



CEO Perspective – Networking: Another Important ESD Alliance Benefit

Lip-Bu Tan, President and CEO, Cadence Design Systems, Inc.

[Editor's Note: In June, the analytics firm Relationship Science named Lip-Bu Tan "the most connected person in the tech industry."]



It is an honor to continue to serve on the Board of Directors of the ESD Alliance. I joined the board of what was then EDAC in 2009, and served as co-chair from 2014 through 2017, a period which included the transition from EDAC to the Electronic System Design Alliance.

The ESD Alliance committee updates on pages 3 and 4 of this newsletter describe some of the technical and business aspects of the various committee activities. There is, however, an important additional benefit to many of these activities, and that is personal networking.

Throughout the year, the Alliance hosts or sponsors a number of events, ranging from educational events geared toward smaller companies to industry-wide events such as DAC. One thing these events have in common is an opportunity for informal conversations with your peers in the industry.

While the EDA industry is very competitive, there are many aspects of the technology and business that we have in common. Most EDA software uses Flexera for licensing, and runs on Linux and/or Windows. In addition, many companies are based in the US, thus are subject to the same US export regulations. It is these common areas where a casual "How's it going?" during the pre-event refreshments and networking can lead to new insights. Perhaps it is a bug in the common licensing software, a new export regulation, or a new marketing app that can save you and your company time and money.

This is especially true for smaller companies. Larger companies typically have teams where each individual might be particularly strong in a certain aspect of the overall task, be it engineering, marketing, legal, etc. It's not uncommon for an informal conversation to lead to new insight into resolving an issue. In a small company, there might be only one person responsible for the overall task. In these cases, the opportunity to talk informally at an Alliance event is particularly valuable.

Networking at ESD Alliance events also benefits larger companies by providing a setting to meet informally with start-ups who hold promising new technologies.

Another avenue for networking with peers is the ESD Alliance committee meetings. Staffed by subject-matter experts from member companies, they are an opportunity to discuss common issues with other experts. For example, in a recent License Management Committee meeting, one member reported discovering a corner-case bug in third party software used by many members. The value of knowing about and resolving the issue *before* your customer is aware of it cannot be overstated.



For more information about the ESD Alliance, benefits of its many initiatives, and networking opportunities, visit esd-alliance.org.

ESD Alliance Welcomes New Members EDDR Software



EDDR Software is a company that works with partners in order to help engineer, design, develop, and research solutions for barriers created by technology and software in their business. EDDR also helps bridge gaps that may arise with changing technologies and requirements.

Dr. Rob A. Rutenbar honored with the 2017 Phil Kaufman Award

Dr. Rob A. Rutenbar, senior vice chancellor for Research at the University of Pittsburgh, has been selected as the recipient of the 2017 Phil Kaufman Award for Distinguished Contributions to Electronic System Design.



Dr. Rob A. Rutenbar

The award is presented annually by the ESD Alliance and IEEE Council on EDA (CEDA). It honors individuals who have had demonstrable impact on the field of EDA through technology innovations, education and mentoring, or business or industry leadership.

Dr. Rutenbar is being honored for his contributions to algorithms and tools for analog and mixed-signal designs. As an academic researcher at CMU, he pioneered a range of models, algorithms and tools for analog IC designs. During his tenure at the University of Illinois, he reworked his long-running CMU course, “VLSI CAD: Logic to Layout,” into the MOOC on EDA, providing training to thousands of engineers. As an entrepreneur, he founded multiple companies to bring his research efforts to the larger design community. Additional details about Dr. Rutenbar and the Phil Kaufman Award are available in the press release.

The 2017 Phil Kaufman Award ceremony and dinner will be held in Silicon Valley in early 2018. Please visit esd-alliance.org for information.

Member Comments from EDACafe!

Industry blogger Peggy Aycinena has been interviewing ESD Alliance member companies about a variety of topics, including what they see as key reasons for joining the ESD Alliance. Following are a few selected quotes from these interviews.

“I have always enjoyed the meetings. This is the kind of alliance that brings companies like Synopsys and Ansys together in a classic example of what can be done, working together to solve challenges. The Alliance [highlights] problems we should all work together to solve. Truly 1 plus 1 equals more like 4 or 5.” – Vic Kulkarni, Vice President and Chief Strategist in the Office of CTO for the Semiconductor Business Unit, ANSYS, Inc. [Full interview: <http://bit.ly/2yCBCdC>].

“We also get a lot of support from the executive team of the ESD Alliance on legal issues. Examples include export control issues, federal taxation, and accounting principles. These are subjects that matter to the whole ecosystem. The ESD Alliance helps a lot in organizing and sharing this information efficiently. This is something of great value, of huge value to us.” - Yorgos Koutsoyannopoulos, President and CEO, Helic, Inc. [Full interview: <http://bit.ly/2y5Yp4Y>].

“I also believe that the ESD Alliance has proved extremely valuable in defining the platforms the tools will run on and support, forcing [the choices] to be a little narrower and making our job as software developers a little easier. When I was running Design Acceleration, our tools had to run on 10 different platforms, with 5 versions of each platform. We were testing new versions and bug fixes on something like 50 different platforms. It was a crazy amount of work! The ESD Alliance has supported and documented the official platforms for many years now, so the user community has narrowed the platforms [they request] and only use the ones sanctioned by the ESD Alliance. That has made it a much easier job for our software developers.” – Dean Drako, President and CEO, ICMange, Inc. [Full interview: <http://bit.ly/2gWkUcf>].

“At board meetings or in general members meetings, you could see it in the eyes of the audience as they realized what was going on. We were all in the same boat, with everyone afraid to put “Call Home” into their products. But the discussion within the EDAC team – an effort lead by Kathryn Kranen – and the way we positioned this together [produced a message] to our customers: You have to pay more because there are folks stealing the software. You should support our efforts on this as a paying customer, so everyone who should pay for the products is paying. That transformation in thinking about piracy alone, was worth the membership.” – John Kibarian, CEO, PDF Solutions [Full interview: <http://bit.ly/2xrEg9B>].

“It’s also great to talk with the startups, and to attend the series that Jim Hogan has been running for a while. The little companies, the investors, the entrepreneurs can all get together to see what they are doing. The ESD Alliance is a great way of taking care of the industry that we all love, or otherwise we wouldn’t be in it.” – Raul Camposano, CEO, Sage Design Automation. [Full interview: <http://bit.ly/2fEkRqL>].

“I’ve worked closely with Bob Smith [ESD Alliance Executive Director]. He’s done a fantastic job in re-energizing and re-branding EDAC to ESD Alliance, having a lot more events, creating more marketing promotion opportunities, and having information about regulatory matters for the membership.” – Amit Gupta, President and CEO, Solido Design Automation. [Full interview: <http://bit.ly/2eLX23E>].

Committee Updates



Export (Larry Disenhof, Cadence). The Export Committee continues to monitor government activities and rulings that might have a significant impact on your business.

For those of you who have a presence in China, you'll want to keep track of the pending export regulations that China intends to implement early in 2018. They have not provided many specifics, though we believe the control list of items subject to the regulations will be similar to the Wassenaar list, which equals items subject to U.S. National Security controls. An analysis of the proposed regulations is available at <https://goo.gl/fBRuxf>.

EDA software and technology are not subject to this level of control, however until China publishes details, we won't know for sure if we're going to be captured. Nor is there any information yet about what registration or other licensing will be required, not only for the export from China of R&D output, but of shipment of laptops or infrastructure equipment in your offices.

We expect further information late this year; we may see implementation as early as January 2018.

ESD Alliance member companies who need more information regarding these or other government issues potentially affecting your business should [contact us](#).



License Management & Anti-Piracy (LMA) (John Harms, Mentor, a Siemens Business). This quarter, the LMA committee held regular meetings to discuss matters of common interest, e.g. the discovery of a queuing bug in FlexNet licensing technology.

For the server cloning issue, a sub-team from the LMA Committee met with a sub-team from CELUG (Centralized Enterprise License Users Group) in a face-to-face meeting after the DAC/CELUG event was over. They discussed how customers will interact with remedies for license-over-usage via server cloning. Overall, the customer response was positive. The two groups will continue collaborating together as the solution unfolds. The LMA committee also held internal discussions about technologies we anticipate will help control the over-usage.

This will be John's last ESD Alliance Newsletter update, at least for a while. The LMA Committee tradition has been to select a new chairperson every four years, so it's time to pass the baton to a new leader: Sashi Subramanian (right) from Cadence Design Systems. Currently Engineering Group Director – Licensing, Installation and Release Operations at Cadence, Sashi brings 25 years of experience focusing on licensing, anti-tampering, and fulfillment. This is great news for the LMA Committee, which is in capable hands for the next four years.

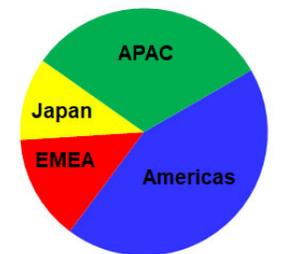


Interoperability (Stephanie Chou, Keysight Technologies). As the Electronic Systems Design market continues to evolve, the Interoperability Committee has started to explore additional factors that could impact the operation or the interoperability of tools or IP. Issues such as publishing OS version range or EOL guidelines, virtual machines, CPUs, forward/backward compatibility of OS versions, compilers and ABI, remote access tools, and container technology are among the most prominent candidates to consider. Our short-term goal is to establish a repeatable process for filtering and prioritizing issues of interest, select the highest priority issue to focus on, and ultimately augment our roadmap and guidance accordingly as a result.

As always, you can find the latest OS Roadmap update on the ESD Alliance web site, esd-alliance.org.



Market Statistics Service (MSS): (Paul Cohen, ESD Alliance). The ESD Alliance's [MSS report](#) captures EDA, semiconductor IP and services revenue data reported in complete confidence by companies providing these products and services and organizes it into a published report available to members. The most recent report, covering through Q2, 2017, shows quarterly industry revenue up 9.8% compared to Q2, 2016 on revenues of \$2.2 billion. This is the strongest Q2 in five years. The report includes historical revenue data by quarter organized by detailed product categories and geographic regions. The report provides valuable data to help guide member companies' business decisions. An overview is available in the [MSS Newsletter](#), available at esd-alliance.org.



Regional Revenue Percentage



Emerging Companies (Steve Pollock, Sanida, Inc.). The Emerging Companies Committee continues to hold informative events on topics of interest to the electronic design ecosystem. We are busy planning several events for the fall and winter, including new installments of the popular Jim Hogan emerging companies series and the continuation of a series on the Cognitive Computing Era, in cooperation with San Jose State University. Check the Alliance web site, esd-alliance.org, for details!

Recordings of past events are available in the [ESD Alliance media library](#).



Tradeshow (Graham Bell, Uniquify). The committee represents the interests of ESD Alliance companies at the Design Automation Conference (DAC) and Design Automation and Test Europe (DATE).

The 54th DAC was a great showcase for ESD Alliance companies and their products. It offered attendees outstanding training, education, exhibits and networking opportunities. According to Michael “Mac” McNamara, General Chair, the machine learning tutorial Monday was standing-room only, as was the AI panel session at the Pavilion, the keynotes were world-class and the focus on IoT was right on target. In addition, DAC 2017 included several activities for attendees to enjoy on the exhibit floor: the World of IoT exhibit hosted the Hardware Design Contest finalists highlighting their designs; the daily DAC Pavilion tear-down sessions and location of the Designer/ IP Poster sessions all brought excitement to the show floor and drove attendance to the exhibits. The 55th DAC will return to San Francisco on June 24 through 28, 2018.



DATE 2018 will be held March 19 through 23, 2018, at the International Congress Center, Dresden, Germany. The 21st DATE conference and exhibition is the main European event bringing together designers and design automation users, researchers and vendors, as well as specialists in the hardware and software design, test and manufacturing of electronic circuits and systems. Two Special Days in the program will focus on areas bringing new challenges to the system design community: Future and Emerging Technologies and Designing Autonomous Systems, and each will have a full program of keynotes, panels, tutorials, and technical presentations. You will see more than 40 exhibitors and sponsors for the event.



IP (Warren Savage, Silvaco) The IP Committee continues to support the IP community with its support of events and other educational forums.

Following a successful launch in 2016, look for two REUSE events in 2017. The first was in Shanghai August 30, followed by the Santa Clara Convention Center December 14. Additional details are available at the-core-store.com, and <https://www.reuse2017.com>.

The ESD Alliance — Where Electronics Begins

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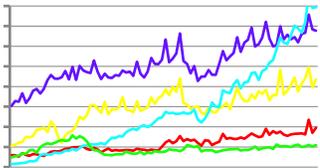
Now's a Great Time to Join ESD Alliance!

If you ask any of our members who were interviewed recently by EDACafe's Peggy Aycinena for her blog series on ESD Alliance members, they will tell you now is a great time to join the ESD Alliance! "In principal, it's good to have an industry association that looks out for your interests, and those of the industry," Raul Camposano, CEO of Sage, tells Peggy. "The ESD Alliance happens to be that for EDA."

Being part of the Alliance is especially timely as we plan for a variety of Fall/Winter events, including the Phil Kaufman Award ceremony and dinner, always a crowd pleaser and terrific networking opportunity. By joining now, you and your employees can attend our networking events at no additional cost.

The ESD Alliance is the voice of the design ecosystem — your company's voice — to promote the importance of the electronic design ecosystem to the semiconductor and electronic manufacturing segments. It's a big responsibility that means regular communications to the industry at large. As the executive director, it's my job to keep our corner of the industry visible and I do that through ongoing blog posts and opinion pieces. We regularly turn out news releases about our programs, new members and other topical information. And, you will see us at many industry conferences and other events.

We aren't only about networking and educational events. In fact, we have quite a few largely unheralded programs that our members consider of great value, including members profiled by Peggy. We break them into five additional categories — market information, risk management, growth and efficiency, emerging companies and industry voice.



For example, the Market Statistics Service (MSS) is a mainstay among them and is part of the market information category. Quarterly revenue data is collected from contributing companies and aggregated by an outside accounting firm to ensure no individual company data is disclosed. Members receive a quarterly report with up-to-date information and trends for determining total available market and so much more. The driver of this 20-year program is Wally Rhines from Mentor, a Siemens Business, which should give you a hint to its importance and relevance.

In more ways than I can count, the Export Committee is an effective and invaluable resource to member companies for risk management and avoidance. It represents all of them with a unified voice in Washington, D.C., on export licensing and compliance issues.

Another important aspect of risk management the Alliance addresses is license management and anti-piracy with a charter to work on technologies and best practices to help honest customers operate within their license agreements. Current efforts are focused on an industry solution to host-id duplication. The anti-piracy component looks at products and algorithms to hinder theft of member companies' software and IP. As you might expect, the result in savings from losses due to theft is substantial and improves ROI on the R&D investment.



An IP Fingerprinting Methodology Working Group under the risk management category is developing a common methodology and best practices for fingerprinting for an end-to-end solution to track and audit soft and hard semiconductor IP. The benefits to IP users and vendors are tangible and deliver risk reduction through automated IP audit capabilities and improved license adherence and revenue.

The O/S Interoperability Committee publishes a recommended platform support roadmap for all member companies and sets expectations with customers for supported platforms. The value of this growth and efficiency committee is a reduction of member company resources and costs to develop and support a wider range of platforms.



One area that we don't widely promote is our involvement with the National Defense University (NDU). File that under education. Paul Cohen, member of the technical staff, and Larry Disenhof, group director of Export Compliance and Government Relations at Cadence and chair of the Export Committee, educate students going through NDU on the value of the semiconductor industry. Among their efforts, Larry and Paul host and organize an annual visit by the students to Silicon Valley, all-the-while delivering value to member companies by educating future leaders in the U.S. government.

If all of this wasn't enough ... In addition to all of these benefits, ESD Alliance members receive a 10% discount on DAC booth space.

Increased membership, networking opportunities, events and education, risk management, growth and efficiency, market information, emerging companies, industry voice, DAC discount, all great reasons for your company to join the ESD Alliance.

As Peggy Aycinena kicked-off her series, she wrote: "It's my hope to speak to every company currently a member of the ESD Alliance. These companies vary in size, interests, product offerings, and leadership outlooks. The one thing they share, however, is a sense that together they enhance the ecosystem within which electronic systems are designed."

If your company would like to join the ESD Alliance, please visit the ESD Alliance website to read about these active committees and our other ongoing initiatives. Or, contact me for more specifics on ROI or other justifications for joining. I can be reached at bob@esd-alliance.org

We look forward to seeing your company name on our membership roster, you and your colleagues at our upcoming events and a profile on EDACafe!

Peggy Aycinena's series can be found at:

What would Joe Do?

<http://bit.ly/2kNUqnA>

IP Showcase

<http://bit.ly/2kjVajD>