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These prepared remarks also contain non-GAAP financial measures as defined by the Securities and Exchange Commission in Regulation G. Reconciliations of the non-GAAP financial measures to their comparable GAAP measures are included in the second quarter fiscal year 2021 earnings release and financial supplement, each dated May 19, 2021, and available on Synopsys' website at [www.synopsys.com](http://www.synopsys.com). Additional information about such reconciliations can be found in Synopsys' Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 19, 2021.

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Good afternoon.

I'm happy to report outstanding second quarter results, exceeding all of our key guidance metrics. We delivered revenue of \$1.024 billion, with GAAP earnings per share of \$1.24, and non-GAAP earnings of \$1.70. Business was strong across all product groups and geographies. We continued to make good progress on our margin expansion goals, and generated record operating cash flow of \$526 million. As a result of our first half strength and growing confidence in our year, we are raising guidance for revenue, non-GAAP ops margin, earnings, and cash flow. Trac will discuss the financials in more detail.

Before commenting on highlights, let me say a few words about the dire situation in South Asia. While parts of the world are progressing well with vaccinations, we are seeing an enormous challenge for the people of South Asia. Our top priority is the well-being of our employees, and we have taken many steps to support them and their families. Ranging from orchestrating oxygen concentrators, to teaming up with vaccination clinics, to ambulance services, food delivery and family help, our objective is to maximally mitigate the impact of Covid and make sure that every employee can call on Synopsys as a beacon of care and solidarity. Despite the pandemic challenges, we are thankful that from a business perspective, we continue to ship our products and support our customers with no material disruptions, and our business is doing well.

Looking at the overall market, demand for semiconductors is very strong. While some of the near-term demand can be attributed to segments such as automotive catching up after a year of Covid slowing, there is an undeniable new wave of growth on the horizon as every vertical market demands machine learning chips to harvest their big data for their specific needs.

In other words, the early technical successes of machine learning in the cloud are now moving to the edge, attracted by the economic promise of "smart everything." The technology "push" has grown into a vertical economic "pull." All segments are impacted, and the race is on to provide smart solutions in automotive, health, consumer, 5G, and so on.

This push/pull opens a whole new era for semiconductors and software, and with it, great opportunities for Synopsys.

First: The foundational building blocks are complex chips. Chips for data generation and sensors, for storage, for transport, and for compute. All needing IP blocks, speed, low power, and security. This is great for Synopsys.

Second: Not just chips, systems of chips. While the complexity of system on a chip continues to grow, the leading edge is moving to systems of chips. By abutting them seamlessly and stacking them on top of each other, massive transistor counts open the door to brand-new functionality. This growing systemic complexity is great for Synopsys.

Third: Chips differentiated by vertical market. Each vertical has its own needs. Automotive has safety requirements. Mobile requires extreme low power. Aerospace and industrial want built-in life cycle diagnostics. High-powered new entrants, such as hyperscalers and AI, design their own chips for super performance. And everybody, be it medical and health markets, financial sector, communications, or infrastructure, everybody needs much better security. All of these are disciplines that we have invested in for years: Great for Synopsys.

And lastly: Software and Silicon are tightly linked and must be tuned for each other. Software to be written to consume less power in the chips. Chips to be optimized for huge amounts of sensor data. Software to be debugged on prototypes of chips that have not been built yet to speed time to market. Chips to be optimized for blindingly fast computation. And always: Software and Chips must be secure together. These are all technologies we are leading in. Great for Synopsys.

So, we are perfectly placed, and our mission is to catalyze the “smart-everything” ambitions of our semiconductor partners and vertical customers by delivering a 1000X system performance in this decade.

In that context, let me share some highlights, beginning with EDA, which delivered another strong quarter, both in design and verification.

In digital design, proliferation and competitive displacements with our Fusion Design Platform again drove strong growth. In particular, strong momentum for Fusion Compiler. For example: Arm is leveraging Fusion Compiler on its next-generation Neoverse V1 and N2 infrastructure cores. Fusion Compiler was also selected for advanced mobile designs at Samsung, driven by superior throughput and performance-per-watt results. Our momentum in the most advanced 3nm node is also evident with five new test-chip tape-outs at processor, graphics, and mobile technology leaders, as well as next-wave 3nm adopters.

We see strong innovation and market disruption with our Custom Design Platform as well. In Q2, we announced our PrimeSim Continuum Platform for analog/mixed-signal simulation. With the industry's brand-new graphics processor-based acceleration, it cuts time-to-results by 10X. Endorsed by Samsung

Electronics, NVIDIA and KIOXIA, PrimeSim delivers significant productivity gains at companies such as Nanya Technology, where it is deployed on DRAM design. In addition, we again secured multiple full flow displacements in the quarter, including another large analog design company in Japan.

In verification software, we had strong growth with our Verification Continuum Platform, driven by adoption momentum with hyperscalers.

Our hardware verification solutions drove excellent results as well, including 14 new logos and more than 50 repeat orders in Q2.

Fueling our ongoing strong growth is continuous innovation, including new turbo-charged, application-specific emulation systems, two of which went to market in the quarter:

The ZeBu Empower emulation system lets customers perform power analysis earlier in the design cycle, dramatically reducing power-related risks. Also, just last week, we launched ZeBu EP1, the industry's first ultra-fast 10MHz emulation system. It targets high-performance compute for 5G, GPU, AI and automotive, handling designs up to 2 billion gates. We also shipped the latest generation of prototyping: HAPS-100. With the fastest performance and unmatched enterprise scalability, it accelerates software development, system validation, and verification. Customers like Nvidia and Furiosa are already relying on HAPS-100 for their most demanding projects.

Now to IP, which again achieved excellent revenue growth, driven by technical leadership and strong market dynamics. In Q2, we extended our advantage in the high-performance compute market. We acquired MorethanIP and its 400G/800G Ethernet controllers. Combined with our existing 112G Ethernet PHY, we now offer a full Ethernet solution for high-performance data center applications.

Advancing our lead in next-generation PCI Express interfaces, we delivered the industry's first complete PCI Express 6.0 IP solution. Needed for huge bandwidth demands, we see strong market traction with leading customers.

And in addition to the EDA adoption I referenced earlier, we announced a strategic collaboration with Arm to closely align on product roadmaps and enhance our interface IP solutions with specific features for the Arm Neoverse platform.

Our interface and foundation IP are also gaining broad industry adoption on the advanced 5nm FinFET process driven by vertical segments such as high-performance compute, automotive and AI. More than 20

leading semiconductor companies use our 5nm IP with multiple first-pass silicon successes, attesting to the robustness and reliability of our portfolio.

Lastly, to address the above-mentioned safety and security requirements for automotive, we launched the new DesignWare Hardware Secure Module and ARC Safety and Security Processor IP solutions with integrated functional safety features.

Let me now turn to two exciting and disruptive technologies we recently introduced.

First is [DSO.ai](#), our award-winning AI-powered design system that hits right at the foundation of the new growth era – very complex chips. DSO.ai autonomously searches the vast design space for optimal solutions in terms of chip performance, power and area. It does this using very sophisticated machine learning. This not only substantially accelerates the schedule of human design teams, but it enables them to push the technology envelope towards better solutions. The improvements and results over the last two quarters have been extraordinary.

One example is a very large, influential U.S. company, who reported what I like to call a “productivity world record.” On a leading-edge chip, a single engineer using DSO.ai was able to achieve in weeks what typically takes an entire team months to complete. Another global leader recently highlighted unprecedented 3X designer productivity and meeting timing specs weeks ahead of schedule. Results like these are driving notable adoptions. For example, Renesas now uses DSO.ai for its advanced automotive chip design environment.

The other innovation push is our Silicon Lifecycle Management Platform, or SLM for short. This end-to-end solution monitors, analyzes, and optimizes chips as they are designed, manufactured, tested and deployed in the field. SLM leverages our long-standing unique expertise to give customers visibility into performance, reliability, safety and security issues for a chip’s entire lifespan.

We are actively engaged with multiple customers at 5 and 3nm that seek to use SLM to optimize their design flow with data collected during test. The vertical market “pull” by hyperscalers, for example, is a strong driver of important adoptions. In Q2, 10 new customers adopted a variety of SLM capabilities. Several of them, having adopted one element of our portfolio, are already broadening to other aspects of our platform. Stay tuned as we continue to roll out new capabilities.

Now to Software Integrity – which had another very solid quarter towards meeting its fiscal '21 goals and accelerating growth. Revenue was ahead of plan in every region, reflecting strong orders momentum.

We're seeing good results from the changes we've made in our go-to-market strategy and execution. In Q2, we added 100 new logos, and retention exceeded our targets. The services business was particularly strong and is driving comprehensive service-plus-product engagements. A great example is an important, multi-million-dollar new business win with a large transportation company, who replaced incumbent products with Synopsys for the end-to-end value we provide.

We also launched our channel partner program to expand our reach into geographies and verticals not currently touched through direct sales. The benefits are apparent. For example, we closed a multi-million-dollar new adoption in South America, where we didn't have any selling capability six months ago.

On the technology front, we delivered a significant enhancement to our Polaris platform – Intelligent Orchestration. It's a set of processes within Polaris that run parallel to our customer's DevOps pipeline. Intelligent Orchestration communicates and automates security testing in synchronization with each company's specific protocols and is built for easier and efficient integration into their development pipeline. The opportunity in this space is vast, and we're encouraged by the steady progress the team is making.

In summary:

We delivered an outstanding Q2 and are raising our outlook for fiscal '21. Our markets are strong, reflecting extensive customer investments in critical chip and system designs with an increasing need for safety and security. As we look beyond this year's \$4 billion revenue milestone, we see a new era at the intersection of Silicon and Software that will deliver "smart everything" to all vertical market segments. We see technology challenges that demand the cooperation and teamwork around many complex disciplines – disciplines we are strong in. And we see Synopsys in the midst of this vision as a well-equipped catalyst to our customers' and partners' success.

Finally, I want to recognize the efforts of our global team, who over the past year and a half, have adapted and succeeded despite upheaval and uncertainty. Thank you all for your solidarity and hard work.

With that, I'll turn it over to Trac.

Thanks, Aart.

Good afternoon everyone.

As we report another outstanding quarter, let me echo Aart's thanks to our team not only for their dedication, but also for their unwavering focus on innovation to fuel the exciting opportunities we have ahead. We are in a great position, as we set our sights on our next-level financial ambitions.

On top of a solid foundation of nearly 90% recurring revenue, a diverse and growing customer base, and market and technology leadership, our track record of excellent execution continued in Q2.

We are increasingly confident in our outlook and are raising our revenue, non-GAAP earnings, non-GAAP operating margin, and cash flow guidance for the year.

Now to our second quarter results. All comparisons are year-over-year, unless otherwise stated.

We generated total revenue of \$1.024 billion, up 19% and above our target range, driven by broad-based strength across product groups and geographies.

Semiconductor & System Design segment revenue was \$930 million, with strong growth in both EDA – software and hardware – and IP.

Software Integrity segment revenue was \$94 million. The positive orders momentum we saw in the quarter shows that the adjustments we've made to the business are taking hold.

- We are on-track to meet our 2021 expectations of 15-20% orders growth and to exit the year with double-digit revenue growth in the fourth quarter.
- We're on a good path to accelerate revenue growth back to the 15-20% range long-term.

Moving on to expenses, total GAAP costs and expenses were \$830 million. Total non-GAAP costs and expenses were \$707 million, resulting in a non-GAAP operating margin of 31%.

We are on track to again deliver operating margin expansion for the year and are raising the bottom end of our guidance range.

Adjusted operating margin for the Semiconductor & System Design segment was 33%, and Software Integrity margin was 9%.

Finally, GAAP earnings per share were \$1.24, and non-GAAP earnings per share were \$1.70 – well above our target range.

Turning to cash, we generated a record \$526 million in operating cash flow. We completed \$145 million in stock buybacks, bringing the total for the year to \$398 million.

And we ended the quarter with a cash balance of \$1.46 billion, and total debt of \$116 million.

Now to guidance. For fiscal 2021:

- Revenue of \$4.035 to \$4.085 billion – an increase of \$35 million, representing double-digit growth;
- Total GAAP costs and expenses between \$3.241 and \$3.286 billion;
- Total non-GAAP costs and expenses between \$2.835 and \$2.865 billion;
- A non-GAAP operating margin of 29.5 to 30%;
- Other income and expenses between minus \$5 and minus \$9 million;
- Non-GAAP normalized tax rate of 16%;
- GAAP earnings of \$4.55 to \$4.72 per share;
- Non-GAAP earnings of \$6.38 to \$6.45 per share, representing mid-teens growth;
- Cash flow from operations of \$1.25 to \$1.3 billion;
- And capital expenditures of approximately \$100 million.

Targets for the third quarter are:

- Revenue between \$1.03 and \$1.06 billion;
- Total GAAP costs and expenses between \$807 and \$825 million;
- Total non-GAAP costs and expenses between \$707 and \$717 million;
- GAAP earnings of \$1.30 to \$1.41 per share; and
- Non-GAAP earnings of \$1.75 to \$1.80 per share.

Our track record is reflective of how we intend to manage the business to exceed the Rule of 40.

Based on our vibrant market opportunity, our strong portfolio, and our excellent execution, we see an opportunity to accelerate revenue growth and expand non-GAAP operating margin beyond 30%.

Our long-term financial objective is to manage to a “rule of 45” over the next several years, and we will provide additional details once our long-term planning process is complete.

In conclusion,

- We delivered strong revenue and non-GAAP earnings growth, and record operating cash flow.
- Our strength is broad-based across product groups and geographies,
- And we are raising our guidance for the year.

- At the same time, we continue to develop and deliver transformative innovations that enable our customers' endeavors and position us well for many years to come.

With that, I'll turn it over to the operator for questions.