ATM SYSTEM TEST TOOL

Smoother operation with less cost, risk and tension?
Automated software testing in ATM is here!

HungaroControl

100+ years experience in ATM

The Hungarian ANSP delivers safe and efficient air navigation services both in Hungary and in the upper-airspace of Kosovo.

HungaroControl is the pioneer of complex, tailor-made automated software testing in the ATM domain.

Record Traffic 2022: **1 million+ movements**

Revenue: **EUR 132 million**

Profit Before Tax: **EUR 32 million**

ROE: **29.1 %**

Number of employees: **700+**

15+ years experience in test automation

ProofIT is a highly specialized software test automation company for B2B customers in safety critical industries.

Providing it's own low code test automation platform, we help mitigate operational risks and empower our partners to do so.

Number of automation experts: **20+**

Number of successful projects: **150+**

Number of test Executions: **5 million+**

BEST OF BOTH WORLDS

HungaroControl

AT THE FOREFRONT OF ATM INNOVATION

ADVANCED ATM SYSTEM

2005

20+ years experience developing complex and customized systems, thus creating one of the most innovative ATM systems in the world.

PARTNERING WITH

THALES

REMOTE SERVICE PROVISION

2014

Providing ATM services in the upper airspace of Kosovo from the Budapest ACC, since 2014.

PARTNERING WITH

NATO OTAN

FREE ROUTE AIRSPACE

2015

First to introduce FRA operations saving millions of miles, thus reducing travel time, airline cost and CO_2 emissions in the European sky.

PARTNERING WITH

FIRST GENERATION DIGITAL TOWER

2016

World's first and only ANSP to operate a medium sized airport from a remote tower facility.

PARTNERING WITH

SEARIDGE TECHNOLOGIES

ATM R&D

2017

Delivering solutions from concept to operation, we are actively shaping the Single European Sky.

PARTNERING WITH

SESAR

NEXT-GEN INTEGRATED DIGITAL TOWER

2024

Deploying a fully-capable, integrated second generation digital tower facility.

PARTNERING WITH

indra

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PROVEN AND TRUSTED AUTOMATION ACROSS SECTORS

	BANKING	PUBLIC ADMINISTRATION	AUTOMOTIVE
CHALLENGES:	Provide daily or even immediate feedback on test results, support go-live decisions, negotiate the right KPIs and proxies for automated functional and performance tests.	Interpretation of test results, complexity management, use and gather scarce domain knowledge, support in-house domain experts, comply to huge regulatory corpuses.	Support high availability and low incident rate in diverse and complex environments, integrate to wide range of technological interfaces and provide definite metrics and measures.
CONDITIONS:	The IT exposure of financial service providers is extremely high, a significant part of their systems operate 24/7. This demands constant availability and short response times for millions of users together with high change frequency due to regulatory environment and competitors	High risk exposure to large number of vendors and integrated systems, and high complexity processes, with volatile and intermittent workload, in a highly regulated environment with lots of confidential data, protected with strict security policies, and strong hierarchies.	Continuous operation of complex physical, robotic, software and human environments in factories, where most outage causes direct and not recoverable losses, with industry specific standards, conservative change management, old generations of technologies still in operation together with the most modern ones.
AFFECTED SYSTEMS:	Core banking, transaction processing, card systems, e-channels, instant payment, account management systems, treasury...	Electoral system, address registry, agricultural and environmental information system, central authorization and identification system...	Production lines, just-in-time logistics, design and simulation systems...

VOLKSBANK otpbank THE HUNGARIAN GOVERNMENT SIEMENS Mentor Graphics Audi

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CAPACITY ISSUES

ATCO and expert capacity issues are a day-to-day challenge for ANSP executives, testing also requires human resources.

REMAINING RISKS

Insufficient test data and test coverage, as the preparation of even relatively simple flight situations for testing purposes requires far more activity than just testing.

ATM DOWNTIME THREAT

Manual regression testing involves hundreds of minor incidents yearly, which could cascade to higher severity, and potentially preventable blackouts occur.

TIME PRESSURE

Testing a highly complex ATM system manually is time consuming even with a dedicated team of experts, which results in slow feedback and long time-to-market for new capabilities.

MANAGING ACCELERATED CHANGES IN ATM

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PIONEERING ATM SYSTEM TEST AUTOMATION

Service & Product level
- Industry usage
- Proof IT & HungaroControl Cooperation
- Further developments
- Proven market viability

Insourced usage
- Trainings and support
- Extended testware
- Extended capabilities
- Proven deployability

Minimum Viable Product
- Platform Integration
- Production grade drivers
- Initial testware
- Proven feasibility

Proof of Concept
- Testability assessment
- Reducing technical risks
- Proven possibility

Product phase (2022 -)
- ATM System Test Tool product launch
- Developing an industry-wide, multi-platform solution

R&D PHASE (2018 - 2019)
- Pioneering test automation in ATM
- First ever fully automated tests on integrated ATM system

DEVELOPMENT PHASE (2020 - 2021)
- Live operation, 500+ functional and performance tests
- Building complex tests with no coding knowledge needed

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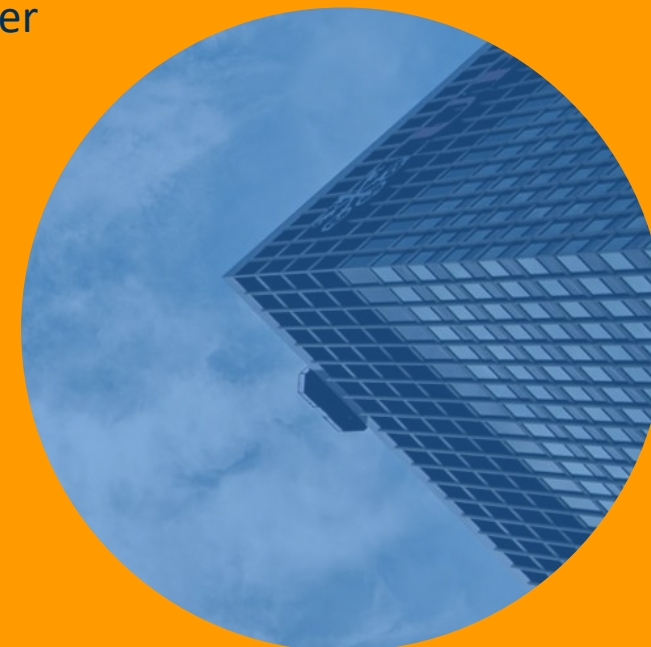# KEY BENEFITS OVERVIEW

SAFER

ENHANCED VALUE

FAST LANE

CUSTOMIZED

1 Reduce risks with wider coverage, denser safety nets with less human resource

2 Increase productivity and creativity of your experts

3 Avoid risks and directly apply the results of 5 years of R&D

4 Benefit from the collaboration and services offered by an ANSP and a test automation expert

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VALUE PROPOSITION

FLIGHT SAFETY

Reduced number of incidents
Greater test coverage results in a safer sytem and a higher rate of error detection

Reduced operational risks
During the testing process no deviation will go undetected

Less escalation
As a result of more accurate testing, less security and supervisory escalation is required

Auditable test results
Automated test reporting supports a simplified documentation for the relevant authorities

EFFICIENCY

Unleashed human capacity
Instead of highly repetitive testing, the skilled workforce can perform tasks with higher added value

Cost-effective
As a result of automation, working hours and overtime can significantly be reduced

Real-time feedback
The ATM software supplier and operator receives feedback on emerging errors real-time

Shorter downtime
Due to fewer system errors and accelerated processes, partial or complete downtime is reduced

AUTOMATION

Fully automated
During testing no human intervention is required

Training made simple
The management of the system is easy to learn even without programming skills

Future proof solution
The test system can support any ATM system, technology mix and test types

Real life testing
The test system is capable of simulating any parameters, events, and processes

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YOUR TEAM BEHIND THE SOLUTION

BARNABAS KIS
CHIEF TECHNOLOGY OFFICER

Creating one of the most innovative ATM systems in the world. Overseeing the operational and development activities of the entire ATM & CNS area.

12+ years as Chief Technology Officer

25+ years in ANS Development

35+ years in ATM

ATTILA MESZAROS
R&D DIRECTOR, PROOF IT

Creating the first hybrid low-code, platform independent test automation platform for critical industries, customized to critical industries.

5+ years in ATM

15+ years in Test automation

25+ years in SW Development

GABOR SZABO
SENIOR ADVISER, HUNGAROCONTROL

Overseeing the full development cycle and establishing one of the most innovative ATM systems globally.

10+ years ATCO experience

20+ years in ANS Development

20+ years experience with Thales TopSky

30+ years in ATM

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THANK YOU FOR YOUR ATTENTION

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