



## INTELLIGENCE

### MASA Newsletter – Spring/Summer 2015



The integration of Artificial Intelligence with mainstream technology is making significant changes to the way we work and live. This is clearly evidenced by the growing number of global customers that are now using MASA Group's AI-based modeling and simulation software to train their armed forces, emergency responders, and civil security professionals.

Building on our recent successes in South America, Europe and Australasia, which saw the first use of MASA SWORD in a large scale international training exercise late 2014 in New Zealand, overseas business continues to grow steadily for MASA. High-level (or “aggregated constructive”) simulations are particularly sought after for both training and real-time operational analyses of decision-makers in both military and civil-related organizations. Indeed, this year has already seen the company strengthen its commercial presence in the Asia-Pacific region, where demand is rising for highly efficient simulation software. This presence has been strengthened through the first use of SWORD by the Singapore's Defence Science and Technology Agency (DSTA), while Bangladesh became the 15<sup>th</sup> country to adopt SWORD as the basis of their future Computerized Wargame Centre within the Army Training and Doctrine Command (ARTDOC).

MASA is also witnessing strong interest for the commercial deployment of SYNERGY, a version of SWORD that has been customized for the emergency management and crisis preparedness markets. Since its introduction to the market in late 2014, SYNERGY has already been acquired and deployed by IECISA, a large international IT systems company headquartered in Spain and present in Europe and Latin America. This follows highly positive functional and technical customer feedback from multiple industries upon which we intend to build over the coming year.

We continue to see greater potential for the diversification of our AI technology and know-how beyond constructive simulation and beyond the military or emergency preparedness industries. As a result we are actively exploring new opportunities for MASA LIFE, our decisional AI middleware, to include applications in burgeoning new markets such as the Internet of Things (or “connected objects”), web and mobile applications, as well as within the enterprise business systems industry.

These recent successes epitomize MASA's focus on expanding its customer-base internationally, enabling the use of highly realistic, flexible and cost-effective training and decision-support simulation tools in an increasing number of market sectors. I believe this will be another exciting year for MASA and we will gladly keep you updated on the very latest developments.

*Juan Pablo Torres*

MASA Group President and CEO

## Spotlight: SYNERGY showcased at the United Nations World Conference

The United Nations World Conference on Disaster Risk Reduction took place from the 14 – 18 of March in Sendai, Japan. The objective of the conference is to agree on a path to disaster resilience through commitments made by government and key stakeholders.

Representatives from the private sector are among those that are driving strengthened partnerships between governmental institutions and players from related sectors to improve disaster preparedness. This is demonstrated by the development of *the Five Visions for a Resilient Future*, which is designed to help implement activity that will result in a more resilient future.

MASA is an active member of the private sector group and was invited to demonstrate that its Artificial Intelligent simulation platform, SYNERGY, can significantly contribute to reducing the impact of disasters.

Cities and other government agencies can benefit from MASA's technology through training their senior crisis staff in a real-to-life situation. They are able to see the impact of their decisions on people, infrastructure and the propagation of the disaster.

SYNERGY can also be used to put disaster and emergency plans to the test by running them through simulation-based scenarios.

MASA's intention is to work alongside other private sector members to further introduce its AI-based simulation platform to the more than 2 500 resilient cities that have a vital role in worldwide disaster reduction.



*Hans Ten Bergen from MASA (left), at the UN WCDRR in Sendai*

MASA's technology was showcased on several occasions during the World Conference on Disaster Risk Reduction by Disaster Risk Reduction and AI specialist Hans ten Bergen. As a result several cities, government agencies, academics, industries and other private sector partners have expressed their interest in implementing SYNERGY.

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## MASA and Systematic's pioneering technology: "the C2 Classroom"

As military budgets get squeezed, the cost of training becomes a focus point for cuts. Transporting valuable equipment, resources and personnel is time consuming and prohibitively expensive. Forward-thinking military personnel recognize the valuable and increasing contribution of simulated systems and their ability to provide realistic combat scenarios.

Modern military operations involve everything from asymmetric warfare to counter-terrorism, and from civil emergency to disaster relief. Effective action depends on the best possible training and preparation for the task at hand.

Complex operational environments require decisions to be made fast and accurately. These decisions are only learnt through careful and planned training exercises. Decisions are often critical, so it is essential that any preparations are robust and methodical.

Command and Control (C2) software has certainly helped modern day operators, and when integrated with smart simulations offering enhanced realism, training exercises based on simulation systems become even more valuable. With defense purchasing under increasing public scrutiny, combined COTS technology provides value for money especially where defense organizations have to do more with less.

The C2 Classroom is a combination of two COTS products: Systematic's SitaWare C2 software is configured alongside MASA SWORD constructive simulation to provide a stand-alone system that delivers officers with a proven C2 system overlaid with a constructive aggregated simulation environment. The combination provides a very cost efficient and streamlined environment helping armed forces to reduce the staffing needed for exercises by up to 50%.

The integration between these COTS products is done using industry standards and product APIs. It provides an efficient and operational configuration allowing commanders to train as they fight, using their C2 system when participating in command post exercises.

Thanks to such integration the commander can dynamically receive from the simulation the ORBAT, blue forces tracking, blue forces reports, blue forces holdings and red forces positions perceived by blue forces. Graphical objects are sent from the C2 system to the simulation, which is then used for planning in order to facilitate the mission input into the simulation. All of the above functionalities can be activated/deactivated depending on training audience and objectives.



*SWORD – SITAWARE integration within the New-Zealand armed forces*



## Latest product news: SWORD, SYNERGY and LIFE innovation



SWORD v6 is showcased for the first time at the ITEC exhibition and conference in Prague from 28-30 April 2015.

The introduction of SWORD v6.0 brings MASA's customers a range of significant enhancements. SWORD provides users with a training or analysis system that has a direct influence on combat outcomes dedicated to delivering the most realistic constructive simulation solution for both training and decision-support applications (through strong interoperability with Command and Control – C2 systems).

Some of the enhancements in SWORD V6.0 include: multiple-views Graphical User Interface (GUI) and advanced After Action Review (AAR) capabilities, both of which enable an improved efficiency of the system to reduce operator training time and workload.



Since its introduction to the market in late 2014, SYNERGY has already been acquired and deployed by IECISA, a large international IT systems company headquartered in Spain and present in Europe and Latin America. Commissioned to provide the Integrated Command and Control Center for the Public Security Secretariat of the state of Bahia in Brazil just prior to the 2014 World Cup, the IECISA identified that SYNERGY could be connected to their operational system to stimulate and train the decision makers in an emergency crisis cell exercise. Such integration will also support the evaluation, definition and review of emergency plans and operational methods.



In March, MASA used the annual Game Developers Conference (GDC) to demonstrate the v1.10 of its renowned AI decisional middleware, LIFE. The performance of LIFE is proven by its successful application with several customers in the simulation and games sectors.

Designed for both designers and developers, LIFE is also easy to use and offers the most intuitive, visual interface from navigation to decision-making. LIFE is now available as a pre-integrated plug-in for Unity 5 and VBS3.

The integration of LIFE with other game engines is made simple with a Software Development Kit (SDK) included in the design to ensure optimal ease of use. Thanks to an editor designed for teamwork and previously created behaviors that can be handled as any other assets, LIFE naturally fits into any authoring workflow.

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## MASA profile: Marco Blasich

**How long have you been working for MASA and what were you doing before joining the company?**

I joined MASA in December 2011. Before that I worked for both blue chip companies and SMEs in France and abroad, covering project management and program management roles; prior to that I worked as a consultant in the application development and system management domains.



**Can you describe your roles and responsibilities within the company?**

I am responsible for MASA's professional services department. I also closely follow MASA's strategic projects and develop business in North America and Brazil.

**With modern technology moving at such a pace, how do you manage to stay abreast with the latest developments?**

I read a lot, I attend the most important trade shows in our business and, when possible, I directly try the technology myself.

**If you had a crystal ball and were able to look forwards ten years to 2025, what improvements would you predict for MASA SWORD and MASA LIFE?**

In ten years SWORD will simulate naval warfare and air to air combat to fully support joint forces exercises; the training audience will be extended towards both higher and lower hierarchical levels, including army corps commanders on the high end and platoon/section commanders on the low end. LIFE will become an easy to master learning and teaching machine.

**Many people outside France would envy you living and working in Paris. What are the best parts about being based in such a beautiful city?**

The best part about living in Paris is that you have beauty at your fingertips - simply strolling in the city and looking around is a very nourishing and restoring experience. When I'm not on a business trip, I really enjoy my morning walk to the office and later, in the evening, the walk back home.

**Your job involves much travel for the company, so what has been your most exciting destination and why?**

I'll always remember the first time I woke up in Rio de Janeiro: the night before, arriving from Paris I couldn't see much of the city, so the next morning, when I woke up and saw that I had all Copacabana beach and the mouth of the Guanabara bay under the balcony of my hotel room, well, I remained speechless for a good while.

**In your opinion what are the most important developments in simulation and training?**

In regard to constructive simulations, the new generation of COTS has already proved to be more cost efficient and versatile than their GOTS counterpart, making training more accessible, extending the user base and opening the door to public safety and emergency preparedness markets.





## What makes MASA unique?

MASA's approach to simulation: the use of patented AI technology to model human behavior thus allowing for a unique and very realistic rendering of the battlefield.

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## MASA worldwide



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