These prepared remarks contain forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. Any statements that are not statements of historical fact may be deemed to be forward-looking statements. Forward-looking statements include, but are not limited to, statements regarding Synopsys' short-term and long-term financial targets, expectations and objectives, business objectives and outlook, future acquisitions, customer demand, strategies related to our products and technology, our planned product releases and capabilities, our planned stock repurchase activity, our expected tax rate, the expected impact of U.S. and foreign government action on our financial results, and the expected impact of the COVID-19 pandemic. These statements involve known and unknown risks, uncertainties and other factors that could cause our actual results, time frames or achievements to differ materially from those expressed or implied in our forward-looking statements. Accordingly, we caution stockholders and prospective investors not to place undue reliance on these statements. Such risks, uncertainties and factors include, but are not limited to: risks from the effect of the COVID-19 pandemic and the associated economic downturn on our business, operations and financial condition, including the ability to secure timely payment from customers, the ability to accurately estimate customer demand, reduced willingness of current and potential customers to purchase our products and services due to their own business and market uncertainties, the ability of our business partners and third-party providers to fulfill their responsibilities and commitments, the ability to secure adequate and timely supply of equipment and materials from suppliers for our hardware products, and the ability to develop and deliver our products; the anticipated timing and customer adoption of our new product offerings; action by the U.S. or foreign governments, such as measures in response to the COVID-19 pandemic or the imposition of additional tariffs or export restrictions, which could interfere with our business operations or our ability to provide products and services in certain countries; uncertainty in the growth of the semiconductor and electronics industries; consolidation among our customers and our dependence on a relatively small number of large customers; risks and compliance obligations relating to the global nature of our operations; macroeconomic conditions and uncertainty in the global economy; fluctuation of our operating results; increased variability in our revenue due to ASC 606 implementation, including the resulting increase in recognizing upfront revenue as a percentage of total revenue; our highly competitive industries and our ability to meet our customers' demand for innovative technology at lower costs; cybersecurity threats or other security breaches; our ability to protect our proprietary technology; our ability to realize the potential financial or strategic benefits of acquisitions we complete; our ability to carry out our new product and technology initiatives; investment of more resources in research and development than anticipated; product errors or defects; increased risks resulting from an increase in sales of our hardware products, including increased variability in upfront revenue; changes in accounting principles or standards; changes in our effective tax rate; liquidity requirements in our U.S. operations; claims that our products infringe on third-party intellectual property rights; litigation; the ability to obtain licenses to third-party software and intellectual property on reasonable terms or at all; the ability to timely recruit and retain senior management and key employees; the inherent limitations on the effectiveness of our controls and compliance programs; the impairment of our investment portfolio by the deterioration of capital markets; the accuracy of certain assumptions, judgments and estimates that affect amounts reported in our financial statements; and the impact of catastrophic events. More information on potential risks, uncertainties and other factors that could affect Synopsys' results is included in filings it makes with the Securities and Exchange Commission from time to time, including in the sections entitled "Risk Factors" in its Annual Report on Form 10-K for the fiscal year ended October 31, 2019 and in its latest Quarterly Report on Form 10-Q. The information provided herein is as of May 20, 2020. Although these Prepared Remarks are expected to remain available on Synopsys' website through the date of the earnings results call for the third quarter of fiscal year 2020, their continued availability through such date does not mean that Synopsys is reaffirming or confirming its continued validity. Synopsys undertakes no duty, and does not intend to update any forward-looking statement, whether as a result of new information, future events or otherwise, unless required by law.

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 2020 earnings release and financial supplement, each dated May 20, 2020, and available on Synopsys' website at 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 20, 2020.

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Good afternoon.

I am happy to report outstanding second quarter results, with record orders, revenue, non-GAAP earnings per share and operating cash flow. We substantially exceeded all of our key guidance metrics. Revenue was $861 million, with GAAP earnings per share of 71 cents, and non-GAAP earnings of $1.22. Orders were substantially greater than our internal plan, driven primarily by digital design software, and we continued to make good progress on our margin expansion goals.

As a result of our first half strength and the resilience of our business, we are reaffirming our revenue and non-GAAP margin guidance for the year, while raising our non-GAAP earnings and cash flow targets. Trac will discuss the financials in more detail.

Before providing quarterly highlights, let me comment on the market landscape, which is of course dominated by the Covid-19 pandemic and its substantial recessionary pressure on the global economy.

While in a matter of weeks, many companies around the world have adapted to widespread work-from-home, the semiconductor sector has stayed busy as electronic system and chip design continues unabated. Driven by the sudden need for bandwidth and compute for home – be it for work, schooling, or entertainment – advanced chip design is not slowing down.

We've seen this continuous design activity in previous downturns. Regardless of where a company or industry is in its business cycle, continuous investment in new technologies, be they AI and machine learning, 5G, IoT, automotive or cloud end markets, is the best way to be ready when the economy turns up again. Synopsys is at the core of this enablement.

Combining that with our time-based business model, a high level of recurring revenue, and a non-cancellable backlog of $4.7 billion, Synopsys is well-positioned to withstand the uncertainties of today's macro environment.

With that context, let me provide some highlights from the quarter, beginning with EDA.

Our unrelenting innovation push throughout our Fusion Design Platform is driving momentum in technical benchmark wins, increased competitive displacements, and new breakthrough products.

In Q2, our hallmark Fusion Compiler product drove a doubling of the number of tape-outs, as well as significant business commitments by customers ranging from the world's largest microprocessor and consumer companies, to mobile, networking, and automotive system designers.

Key competitive wins included: a leading Asian 5G/edge-computing chip supplier for next-generation 5nm design; a prominent North American graphics company on an advanced gaming GPU; and expanding competitive displacements at some of the world's leading mobile semis on multiple designs ranging from 12nm to 5nm.

The fusion concept – a revolutionary invention with impact that goes far beyond even the breakthrough Fusion Compiler solution – resonates very well with our customers and partners. This quarter, we expanded our collaboration with Broadcom, who is widely deploying our Fusion Design Platform to accelerate delivery of its innovative 7nm and 5nm designs.

And our innovation continues at a rapid pace. In March, we announced several exciting new products, including "DSO.ai." The result of a multi-year initiative with leading industry partners, it includes "learning engines" that can automatically adjust and optimize throughout the design flow. The result is impressive productivity improvements in terms of project time, as well as further optimizations in chip performance,
power, and area. Using state-of-the-art AI and machine learning, as well as cloud-based burst computation, it enables design teams to tackle more projects, handle larger parts of a project, and lets designers focus exclusively on leveraged high creativity and value-added tasks.

Another seminal new product is "3DIC Compiler." Advanced designs are now so massive and complex that they require a brand-new approach. 3DIC Compiler is a single environment that enables the combination of multiple die together on a chip. This provides far better performance and capacity than conventional chip-in-package approaches for customers such as Samsung Electronics, who referred to it as an "industry disruptor." – 3DIC is also a great way to extend the power, performance, and density benefits of Moore's Law, as it supports the high speed, parallelism, and massive data needs of new AI architectures. This opens a new path to very powerful multi-die computational engines for years to come.

Meanwhile in custom design, our multi-year innovation push has resulted in a highly competitive product that is being used for the most advanced FinFET designs and driving ongoing full-flow competitive displacements.

For example: Alphawave replaced its legacy custom design tools with our Custom Design Platform for development of high-speed connectivity IP. Here too, productivity was the reward, as our solution helped them meet aggressive design targets in a notably shorter time frame. A major foundry in Asia expanded its internal deployment and now has more than 10 Custom Compiler projects underway. We also secured new deployments for memory, silicon IP and microprocessor designs.

Let me now move to our Verification Continuum platform, where significant technology innovation continues to cement our market-share leadership.

In verification software, we're seeing notable expansions at influential hyperscaler companies, traditional semi and systems companies, and global startups.

Across the platform, our technology is strong. On the hardware side of our verification solution, which caters uniquely to unrelenting design complexity growth, demand for our products is also high. Competitively, our emulators and prototyping systems are differentiated by raw speed, higher reliability, easier installation and maintenance, and overall lower cost of ownership. Just this quarter, 13 new customers purchased our hardware products, and we had more than 30 repeat orders. Here, too, we're seeing good momentum with customers ranging from very large semi and systems companies to hyperscalers and startups.

While the timing of hardware deliveries creates a tough comparison with the first half of last year, we continue to gain momentum with both new and existing customers.

Now to IP, where we are growing with solid momentum. As the #1 provider of interface, embedded memory, logic libraries, and foundry-specific IP, we provide the broadest portfolio addressing the most complex requirements, accelerating time-to-market, and lowering design risk.

With more than 330 wins for foundry-specific 7nm IP, customers are clearly placing their trust in our leadership in high-performance cloud computing applications. Most recently, we achieved significant competitive wins, including: a major internet services and AI company, who adopted our production-proven IP subsystems and PCI Express 5.0; and a major Taiwanese fabless semiconductor company, who licensed our silicon-proven HBM2E for multiple networking customers.

Our unrelenting focus on enabling advanced process designs continues. We recently announced availability of the broadest portfolio of IP for TSMC's 5nm process for high-performance computing

SoCs. A multi-national technology giant in cloud services and AI selected our PCI Express 5.0, CXL and Foundation IP. And a leading e-commerce company chose our die-to-die HBI IP because of our performance, power, and area differentiation.

Our product momentum for ARC processors also continued, with the introduction of our first 64-bit processor IP. This is our highest-performance ARC processor to-date, targeting high-end embedded applications such as storage, automotive control and infotainment.

Now to Software Integrity. This is one area of our business that felt more of an impact from Covid, as companies delayed business decisions while working to adapt to shelter-in-place mandates. While revenue growth improved sequentially, we did see a slowdown in orders that will moderate our revenue growth this year to the low-double-digit range, before returning to higher growth longer-term.

The breadth and roadmap of our portfolio are uniquely well-suited to serve today's DevSecOps requirements. By providing high-value products, a great new platform, and strategic consulting services, we are well-positioned to help companies develop more secure, high-quality software for a very interconnected world.

Industry recognition of our vision and product breadth has grown significantly over the past several years. Just a few weeks ago, Gartner updated its Magic Quadrant for Application Security Testing. We are pleased to note that Synopsys is again at the farthest top right position in the "Leader" quadrant.

We made progress during the quarter in several areas: we achieved multiple competitive displacements, as customers embraced the benefit of our broad portfolio and the integration onto the Polaris Software Integrity Platform. We saw a notable broadening of agreements, as customers expanded the number of products they adopt. One example is a very large global electronics company, who replaced the incumbent and significantly expanded its adoption to a broader set of our solutions.

This quarter, our customer base continued to grow with new logos ranging from very well-known consumer electronics leaders to hyperscalers, to industrial and financial services companies. Our next objective is to scale this business to reach $500 million to $1 billion in revenue over time.

Before I hand it over to Trac, let me comment on our practical handling of the Covid-19 pandemic. I'll begin with a sincere "thank you" to the many selfless caregivers who keep us safe. I also want to thank our employees, who have shown incredible commitment and agility over the past several months to execute on the dual objectives of health and business. I believe that our execution during this period has been stellar. In addition to the rapid actions we took to implement global shelter-in-place orders, we continue to partner with our peers, local governments, and health agencies to ensure a safe work environment for those returning to the office. Our IT, HR, facilities and operations teams have done an amazing job quickly adapting our infrastructure and systems to support work-from-home.

Our R&D teams continue to execute very well, and have effectively worked through some hardware supply chain and logistical challenges. The large number of new products and excellent benchmark results give us strong confidence in our product pipeline. This also applies to our worldwide IP team, which had the foresight to rapidly enable remote development and delivery of high-demand, advanced titles. We are able to ship our products, and our customers report good support from our Application Engineering teams.

Last, as witnessed by the strongest orders quarter on record, our sales team also demonstrated stellar execution. As we now see a gradual opening of businesses in many countries and states, our leadership is planning a very gradual shift back to the office in coordination with local authorities and sensitive to our employees' well-being.

In closing, Synopsys is executing well! We delivered outstanding second quarter results, with record orders, revenue, non-GAAP earnings per share and operating cash flow. Design activity remains strong and enduring. We continue to introduce innovative new products throughout our portfolio and are benchmarking strongly.

Notwithstanding the extraordinary world circumstances, we continue to target: high-single-digit revenue growth, substantial ops margin expansion, mid-teens non-GAAP earnings per share growth, and strong operating cash flow.

Trac will now highlight the financial perspective.

Thanks, Aart. Good afternoon everyone.

Our record results are especially noteworthy, in light of the considerable challenges faced by ourselves and our customers over the past few months. Given our history of strong execution, sometimes it's easy to forget how much hard work goes into delivering results like these. So, I'd like to add my thanks to our employees for their dedication under difficult circumstances.

Complementing our excellent execution in the first half is our very solid business foundation: technology leadership, a diverse customer base, and nearly 90% recurring revenue – these elements position us well for periods of high demand, as well as during times of greater stress. This rare combination gives us the confidence to reaffirm our annual revenue and non-GAAP margin guidance, and to increase our non-GAAP earnings and operating cash flow targets.

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

Orders substantially exceeded our plan, driven in large part by EDA – particularly digital design. Ending backlog was $4.7 billion.

We generated total revenue of $861.3 million, above our target range, driven by broad strength and some revenue that moved in from Q3.

Semiconductor & System Design segment revenue was $773 million, with strong growth in EDA software, moderated by a tough hardware comparison over a strong Q2 of last year. Excluding hardware, EDA software results remained within our long-term target range of mid-to-high single-digits.

A quick note on hardware. While Covid-19 has presented some minor HAPS-related supply chain challenges due to shelter-in-place mandates, we're managing through them well. Our contract manufacturing partners are gradually increasing capacity, and because our products are considered "essential," they are top priorities.

Software Integrity segment revenue was $88.3 million – 10% of total.

Moving on to expenses, total GAAP costs and expenses were $735 million, which includes approximately $30 million in restructuring costs associated with our previously communicated program to optimize resource allocation for sustainable long-term growth. These are not Covid-related.

Total non-GAAP costs and expenses were $640 million, resulting in a non-GAAP operating margin of 25.7%. We are on track to generate approximately 2 percentage points of non-GAAP operating margin expansion for the year. Adjusted operating margin for the Semiconductor & System Design segment was 27.1%, and for the Software Integrity segment 13.3%.

Finally, GAAP earnings per share were 71 cents, and non-GAAP earnings per share were $1.22 – well above our target range due to excellent operational execution.

Turning to cash, we generated a record $380 million in operating cash flow. We initiated a $100 million ASR, and have now completed $200 million in buybacks year-to-date. We've repurchased $2 billion of our stock since 2015 – approximately 75% of our free cash flow.

Our capital allocation strategy has not changed – we'll continue to evaluate the best use of cash each quarter and will remain prudent as the global macro environment evolves.

Our balance sheet is very strong. We ended the quarter with a cash balance of $856 million, and total debt of $236 million, as we paid down $90 million of our revolver.

Now to guidance, which continues to assume that the current Entity List restrictions remain in place for the rest of the year. Consistent with our expectations, revenue is skewed to later in the year due primarily to the scheduled timing of hardware and IP deliveries.

For fiscal year 2020, our targets are:

- Revenue of $3.6 to $3.65 billion;
- Total GAAP costs and expenses between $2.99 and $3.03 billion;
- Total non-GAAP costs and expenses between $2.63 and $2.66 billion;
- Resulting in a non-GAAP operating margin of approximately 27%;
- GAAP earnings of $3.74 to $3.90 per share;
- Non-GAAP earnings of $5.21 to $5.28 per share;
- Cash flow from operations of $815 to $840 million;
- And capital expenditures of approximately $170 million.

Now to the targets for the third quarter:

- Revenue between $875 and $905 million;
- Total GAAP costs and expenses between $721 and $737 million;
- Total non-GAAP costs and expenses between $640 and $650 million;
- GAAP earnings of $1.12 to $1.22 per share; and
- Non-GAAP earnings of $1.33 to $1.38 per share.

In conclusion, despite the unprecedented challenges faced by our employees and customers around the globe, our focused execution, portfolio strength, and resilient business model enabled us to deliver a very strong quarter, reiterate our full-year revenue and non-GAAP margin guidance, and raise our non-GAAP earnings and cash flow targets.

Our strong balance sheet and thoughtful approach to capital allocation position us well to navigate the current environment.

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