



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 stock repurchase activity, our expected tax rate, the expected impact resulting from our adoption of Accounting Standard Topic 606, and the expected impact of the recent U.S. government action on Synopsys' fiscal 2019 results. 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: additional administrative, legislative or regulatory action by the U.S. or foreign governments, such as the imposition of additional tariffs or export restrictions, which could further interfere with our ability to provide products and services in certain countries; the response by current or potential customers and their willingness to purchase products and services from us in the future; 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; uncertainty in the global economy; fluctuation of our operating results; increased variability in our revenue due to the adoption of ASC 606, 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; risks and compliance obligations relating to the global nature of our operations; 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; 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; product errors or defects; 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, 2018 and in its latest Quarterly Report on Form 10-Q. The information provided herein is as of May 22, 2019. 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 2019, 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 2019 earnings release and financial supplement, each dated May 22, 2019, 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 22, 2019.

Good afternoon.

I am happy to report excellent second quarter results. Revenue was a record \$836 million, with strength across both operating segments. In Semiconductor & System Design, software revenue growth was particularly strong, moderated somewhat by a tough hardware comparison versus a record second quarter in 2018. Software Integrity revenue tracked right to plan, with greater-than-20% growth, and is expected to be profitable for the year.

Non-GAAP EPS was \$1.16, and we repurchased \$100 million of our stock, bringing the total so far this year to \$129 million. While the U.S. export restrictions that were announced last week do have an impact, we are raising our non-GAAP earnings guidance, and the top end of our revenue range, to reflect the strength of our business. Trac will provide some additional color on this topic and discuss the financials in more detail.

Whereas geopolitical tension has escalated, the overall customer environment for us is quite solid. The hunger for advanced technology, design, IP, and security solutions is strong, creating a robust market opportunity. The growing impact of AI, 5G, the internet of things, and big data is profound and is driving substantial investments in new compute- and machine-learning architectures. Virtually all vertical markets are engaging with AI, and the potential economic impact is forecast to be in the trillions of dollars. In addition to long-time semiconductor vendors, very large system companies and cloud providers are investing competitively, opening further opportunities for us. The push for AI solutions, along with the growing security issues associated with a highly-interconnected world, benefits our entire Silicon-to-Software product portfolio.

Synopsys is ideally positioned to solve these very complex challenges: our EDA design and verification solutions are front and center in creating brand-new AI-optimized engines; our IP is broadly used in the most advanced silicon technologies ever built; our prototyping tools run and test software on new subsystems long before silicon is available; and our software security and quality solutions are essential to minimize vulnerability to threats.

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

The underlying driver of EDA growth is design complexity, along three vectors: One, advanced processes moving to smaller, denser technology nodes such as 7, 5 and, most recently, 3nm! Two, optimizing

designs in more established nodes, for cost reduction, but also speed and low power. And three, massive software content that is becoming integrated as part of chip design. The system challenge: to make sure the chip and the software work well together.

In design, customers rely on Synopsys for virtually all of their 12nm and below designs. The key reasons are state-of-the-art tools, and also our unmatched collaboration and support. This quarter, we continued our long-standing foundry-enablement with TSMC, who certified both our digital and custom design platforms for its 5nm FinFET process.

TSMC also certified our Fusion Design Platform for their innovative “System-on-Integrated-Chip” – or SoIC – chip-stacking technology, delivering design solutions for true 3D device integration. Samsung used our complete design solution to develop the very first test chip for its brand-new Gate-All-Around process.

In digital design, a rapidly growing highlight is the success of our new Fusion Compiler product, which we launched in November. It’s a revolutionary combination of the main pillars of design – all of which are cornerstones for Synopsys: synthesis, place & route, and signoff – into a single solution, on a single data model.

Fusion Compiler is doing really well, from both technical and business perspectives. A rapidly growing set of customers is reporting excellent results, including significantly shorter design times, a higher level of predictability and better timing, area, and power results! Adopted by 19 different logos, across eight different process nodes, and used for about 250 active or by now completed designs, the trajectory is impressive.

One such customer is Renesas, who deployed Fusion Compiler across its high-value automotive portfolio. Renesas cited consistently superior power, performance, and full-flow productivity on its production designs. The versatility and potential of the Fusion Design Platform is living up to its promise, which includes continuously adding new fusion technology capabilities to broaden its impact.

This quarter, for example, we launched a fully integrated Test flow containing next-generation capabilities for automotive test and functional safety. Stay tuned as we deliver further enhancements over the next 12 months.

Now turning to verification, where we continue to see outstanding results and a strong outlook for the year. Thanks to many years of great technology advances and excellent customer support, we are the market leader.

Verification is a huge bottleneck for chip and system design. Customers tell us that they can't get enough verification, as design complexity is getting more difficult and more time-consuming by the day. Synopsys is fortunate to have the fastest software and hardware solutions, and demand is high for our Verification Continuum Platform.

Q2's strength in verification software was driven in part by accelerating demand from influential systems companies who are reinventing how to design and verify their next-generation products. Our decade-long leadership is an important indicator of our impact. 12 of the top 15 semiconductor companies in the world use our franchise VCS simulator as their primary verification solution.

Demand for our hardware-based verification is also high and increasingly broad-based. The ability to validate chips together with the software and the need for early software development are paramount. Our new ZeBu 4 emulator, launched late last year, is doing very well, with early demand exceeding expectations and outpacing that of previous solutions.

Adoption of our HAPS FPGA-based prototyping solution – which targets early software development – was again robust in the quarter. As a result of our differentiation, we are the market leader in both emulation and prototyping.

Now to IP, which had another very strong quarter and is poised for an excellent year of double-digit growth. As the #2 vendor in the world, and the market leader in interface, analog, embedded memory and foundry-specific IP, we provide the industry's broadest set of building blocks to address today's most complex design requirements for AI, automotive, internet of things, cloud computing and more.

The quarter featured a number of important milestones at advanced nodes. We announced that we have achieved more than 250 IP wins on TSMC's 7nm FinFET Process, across a broad range of applications. In addition, we signed a multi-year agreement with a marquee global customer for 5nm IP.

Meanwhile, our portfolio continues to expand. Further building on our strength in automotive, we announced a collaboration with Global Foundries to develop the industry's first automotive-grade IP for

their 22nm FDX process. We announced a complete solution for one of the hottest markets around – “narrow band IoT” – enabling the next wave of connected devices. And we taped out two key IP titles for cloud computing and AI applications, including a 112G SerDes – an ultra-high-speed connection for hyperscale data centers.

With the rising complexity and time-to-market challenges inherent in delivering today’s electronic systems, Synopsys fills a critical and growing need for sophisticated, low-risk IP.

Which brings me to our Software Integrity Group, which has now reached the 10% of Synopsys revenue milestone and is scaling nicely. As software security issues continue to increase in both number and severity, testing during the development process becomes a necessity. This is true not only for electronics, but for anyone who develops software in financial services, medical, automotive, industrial and beyond.

The progress our team has made in building this business over the past five years is striking. While we acquired compelling technologies and added substantial organic investments, we also focused our deep knowledge towards building a compelling software security and quality platform.

In March, we announced our new Polaris Software Integrity Platform. It brings products and services together into an integrated, user-friendly, cloud-based solution that makes deployment and scalability easier. While we will continue to deliver enhancements to the platform over the next 12-18 months, this initial release is already showing great promise. We are engaged with customers across all regions, and early reaction has been very positive. This included a Fortune 500 insurance company who placed a multi-year, multi-million-dollar order for Coverity delivered on Polaris.

The power of our portfolio – the broadest in the industry – is evident in the growing number of high-value contracts and companies adopting multiple products. Industry recognition of our solution also continues to grow. Last month, for the third year in a row, Synopsys was named a Leader in Gartner’s Magic Quadrant for application security testing; in fact, we were placed at the highest level. We were also again recognized as a leader in the Forrester Wave for Software Composition Analysis for open-source software. Important rankings such as these substantiate our leadership for customers who are investing significantly and choosing their preferred partners.

To summarize: We delivered another very strong quarter, and are raising the top end of revenue and non-GAAP EPS guidance for the year. We’re making step-by-step progress in expanding our ops margin. Our

new EDA products, in the early stages of a multi-year adoption cycle, are experiencing rapid and substantial adoption. Demand for our IP portfolio is high, and we expect to deliver another year of low-double-digit growth. And our software security and quality business is scaling well – reaching about 10% of total revenues and expected to reach profitability for the full year.

Finally, I want to say thank you to the global Synopsys team for its continued hard work and commitment to helping our customers meet their important and always urgent objectives!

Let me now turn the call over to Trac.

Thanks, Aart.

Good afternoon everyone.

We continue to execute well, delivering good top and bottom-line growth and non-GAAP operating margin of 25%.

Operationally, we are on-track for another outstanding year, with an outlook that reflects: high-single-digit revenue growth on an apples-to-apples ASC 605 basis, substantial operating margin improvement, and double-digit non-GAAP EPS growth.

Last week's government action to restrict trade with one of our customers and its affiliates does have an impact on the business, as we are currently unable to ship products, deliver software updates, or provide support. As a result, we are not able to book new business, and recognition of currently contracted revenue is on hold. However, due to the strength of our first half, we're still able to raise our non-GAAP EPS guidance and the top end of our revenue range. I'll provide more details in a moment.

Now to our Q2 numbers. All comparisons are year-over-year unless otherwise stated, and all results are reported under ASC Topic 606. For a summary of these results, as well as equivalent financial metrics under ASC 605, please refer to our Financial Supplement:

We generated consolidated total revenue of \$836 million, or 8% growth, and saw broad-based strength across both segments. Semiconductor & System Design revenue was \$753 million, up 6%, or high-single-digits excluding hardware, which had a record second quarter last year. For Software Integrity, revenue

was \$83 million, an increase of 23% as that business continues to capitalize on market dynamics and gain share in this high-growth market.

Continuing down the income statement, consolidated total GAAP costs and expenses were \$721 million. Total non-GAAP costs and expenses were \$626 million, resulting in a non-GAAP operating margin of approximately 25%. At the segment level, Semiconductor & System Design delivered an adjusted operating margin of 26.8%, with Software Integrity at 10.1% - reflecting both underlying strength and quarterly variability of revenue and expenses.

Note that certain operating expenses, such as stock-based compensation, amortization of intangibles, and other expenses that are managed at the consolidated level, have not been allocated to our segments.

We continue to expect Software Integrity to be profitable for the full year, with the goal of reaching at least our consolidated corporate margin over the long-term.

These operating results in turn drove GAAP earnings per share of 77 cents, and non-GAAP earnings per share of \$1.16.

Turning to cash, operating cash flow was \$353 million, driven by strong collections in the quarter. We ended the quarter with a cash balance of \$631 million, and total debt of \$292 million.

Before moving to guidance, let me provide some additional color around the impact of last week's government action. As I mentioned, we are not able to book new business with this customer and its affiliates, and revenue recognition for current contracts is on hold until either the contract expires or the restriction is lifted. Because the duration of the ban is unclear, we've expanded our ranges to account for an array of potential impacts. We believe that we will eventually be able to recognize the revenue, depending on the timing of the ultimate resolution of the government action.

Our targets, based on ASC 606, for the fiscal year 2019 are:

- Revenue of \$3.29 to \$3.35 billion;
- Total GAAP costs and expenses between \$2.798 and \$2.853 billion;
- Total non-GAAP costs and expenses between \$2.505 and \$2.525 billion;
- Resulting in a non-GAAP operating margin at the midpoint of just over 24%;
- Other income and expenses between minus \$12 million and minus \$8 million;
- A non-GAAP normalized tax rate of 16%;

- Outstanding shares between 153 and 156 million;
- GAAP earnings of \$2.85 to \$3.27 per share;
- Non-GAAP earnings of \$4.24 to \$4.40 per share, an increase at the midpoint of 8 cents over our prior guidance;
- Cash flow from operations of \$670 to \$700 million, which reflects additional uncertainty due to the trade restrictions, and some restructuring costs as we reallocate resources for future growth;
- And capital expenditures of approximately \$270 million. We continue to expect capex to drop by roughly half in 2020.

Now to the targets for the third quarter:

- Revenue between \$810 and \$850 million;
- Total GAAP costs and expenses between \$700 and \$746 million;
- Total non-GAAP costs and expenses between \$620 and \$640 million;
- Other income and expenses between minus \$4 million and minus \$2 million;
- A non-GAAP normalized tax rate of 16%;
- Outstanding shares between 153 and 156 million;
- GAAP earnings of 60 to 83 cents per share; and
- Non-GAAP earnings of \$1.07 to \$1.12 per share.

I'll conclude by reiterating our long-term financial objectives. Annual double-digit non-GAAP earnings growth, driven by: revenue growth in the high-single-digits, reflecting mid-to-high single digits for EDA, low-double-digits for IP, and Software Integrity growth in the 20% range. And operating margin expansion to the high-twenties by 2021, and in the 30% range longer-term.

Our execution in the first half reflects our commitment to driving near-term results that will put us on a path to achieving our longer-term operating objectives.

Our capital allocation strategy enables us to meet these dual objectives while returning substantial value to shareholders. We maintain a balance of internal and external investments for growth and a robust share-repurchase program.

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