

shorter of their estimated useful lives or the lease term. Depreciation expense was \$59.2 million in fiscal 2019, \$67.6 million in fiscal 2018, and \$73.1 million in fiscal 2017.

Computer equipment, software, furniture, leasehold improvements and the related accumulated depreciation at January 31 were as follows:

	2019	2018
Computer hardware, at cost	\$ 190.2	\$ 217.1
Computer software, at cost	66.7	72.6
Leasehold improvements, land and buildings, at cost	247.8	228.9
Furniture and equipment, at cost	67.2	63.4
Computer software, hardware, leasehold improvements, furniture, and equipment, at cost	571.9	582.0
Less: Accumulated depreciation	(422.2)	(437.0)
Computer software, hardware, leasehold improvements, furniture, and equipment, net	\$ 149.7	\$ 145.0

Costs incurred for computer software developed or obtained for internal use are capitalized for application development activities, if material, and immediately expensed for preliminary project activities and post-implementation activities. These capitalized costs are amortized over the software's expected useful life, which is generally three years.

Software Development Costs

Software development costs incurred prior to the establishment of technological feasibility are included in research and development expenses. Autodesk defines establishment of technological feasibility as the completion of a working model. Software development costs incurred subsequent to the establishment of technological feasibility through the period of general market availability of the products are capitalized and generally amortized over a three-year period, if material. Autodesk had no material capitalized software development costs at January 31, 2019, and January 31, 2018.

Other Intangible Assets, Net

Other intangible assets include developed technologies, customer relationships, trade names, patents, user lists and the related accumulated amortization. These assets are shown as "Developed technologies, net" and as part of "Other assets" in the Consolidated Balance Sheet. The majority of Autodesk's other intangible assets are amortized to expense over the estimated economic life of the product, which ranges from two to ten years. Amortization expense for developed technologies, customer relationships, trade names, patents, and user lists was \$33.5 million in fiscal 2019, \$36.6 million in fiscal 2018 and \$72.2 million in fiscal 2017.

Other intangible assets and related accumulated amortization at January 31 were as follows:

	2019	2018
Developed technologies, at cost	\$ 670.2	\$ 578.5
Customer relationships, trade names, patents, and user lists, at cost (1)	533.1	372.5
Other intangible assets, at cost (2)	1,203.3	951.0
Less: accumulated amortization	(922.5)	(895.8)
Other intangible assets, net	\$ 280.8	\$ 55.2

(1) Included in "Other assets" in the accompanying Consolidated Balance Sheets.

(2) Includes the effects of foreign currency translation.

The weighted average amortization period for developed technologies, customer relationships, trade names, patents, and user lists during fiscal 2019 was 5.4 years. Excluding in-process research and development, expected future amortization expense for developed technologies, customer relationships, trade names, patents, and user lists for each of the fiscal years ended thereafter is as follows:

	Fiscal Year ended January 31,
2020	\$ 73.6
2021	64.8
2022	49.1
2023	37.6
Thereafter	19.2
Total	<u>\$ 244.3</u>

Goodwill

Goodwill consists of the excess of the consideration transferred over the fair value of net assets acquired in business combinations. Autodesk tests goodwill for impairment annually in its fourth fiscal quarter or more often if circumstances indicate a potential impairment may exist, or if events have affected the composition of reporting units.

When goodwill is assessed for impairment, Autodesk has the option to perform an assessment of qualitative factors of impairment (“optional assessment”) prior to necessitating a quantitative impairment test. Should the optional assessment be used for any given fiscal year, qualitative factors to consider include cost factors; financial performance; legal, regulatory, contractual, political, business, or other factors; entity specific factors; industry and market considerations, macroeconomic conditions, and other relevant events and factors affecting the reporting unit. If, after assessing the totality of events or circumstances, it is more likely than not that the fair value of the reporting unit is greater than its carrying value, then performing the quantitative impairment test is unnecessary.

The quantitative impairment test is necessary when either Autodesk does not use the optional assessment or, as a result of the optional assessment, it is not more likely than not that the fair value of the reporting unit is greater than its carrying value. In situations in which an entity's reporting unit is publicly traded, the fair value of the Company may be approximated by its market capitalization, in performing the quantitative impairment test.

Goodwill impairment exists when the estimated fair value of goodwill is less than its carrying value. If impairment exists, the carrying value of the goodwill is reduced to fair value through an impairment charge recorded in the Company's statements of operations. The process of evaluating the potential impairment of goodwill is subjective and requires significant judgment at many points during the analysis. The value of Autodesk's goodwill could also be impacted by future adverse changes such as: (i) declines in Autodesk's actual financial results, (ii) a sustained decline in Autodesk's market capitalization, (iii) a significant slowdown in the worldwide economy or the industries Autodesk serves, or (iv) changes in Autodesk's business strategy.

For the annual impairment test, Autodesk's market capitalization was substantially in excess of the carrying value of the Company as of January 31, 2019. Accordingly, Autodesk has determined there was no goodwill impairment during the fiscal year ended January 31, 2019. In addition, Autodesk did not recognize any goodwill impairment losses in fiscal 2018 or 2017.