

# North America Process Automation - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2024 - 2029)

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## Abstracts

The North America Process Automation Market size is estimated at USD 39.52 billion in 2024, and is expected to reach USD 45.43 billion by 2029, growing at a CAGR of 2.83% during the forecast period (2024-2029).

The process automation market is influenced by the increasing focus on enhancing productivity and eliminating risky manual tasks. The North American market, which is highly developed, is an ideal region for adopting advanced innovations, forming strategic partnerships, and engaging in product collaborations across various industries such as oil and gas, metals and mining, pharmaceuticals, and chemicals. These factors contribute significantly to the growth of the process automation market.

Process automation contributes to the growth of the industrial automation market. The largest markets for process automation are resource industries such as oil and gas, chemicals, and mining, which make up almost half of the end-user market, and the oil and gas sector accounts for more than a quarter of the market.

The North American automation industry has been revolutionized by combining the digital and physical aspects of manufacturing. These changes are aimed at delivering optimum performance. The automation of manufacturing processes has offered various benefits, such as effortless monitoring, reduction of waste, and increased production speed. Automation offers customers improved quality, with standardized and dependable products, within a short span of time and at a much lower cost.

The increasing adoption of robotic process automation by various organizations to enhance the digital consumer experience, productivity, and efficiency is augmenting the growth of the market. The market is aided by the growing integration of AI and machine learning in robotic process automation, which enables the automation of complex tasks.

The mining industry is expected to experience an increase in the deployment of robotic process automation due to the increasing emphasis on automating repetitive tasks like extracting, validating, and uploading. Advancements in technology are likely to enhance capabilities of robotic process automation and contribute to the growth of the process automation market in the future.

Connecting industrial machinery and equipment and obtaining real-time data have played a key role in adopting SCADA, HMI, and PLC systems and software that offer visualization. These systems help reduce the faults in the product, reduce downtime, schedule maintenance, and switch from being reactive to the predictive and prescriptive stages for decision-making.

The manufacturing sector is witnessing significant growth. The primary challenges these industries face are rising material costs, price reduction pressures, and increasing labor costs. The fluctuating unit labor costs in the United States indicate an irregularity in productivity. This increased the adoption of automation across the industrial sector, thereby reducing production costs.

The high costs of process automation systems are related to effective and robust hardware and efficient software. Process automation requires high capital investments to upgrade the overall infrastructure, including IT, machinery, etc., and also requires a continuous need for maintenance as compared to manual systems, which can further hinder market growth.

The COVID-19 pandemic's impact on different industries in the United States strongly affected the uptake of process automation in the region. The impact of COVID-19 was quite significant on industries like energy, utilities, and resources. The oil supply chain was slowed because fewer oil and oil-derived products were produced and used. However, industries' efforts to incorporate modern technology, such as artificial intelligence and Industry 4.0, can help to mitigate the losses suffered during the pandemic.

## North America Process Automation Market Trends

### Oil and Gas Industry to Witness Significant Growth

Automation plays a pivotal role in driving the oil and gas industry forward. By embracing digitization, automation, and cutting-edge technologies, operators and technicians can access crucial performance, condition, and technical data immediately. Companies in the region under study increasingly turn to process automation to bolster decision-making, troubleshooting, and overall performance.

While North American oil and gas firms grapple with transitioning to renewable sources, they recognize the imperative of integrating innovative technologies, particularly process automation, into their operations. These advancements slash emissions, streamline water usage, and bolster overall environmental performance.

By modernizing their internal processes through automation and improved operational insights, the industry can enhance production and distribution efficiency and, ultimately, boost yields.

The industry's emphasis on safety and reliability is intensifying. Given the sector's complex supply chain, there is a growing appetite for automation, coupled with specialized industry knowledge and robust partnerships. Process automation is not just about efficiency; it is a strategic move to align with the ever-evolving global demand.

In March 2022, the Canadian government unveiled plans to ramp up oil and gas exports by a potential 300,000 barrels per day. This initiative aims not only to bolster Canada's energy standing but also to support its allies grappling with the energy security fallout from Russia's ongoing military actions.

The upstream segment of the oil and gas industry, marked by rigorous drilling activities, is under increasing pressure to comply with stringent regulations while striving to trim operational costs. Given the industry's reliance on vast spatial datasets for decision-making, it is no surprise that it heavily leans on process automation tools and analytical engines to harness the full potential of this data.

Canada witnessed an estimated 8% surge in natural gas consumption in the first half of 2022. This uptick was primarily fueled by a notable rise in wholesale demand for power generation and industrial applications (up 7%). Concurrently, heightened retail demand from residential and commercial sectors further buoyed this trend, while pipeline exports

to the US market saw a nearly 9% increase.

Amidst the volatility in crude oil prices, oil and gas entities are laser-focused on cost reduction and operational efficiency. To navigate the increasingly competitive landscape and combat shrinking retail margins, these companies are doubling down on process optimization across various sectors.

## United States to Witness Major Growth

Driven by Industry 4.0, the United States is solidifying its global standing in factory automation and industrial control systems. Integrating smart technologies in this sector enhances operational efficiencies and bolsters the national economy.

As global manufacturing becomes more intertwined, US manufacturers are increasingly pressured to invest in automation. They are striving to balance cost efficiencies with heightened quality standards.

Amidst a rise in cyber-attacks on US smart factories, concerns over Industrial Control Systems are mounting. In response, the government is taking steps to combat these threats. Concurrently, there's a notable shift towards domestically manufactured industrial control systems, a strategic move to mitigate cybersecurity risks in smart factories. Companies like Panasonic North America are at the forefront, offering comprehensive smart manufacturing solutions encompassing ERP and more.

As part of the Biden administration's economic recovery strategy post-pandemic, significant investment is being made in infrastructure and the electronics industry. This bodes well for small and medium-sized enterprises, as the infrastructure and electronics sectors are major consumers of industrial control systems and are poised to benefit directly.

Terms like process discovery, optimization, intelligence, and orchestration are gaining prominence in Robotic Process Automation (RPA). A clear trajectory towards deeper integration between business process management (BPM) and RPA exists.

Stringent government regulations, exemplified by the Food Safety Modernization Act, are compelling food and beverage firms in the US to adopt automation systems. This enhances the nation's automation market and streamlines operations, reducing costs

and elevating product quality.

## North America Process Automation Industry Overview

The barriers to exit are non-supportive, considering the high-cost equipment needed for producing these systems. Many companies operating in the market eliminate the competition through acquisitions and strategic mergers or new smart initiatives, and hence, the market is expected to become more competitive despite consolidation during the forecast period.

May 2024 - Siemens unveiled a significant advancement in factory management, addressing the complexity of handling multiple hardware control points. The answer comes in the form of the Siemens Simatic Automation Workstation. This innovative solution enables manufacturers to consolidate a hardware PLC, a traditional HMI, and an edge device into a unified, software-based workstation. This integration seamlessly merges Information Technology (IT) practices into Operational Technology (OT) settings.

October 2023 - Emerson announced new technologies that support its Boundless Automation vision, a software-centric industrial automation platform that connects data from the field, the edge, and the cloud. The new technology releases will transcend a traditional control system, creating a more advanced automation platform that contextualizes and democratizes data for both people and the artificial intelligence (AI) engines that shape the way the world operates.

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