Concurrent Delays, an everlasting dilemma in Construction contracts

Delays are inherent in almost all projects across a variety of industries. The construction industry would probably stand out as the most prevalent due to the extent of the implications that delays have on communities, politics, and public policies.

Numerous attempts have been made by project management practitioners to develop standards, guidelines, and protocols to address the concurrent delay. Project teams and contractors will always try to minimise (if not eliminate) uncertainty, but project risk will always be an integral part of a project's life cycle.

While dealing with delays and claims has always been an intricate problem for contract administrators, Owners, and Contractors, the concurrent delay has made it even more difficult to process delay claims.

Delays can occur in parallel (concurrently) with each other and overlap during the course of a project. Concurrent delay, as it pertains to delay claims, occurs when delays are not all attributable to one party to the contract. Technically speaking, there are *excusable* and *non-excusable* delays that can overlap each other (i.e., happen concurrently).

Owners and Contractors have always tried to take advantage of ambiguities around the definition of concurrent delay to counter any claims made by the other party when it comes to assessing Extension of Time (EOT) claims made by the Contractor.

This focus is of course driven by the Contractor's desire to mitigate loss and damages from finishing a contract late (typically referred to as Liquidated and Ascertained Damages (LAD)).

In the past few decades, there have been numerous papers and publications on this subject that are of great value. This article intends to portray a simplistic perspective of the everlasting dilemma of concurrent delay that would hopefully help wider groups of project stakeholders in the comprehension of the concept.

In this article, we aim to define and demonstrate concurrent delay with reference to the *Delay and Disruption Protocol, 2nd edition* published by the *Society of Construction Law (SCL)* and *Recommended Practices outlined by the Association for Advancement of Cost Engineering (AACE)*.

Other areas that we intend to explore in future posts include:

- The determination of entitlements once a concurrent delay has been established.
- How different methods of delay analysis, sometimes mandated by contracts specifically, may affect the definition and assessment of concurrent delays.
- Look at some case law and view how the issue of concurrent delay has been dealt with in litigation.

What is a concurrent delay?

The definition of concurrent delay has remained a controversial topic and a point of ongoing dispute. Not only because there is not a clear-cut definition of it that can be applied under all circumstances, but also because litigation and arbitration outcomes have sometimes been construed as being contradictive.

In the Delay and Disruption Protocol, 2nd Edition (published by Society of Construction Law (SCL)) concurrent delay has been determined in Principle 10 that follows:

> "***True concurrent*** *delay is the occurrence of two or more delay events at the* ***same time****, one an* ***Employer Risk Event****, the other a* ***Contractor Risk Event****, and the effects of which are felt at the same time. For concurrent delay to exist, each of the Employer Risk Events and the Contractor Risk Event must be an* ***effective cause*** *of Delay to Completion (i.e. the delays must both affect the critical path).*

In reality and during a project's lifecycle, the occurrence of true concurrent delay (as described above) is extremely rare, if not impossible. Therefore the SCL, in guidance on core principles of the protocol, has gone further to expand its view with a more pragmatic approach to concurrent delays. Taking into account current case law, it defines concurrent delay further:

> "*… a more common usage of the term 'concurrent delay' concerns the situation where two or more delay events arise at* ***different times****, but the effects of them are felt at the* ***same time***"

A much more pragmatic approach one would agree.

The Association for Advancement of Cost Engineering (AACE), in its internationally recommended practice No. 29R-03 "Forensic Schedule Analysis", has provided five definitions of concurrency (subsection 4.2.B). These reflect on some of the differing opinions and applications associated with concurrent delay.

> *"(1) Two or more delays that take place or overlap during the* ***same period****, either of which occurring alone would have affected the ultimate completion date. …"*

> *"(2) Concurrent delays occur when there are two or more* ***independent*** *causes of delay during the* ***same time period****. The "same" time period from which concurrency is measured, however, is not always literally within the exact period of time. For delays to be considered concurrent, most courts do not require that the period of concurrent delay precisely match. The period of "concurrency" of the delays can be related by circumstances, even though the circumstances may not have occurred during exactly the same time period."*

*"(3) True concurrent delay is the occurrence of two or more delay events at the same time, one employer risk event, the other a contractor risk event, and the effects of which are felt at the same time. The term "concurrent delay" is often used to describe a situation where two or more delay events arise at different times, but the effects of them are felt (in whole or in part) at the same time. To avoid confusion, this is more correctly termed the "**concurrent effect**" of sequential events."*

"(4) Concurrent delay occurs when both the owner and contractor delay the project or when either party delays the project during an excusable but non-compensable delay (e.g. abnormal weather). The delays need not occur simultaneously but can be on two parallel critical path chains."

"(5) The condition where another delay-activity independent of the subject delay is affecting the ultimate completion of the chain of activities."

According to the AACE Recommended Practice, for delays to be qualified as concurrent the following four pre-requisites must be satisfied:

1. Two or more unrelated and independent delays, either of which would have delayed the project even if the other delay, did not exist.
2. Not all delayed activities identified in Step 1 are the responsibility of only one contracting party but one may be a force majeure event.
3. None of the delays identified in Step 1 can be a voluntary delay (pacing delay).
4. The delayed work must be substantial (i.e., not easily correctable).

Given the guidance provided by SCL and AACE, the determination and identification of concurrent delays in real-life projects, to a large extent, are still subjective and left to forensic analysts to interpret.

Key Definitions

Let's look at some of the key terms and definitions which are regularly used by the SCL and AACE protocols:

True concurrency – Oxford dictionary has defined the word "Concurrent" as "Existing or happening at the same time". With reference to it, true concurrency (also known as literal concurrency) is to be inferred as two events starting and finishing at the exact same time in the project. The exact time is mostly dictated by the planning units of the programme (hours, days, weeks).

Same time – for delays to fit into the SCL true concurrency definition they must occur literally at the exact same time of the project lifecycle.

Employer Risk Event (ERE) – Also known as "Relevant Delay Event", "Qualifying Delay Event" or "Excusable Delay Event", is a term used to describe an event over which the contractor does not have any control and, subject to specific contractual terms,

may entitle it to an EOT. It is important to note that despite the SCL calling out the term "Employer (Owner) Risk Event", in practice it does not necessarily comprise those events caused merely by the Employer, but also includes "Neutral Delays". Neutral delays are those caused by neither the Employer nor the Contractor (E.g. Force Majeure).

Contractor Risk Event (CRE) – Also known as "Culpable Delay", "Non-excusable Delay" or "Non-qualifying Event", is any event that does not qualify the Contractor for an EOT.

Effective cause – According to SCL and AACE's definition of concurrent delay, for the two events to be considered concurrent both must be of the same causative potency to the project completion. This means that if an event is not impacting the critical path of the project and rather can be absorbed by floats, it cannot be treated to have created a delay, concurrent with other events that affect the critical path.

Different time – unlike true concurrency, delay events could have started and/or finished at different times and yet still can be viewed as concurrent.

Same time / Same time period – this term is used in section 10.11 of "Guidance on core principles" in the SCL Protocol. the phrase "same time" does not have a literal meaning and more implies a reasonable time window in which a delay impact is being analysed. This is the same view that has been opted by AACE as well when using the term "same time period" which is also referred to as "Analysis interval".

Placement of the analysis period could be significant to the determination of concurrency of delays for which two main methods are being adopted by analysts. The first one, which is the most common method, is to use the "schedule period" that was dictated by the contract (typically monthly but can sometimes be other regular periods). The second school of thought places the analysis period based on the delay events. For example, the impact of two or more critical delay events happening in one analysis period (e.g. 1 month), where one occurred in the first week of the month and the other one in the last week, can qualify for being concurrent.

Independent - While the second edition of the SCL Protocol has largely contributed to the clarification of a definition for the concurrent delay, there is a very important aspect of it that is not explicitly addressed in the Protocol. That is the independency of the delaying events. Independence of the delay events is a key requirement to establish the existence of Concurrent Delay. Meaning that the Employer Delay and the Contractor Delay must have an independent (and effective) cause on the delay to the completion of the project, and one should not be a derivative of another (i.e. a "Flow-on effect").

Concurrent Effect - What is important to note in the view offered by the SCL Protocol, is how it recommends that the timing of the events themselves and the timing of their effects should be recognised more practically. This, in AACE RE No. 29R-03, is recognised as "Functional Concurrency" but could also be referred to in other publications as "Practical Concurrency" or "Effectual Concurrency". This view

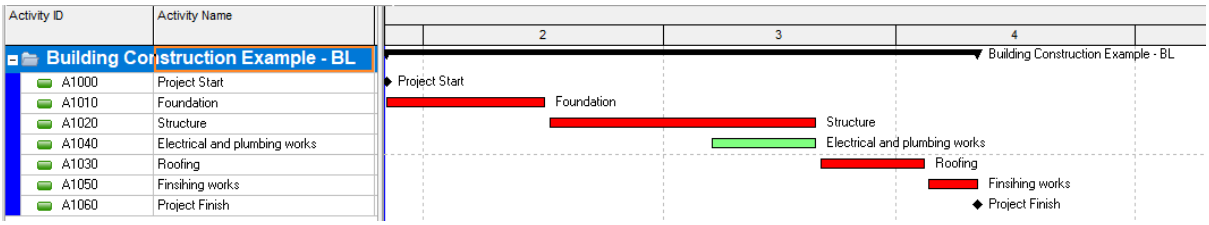
focuses on the concurrency of the effects rather than the concurrency of the causes.

A simple example

Using the known definitions above let's look at a simple set of examples that might hypothetically cover all variants of concurrent delay.

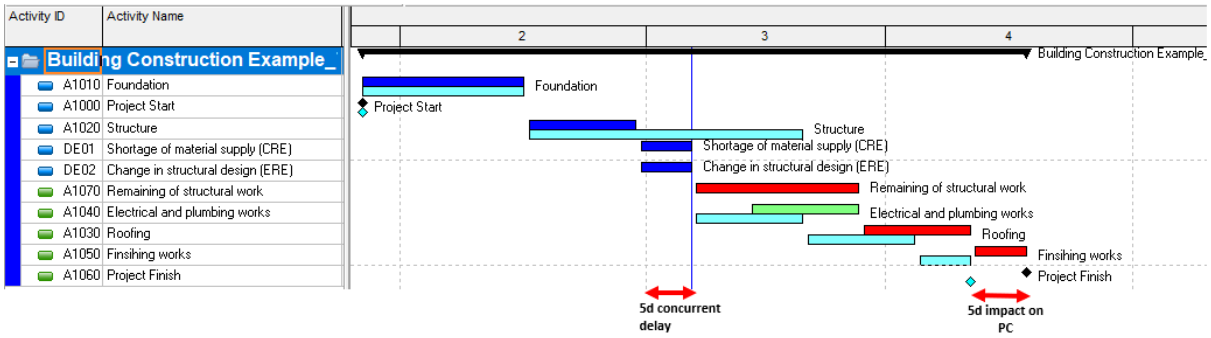
These examples do not look specifically at entitlement, but more so at how concurrent delay might be determined based on the definitions outlined in the protocols/guidelines.

The image below, compiled using Primavera P6, shows a baseline programme (as-planned program) of a sample building construction project.



As-planned programme

In scenario A, work progressed as planned in the first month. At the end of the 2nd reporting period, two delay events occurred. The first one is a 5d delay due to a lack of material supply that is a result of a Contractor Risk Event (CRE), and the second event is a 5d delay due to a change in the structural design that is categorised as an Employer Risk Event (ERE):

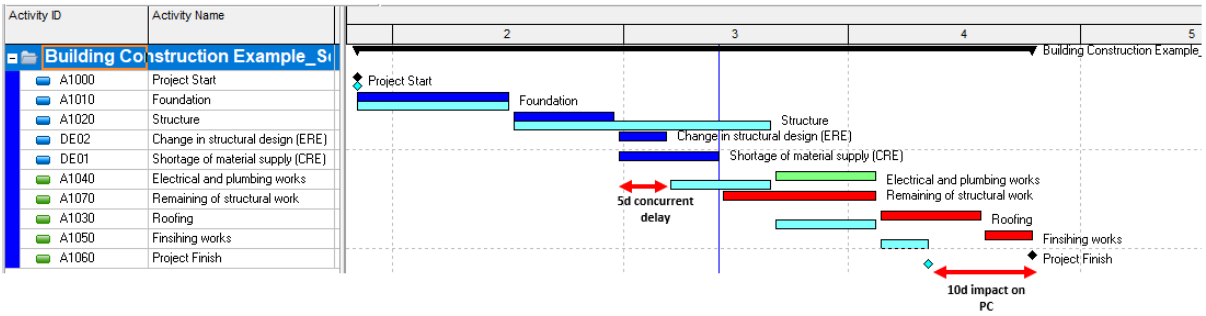


Scenario A

These two delay events are modelled to have started and finished exactly at the same time and while they impact one activity, they are independent of each other meaning that the change of structural design has not resulted in a shortage of material supply. And in comparison, a shortage of material supply is not causing a change to the structural design. This example meets the definition of "true concurrent delay".

Now, let's adjust the events that occurred within Scenario A above. Say the two critical delay events started at the same time, but the change in design (ERE)

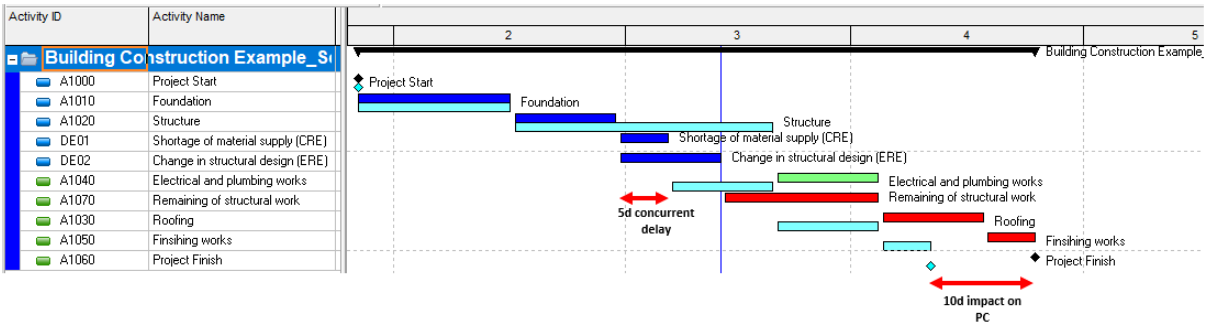
finished after 5d whilst the supply delay (CRE) lasted for 10d. The knock-on effect on the critical path, and thus the Project Completion (PC) date, is 10d.



Scenario B

This time, the impact of these two delay events (the "delay effect") is felt at the end of 2nd reporting period. Even though the dominant cause of the 10d delay to the project completion is a shortage of material (which is attributable to the contractor) there is still merit for a 5d concurrent delay.

In scenario C below, we switch around the leading delay events. This time, two critical delay events start at the same time, but the CRE finishes after 5d while ERE lasted for 10d. This time the delay is caused by the Employer and the knock-on effect on the critical path and thus the Project Completion (PC) is 10d.



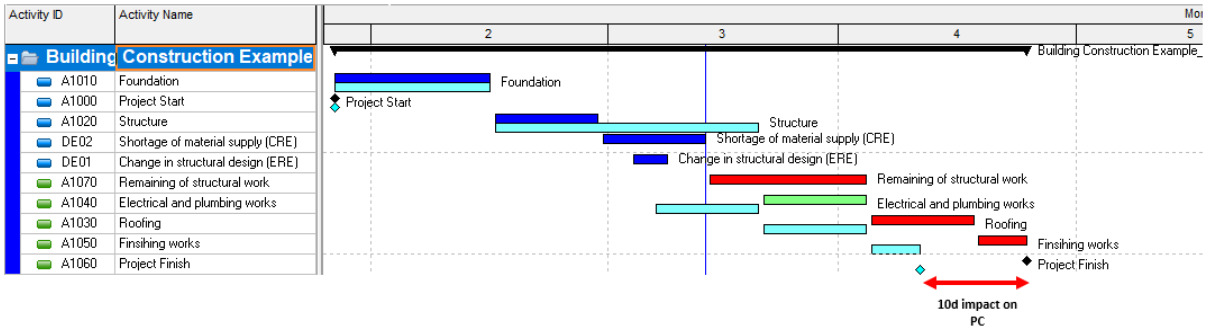
Scenario C

In this case, there is a merit for 5d literal concurrent delay, however, the change in the structural design is the dominant cause of the 10d delay to the project completion.

Importantly, the same principle would apply if the delay due to a shortage of material started 5d after the delay caused by a change in structural design and lasted for 5d. (i.e., both delay events finished at the same time).

There is a modification to the scenario above which continues to invite project management practitioners and contract administrators to a much bigger challenge and argument.

Scenario D below represents a contentious issue, which historically results in differing opinions, not just from forensic analysts but from what has been held by courts in some case law too.



Scenario D

In scenario D above, the CRE commenced first and impacted the project, concluding in 10d. Three days into the CRE, an ERE started and lasted for 5d thus finishing 2d earlier than CRE finished.

So what is the reason for the confusion?

Different analysts will have different opinions on whether concurrency exists in this example. This is because the two guidelines/protocols do not provide a clear answer and case law provides adjudications that favour either assumption.

The SCL protocol offers two different views on these parallel events. The first view argues that both the ERE and CRE are effective causes of delay to project completion for a period of 5d and therefore, these delays operate concurrently for 5d.

According to SCL, this view may be supported by older English court cases. Those who support this view usually cite the "Prevention Principle" to reinforce their position.

The second view suggests that work was already delayed for a greater period as the result of the contractor delay (Dominant Cause) and the ERE will not have resulted in the work being completed later than it would otherwise have done. Hence one may argue that concurrency does not exist.

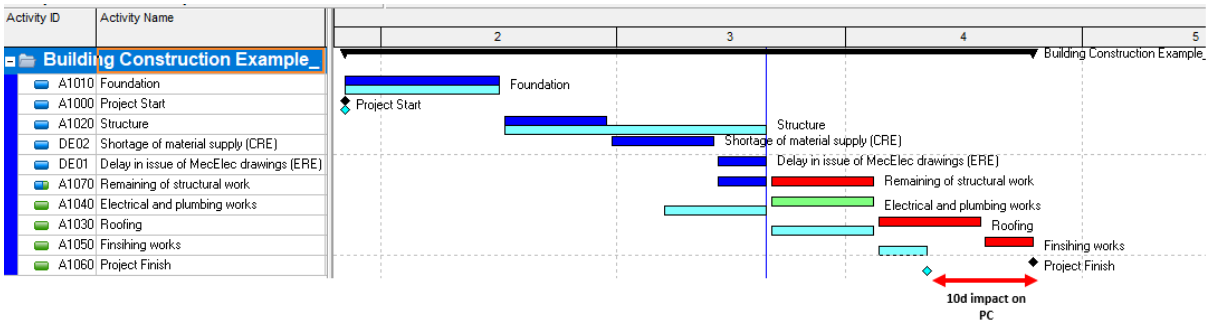
This, according to the SCL protocol, is the consistent position taken in recent lower-level English court decisions.

Presenting the two differing views, the SCL protocol recommends the latter of these two views and therefore does suggest that the ERE has not caused the critical delay, hence the scenario does not qualify for a concurrent delay.

Even though AACE RP 29R-03 does not explicitly address concurrent delay on a case-by-case basis, it does attempt to provide recommendations and guidelines on how to establish concurrency. Based on how an analyst might interpret the standard, the scenario above could be deemed as a case of concurrent delay for 5d, but only based on how the analyst interprets the concurrency of the events. This is somewhat of an analyst's bias.

Now here is where it can get even more confusing and lead to further debate.

Scenario E below is considered the most common example in most real-life projects. In this scenario, the ERE and CRE have sequentially occurred in the project and are not qualifying the case for true concurrency.



Scenario E

However, while conducting a forensic delay analysis and by looking at the impacts of these two events, one could argue that they have taken place within the same time period (schedule period).

A fair and reasonable approach using common sense justifies considering the two events in one single window for the purpose of analysis. By doing so, their impact could be assessed to have been felt at the same time, therefore qualifying them to be considered as concurrent delays.

When it comes to analysing a scenario such as this, examining the concurrency of effect and not the cause (Functional Concurrency) is more practical. It is not feasible to determine the period of concurrency for delay causes (like in previous examples) in this scenario.

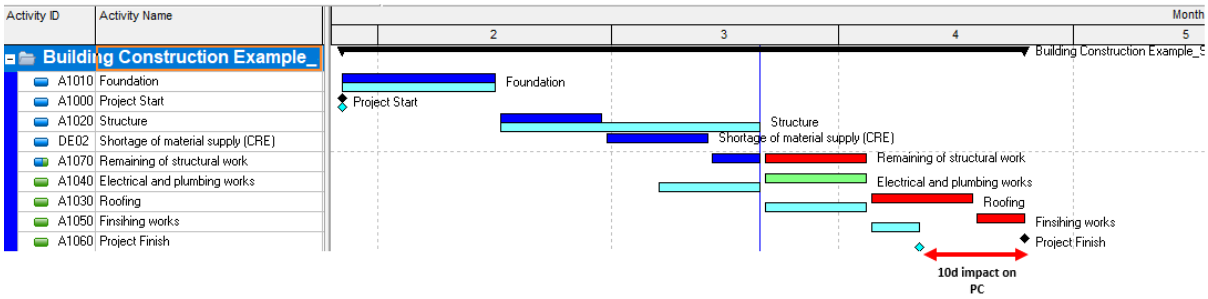
One would suggest that it is important for analysts to agree up front, on the method by which concurrency is handled during a dispute.

Enter the “But-for” test

The previous scenario can keep an analyst’s mind battling to make a good sense of how these two events, although sequential, operate concurrently and how perhaps the effect is to be evaluated.

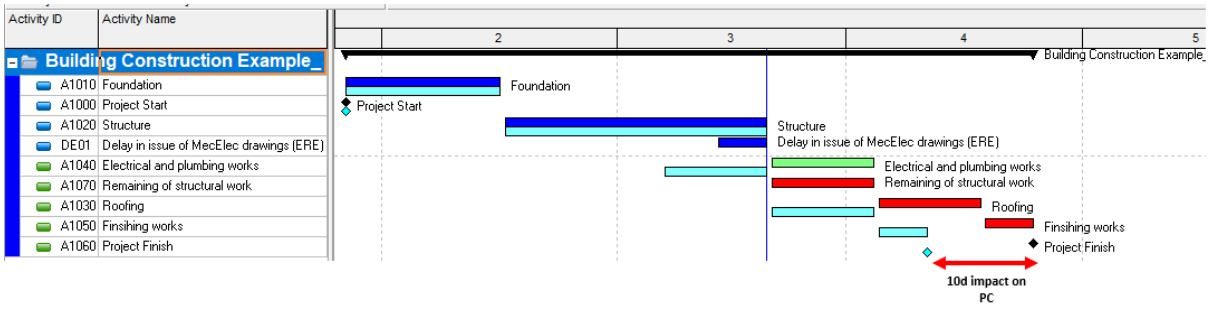
Let’s unpack this case with a quick “but-for” test.

In the example below, the employer delay is removed leaving only the contractor’s delay event modelled. In doing so we ask the question “would the contractor have been delayed had it not been (‘but-for’) the employer event occurring”.



As it is proven by this CPM analysis, the CRE on its own has impacted the Project Completion date, resulting in a critical delay of 10d.

By then subsequently doing the "But for" test in reverse to evaluate the effect of the employer delay (by removing the contractor delay event from the as-built program), we then see the following outcome:



In this scenario, by removing the contractor delay from the as-built programme, the Project Completion date is still impacted by 10d as the result of the 5d delay caused by the employer.

It must be noted that removing the delay caused by the material shortage (CRE) one might think that the "Structure" work must have progressed as planned and finished in 25d (this would be the end of reporting period 2).

However, in employing a practical approach, it becomes evident that the delay in the issuance of Mechanical and Electrical final drawings is not just impacting the "Electrical and Plumping Works" activity (which is a non-critical activity) but it has caused a critical impact on the "Structure" work, which is linked to "Electrical and Plumbing Works" by a Finish-to-Finish (FF) relationship.

This logic implies that "Structure" work could not complete and had to be prolonged by 10d until Electrical and Plumbing Works were completed, thus an increase in the At Completion Duration of "Structure" work from 25d (Original Duration) to 35d.

It is important to note here that it is not the work that is increased, but the duration for "Structure" work is dictated by the work sequence (i.e. the logic).

Conclusion

Despite numerous attempts made by project management practitioners to shed light on the concept of concurrent delay, it remains one of the most convoluted issues to deal with. There is, however, a unanimous acknowledgment by the industry that the determination of concurrent delay largely depends on specific

circumstances. The best outcomes have been achieved when a fair and reasonable approach was employed.

as much as our profession doesn't want to hear it, there is no one-size-fits-all solution.

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