



**NYSE[®] Arca Tech 100 Index[™]
(PSE)**

Version 2.0
Valid from
April 20, 2018

Contents

Version History:.....	1
1. Index summary	2
2. Governance	3
3. Index Description	5
4. Publication	6
4.1 The opening, intraday and closing or daily publication of index values.....	6
4.2 Exceptional market conditions and corrections.....	7
4.3 Changes to the Index.....	7
5. Calculation	10
5.1 Calculation of the price index.....	10
6. Index rebalances.....	11
6.1 General aim of rebalances and frequency	11
6.2 Index universe and selection principle.....	11
6.3 Periodical update of weighting.....	13
7. Corporate Actions.....	14
7.1 General.....	14
8. Disclaimer.....	15

Version History:

Version 2.0 (Effective April 20, 2018)

This version incorporates language reflecting changes to the announcement policy, exceptional market conditions and corrections handling, legal structure of the Index Administrator, introduces language codifying certain established procedures relating to Index governance and includes an updated Disclaimer.

Version 1.0 (Effective May 23, 2007)

The methodology document covers the newly-launched NYSE® Arca Tech 100 Index™.

1. Index summary

Factsheet	
Full Names	NYSE® Arca Tech 100® Index
Index Types	Price Return (USD): PSE Gross Total Return (USD): PSETR
Index Description	The NYSE® Arca Tech 100® Index is designed to provide a benchmark for measuring the performance of technology-related companies operating across a broad spectrum of industries. Index composition and corporate actions, including rebalance information, can be accessed from NYSE Market Data at www.nyse.com/market-data/indices .
Eligible Stocks	All component stocks will either be listed on the NYSE American, the New York Stock Exchange (“NYSE”), or traded through the facilities of the National Association of Securities Dealers Automated Quotation System (“NASDAQ”) and reported National Market System (“NMS”) securities.
Number of Constituents	Fixed
Weighting	Price-weighted
Review of Composition	The Index is rebalanced on a semi-annual basis based on closing prices on the close of business two full weeks prior to the effective date. The months of review are May and November.
Effective Date of the Rebalance	Effective after the close of the last trading day of May and November
Calculation Frequency	Price and Total Return: Every 15 seconds between 09:30 & 18:00 ET
Base Level	56.03
Historic Data Available Since	February 7, 1984
Bloomberg Code	PSE <INDEX> / PSETR <INDEX>
Reuters Code	.PSE / .PSETR
Launch Date	MAY 23, 2007
Website	https://www.theice.com/market-data/indices

2. Governance

Index Sponsor & Administrator

ICE Data Indices, LLC (“IDI”) is the Index Sponsor and the Index Administrator.

IDI is responsible for the day-to-day management of the Index, including retaining primary responsibility for all aspects of the index determination process, including implementing appropriate governance and oversight, as required under the International Organization of Securities Commission’s Principles for Financial Benchmarks (the IOSCO Principles). The Governance Committee is responsible for helping to ensure IDI’s overall compliance with the IOSCO Principles, by performing the Oversight Function which includes overseeing the index development, design, issuance and operation of the indices, as well as reviewing the control framework. IDI is also responsible for decisions regarding the interpretation of these rules and the Governance Committee is responsible for reviewing all rule book modifications and index constituent changes with respect to the Index to ensure that they are made objectively, without bias, and in accordance with applicable law and regulation and IDI’s policies and procedures. Consequently, all IDI’s and the Governance Committee discussions and decisions are confidential until released to the public.

Cases not covered in rules

In cases which are not expressly covered in these rules, operational adjustments will take place along the lines of the aim of the Index. Operational adjustments may also take place if, in the opinion of the Index Administrator, it is desirable to do so to maintain a fair and orderly market in derivatives on this Index and/or this is in the best interests of the investors in products based on the Index and/or the proper functioning of the markets.

Any such modifications described under this section or exercise of Expert Judgment will also be governed by any applicable policies, procedures and Guidelines in place by IDI at such time.

Rule book changes

The Governance Committee reviews all rule book modifications and Index changes to ensure that they are made objectively, without bias and in accordance with applicable law and regulation and IDI’s policies and procedures. These rules may be supplemented, amended in whole or in part, revised or withdrawn at any time in accordance with applicable law and regulation and IDI applicable policies and procedures. Supplements, amendments, revisions and withdrawals may also lead to changes in the way the Index is compiled or calculated or affect the Index in another way.

Limitations of the Index

All the NYSE indices produced by IDI (“the NYSE Indices”) may be subject to potential limitations, such as a decline in the pool of available eligible securities due to advancements in technology,

shifts in demographic spending or the economy, changes in regulation or accounting rules, consolidation in certain sectors or industries, or other factors. Other limitations may include the ability of the Benchmark to operate in illiquid or fragmented markets.

IDI seeks to manage and mitigate these limitations through the Benchmark design, review and oversight process.

3. Index Description

The NYSE® Arca Tech 100™ Index is a price-weighted index comprised of common stocks and American Depository Receipts (ADRs) of technology-related companies listed on US exchanges. Companies from different industries that produce or deploy innovative technologies to conduct their business are considered for inclusion. Leading companies are selected from several industries, including computer hardware, software, semiconductors, telecommunications, data storage and processing, electronics, media, aerospace & defense, health care equipment, and biotechnology.

Modeled as a multi-industry technology index, the objective of the NYSE® Arca Tech 100™ Index is to provide a benchmark for measuring the performance of technology-related companies operating across a broad spectrum of industries.

4. Publication

4.1 The opening, intraday and closing or daily publication of index values.

Opening

The first index level is calculated and published around 09:30 ET, when the U.S. equity markets open for their regular trading session. The calculation of that level utilizes the most updated prices available at that moment. In the case of constituents that have a non-traded, halted or suspended status, or have not opened for the current day, the previous day's reference prices (primary exchange official closes) or estimated prices (for IPOs, buyouts and swap offers) are used.

Dissemination frequency

The level of the price return and gross total return indexes are in principle published every 15 seconds to the ICE Data Global Index Feed (ICE Data GIF). The calculated index levels incorporate the latest traded price of each constituent from within the regular trading session, normally 09:30 to 16:00 ET. The index only holds equities listed and traded in the U.S., and thus, intraday calculations of the index would incorporate trades on a consolidated level, from all exchanges including those not designated as the official primary exchange.

The index is calculated from 09:30 until 18:00 ET on those days specified as index business days. Index business days will be classified as days on which the U.S. Equity Markets (NYSE, NASDAQ and NYSE American) are open for a full or partial day of trading.

Closing level

The closing level is the last level disseminated on the trading day and uses the official close prices from the primary listing market for each constituent. For constituents that have non-traded, halted or suspended status, or have not opened for the current day, the previous day's reference prices (primary exchange official closes) or estimated prices (for IPOs, buyouts and swap offers) are used instead. In the case of exceptional market conditions, the Index Administrator reserves the right to utilize other prices in the calculation of the official closing level, as indicated below in Section 4.2.

Sources of Data

The Consolidated Tape (CTS/UDTF) is the primary market data source for U.S. equity real-time and closing prices. Additional sources of data less commonly used include market data vendors, company announcements, exchange announcements and other official sources.

4.2 Exceptional market conditions and corrections

The Index Administrator retains the right to delay the publication of the opening level of the index. Furthermore, the Index Administrator retains the right to suspend the publication of the level of the index if it believes that circumstances prevent the proper calculation of the index.

If index constituent prices are cancelled, the index will not be recalculated unless the Index Administrator decides otherwise.

Reasonable efforts are made to ensure the correctness and validity of data used in real-time index calculations. If incorrect price or corporate action data affects index daily closing values, they are corrected retroactively as soon as possible and all revisions are communicated out to the public and market data vendors.

There is the possibility of an exchange or market-wide event resulting in the normal closing auction not going off or official closing prices not being available. In those situations, the index will take guidance from the respective exchange(s) and address on an event-by-event basis. Exchange or market-wide events include, but are not limited to, the following:

- Volatility Halts
 - LULD (Limit Up / Limit Down)
 - Market Wide Circuit Breaker
- Technological Problems / Failures
- Natural Disaster or Other BCP-Related Event

4.3 Changes to the Index

Announcement policy

Changes to the index methodology will be announced by an index announcement which will be distributed by IDI via www.nyse.com/indices and NYSE Market Data at www.nyse.com/market-data/indices

As a general rule, the announcement periods that are mentioned below will be applied. However, Emergency actions, including urgently required corporate action treatments, often resulting from late notices from the relevant company or exchange, may require the Index Administrator to deviate from the standard timing.

Inclusion of new constituents

The inclusion of new companies in the index will typically only occur during the semi-annual re-compositions or rebalances, although there could be exceptions based on a specific corporate action affecting a current constituent. The inclusion of the new company will be announced at least two trading days before the effective date of the actual inclusion. In the case of a rebalance,

a rebalance effective for the opening on December 1, 2017, the announcement would occur after the close on November 16, 2017.

Removal of Constituents

Components would be removed from the index as a result of periodic corporate actions as well as the results of the semi-annual rebalances. All removals will be announced at least two trading day before the effective date of the removal. It should be noted that in the case of mergers and acquisitions, every effort will be made to remove the company at some reasonable time ahead of the suspension in trading in the acquired company. There will be certain situations and corporate actions that would require the removal of a company that has already ceased trading. In those cases, the company will be removed from the index at its last traded price, or, at the discretion of the Index Administrator, at a derived price that most accurately represents its post-suspension value.

Components are replaced within 3 business days of the action to maintain the fixed number of stocks in the NYSE Arca Tech 100 Index.

Corporate actions

In case of an event that could affect one or more constituents, the Index Administrator will inform the market about the intended treatment of the event in the index shortly after the firm details have become available and have been confirmed. When possible, the corporate action will be announced, even if not all information is known, at least one trading day before the effective date of the action. Once the corporate action has been effectuated, the Index Administrator will confirm the changes in a separate announcement.

Rule changes

Going forward, barring exceptional circumstances, the Index Administrator shall announce proposed Rules changes to stakeholders prior to them being implemented. Stakeholders shall also be notified of when the changes shall take effect.

Index Reviews

IDI shall undertake regular reviews of the Index, the methodology and the market which it represents to ensure it continues to meet the index objective, in accordance with IDI's policies and procedures. Should changes to the Index be required or proposed, this will be communicated to stakeholders in accordance with IDI's policies and procedures.

Consultations

IDI may from time to time consult with stakeholders on proposed material changes that affect the Index in accordance with IDI's policies and procedures including IDI's consultation policy: https://www.theice.com/publicdocs/Consultation_Policy.pdf. Such proposals shall be published to Stakeholders and all feedback received will be considered by the Index

Administrator. Any resulting changes to the Index will be announced prior to it being implemented.

Reconstitution/Rebalance: Publication of Results

The new composition of the index, including the companies to be a part of the index and their corresponding new index shares, will be announced two weeks before the effective date and can be accessed from NYSE Market Data at www.nyse.com/market-data/indices .

5. Calculation

5.1 Calculation of the price index

The index is calculated on a Price and Total Return basis. The current index level would be calculated by dividing the current modified index market capitalization by the index divisor. The divisor was determined off of the initial capitalization base of the index and the base level. The divisor is updated as a result of corporate actions and composition changes.

A full description of the formulae used to calculate Price and Total Return index values can be found in the “NYSE Indices - Guide to Index Mathematics” at <https://www.nyse.com/indices/rules>.

6. Index rebalances

6.1 General aim of rebalances and frequency

General aim of the periodical rebalance

The general aim of the semi-annual rebalance of the index is to ensure that the selection and weightings of the constituents continues to reflect as closely as possible the index's objective to provide a benchmark for measuring the performance of technology-related companies operating across a broad spectrum of industries. The Index Administrator reserves the right to, at any time, replace one or more stocks contained in the index with one or more substitute stocks of its choice, if in the Index Administrator's discretion such addition, deletion or substitution is necessary or appropriate to maintain the quality and/or character of the index. Such index constituent changes are reviewed by the Governance Committee to ensure that they are made objectively, without bias and in accordance with applicable law and regulation and IDI's policies and procedures.

Frequency

Changes to the index constituents may occur during a scheduled rebalance and as a result of the removal of an index constituent.

The NYSE® Arca Tech 100 index rebalances become effective after the close of the last trading day of May and November. The rebalance announcement will be made after the close two weeks prior to the effective date. The reference date for all company-specific data and information utilized in the rebalancing process will be taken from prices established at the close of trading two weeks prior to the effective date.

6.2 Index universe and selection principle

Index Universe

Development and maintenance of the component universe for the NYSE® Arca Tech 100 Index™ is undertaken by IDI. The Universe is composed of all listed equity securities that are determined by IDI to be related to the Technology Industry. This determination is completed using publically available information on individual security issuers as well as the industry.

A security must meet the following criteria for inclusion in the index:

- 1) All component stocks will either be listed on the NYSE American, NYSE, or NASDAQ and reported NMS securities

- 2) Issuer must be a leader in its industry and produce or deploy innovative technologies to conduct its business. This may include companies that are engaged in manufacturing products and providing services within advanced technology fields. A review of the company's product mix, service offering, and position within a (or multiple) channel(s) of commerce is used in identifying leading companies.
- 3) For the purpose of initial inclusion, the issuer having reported a cumulative positive net income over the trailing 12 month period
- 4) The issuer must not currently be in bankruptcy proceedings
- 5) The security must not have accumulated more than 10 non-trading days in the prior quarter
- 6) The issuer of the security must not have entered into a definitive merger agreement or other arrangement which would result in the security no longer being Index eligible within the next six months.

Also instrumental in this determination is IDI employees' expertise concerning index design and development and their knowledge surrounding index use and stakeholder feedback. IDI may change the composition of the Universe at any time to reflect the conditions of the Technology Industry and to ensure that the pool of component securities continues to represent the Technology Industry, in accordance with the Index requirements.

Selection of constituents

At each semi-annual rebalance, the index universe will be screened utilizing the following criteria:

1. A minimum market value of at least \$150 million for at least 85% of component weight
2. A minimum average daily value traded of at least \$1,000,000 for at least 85% of component weight during the previous two months of trading.
3. At least 90% of the weight of the index must be composed of Components which each has a minimum monthly trading volume of at least 250,000 shares during the last six months
4. At least 30% of Index value must be derived from components for which the market price per share closed above \$3 for the majority of the trading days in the past six months, as measured by the highest closing price recorded in the primary market on which the underlying security trades

5. No component may constitute 10% or more of the total index weight, unless exemption is approved by the Governance Committee provided that in no case will any component represent more than 15% of the total index weight
6. The five heaviest weighted components may account for no more than 25% of the total index weight.
7. The index will contain 100 underlying securities
8. The following security types are ineligible for inclusion:
 - a. Fixed-Dividend Shares
 - b. Convertible notes, warrants, rights, unites and other derivative securities
 - c. Tracking Stocks
 - d. Limited Partnerships
 - e. Closed-end funds and exchange traded funds

6.3 Periodical update of weighting

Determining constituent weightings at semi-annual Index Rebalances

The NYSE® Arca Tech 100 Index is a price weighted rather than market capitalization weighted index. This means the index holds the same number of shares of each security, thus the price of the security is the influencing factor to the value of the index. Higher priced securities have a higher weight in the index than lower priced securities, as the shares of each component are equally held. Its' component weightings are therefore affected only by changes in the stocks' prices, in contrast with other indexes' weightings that are affected by both price changes and changes in the number of shares outstanding.

7. Corporate Actions

7.1 General

The index may be adjusted in order to maintain the continuity of the index level and the composition. The underlying aim is that the index continues to reflect as closely as possible the index's objective to provide a benchmark for measuring the performance of technology-related companies operating across a broad spectrum of industries.

Adjustments take place in reaction to events that occur with constituents in order to mitigate or eliminate the effect of that event on the index performance.

A full description of standard corporate action events and their handling can be found in the "NYSE Indices - Corporate Action Handling Guide" at <https://www.nyse.com/indices/rules>.

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