Open letter
To: Andrew Anagnost, Chief Executive Officer, Autodesk

In the last couple of years there have been several initiatives raising concerns on the state of the software market in the Architecture, Engineering and Construction (AEC) industry:

In February 2020 the European Construction Industry Federation (FIEC) released a position paper on the lack of competition in the software industry, with customers facing rising costs, limited licensing options from a small number of competing developers.

In July 2020 a community of British and international design practices sent an 'Open Letter to Autodesk', raising concerns about lack of development of core design software, year-on-year escalating costs, lack of protection of intellectual property, aggressive non-compliance policies against customers and a lack of transparency on the future of their software products.

In June 2021 Architects' Council of Europe (ACE) and the European Federation of Engineering Consultancy Associations (EFCA) released a position paper fully endorsing the FIEC initiative and proposals.

In September 2021, RIF, The Association of Consulting Engineers in Norway, sent an open letter to all design software developers, governmental entities and trade organisations, supporting all of the above positions and letters.

Today four professional bodies representing professional architects in Denmark, Finland, Iceland and Norway are adding their combined voices to write an open letter to Autodesk. Having seen Autodesk's limited response, we realize that its top management has spent the more than two years after the first open letters doing nothing substantial about the issues raised. They have failed to recognize and address the frustration behind years of widespread, public, industry concerns. Through its slow software development and the business models forced on customers, it's clear that the actions to date have not been anywhere near enough.

The four professional bodies behind this Open Letter are:

- AiN, The Association of Practising Architects in Norway
- ATL – The Association of Finnish Architects' Offices, Finland
- Danish Association of Architectural firms, Denmark
- SAMARK - The Association of Architectural Firms in Iceland

The voices of the combined architectural industry bodies now join this momentum. Together we voice our concerns, on behalf of all architectural practices in our Nordic countries. We represent more than 14,000 architects, with a turnover of several billions of dollars, with many large and internationally active architectural practices. The majority of architects in these countries use Autodesk AEC products.

Background

The design and construction industry in the Nordic region is amongst the most digitised in the world and most architects and engineers use many different digital design tools in a typical workday. We observe that our ability to implement the latest tools brings the digitalisation of the whole construction industry forward. It is therefore essential that the design teams and software developers cooperate to achieve faster and more efficient digital production capabilities.

Unfortunately, we are not able to reach our potential in providing digital services supporting an entire building's life cycle, much due to the lack of sufficient development and support of our digital tools. We also see practice revenues increasingly eaten up by rising software costs, for little serious development or regeneration.

Computing context

We face and struggle with the very same issues as described in the British open letter:

Every day digital design leaders around the world wrestle with software, which at its core is twenty years old and incapable of the potential of multi-core computing and graphics power designed to process within today's real and virtual workstations. Project productivity in architectural and engineering practices is hit daily because of the lack of scalability and product performance, which then requires sophisticated and practice specific 'work arounds'.

Almost two years on from the first Open Letter, we see no substantial progress or development of Autodesk's core products. The updates that have been delivered have not been deep or consequential. Even decades old requests for simple fixes remain unsolved. Autodesk's policy seems to be providing basic tools and let third party developers supplement needed functionality through add-ins. This creates a highly fragmented software landscape with a lot of overlapping functionality and multiple approaches to licensing, making software administration unnecessarily complex.

The interoperability and compatibility of programs within the Autodesk family should be a prerequisite and is of utmost importance to ensure a rational, efficient, and dynamic workflow within multidisciplinary projects and practices. This is especially the case where, for example, the architect uses Revit, and the landscape architect uses Civil 3D. The experience, however, is that interoperability and subsequent workflow between these two Autodesk owned programs is poor to say the least, requiring several work arounds just to be able to exchange vital project data. Autodesk Docs does not resolve this issue sufficiently.

Due to Revit's and Civil 3D's ongoing inability to support multi-core processors for most of their functions, users are forced to invest in high-end, expensive workstations with high

CPU clock speed, in order to compensate for this inadequacy, thereby incurring a significant indirect cost to already high-priced products.

Licensing context

Where Revit software development has been sluggish and focused on adding minuscule improvements in each release, licensing costs have soared. These costs are not backed by real innovation or productivity gains.

License policies have been constantly changing to the advantage of Autodesk, not its customers. Floating multi-user licenses to single and named users has contributed to both increasing license costs and administrative costs. Many Design IT directors are wasting their work hours managing licences, with the fear of non-compliance audits and fines, instead of getting on with their day-to-day work of improving productivity, enabling collaborate working. Many Design IT Managers are also still expected to work on building projects.

Essential software is increasingly sold as bundles/packages containing many different applications not relevant for all users. Companies are forced to buy ever larger packages of software they don't necessarily need. Autodesk's bundles and packages don't share the same UI or even easily work together. The UK Open Letter identified only 10% of the Autodesk Collection as ever being installed.

Software costs are rising annually at a vastly higher rate than general industry price indexes. We have examples of Autodesk hiking up prices by 30% annually with only a few months warning. This makes financial predictability very hard, which is key to the construction industry, where fees often are fixed for long periods and only minor adjustments are possible.

The way forward

There is widespread frustration over Autodesk's lacking development of their core BIM design software and pursuing of user requests. We need to see real action and progress in the immediate future from Autodesk. We need tools that much more efficiently adapt to the industry's constantly evolving digital workflows.

We would like to repeat the needs described in previous open letters to the software developers, in addition to specific action:

- A vision – a roadmap and investment strategy that targets adding value and performance for design-based organisations that prioritises the replacement of Revit from the ground up to reflect the functionality needed for a 21st century digital industry.
- We need to secure a common understanding for the needs that our design software can efficiently utilise modern hardware resources, dramatically improve data management and handling to comply with diverse international requirements, as well as better design tools.
    - A platform built on modern code, capable of smooth model performance regardless of project complexity.
    - Improved support for open data standards, allowing for free collaboration and data referencing, also across non-Autodesk platforms and services for all industry stakeholders.
    - Advanced computer learning capabilities to improve modelling tools and automation of repetitive tasks.
    - Integrated real-time, high-quality visualization fully utilizing modern hardware resources.
- We propose a series of in-person development workshops with a small task force of industry experts appointed by the Nordic architectural associations together with Autodesk product managers and developers. The workshop must have mandate to map out and solve easily obtained product improvements and bug fixes, for immediate release as product updates for Autodesk core products.
- A heightened commitment for continuously improving application, and industry interoperability as well as expanding geometry support and alignment to international data standards. We see immediate need for improvement in both IFC and BCF support and functionality, but what would really make a difference is an AEC industry version of Pixar's open USD-format. Any progress on this can only be judged by functionality implemented in Autodesk future products and version upgrades.
- Engagement to build a cultural partnership with all customers based on trust, empathy and respect.
- Research and development commitment that is, focused on the needs of the global design community.
- We propose an agreement for cost stability and harmonised licensing costs between EU and US Autodesk applications. We want more flexible user licenses and more efficient license management and support.
- More payment models related to use, not tied to users.
- Collections mean we pay for the majority of tools we don't want or use. Make application bundles more flexible.

We welcome additional input from all AEC industry stakeholders. We also very much look forward to Autodesk's response. We know you have spent a lot of time listening the last few years, now is the time to take action and show some real progress!

12 September 2022