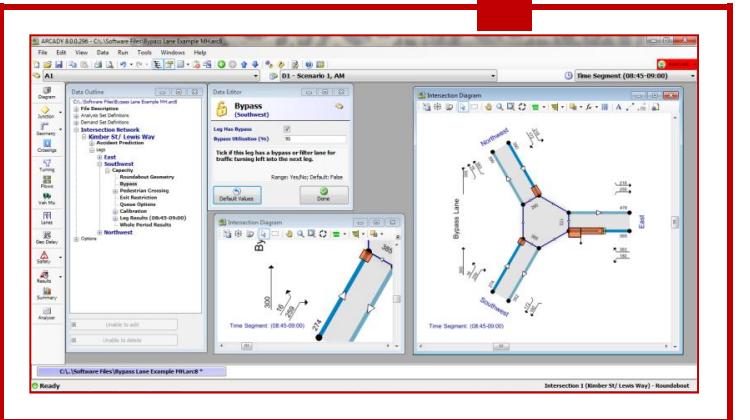
GENERAL INFORMATION

MANUFACTURER:
Transport Research Laboratory
(www.trlsoftware.co.uk)

VERSION LABEL:
8

OPERATING SYSTEM:
Windows

LICENCE TYPE:
Student



PURPOSE OF THE SOFTWARE

Modelling and Simulation of Intersections with Roundabout Traffic

ARCADY Junction is used for prediction of traffic capacity, queues, delay time (caused by queues and design elements) and the risk of accidents at intersections with roundabout traffic. ARCADY Junction can model the following: intersections with roundabout traffic, minimized intersections with roundabout traffic, connected intersections with roundabout traffic, intersections with non-level roundabout traffic, suburban intersections with roundabout traffic and intersections with roundabout traffic with pedestrian crossings.

JURISDICTION

DEPARTMENT OF ROAD TRANSPORT
LABORATORY FOR PLANNING AND
MODELLING IN ROAD AND URBAN
TRAFFIC



PTV VISUM



GENERAL INFORMATION

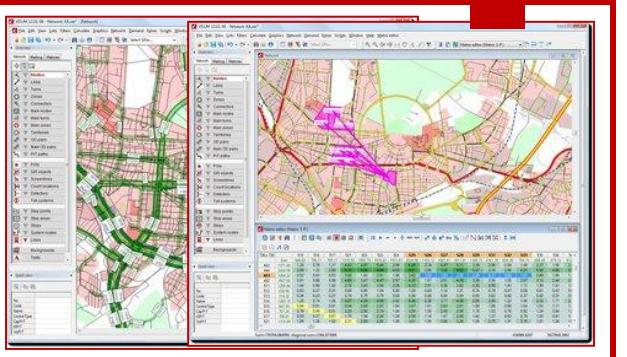
MANUFACTURER:
PTV AG
(vision-traffic.ptvgroup.com)

VERSION LABEL: 13

OPERATING SYSTEM:

Windows

LICENCE TYPE:
Commercial | Student



PURPOSE OF THE SOFTWARE

Modelling and Simulation of Multimodal Transport System

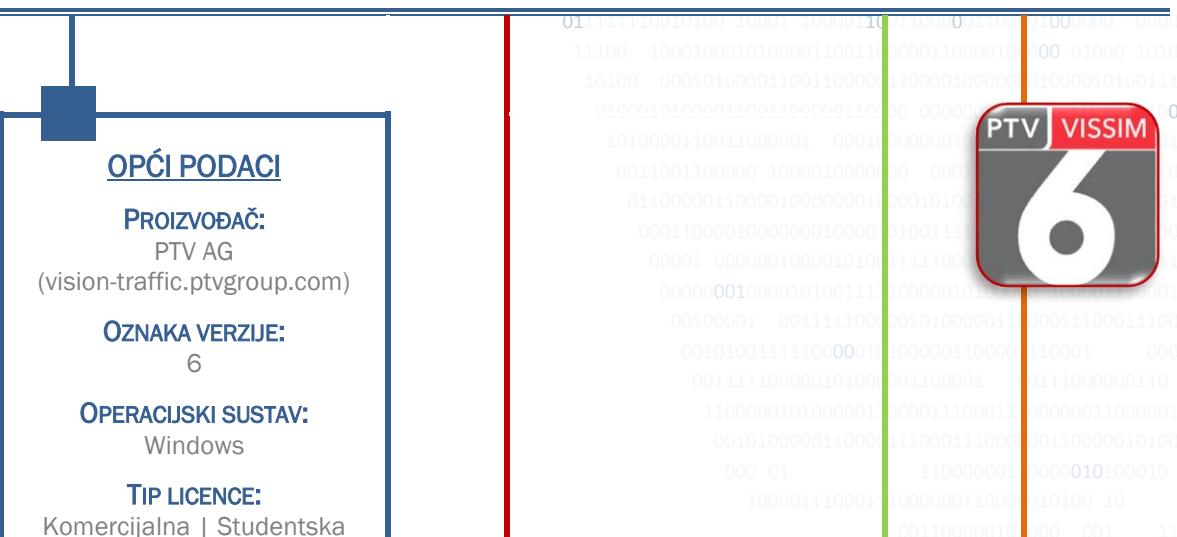
The software is used for creating multimodal transport models of a study area (city, region, country) and for strategic transport planning by evaluating the output results of a transport model. It can be used for the development of multimodal transport demand models, selection of suitable methods for assigning trips and optimization of public transport lines and road traffic flows. Apart from traffic flow analysis, it is possible to analyse external effects of traffic: noise level and gas emissions. The software also enables analysis of the economic impact of investment in transport infrastructure.

JURISDICTION

DEPARTMENT OF ROAD TRANSPORT LABORATORY FOR PLANNING AND MODELLING IN ROAD AND URBAN TRAFFIC



PTV VISSIM



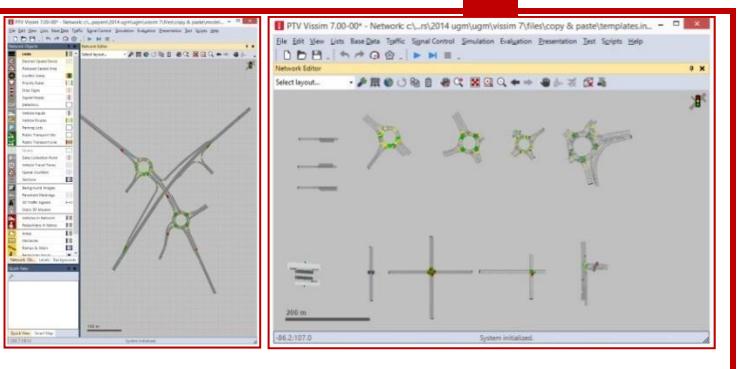
GENERAL INFORMATION

MANUFACTURER:
PTV AG
(vision-traffic.ptvgroup.com)

VERSION LABEL:
6

OPERATING SYSTEM:
Windows

LICENCE TYPE:
Commercial | Student



PURPOSE OF THE SOFTWARE

Modelling and Simulation

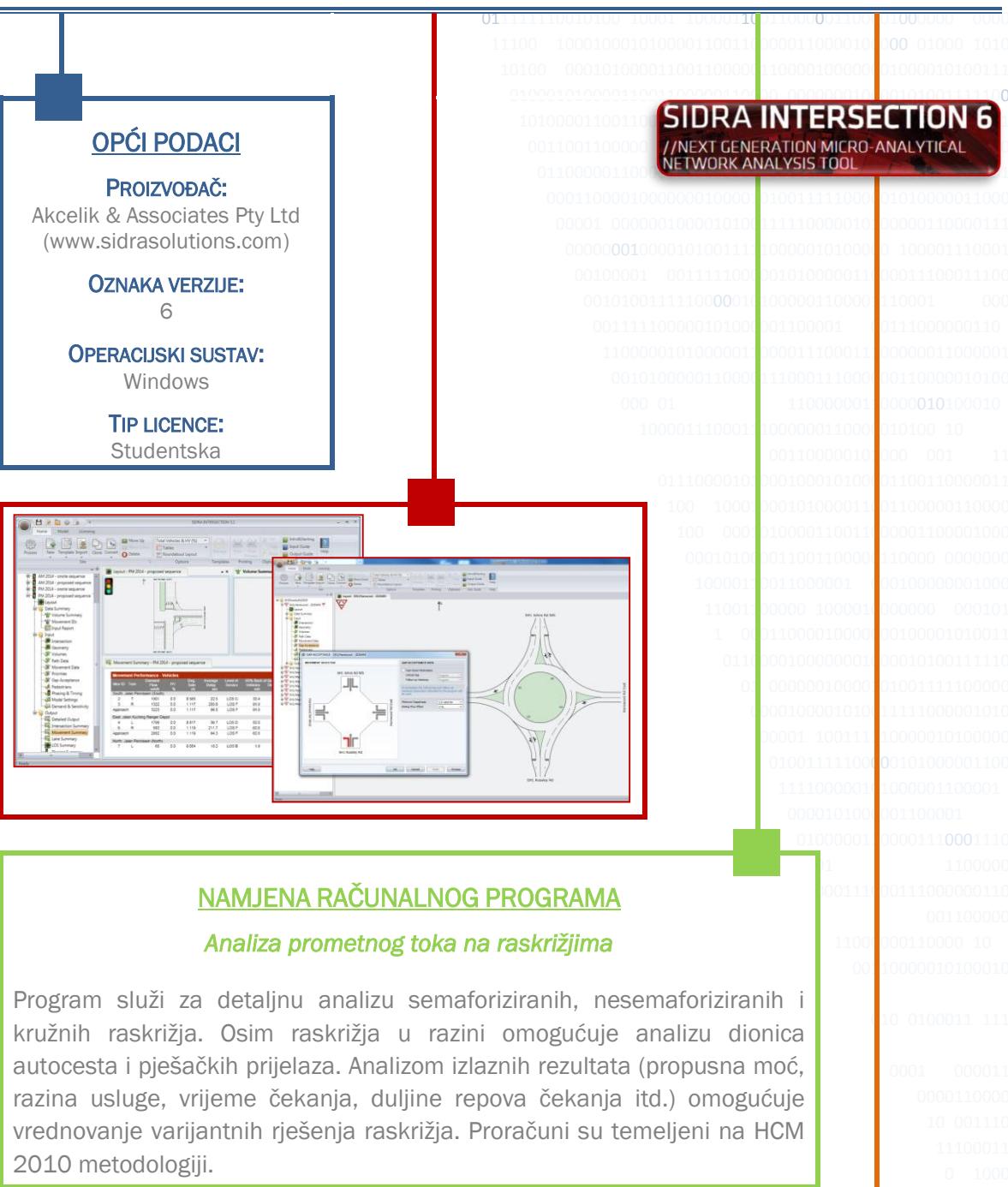
The software enables realistic and detailed simulation (2D and 3D) of traffic flows on roads and intersections. Apart from analysis of relevant parameters (capacity, level of service, queuing time) it is possible to fine tune signal timing plans at intersections. The VisVAP model is used for creating signal plans controlled by algorithms depending on traffic flows in a network and enables assigning priority to public transport vehicles. The software allows the simulation and detailed analysis of public transport as well as pedestrian flows.

JURISDICTION

**DEPARTMENT OF ROAD TRANSPORT
LABORATORY FOR PLANNING AND
MODELLING IN ROAD AND URBAN
TRAFFIC**



SIDRA INTERSECTION



ZAVOD ZA CESTOVNI PROMET
LABORATORIJ ZA PLANIRANJE I
MODELIRANJE U CESTOVNOM I
GRADSKOM PROMETU

SIDRA INTERSECTION

GENERAL INFORMATION

MANUFACTURER:

Akcelik & Associates Pty Ltd
(www.sidrasolutions.com)

VERSION LABEL:

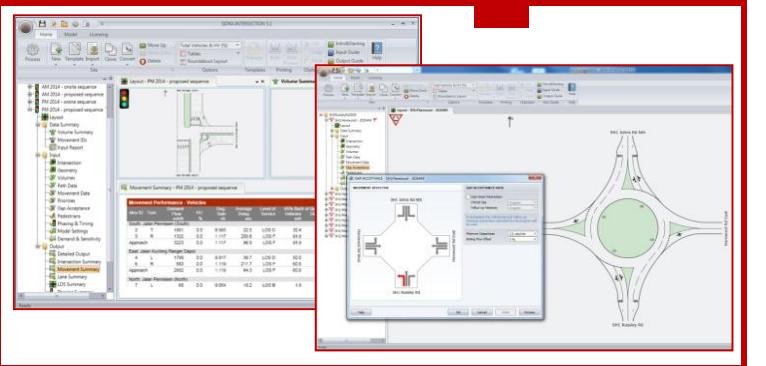
6

OPERATING SYSTEM:

Windows

LICENCE TYPE:

Student



PURPOSE OF THE SOFTWARE

Analysis of Traffic Flows at the Intersections

The software is used for detailed analysis of intersections and roundabouts. Apart from single level intersections, this software enables analysis of parts of highways and pedestrian crossings. The analysis of outcomes (throughput capacity, level of service, waiting time, length of queues, etc.) allows the evaluation of alternative solutions at intersections. Calculations are based on HCM 2010 methodology.

JURISDICTION

DEPARTMENT OF ROAD TRANSPORT
LABORATORY FOR PLANNING AND
MODELLING IN ROAD AND URBAN
TRAFFIC

AutoCAD

OPĆI PODACI

PROIZVOĐAČ:

Autodesk
(www.autodesk.com)

OZNAKA VERZIJE:

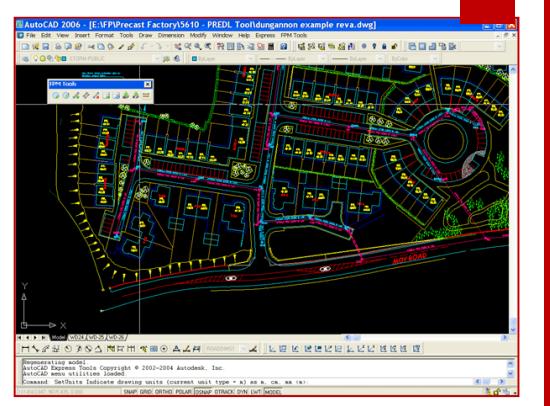
2015

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Studentska



NAMJENA RAČUNALNOG PROGRAMA

Tehničko crtanje i inženjerska grafika

AutoCAD je najpoznatiji CAD produkt za projektiranje potpomognuto računalom. Koristi se za 2D i 3D konstruiranje i tehničko crtanje opće namjene primjenjivo u svim tehničkim strukama. Može se nadograđivati raznim aplikacijama primjerenum specifičnim potrebama pojedinih grana prometa. AutoCAD nudi nove, proširene metode rada u područjima izrade koncepata, dokumentacije i dokumentiranja postojećih struktura radi lakše provjere, dokumentiranja i iznošenja projektnih zamisli uz najveću učinkovitost.

JADI FŽNOST

ZAVOD ZA CESTOVNI PROMET LABORATORIJ ZA PLANIRANJE I MODELIRANJE U CESTOVNOM I GRADSKOM PROMETU



University of Zagreb

Faculty of Transport and Traffic Sciences

AutoCAD

GENERAL INFORMATION

MANUFACTURER:

Autodesk
(www.autodesk.com)

VERSION LABEL:

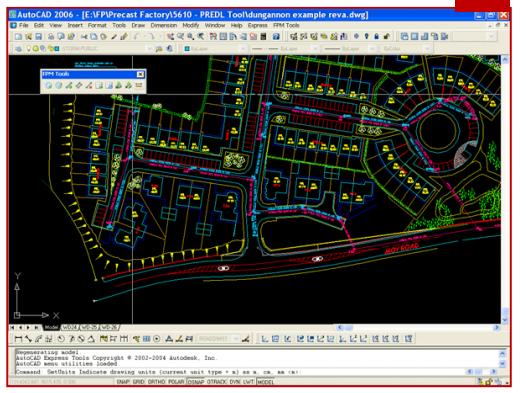
2015

OPERATING SYSTEM:

Windows

LICENCE TYPE:

Student



AUTOCAD

PURPOSE OF THE SOFTWARE

Technical Drawing and Engineering Graphics

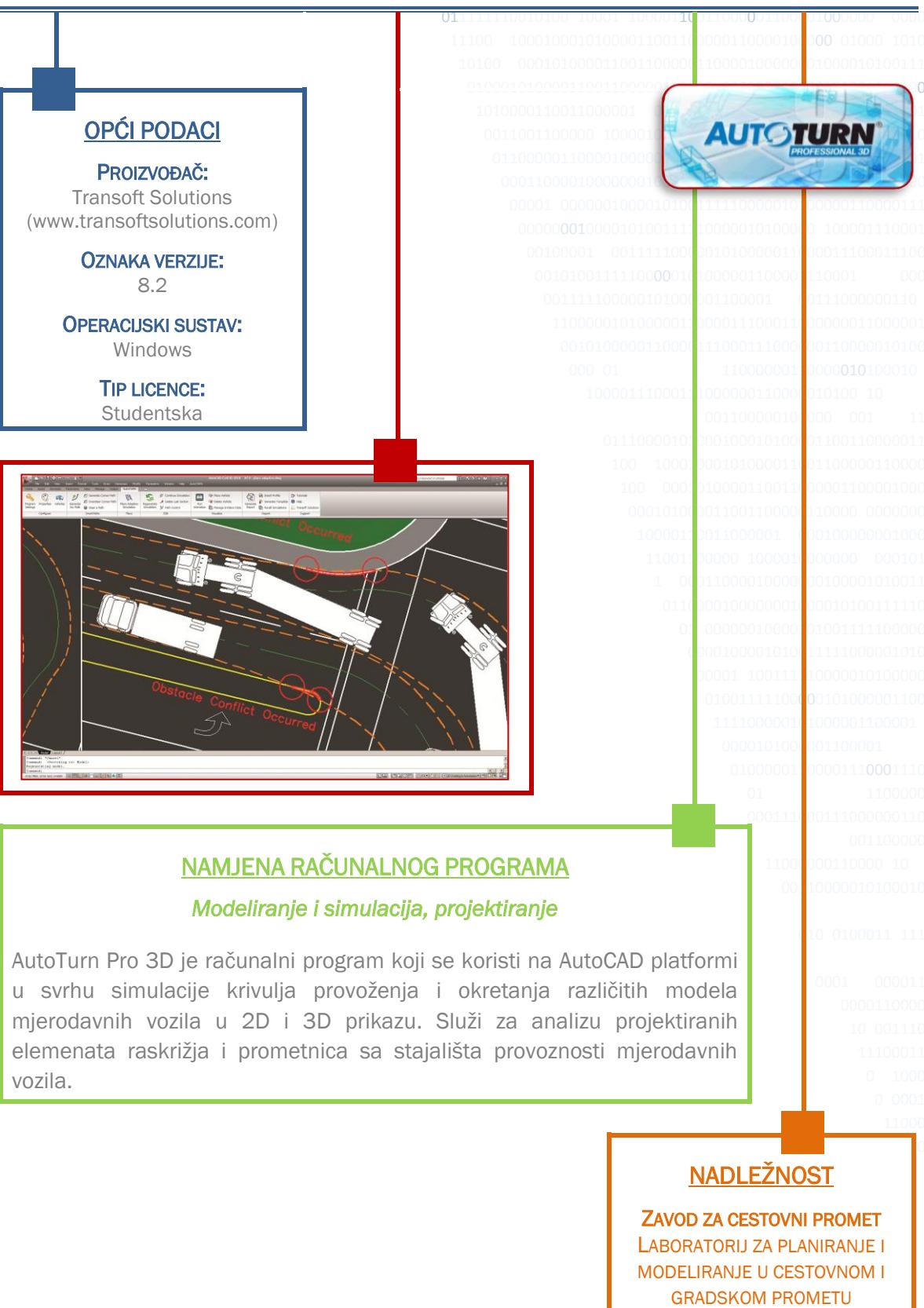
AutoCAD is the most famous CAD product for computer assisted design. It is used for 2D and 3D design and technical drawing of general purpose appropriate in all technical professions. It can be upgraded by a variety of applications appropriate to the specific needs of individual branches of transport. AutoCAD offers new and extended methods of concept production and documentation of existing structures in order to facilitate checks, efficient documentation and presentation of project ideas.

JURISDICTION

**DEPARTMENT OF ROAD TRANSPORT
LABORATORY FOR PLANNING AND
MODELLING IN ROAD AND URBAN
TRAFFIC**



AutoTURN Pro 3D

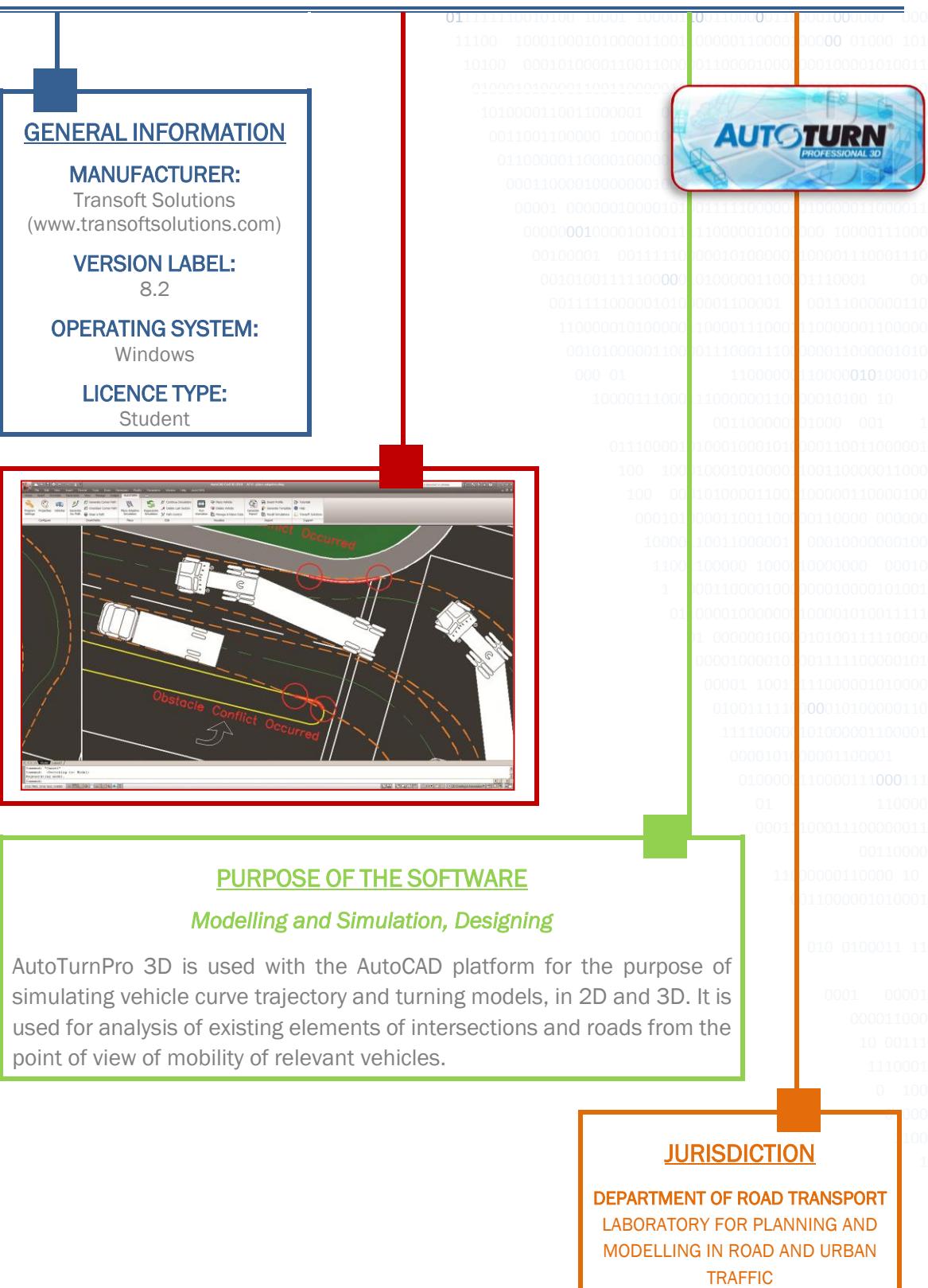




University of Zagreb

Faculty of Transport and Traffic Sciences

AutoTURN Pro 3D



Expert Choice

Expert Choice

OPĆI PODACI

PROIZVODAČ:

Expert Choice
expertchoice.com

OZNAKA VERZUE:

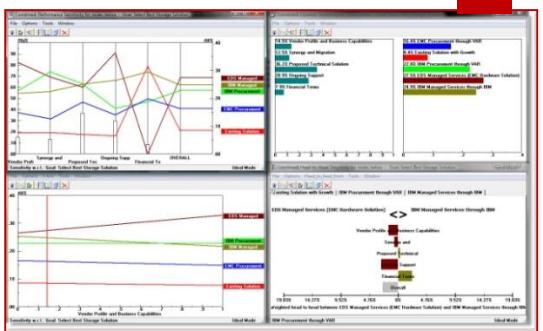
11.5

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Studentska



NAMJENA BAČIJNAI NOG PROGRAMA

Vjekriterijsko vrednovanje projekata

Programski paket Expert Choice koristi se u svrhu donošenja odluka višekriterijskim odlučivanjem. Metoda Analitičkog hijerarhijskog procesa (AHP) implementirana je u programskom paketu Expert Choice koji u potpunosti podržava sve korake karakteristične za primjenu AHP metode, omogućava strukturiranje hijerarhijskog modela problema odlučivanja te uspoređivanje kriterija, potkriterija i varijanti u parovima. Posebnu vrijednost programu daju različite mogućnosti provođenja detaljne analize osjetljivosti koje se temelje na vizualizaciji posljedica promjena ulaznih podataka.

NADLEŽNOST

ZAVOD ZA CESTOVNI PROMET ABORATORIJ ZA PLANIRANJE I MODELIRANJE U CESTOVNOM I GRADSKOM PROMETU

Expert Choice

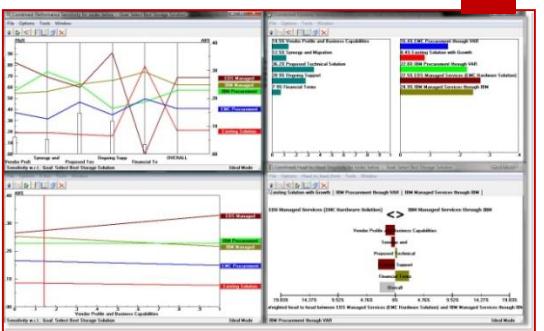
GENERAL INFORMATION

MANUFACTURER:
Expert Choice
(expertchoice.com)

VERSION LABEL: 11.5

OPERATING SYSTEM:

LICENCE TYPE:



PURPOSE OF THE SOFTWARE

Multicriteria Evaluation of Projects

The Expert Choice software package is used for multicriteria decision making. The Analytic Hierarchy Process (AHP) method is implemented in the package which supports all steps characteristic for the use of the method. This software enables structuring of hierarchy model of decision making and comparison of criteria, subcriteria and variants in pairs. The software's particular value lies in possibilities of a detailed sensitivity analysis based on the visualization of the consequences of input changes.

JURISDICTION

**DEPARTMENT OF ROAD
TRANSPORT
LABORATORY FOR PLANNING AND
MODELLING IN ROAD AND URBAN
TRAFFIC**

SimWalk Transport

OPĆI PODACI

PROIZVODAČ:

Savannah Simulations AG
(www.simwalk.com)

OZNAKA VERZUE:

4.2.2.1586

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Akademска (istraživačка, nekomercijalna)



SIMWALK

NAM IFNA RAČUNAI NOG PROGRAMA

Modeliranje i simulacija

Program služi za izradu simulacija u pješačkom prometu. Pomoći ovog programa omogućava se kvalitetnije planiranje, povećava se učinkovitost i sigurnost pješaka na terminalima (autobusni, željeznički, podzemne željeznice i slično). Program omogućava izradu 2D i 3D prikaza prema stvarnim parametrima iz realnog okruženja.

NADLEŽNOST

ZAVOD ZA GRADSKI PROMET LABORATORIJ ZA PLANIRANJE I MODELIRANJE U CESTOVNOM I GRADSKOM PROMETU

SimWalk Transport

GENERAL INFORMATION

MANUFACTURER:

Savannah Simulations AG
(www.simwalk.com)

VERSION LABEL:

4.2.2.1586

OPERATING SYSTEM:

Windows

LICENCE TYPE:
ACADEMIC
(research, non-commercial)



PURPOSE OF THE SOFTWARE

Modelling and Simulation

The software is used for designing simulations in pedestrian traffic. It facilitates better planning, efficiency and safety of pedestrian traffic in terminals (bus, railway, subway terminals etc.) The software supports 2D and 3D view of actual parameters in the environment.

JURISDICTION

DEPARTMENT OF ROAD
TRANSPORT
LABORATORY FOR PLANNING
MODELLING IN ROAD AND
URBAN TRAFFIC

OPNET Modeler

OPĆI PODACI

PROIZVOĐAČ:

Riverbed

(www.riverbed.com)

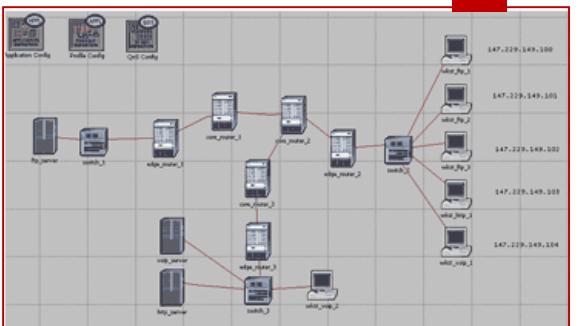
OZNAKA VERZIJE:

17.5

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:



NAMJENA RAČUNALNOG PROGRAMA

Modeliranje i simulacija podatkovnog prometa u mrežama

Računalni program za napredno modeliranje i simuliranje informacijsko komunikacijskih mreža. Omogućava simulacije diskretnih događaja te nudi velik broj protokola kod žičnih/bežičnih mreža i modela komunikacijskih uređaja raznih proizvođača s izvornim kodom, integrirano grafičko korisničko sučelje za otkrivanje i analizu pogrešaka, otvoreno sučelje za integraciju vanjskih datoteka, objekata, biblioteka i drugih simulatora.

JADLEŽNOST

ZAVOD ZA INFORMACIJSKO
KOMUNIKACIJSKI PROMET
LABORATORIJ ZA MODELIRANJE I
OPTIMIRANJE INFORMACIJSKO-
KOMUNIKACIJSKIH MREŽA I
USLUGA

OPNET Modeler

GENERAL INFORMATION

MANUFACTURER:

Riverbed

(www.riverbed.com)

VERSION LABEL:

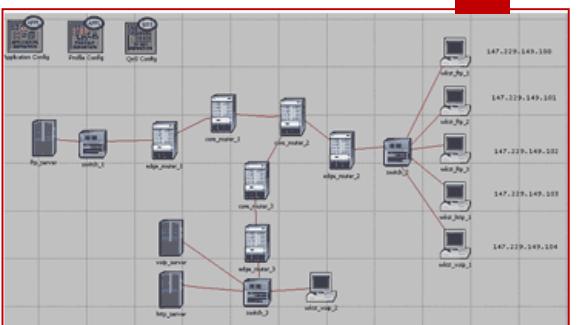
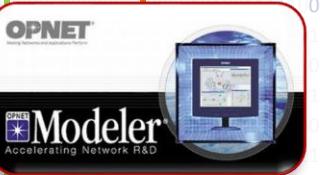
17.5

OPERATING SYSTEM:

Windows

LICENCE TYPE:

Academic (research, non-commercial)



PURPOSE OF THE SOFTWARE

Modelling and Simulation of Data Traffic in Networks

This is a programme for advanced modelling and simulation of information and communications networks. It enables simulation of discrete events and offers a large number of protocols in wired/wireless networks and models of communication devices across various manufacturers, including native code, integrated graphical user interface for detection and analysis of errors, an open interface for integration of external files, facilities, libraries and other simulators.

JURISDICTION

**DEPARTMENT OF INFORMATION
AND COMMUNICATION TRAFFIC
LABORATORY FOR MODELLING AND
OPTIMIZING OF INFORMATION AND
COMMUNICATION NETWORKS
AND SERVICES**

BCX Phone System

OPĆI PODACI

PROIZVOĐAČ:

3CX

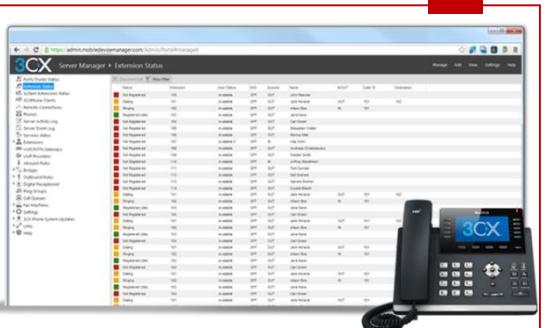
(www.Sex.com)

SAVE

OPERACUSKI SUSTAVI

Windows

TIP LICENCE:



NAMJENA BAČI U NAI NOG PROGRAMA

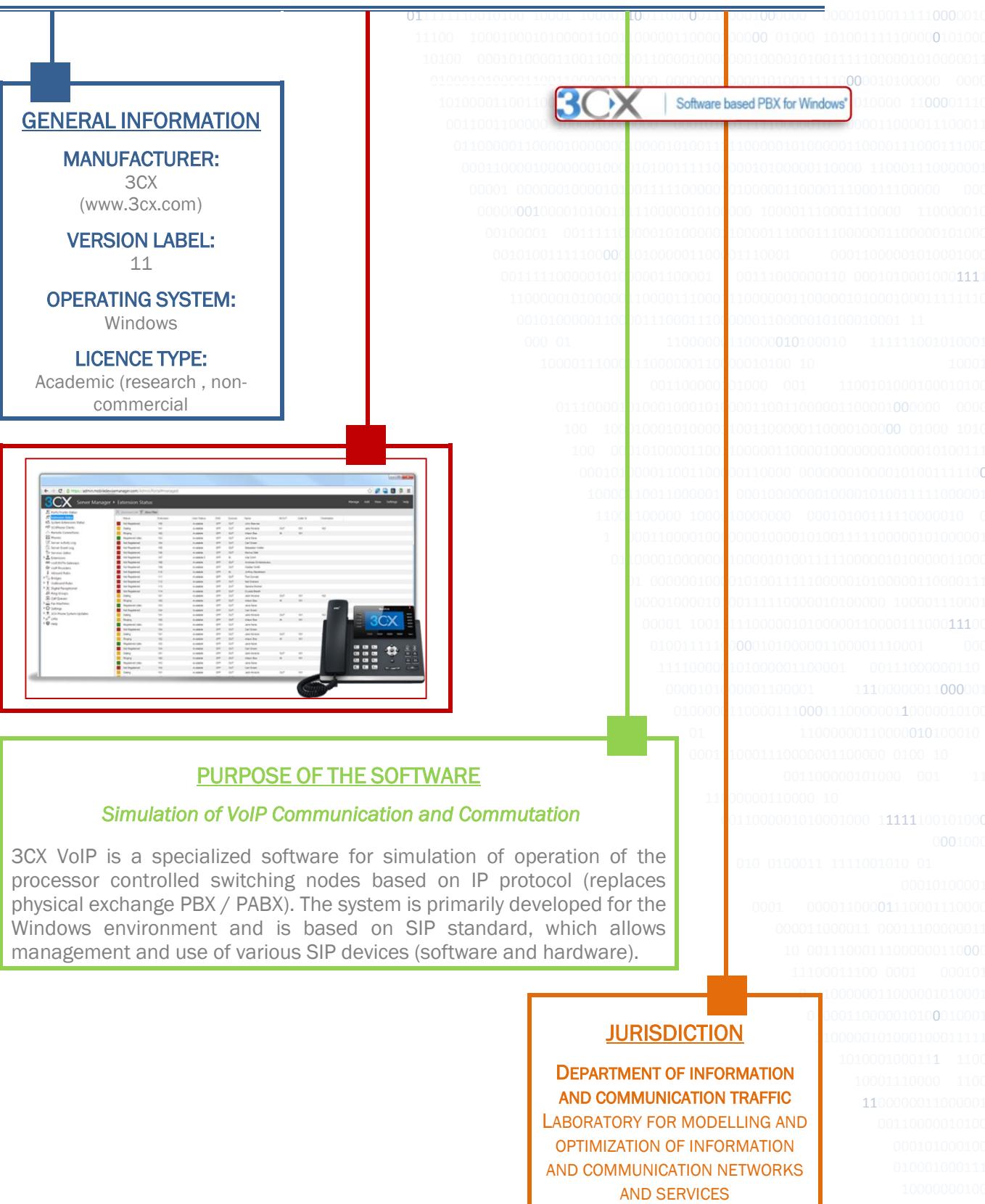
Simulacija VoIP komunikacije i komutacije

3CX VoIP je specijalizirani računalni program za simulaciju rada procesorski upravljanog komutacijskog čvorišta zasnovanog na IP protokolu (zamjenjuje fizičku PBX/PABX centralu). Sustav je prvenstveno razvijen za Windows okruženje i temelji se na SIP standardu, što omogućuje upravljanje i korištenje raznih SIP uređaja (programskih i sklopovskih).

NADÍ FŽNOST

ZAVOD ZA INFORMACIJSKO KOMUNIKACIJSKI PROMET BORATORIJ ZA MODELIRANJE I OPTIMIRANJE INFORMACIJSKO- KOMUNIKACIJSKIH MREŽA I USLUGA

BCX Phone System



OPĆI PODACI

PROIZVOĐAČ:

ESRI

(www.esri.com)

VERZEIHL

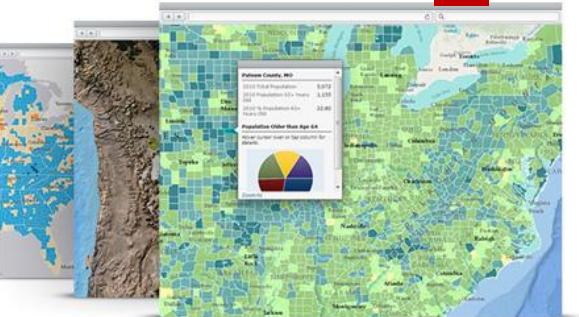
10.1

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Akademска (istraživačka,
nekomercijalna)



NAM IFNA RAČIJNAI NOG PROGRAMA

Modeliranje i analiza geoprostornih podataka

ArcGIS je računalni program za stvaranje, upravljanje, integraciju, analizu i distribuciju geoprostornih podataka. Program omogućuje projektiranje konceptualnih modela geoprostornih baza podataka i njihovu implementaciju. Opsežan je GIS programski sustav s primjenom i u tehnologiji prometa i transporta.

NADLEŽNOST

ZAVOD ZA INTELIGENTNE

TRANSPORTNE SUSTAVE

LABORATORIJ ZA INTELIGENTNE TRANSPORTNE SUSTAVE



University of Zagreb

Faculty of Transport and Traffic Sciences

GENERAL INFORMATION

MANUFACTURER:

ESRI

(www.esri.com)

VERSION LABEL:

10.1

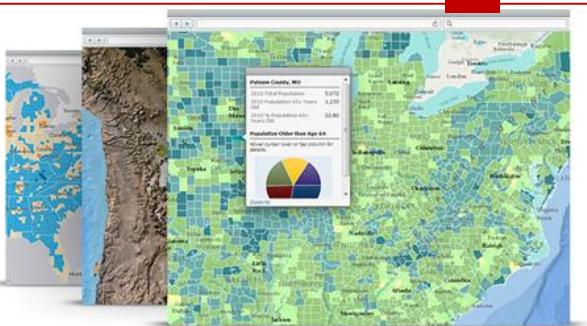
OPERATING SYSTEM:

Windows

LICENCE TYPE:

Academic

(research, non-commercial)



ArcGIS

PURPOSE OF THE SOFTWARE

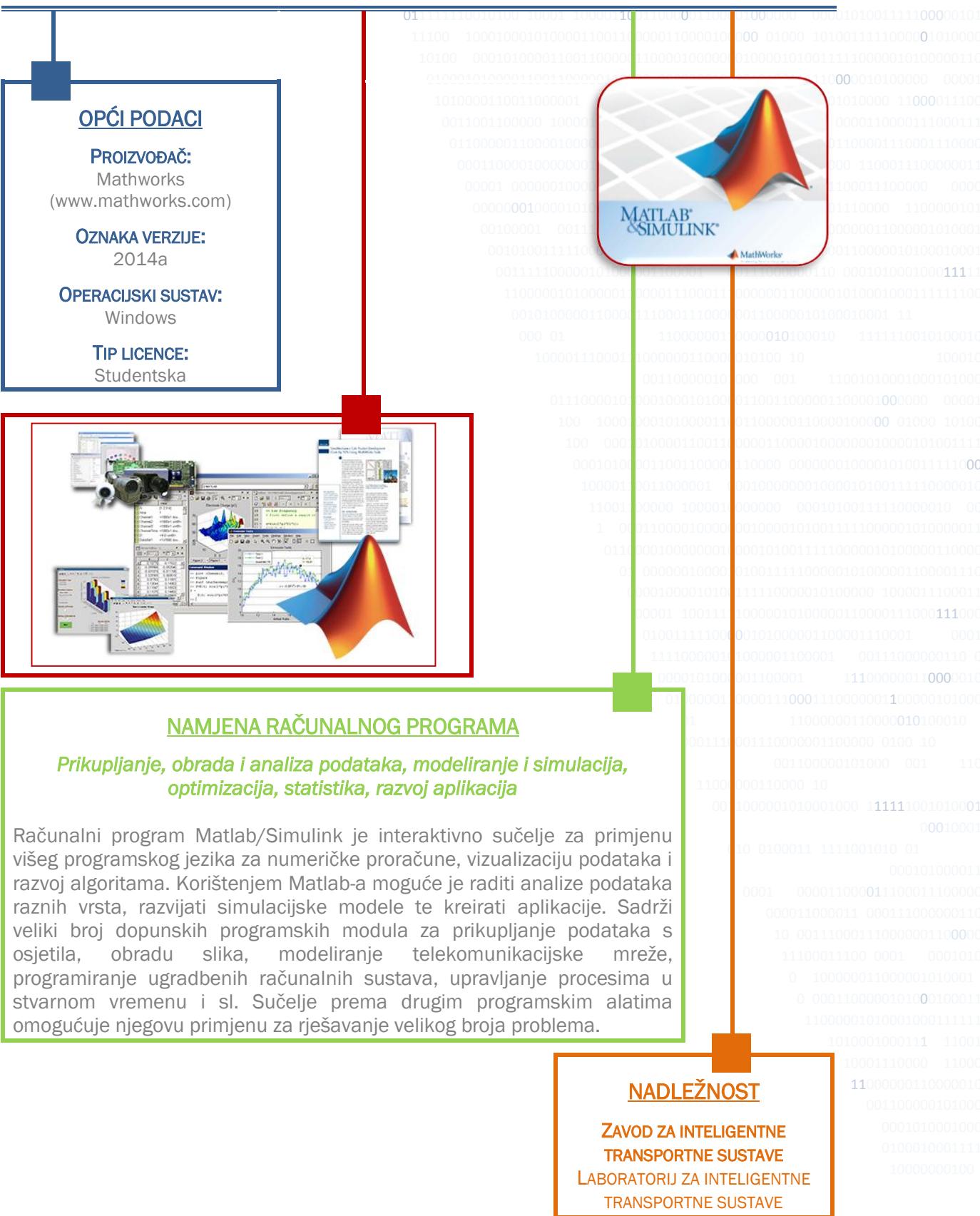
Modelling and Analysis of Geospatial Data

ArcGIS is a software programme for the creation, management, integration, analysis and distribution of geospatial data. The programme enables design of concept models of geospatial databases and their implementation. It is a comprehensive GIS software which can be applied in all areas of traffic and transport technology.

JURISDICTION

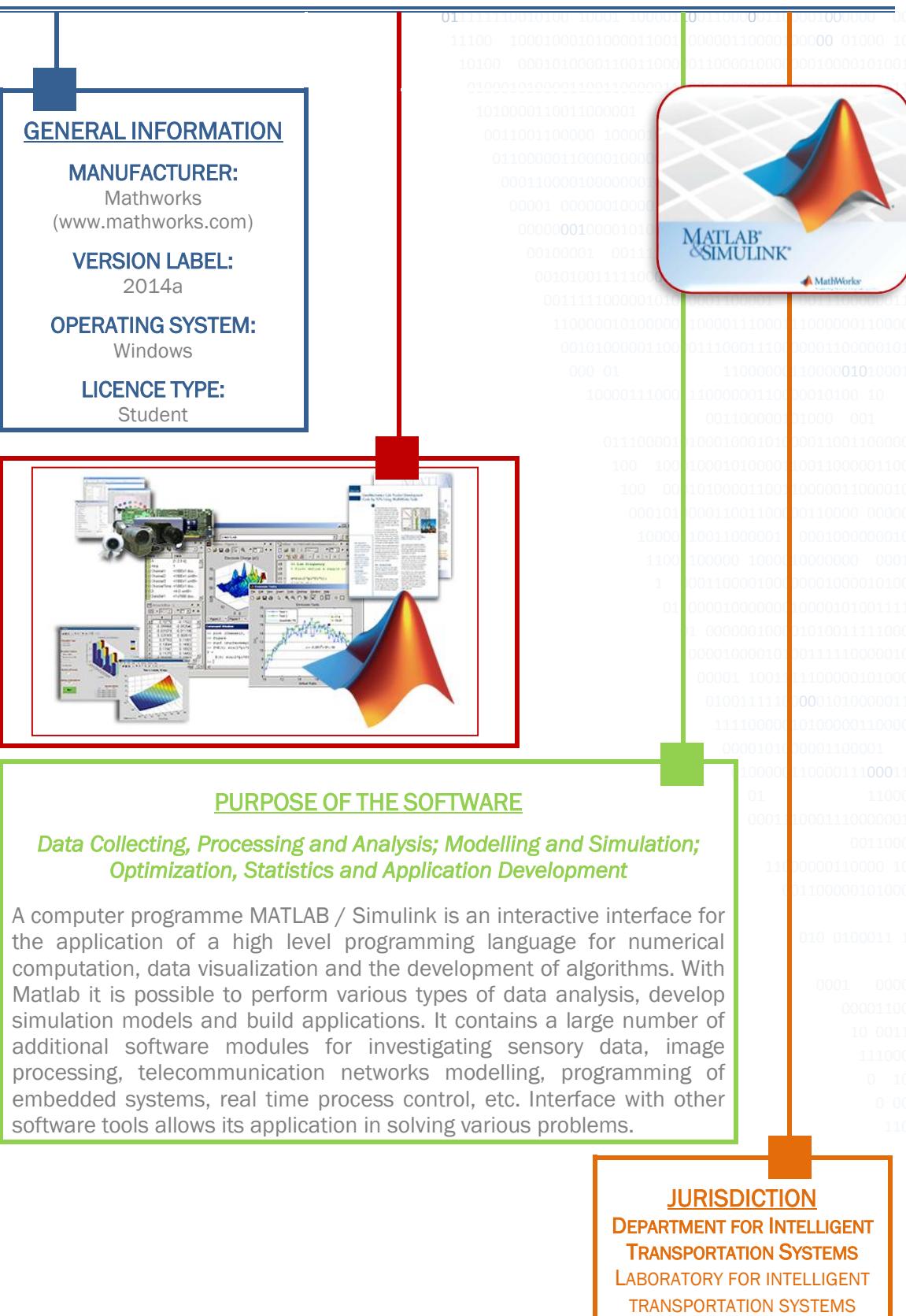
**DEPARTMENT OF INTELLIGENT
TRANSPORTATION SYSTEMS
INTELLIGENT TRANSPORTATION
SYSTEMS LABORATORY**

Matlab/Simulink





Matlab/Simulink



PC Crash

OPĆI PODACI

PROIZVOĐAČ:

Dr. Steffan Datentechnik GmbH
DSD
(www.dsda.at)

OZNAKA VERZIJE:

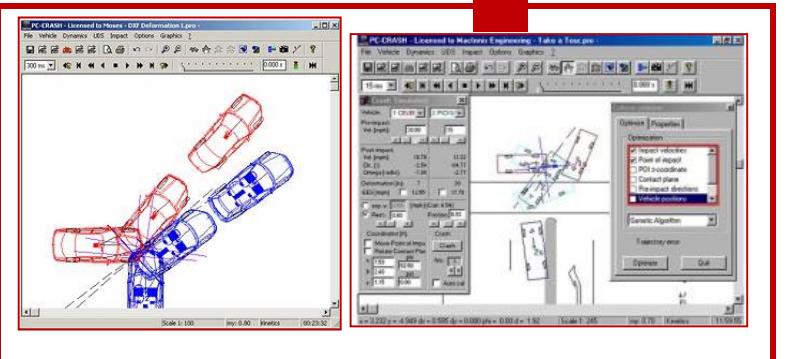
9.1

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Akademска (istraživačка,
nekomercijalna)



NAMJENA RAČUNALNOG PROGRAMA

Modeliranje i simulacija

Program omogućava simulaciju u 2D i 3D formatu iz različitih kutova pa tako i iz perspektive vozača. Program služi za simulaciju prometnih nesreća u cestovnom prometu te omogućava preciznu analizu sudara motornih vozila i drugih čimbenika. Na temelju unesenih vrijednosti program automatski izračunava sve parametre u sudaru, a na temelju oštećenja na vozilima moguće je dobiti vrijednosti i o utrošenoj energiji u sudaru. Posjeduje bazu podataka od nekoliko tisuća vozila te simulira i kretanje pješaka ili vozača u trenutku sudara.

[NADÍEČNOST](#)

ZAVOD ZA PROMETNO-TEHNIČKA
VJEŠTAČENJA
LABORATORIJ ZA PROMETNO-
TEHNIČKA VJEŠTAČENJA

PC Crash

GENERAL INFORMATION

MANUFACTURER:

Dr. Steffan Datentechnik GmbH
DSD
(www.dsda.at)

VERSION LABEL:

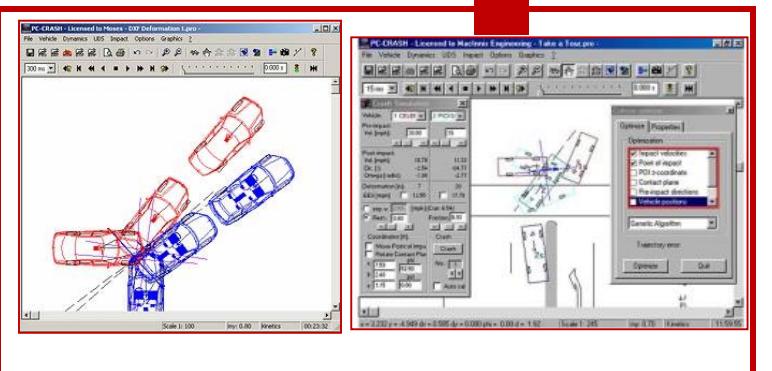
9.1

OPERATING SYSTEM:

Windows

LICENCE TYPE:

Academic
(research, non-commercial)



PURPOSE OF THE SOFTWARE

Modelling and Simulation

The software allows 2D and 3D simulation from different angles as well as from the driver's perspective. The programme is used for simulation of traffic accidents in road transport and allows accurate motor vehicle collision and other factors analysis. Based on input values, the software automatically calculates all the parameters of collision, and based on vehicles' damages it is possible to find out values of energy consumption of the collision. It contains a database with several thousand vehicles and also simulates movement of pedestrians or drivers in the moment of collision.

JURISDICTION

**DEPARTMENT OF TRAFFIC
ACCIDENT EXPERTISE
LABORATORY FOR TRAFFIC
ACCIDENTS EXPERTISE**



ARENA

OPĆI PODACI

PROIZVOĐAČ:

Rockwell Automation
www.arenasimulation.com

OZNAKA VERZUE:

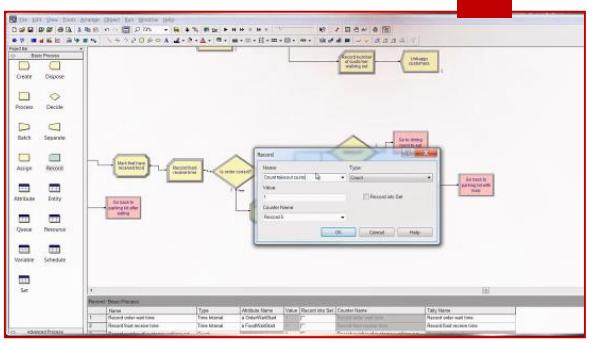
Edu Lab Pkg Ent Suite Edn 1 s

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Akademска (istraživačка,
nekomercijalna)



NAM JENA RAČIJNAI NOG PROGRAMA

Modeliranje i simulacija- optimizacija

Arena je simulacijski računalni program za diskretnu simulaciju i automatizaciju koji koristi jezik SIMAN. Opisuje promjene stanja koje se odvijaju diskontinuirano u vremenu. Koristi se u modeliranju raznovrsnih sustava i procesa te mjerenu utjecaja procesa na performanse sustava. Rezultati se mogu prikazati korištenjem 2D ili 3D animacije. Omogućava analizu performansi sustava temeljem kriterija: troška, propusnosti, ciklusa puta i opterećenja.

NADLEŽNOST

ZAVOD ZA TRANSPORTNU LOGISTIKU

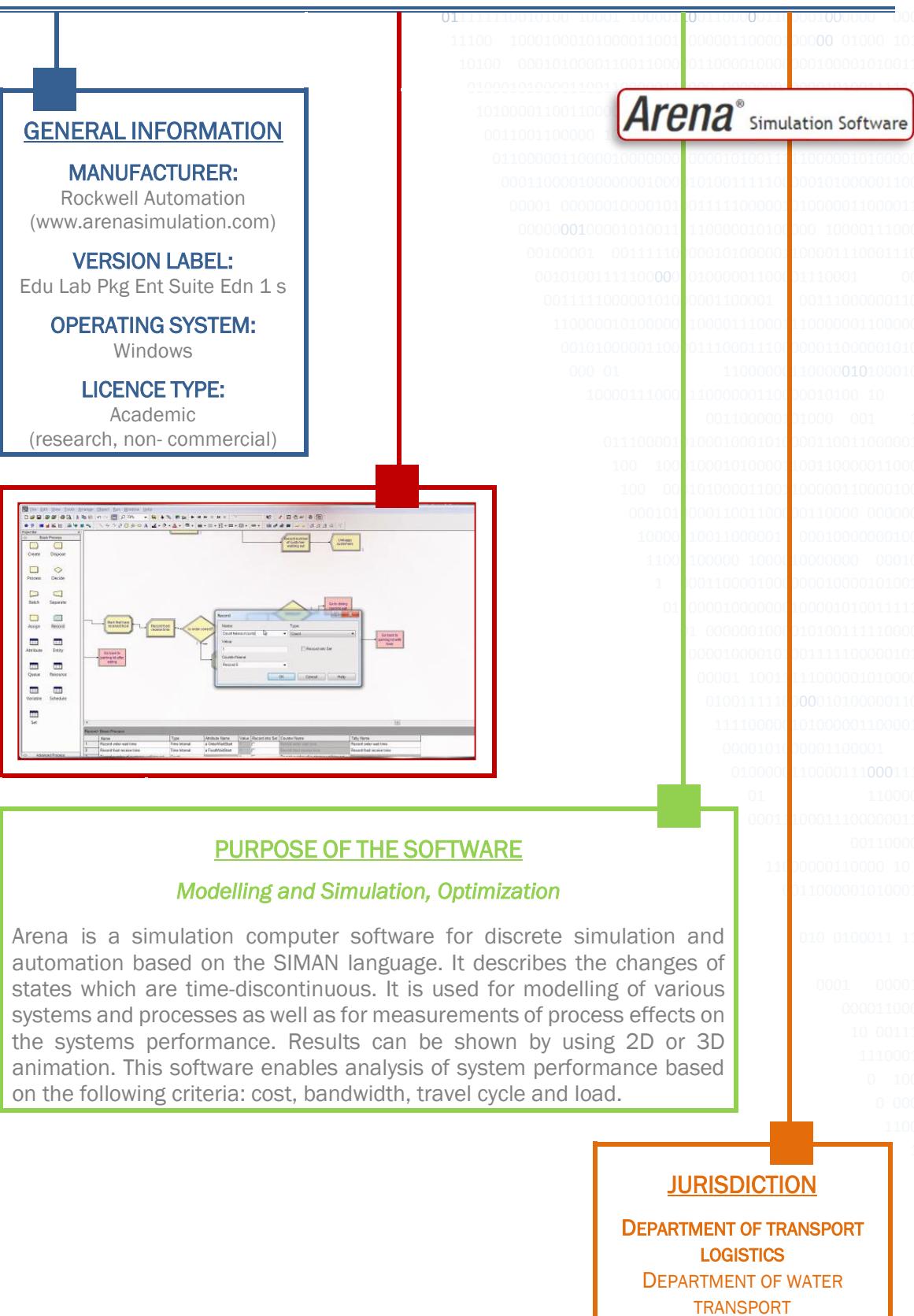
ZAVOD ZA VODNI PROMET



University of Zagreb

Faculty of Transport and Traffic Sciences

ARENA



CargoWiz

OPĆI PODACI

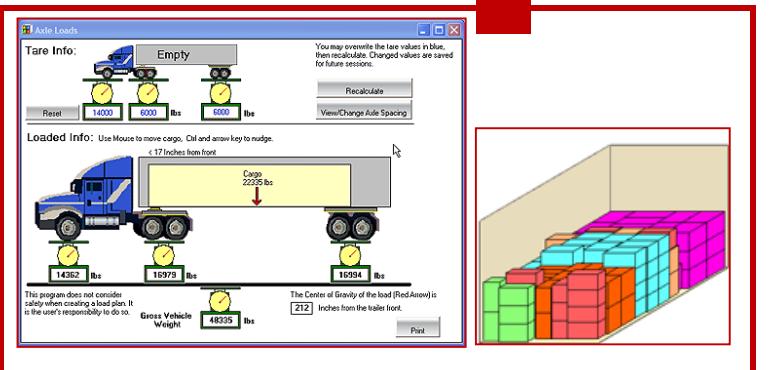
PROIZVOĐAČ:

Softtruck
(www.softtruck.com)

OZNAKA VERZUE:

OPERACIJSKI SUSTAV: Windows

TIP LICENCE:



NAM IFNA RAČUNAI NOG PROGRAMA

Optimizacija

CargoWiz služi za izradu prostornog plana i određivanje optimalnog redoslijeda ukrcaja tereta (u kutijama, kartonima, paletama i sl.) u cestovna, željeznička vozila ili kontejnere. Pomoću programa moguć je izračun količina robe ovisno o volumenu teretnog prostora vozila, te izrada optimalnog rasporeda robe u teretnom prostoru vozila.

NADLEŽNOST

AVOD ZA TRANSPORTNU LOGISTIKU

CargoWiz

GENERAL INFORMATION

MANUFACTURER:

Softtruck

www.softtruck.com)

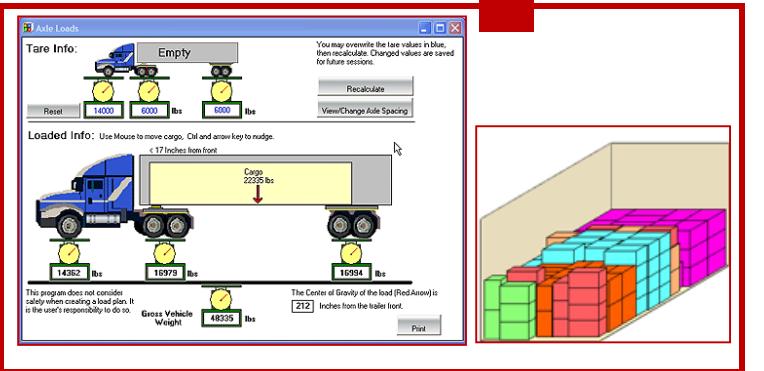
VERSION LABEL:

OPERATING SYSTEM:

Windows

LICENCE TYPE:

Academic (research , non-commercial



PURPOSE OF THE SOFTWARE

Optimization

CargoWiz is used for creation of spatial plans and determining the optimal order of cargo loading (in boxes, cartons, pellets and other) in road and railway vehicles or containers. The software allows the calculation of goods quantity depending on the cargo area volume of the vehicle, as well as determining the optimal goods order in the cargo space of the vehicle.

JURISDICTION

DEPARTMENT OF TRANSPORT LOGISTICS



Flexsim Simulation Software



Flexsim Simulation Software



GENERAL INFORMATION

MANUFACTURER:

Flexsim Simulation Software
Products Inc.
(www. flexsim.com)

VERSION LABEL:

Flexsim GP, Flexsim CT

OPERATING SYSTEM:

Windows

LICENCE TYPE:

Academic (research, non-commercial)



PURPOSE OF THE SOFTWARE

Modelling and Simulation, Optimisation

Flexsim Simulation Software is used for simulating logistic processes. The software is primarily used to simulate manufacturing plants and warehouse systems. It contains Flexsim CT which is used to simulate processes within container terminals.

JURISDICTION

DEPARTMENT OF TRANSPORT LOGISTICS

CAST

OPĆI PODACI

PROIZVOĐAČ:

Airport Research Center GmbH
(www.arc-aachen.de)

OZNAKA VERZIJE:

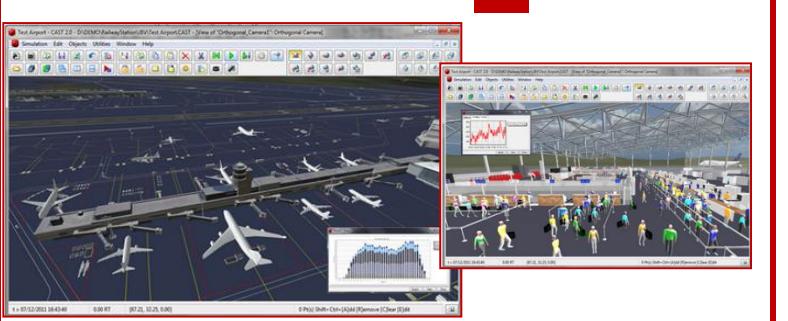
2.1

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Akademski (istraživački,
nekomercijalni)



NAM IFNA RAČIJNAI NOG PROGRAMA

Modeliranje i simulacija, optimizacija, statistika, projektiranje

CAST Aircraft je jedan od četiri modula računalnog programa CAST namijenjenog za dinamičku simulaciju cjelokupnog aerodromskog sustava. U okviru modula CAST Aircraft moguće je generirati i simulirati promet zrakoplova na aerodromu te u njegovoj neposrednoj okolini pritom uvažavajući sve bitne komponente samog sustava poput infrastrukture, ograničenja te operativnih planova. Jedna od glavnih značajki CAST Aircraft alata jest razvoj različitih scenarija koje je moguće prenijeti u simulaciju te u stvarnom vremenu testirati i analizirati i u animiranom obliku prikazati korisniku. CAST Aircraft modul osigurava korisniku podršku prilikom planiranja aerodromskog sustava kao i prilikom operativnog upravljanja samim sustavom.

NADLEŽNOST

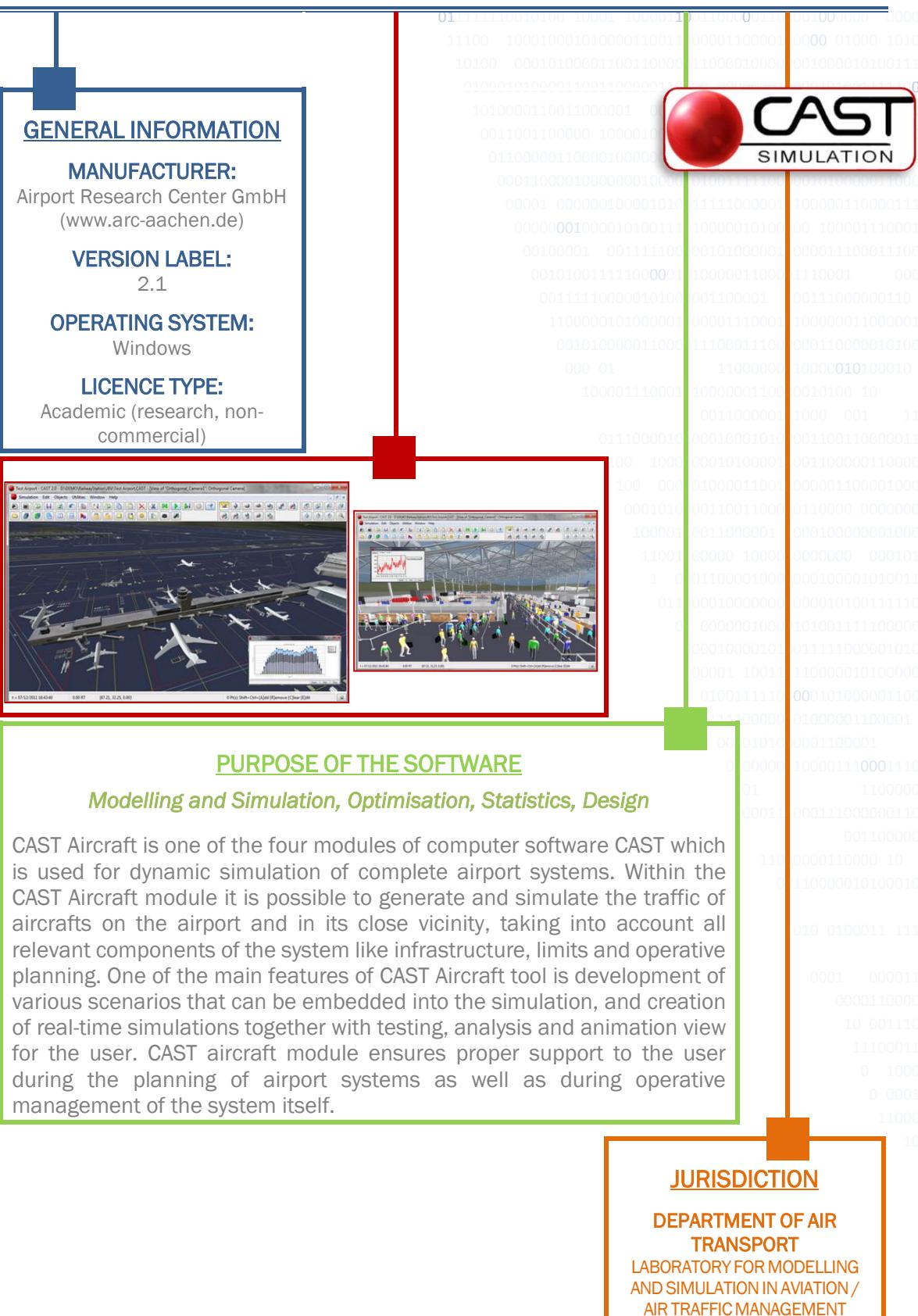
ZAVOD ZA ZRAČNI PROMET BORATORIJ ZA MODELIRANJE I LACIJE U ZRAČNOM PROMETU / AVLJANJE ZRAČNIM PROMETOM



University of Zagreb

Faculty of Transport and Traffic Sciences

CAST



PathPlanner Airside Series

OPĆI PODACI

PROIZVODAČ:
SIMTRA
www.simtra.com)

OZNAKA VERZIJE:

OPERACIJSKI SUSTAV: Windows

TIP LICENCE: Studentska



NAMJENA RAČUNAI NOG PROGRAMA

Analiza podataka, modeliranje i simulacija

PathPlanner je računalni program koji je baziran na AutoCAD platformi, a omogućuje planiranje i analizu zrakoplovnih operacija unutar aerodromskog sustava. Bazu PathPlanner-a čini preko 500 modela kako komercijalnih tako i vojnih zrakoplova i helikoptera te više od 1300 modela putničkih mostova. Upotrebom grafičkog sučelja moguće je simulirati i analizirati kretanje zrakoplova na poziciji za prihvat i otpremu zrakoplova, stajanci, voznim stazama te uzletno-sletnoj stazi. Pored navedenog program ima mogućnost projektiranja stajanke kao i odgovarajućih pozicija za parkiranje zrakoplova sa svim pripadajućim elementima (putnički mostovi, sigurnosni razmaci, raspored opreme i sl.).

NADI FŽNOST

ZAVOD ZA ZRAČNI PROMET
LABORATORIJ ZA MODELIRANJE I
SIMULACIJE U ZRAČNOM PROMETU /
DIPRAVILJANJE ZRAČNIM PROMETOM

PathPlanner Airside Series

GENERAL INFORMATION

MANUFACTURER:

SIMTRA
www.simtra.com

VERSION LABEL:

6.04

OPERATING SYSTEM:

Windows

LICENCE TYPE:

ENGL 1111
Student



PURPOSE OF THE SOFTWARE

Data Analysis, Modelling and Simulation

PathPlanner is a computer software based on the AutoCAD platform which enables planning and analysis of aircraft operations within an airport system. The PathPlanner database contains over 500 models of commercial as well as military aircrafts and helicopters, and more than over 1300 models of passenger boarding bridges. Graphical interface enables the simulation and analysis of aircraft movement on the position for aircraft ground handling, apron, taxiway and runway. In addition, the software has a possibility of apron design, as well as corresponding positions for aircraft parking with all the included elements (passenger boarding bridges, safety distances, equipment arrangement...).

JURISDICTION DEPARTMENT OF AIR TRANSPORT

LABORATORY FOR MODELLING AND SIMULATION IN AVIATION / AIR TRAFFIC MANAGEMENT

SIMMOD PLUS

OPĆI PODACI

PROIZVOĐAČ:

ATAC

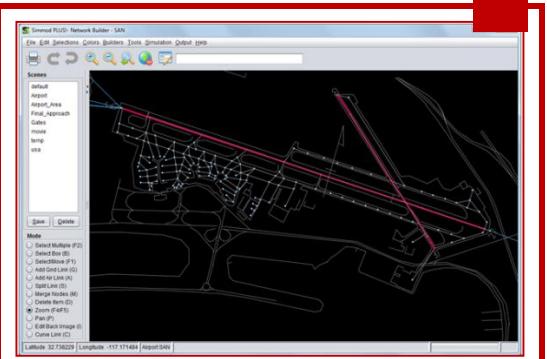
(www.alac.com)

ZNAKA VERZIJE:

Summed FESG

ACIJSKI SUS

TIP LICENCE:



NAMJENA BAČLINA I NOG PROGRAMA

Planiranje aerodromskih sustava

Simulacijski programski paket SIMMOD PLUS koristi se za provođenje složene simulacijske analize na temelju definiranih korisničkih parametara. SIMMOD omogućuje fleksibilnost kod planiranja aerodromskog sustava te razvoj različitih scenarija koji se vjerno mogu prikazati u simulacijskom programskom paketu. Simulacijski programski paket SIMMOD PLUS u sklopu aktivnosti laboratorija koristi se za istraživanje i analizu aerodromskog sustava.

VIADLEŽNOST

ZAVOD ZA ZRAČNI PROMET
LABORATORIJ ZA MODELIRANJE I
MULACIJE U ZRAČNOM PROMETU /
PRAVILAN JE ZRAČNIM PROMETOM

SIMMOD PLUS

GENERAL INFORMATION

MANUFACTURER:

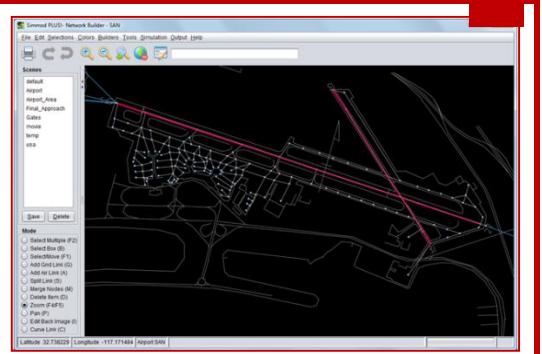
ATAC

(www.atac.com)

VERSION LABEL:

ATING SY

LICENCE TYPE:
Academic
(research, non-commercial)



PURPOSE OF THE SOFTWARE

Airport Systems Planning

Simulation software package SIMMOD PLUS is used for complex simulation analysis based on defined user parameters. SIMMOD enables airport system planning flexibility and development of various scenarios which can be accurately shown in the simulation software package. Simulation software package SIMMOD PLUS is used in laboratories for research purposes and analysis of airport systems.

JURISDICTION

DEPARTMENT OF AIR TRANSPORT

LABORATORY FOR MODELLING AND SIMULATION IN AVIATION / AIR TRAFFIC MANAGEMENT

OPĆI PODACI

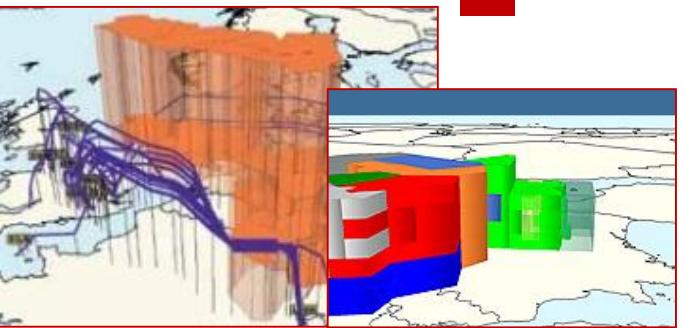
PROIZVOĐAČ:
EUROCONTROL
(www.eurocontrol.int)

OZNAKA VERZIJE:

OPERACIJSKI SUSTAV: Windows

Windows

TIP LICENCE: Studentska



NAMJENA RAČUNALNOG PROGRAMA

Analiza, modeliranje i simulacija zračnog prostora

U svrhu modeliranja i simulacija zračnog prostora koristi se računalni program *System for traffic Assignment and Analysis at a Macroscopic level* (SAAM). Program se koristi za preliminarna istraživanja, testiranja i analizu različitih mogućnosti korištenja zračnog prostora te za razvoj scenarija koji se mogu prenijeti u simulacije u brzom vremenu te u simulacije u stvarnom vremenu. Programom SAAM između ostalog radi se: kreacija/promjena/dizajn rutne mreže i volumena zračnog prostora, generiranje prometne potražnje i apliciranje iste na strukture zračnog prostora, optimizacija prometne potražnje ovisno o funkciji cilja, analiza traiektorija leta prema zadanim parametrima.

NADLEŽNOST

ZAVOD ZA ZRAČNI PROMET LABORATORIJ ZA MODELIRANJE I IMULACIJE U ZRAČNOM PROMETU / UPRAVLJANJE ZRAČnim PROMETOM

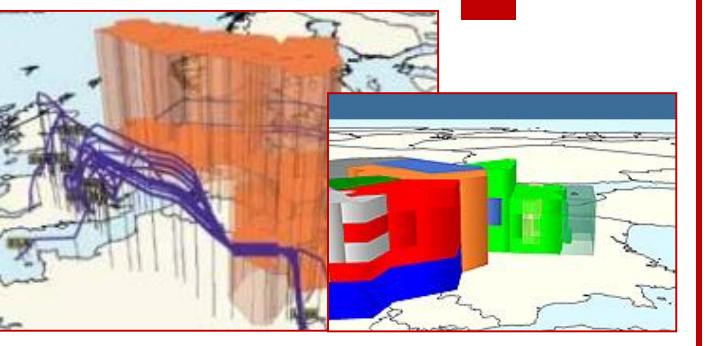
GENERAL INFORMATION

MANUFACTURER:
EUROCONTROL
www.eurocontrol.int)

VERSION LABEL:

OPERATING SYSTEM:

LICENCE TYPE:



PURPOSE OF THE SOFTWARE

Analysis, Modelling and Simulation of Air Space

System for traffic Assignment and Analysis at a Macroscopic level (SAAM) software is used for modelling and simulation of air space. This software is used for preliminary research, testing and analysis of various possibilities of air space usage and for development of scenarios which can be embedded in fast simulations and real-time simulations. The software is, among other things, used for creation/change/design of route network and air space volume, generating of traffic demand and implementation on to structures of air space; optimisation of traffic demand depending on the goal, analysis of flight trajectories according to given parameters.

JURISDICTION

DEPARTMENT OF AIR TRANSPORT

LABORATORY FOR MODELLING AND SIMULATION IN AVIATION / AIR TRAFFIC MANAGEMENT

NEST

OPĆI PODACI

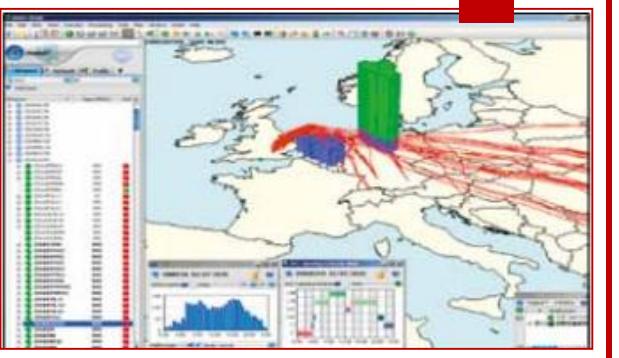
PROIZVOĐAČ:
EUROCONTROL
(www.eurocontrol.int)

OZNAKA VERZIJE:

OPERACIJSKI SUSTAV: Windows

Windows

TIP LICENCE: Studentska



NAMJENA RAČUNALNOG PROGRAMA

Modeliranje i simulacija, optimizacija, projektiranje

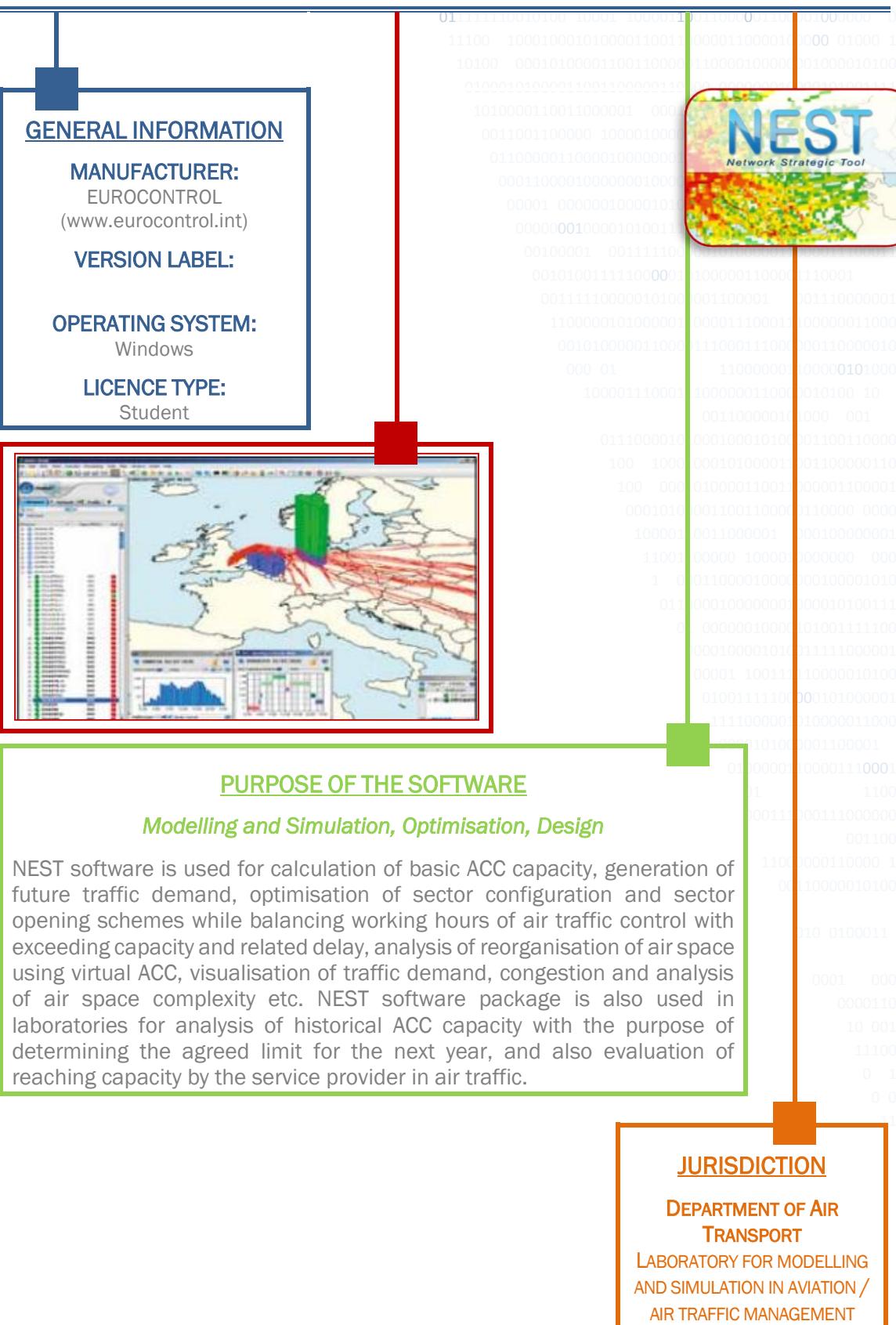
Program NEST služi za: izračun osnovnog kapaciteta ACC-a, generiranje buduće prometne potražnje, optimizaciju sektorskih konfiguracija i shema otvaranja sektora balansirajući radne sate kontrolora zračnog prometa s prekoračenjem kapaciteta i povezanim kašnjenjem, analizu reorganizacije zračnog prostora upotrebom virtualnog ACC-a, vizualizaciju prometne potražnje, zagušenja i analize kompleksnosti zračnog prometa, itd. U sklopu aktivnosti laboratorija programski paket NEST koristi se za analizu povijesnog kapaciteta ACC-a u svrhu određivanja dogovorene granice za sljedeću godinu, te evaluaciju dostizanja kapaciteta od strane pružatelja usluga u zračnoj plovidbi.

NADLEŽNOST

ZAVOD ZA ZRAČNI PROMET LABORATORIJ ZA MODELIRANJE I MULACIJE U ZRAČNOM PROMETU / UPRAVLJANJE ZRAČnim PROMETOM



NEST



OpenTrack

OPĆI PODACI

PROIZVODAČ:

Swiss Federal Institute of
Technology
(www.opentrack.ch)

OZNAKA VERZIJE:

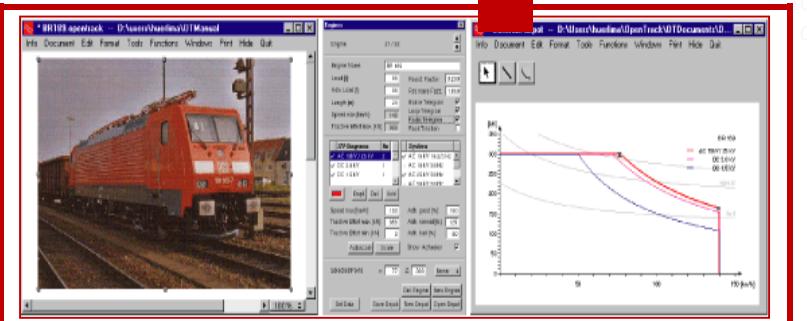
1.6 i 1.7

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Akademска (istraživačка,
nekomercijalна) | Studentsка



NAMJENA BAČI INAI NOG PROGRAMA

Modeliranje i simulacija optimizacija projektiranje

Program služi za izradu računalnih modela i simulacije u željezničkom prometu. OpenTrack podržava izvođenje sljedećih zadataka: određivanje zahtjeva za željezničku infrastrukturu, analiza tehničkog kapaciteta pruga i kolodvora, analiza voznog parka, planiranje i izrada voznog reda te analiza njegove stabilnosti, analiza učinkovitosti različitih sustava za vođenje vlakova, proračun potrošnje pogonske energije vlakova, analiza utjecaja kvarova na infrastrukturnim i mobilnim kapacitetima željeznice i kašnjenja vlakova na učinkovitost željezničkog prometa, simulacija tramvajskog prometa, simulacija djelovanja sustava metroa, simulacija djelovanja Maglev sustava.

JADI EŽNOST

AVOD ZA ŽELJEZNIČKI PROMET ABORATORIJ ZA MODELIRANJE I SIMULACIJE ŽELJEZNIČKIH SIJSTAVA



University of Zagreb

Faculty of Transport and Traffic Sciences

OpenTrack

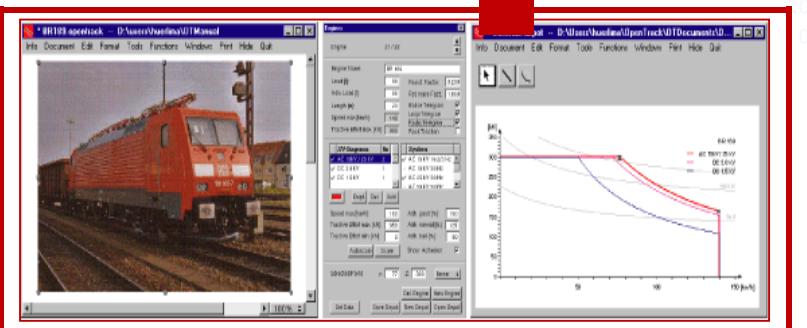
GENERAL INFORMATION

MANUFACTURER:
Swiss Federal Institute of Technology
(www.opentrack.ch)

VERSION LABEL:
1.6 i 1.7

OPERATING SYSTEM:
Windows

LICENCE TYPE:
Academic (research, non-commercial) | Student



PURPOSE OF THE SOFTWARE

Modelling and Simulation, Optimisation, Design

The software is used to create computer models and simulations in railway traffic. OpenTrack supports the following assignments: determining demands for railway infrastructure, analysis of technical capacity of railway tracks and stations, analysis of vehicle fleet, planning and creation of timetable and analysis of its stability, efficiency analysis of various systems of train control, calculation of energy consumption of train drives, analysis of fault effects on infrastructure and mobile capacities of railway and effects of train delays on the efficiency of railway traffic, simulations of tram traffic, metro systems and Maglev systems.

JURISDICTION

**DEPARTMENT OF RAILWAY TRANSPORT
LABORATORY FOR MODELLING AND SIMULATION OF RAILWAY SYSTEMS**



OPĆI PODACI

PROIZVOĐAČ:

Ex Libris Group
www.exlibrisgroup.com

OZNAKA VERZIJE:

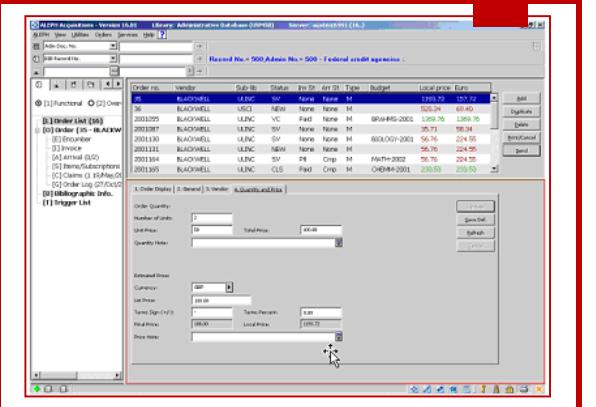
500 v.20

OPERACIJSKI SUSTAV:

Windows

TIP LICENCE:

Komercijalna



NAMJENA BAČU NAJ NOG PROGRAMA

Knjižnično poslovanje

Aleph je integrirani knjižnični sustav koji koristi Fakultet prometnih znanosti, a čija se licenca dobiva putem Nacionalne i sveučilišne knjižnice. Modularno je strukturirani i automatizirani programski sustav za planiranje knjižničnih izvora i upravljanje knjižničnim poslovanjem. Sastoje se od sljedećih modula: katalogizacije (tiskane ili elektroničke knjižnične građe), posudbe (posudba knjižnične građe i evidencija članova knjižnice) i nabave.

NADLEŽNOST



Aleph

GENERAL INFORMATION

MANUFACTURER:

Ex Libris Group

w.exlibrisgroup.com)

VERSION LABEL:

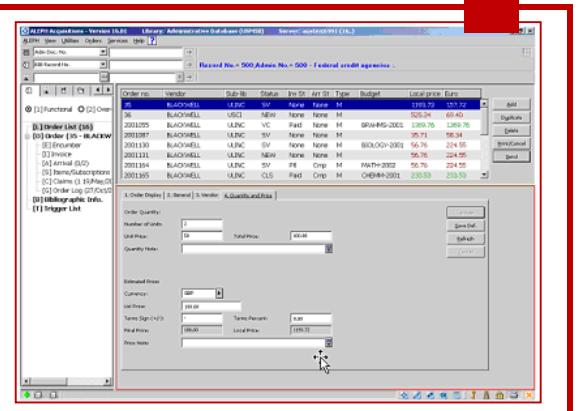
500 v.20

OPERATING SYSTEM:

Windows

LICENCE TYPE:

KOMERCIJALNA



PURPOSE OF THE SOFTWARE

Library Management

Aleph is an integrated library system used by Faculty of Transport and Traffic Sciences, whose licence is obtained by National and University Library. It is a module-structured automated software system for library sources planning and library operations management. It consists of the following modules: catalogue (of printed or digital library materials), book borrowing system (borrowing of library materials and record of library members) and purchase.





Bilješke



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Faculty of Transport and Traffic Sciences

Notes:





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