



Neutral Citation Number: [2024] EWHC 737 (KB)

Case No: KF-2023-006697

**IN THE HIGH COURT OF JUSTICE**  
**KING'S BENCH DIVISION**

Royal Courts of Justice  
Strand, London, WC2A 2LL

Date: 27/03/2024

**Before Mr Justice Lavender:**

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**Between:**

**Terraform Labs Pte Limited**

**Applicant**

**- and -**

**Wintermute Trading Limited**

**Respondent**

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**Robert Anderson KC and Peter Head** (instructed by **Mishcon de Reya**) for the **Applicant**  
**Henry Byam-Cook KC and Sam Goodman** (instructed by **Rahman Ravelli**) for the  
**Respondent**

Hearing date: 19 and 20 March 2024

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**Mr Justice Lavender:****(1) Introduction**

1. These are my reasons for the decision which I announced at the conclusion of the hearing on 19 and 20 March 2024 which had been listed for the purpose of determining whether or not Wintermute Trading Limited (“Wintermute”) had fully complied with the order of Senior Master Cook made on 7 December 2023 (“the production order”) on the application of Terraform Labs Pte Limited (“Terraform”) pursuant to the Evidence (Proceedings in other Jurisdictions) Act 1975.
2. In summary:
  - (1) I did not decide whether Wintermute had fully complied with the production order; and
  - (2) I decided not to make the orders sought by Terraform; but
  - (3) I decided instead to make an order in which I decided various issues as to the interpretation of the production order and ordered Wintermute, in the light of that clarification, to produce certain documents which it had been ordered to produce by the production order, save to the extent that Wintermute had already produced those documents.

**(2) Background**

3. Terraform is a defendant to proceedings brought by the Securities and Exchange Commission (“the SEC”) in the United States District Court for the Southern District of New York (“the US action”), in which the SEC alleges that between April 2018 and May 2022 Terraform made fraudulent misrepresentations in relation to the sale of crypto-asset securities known as LUNA and UST. In order to prove its case the SEC relies on events in May 2022, known as the May 2022 Depeg, when UST de-pegged from the US dollar and UST and LUNA suffered a significant decline in value.
4. The trial of the US action was listed to begin on the Monday after the hearing, i.e. 25 March 2024. Terraform’s case at the trial will be that the May 2022 Depeg was not a result of any flaw or instability in an algorithm, but was instead the result of a concerted and pre-meditated “shorting” strategy in respect of UST and LUNA orchestrated and led by a number of third party trading firms. Terraform alleges, and Wintermute denies, that Wintermute participated in this shorting strategy. It is not disputed that Wintermute traded in UST and LUNA. Wintermute conducted algorithmic trading of cryptocurrencies and it did so by the use of computer code.
5. On 15 August 2023 the judge in the US action issued a letter of request, requesting, inter alia, that the High Court order Wintermute to produce certain documents. In section 8(b) of the letter of request, the judge identified the purpose of the evidence sought as follow:

“The evidence sought will be used in these proceedings and at trial by Defendants to enable the U.S. Court and jury to determine whether or not the Stability Representation was false and the Defendant’s fraudulent activity led to \$40 billion in market losses. To do so, Defendants will argue that U.S.

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Court and jury need to understand the full extent of Wintermute's shorting activities and strategy and that this activity caused the collapse of the UST and LUNA prices.”

6. Attached to the letter of request was a copy of an article about Wintermute from the 20 December 2022 issue of Forbes magazine, which was based on an interview with Wintermute’s CEO, Evgeny Gaevoy, and COO, Marina Gurevich. The article said that in February 2022 Mr Gaevoy and Ms Gurevich made “battle plans” for trading in UST. Wintermute had not previously traded in UST or LUNA. The article said:

“Wintermute’s developers spent a month integrating their trading systems with Terra’s blockchain technology. Just as high frequency trading firms try to get the fastest possible access to stock market data, Wintermute set up its own servers and ran Terra software nodes to get a front-row view of UST’s transactions and price. They wrote 4,000 lines of code for new trading algorithms.”

7. The article also stated as follows:

“Two days later [*i.e. on 9 May 2022*], UST’s stunning freefall began, and Wintermute unleashed its arbitrage strategy. Due to Terra’s design and the coin’s cratering price, Wintermute could buy UST for \$0.80 and redeem it for \$1.00 worth of LUNA, its sister cryptocurrency. Then it could quickly sell LUNA, snatching a profit margin of 10% to 15% on every trade. ...

By the end of the week, UST had lost nearly all its value, and Wintermute had traded more than \$250 million of it all the way down to about \$0.10 a token, pocketing tens of millions in profits. ...”

8. Pursuant to the letter of request, on 7 December 2023 the Senior Master made orders for the examination of Mr Gaevoy and Ms Gurevich and also made the production order. Paragraph 1 of the production order is in the following terms:

“The First Respondent shall produce copies of the documents listed in Appendix A hereto to the Applicant’s UK Representatives (defined in Appendix B) in electronic form by 15th December 2023, save only for items 1(a), 4(a) and 4(c) on Appendix A, which shall be produced by 5th January 2024. To the extent that production by photocopies or in electronic form is impractical, the First Respondent shall make such documents available for inspection by the Applicant’s UK Representatives.”

9. Paragraph 2 of Appendix A to the production order is in the following terms:

“The file containing the code that was created by Wintermute between 1 February 2022 and 9 May 2022 in order to enter into the Transactions.”

10. I will refer to the period from 1 February to 9 May 2022 as “the Relevant Period” and to the words “in order to enter into the Transactions” as “the Relevant Purpose”.

11. The word “Transactions” is defined in paragraph 1(b) of Appendix A to the production order as meaning:

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“The purchases, sales, futures contracts, option contracts and derivative instruments entered into by Wintermute in respect of the cryptocurrencies Terra (UST) and LUNA (LUNA).”

12. Paragraphs 1(b) and 2 of the production order are in the same terms as the equivalent paragraphs in Attachment A to the letter of request.
13. On 20 December 2023 Wintermute disclosed to Terraform four .pdf files named:
  - (1) [REDACTED]
  - (2) [REDACTED]
  - (3) [REDACTED] and
  - (4) [REDACTED]
14. Wintermute contends, and Terraform disputes, that the production of these four files (“the Produced Files”) constituted compliance in full with paragraph 1 of the production order insofar as it refers to paragraph 2 of Appendix A to the production order.
15. The examination of Mr Gaevoy and Ms Gurevich went ahead on 15 January 2024. In particular, Mr Gaevoy was asked about the statement in the Forbes article that Wintermute’s developers “wrote 4,000 lines of code for new trading algorithms.” He said that he would have had personal knowledge about this by the end of February 2022. He said that he could not comment on how many lines of code were written, but he agreed that the journalist obtained the number 4,000 from someone at Wintermute. There was also the following question and answer:

“Q ... I am asking whether you have knowledge as to whether new lines of code for new trading algorithms were written?

A I would think yes, because those would be new trading algorithms, so you cannot use existing lines of code because we were not integrated with Terra before.”
16. Meanwhile, the dispute as to whether Wintermute had complied in full with the production order led to the events which I dealt with in my judgment of 7 February 2024 (“the first judgment”), which is cited as [2024] EWHC 141 (KB). I need not repeat what I said in that judgment. In paragraph 50 of that judgment, I said that I would make an order:

“giving directions for the determination of the dispute between the parties as to what the [production] order required, whether the respondent has complied fully with the [production] order and, if not, what document or documents remain to be produced, or made available for inspection, in order to comply with the [production] order.”
17. I gave directions on 29 January 2024. In particular:
  - (1) I ordered Terraform to file and serve by 5 February 2024 an application, with the evidence in support, setting out the specific ways in which Terraform alleges that Wintermute has not complied with the production order and seeking a ruling to that effect.

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- (2) I set a timetable (which was subsequently varied) for the filing and service of evidence in response and in reply.
- (3) I gave the parties permission to rely on expert evidence, limited to one expert each in the field of computer coding.
- (4) I gave the parties liberty to make an application to the Court by 5 March 2024 for permission to call the experts at the hearing of the application.

18. In the event, the only factual evidence filed by either party came from their solicitors. As for experts: Terraform filed a report by James Blake Boswell dated 5 February 2024; Wintermute filed a report by Nick Ellison dated 6 March 2024; Terraform filed a second report by Mr Boswell dated 11 March 2024; and Wintermute filed a letter from Mr Ellison dated 17 March 2024.

**(3) Overview of Wintermute’s Code**

19. What follows is very much a simplification, but it is sufficient for present purposes and I do not believe that it is disputed.
20. Wintermute was trading assets other than UST and LUNA before the Relevant Period and for the purpose of that trading it had developed a substantial body of code (“the Pre-existing Code”). Most of Wintermute’s code, both before and during the Relevant Period, was written in the Python coding language, although some of the code used for lower-level functions was written in the C++ coding language.
21. Wintermute’s code was contained in files, those files were contained in folders and those folders were contained in a central repository. In operation, the code in one file can, and frequently will, interact with the code in other files for a variety of reasons explained by Mr Boswell and Mr Ellison in their reports.
22. As an illustration of the interrelated nature of different files of code, the Produced Files, which contain about 800 lines of code, contain references to 19 other files. Moreover, it is likely that those 19 files contain references to other files and so on.
23. Mr Ellison explained, and I did not understand Mr Boswell to disagree, that different files of code will have different functions. For instances, Mr Ellison said that the Produced Files contained “execution code”, which gives effect to trading instructions, but they do not contain any trading algorithms, which are contained in the trading code, i.e. that part of the code which decides to make trades and generates trading instructions. Mr Ellison compared the trading algorithms to the “brain” of the code and the execution code to the “muscle”. He also referred to “integration and connectivity code”, which enables Wintermute’s computer platform to communicate with other systems, such as Terraform’s. Another function of some files of code is the gathering of data about assets such as UST or LUNA so that the data can be analysed by the trading algorithms and decisions made to trade.
24. Overall, as I understand it:
  - (1) Wintermute’s data-gathering code obtains data from other systems, such as Terraform’s, to be made available to the trading code.

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- (2) The trading algorithms in the trading code use that data to decide whether to make trades and, if so, to issue trading instructions.
  - (3) The execution code gives effect to the trading instructions.
  - (4) At all stages, the integration and connectivity code enables Wintermute's platform to communicate with other systems, such as Terraform's.
  - (5) No doubt other files of code have other, ancillary functions.
25. Since Wintermute did not trade UST or LUNA before the Relevant Period, some changes needed to be made to Wintermute's code during the Relevant Period for the Relevant Purpose. In some cases, this may have involved creating new files of code, such as the Produced Files, although some of these may have been based on copies of existing files. In other cases, it may be that this involved adding or altering lines of code in a file.
26. However:
  - (1) The code in some of the files which were used for the Relevant Purpose may not have required any changes, especially if they were generic in nature.
  - (2) It is not to be expected that every change made to Wintermute's code during the Relevant Period was made for the Relevant Purpose. There may, for instance, have been changes which were generic in nature or which were specific to assets other than UST or LUNA.
27. Wintermute has a record of the changes made to its code. This is not contained in metadata, since Python files do not contain metadata. Rather, as Mr Ellison has explained, Wintermute uses a version control system known as GitHub, which is a web-based platform providing a remote hosting function for a source code repository using the Git technology for source code management. Developers save their changes to repositories through a mechanism called a "commit". A commit represents a logical unit of change, a specific idea or set of changes. It includes contents (the actual code change), message (a descriptive commit message) and metadata (author, timestamp and more).
28. At the heart of the dispute between the parties is the following issue:
  - (1) Terraform contends that the changes made to Wintermute's code in the Relevant Period for the Relevant Purpose must have included new, or at least amended, trading algorithms, since Wintermute had not traded UST or LUNA before the Relevant Period. In support of this contention, Terraform relies, in particular, on:
    - (a) the statement in the Forbes article that Wintermute's developers "wrote 4,000 lines of code for new trading algorithms"; and
    - (b) Mr Gaevoy's evidence in his deposition that he thought that new lines of code for new trading algorithms were written "because those would be new trading algorithms, so you cannot use existing lines of code because we were not integrated with Terra before".

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- (2) Wintermute contends that it did not create any new trading algorithms or amend any existing trading algorithms during the Relevant Period for the Relevant Purpose.

**(4) The Legal Context**

29. There are several aspects to the legal context for the hearing on 19 and 20 March 2024 which are significant. In particular:

- (1) One of the questions for me to consider was whether Wintermute had complied with the production order.
- (2) The production order was made pursuant to the Evidence (Proceedings in Other Jurisdictions) Act 1975 (“the 1975 Act”).
- (3) As appears from the first judgment, Terraform has made clear its intention to use the court’s contempt jurisdiction to encourage compliance with the production order and/or to penalise any non-compliance.

***(4)(a) Compliance with a Court Order***

30. In *Pan Petroleum AJE Ltd v Yinka Folawiyo Petroleum Co Ltd* [2017] EWCA Civ 1525 (“*Pan Petroleum*”) Flaux LJ said as follows in paragraphs 41 and 42 of his judgment:

41. The applicable legal principles in relation to construction of Court Orders and findings of contempt in relation to breach of an Order were essentially common ground between the parties both before the judge and before this Court and, in any event, the Supreme Court recently gave guidance on this issue in *JSC BTA Bank v Ablyazov (No. 10)* [2015] UKSC 64; [2015] 1 WLR 4754, in the judgment of Lord Clarke of Stone-cum-Ebony JSC (with whom the other Justices agreed) at [16]-[26]. The principles can be summarised as follows:

- (1) The sole question for the Court is what the Order means, so that issues as to whether it should have been granted and if so in what terms are not relevant to construction (see [16] of the judgment).
- (2) In considering the meaning of an Order granting an injunction, the terms in which it was made are to be restrictively construed. Such are the penal consequences of breach that the Order must be clear and unequivocal and strictly construed before a party will be found to have broken the terms of the Order and thus to be in contempt of Court (see [19] of the judgment, approving inter alia the statements of principle to that effect in the Court of Appeal by Mummery and Nourse LJJ in *Federal Bank of the Middle East v Hadkinson* [2000] 1 WLR 1695).
- (3) The words of the Order are to be given their natural and ordinary meaning and are to be construed in their context, including their historical context and with regard to the object

of the Order (see [21]-[26] of the judgment, again citing with approval what Mummery LJ said in Hadkinson).

42. As Mr Joseph QC correctly submitted, those principles confirm a consistent line of authority that Court Orders are to be construed objectively and in the context in which they are made, including the reasons given by the Court for making the Order at the time that it was made. That point was made clearly by Lord Sumption giving the judgment of the Privy Council in *Sans Souci Limited v VRL Services Limited* [2012] UKPC 6 at [13]:

“...the construction of a judicial order, like that of any other legal instrument, is a single coherent process. It depends on what the language of the order would convey, in the circumstances in which the Court made it, so far as these circumstances were before the Court and patent to the parties.

The reasons for making the order which are given by the Court in its judgment are an overt and authoritative statement of the circumstances which it regarded as relevant. They are therefore always admissible to construe the order. In particular, the interpretation of an order may be critically affected by knowing what the Court considered to be the issue which its order was supposed to resolve.”

31. Understandably, Terraform focused on subparagraphs 41(1) and (3) of this judgment, whereas Wintermute focused on subparagraph 41(2).

***(4)(b) The 1975 Act***

32. On the one hand, Terraform drew my attention to dicta to the effect that comity obliges the English court to comply with letters of request when it properly can.
33. On the other hand, Wintermute stressed the limits on the English court’s jurisdiction to make orders under the 1975 Act. In particular:

(1) The court cannot order production of documents which are outside the scope of the letter of request: see *Rio Tinto Zinc Corporation v Westinghouse Electric Corporation* [1978] AC 547, at 636A.

(2) Subsection 2(4) of the 1975 Act provides as follows:

“An order under this section shall not require a person—

- (a) to state what documents relevant to the proceedings to which the application for the order relates are or have been in his possession, custody or power; or
- (b) to produce any documents other than particular documents specified in the order as being documents appearing to the court making the order to be, or to be likely to be, in his possession, custody or power.”



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34. I had those limits very much in mind in deciding what, if any, order I should make on 20 March 2024. Having said that, I made no decision on 20 March 2024 as to what order the court might make on a future occasion in the exercise of its jurisdiction to police compliance with its orders.

**(4)(c) Contempt**

35. Wintermute relied on the following passages from paragraph 4.001 of *Gee on Commercial Injunctions* (7<sup>th</sup> Edn):

“There is a general principle that an order must be expressed in unambiguous language so that the defendant knows exactly what is forbidden or required by the order. Contempt proceedings will not succeed when the order is unclear or ambiguous.”

“... An injunction should not be granted in terms which leave it to be argued out in contempt proceedings what it does and does not require. ...”

36. I also had in mind that any finding that Wintermute has failed to comply with the production order may be relied on in a contempt application, where the standard of proof is the criminal standard.

**(5) The Evidence**

37. As I have said, the only factual evidence adduced by the parties came from their solicitors. Therefore, there was no factual evidence from Wintermute as to how it went about amending its code for the Relevant Purpose. It is not suggested that the individuals who amended the code, or their managers, are no longer employed by Wintermute or that Wintermute does not know how its code was amended during the Relevant Period for the Relevant Purpose.

38. The absence of such evidence was unhelpful, to say the least. For instance:

- (1) I drew attention during the hearing to the fact that there was no evidence as to how Wintermute “triggered” its code to consider initiating, and to initiate, trades in UST and LUNA. The fact that Mr Ellison did not address that issue was also a source of concern about his evidence.
- (2) During the hearing, Mr Anderson told me, no doubt on instructions, but without reference to any evidence to that effect, that Wintermute’s ability to trade UST and LUNA was created once arrangements were made for data about UST and LUNA to be sent to Wintermute’s platform and that, once those arrangements were made, there was no need for any change to Wintermute’s trading algorithms. That may or may not be correct, but it is difficult to square with other evidence in the case, namely what was said in the Forbes article and what Mr Gaevoy said in his examination about trading algorithms.
- (3) In correspondence, Wintermute’s solicitors have given the clear impression that Wintermute knows what were the approximately 4,000 lines of code referred to in the Forbes article, but Wintermute has not identified those 4,000

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lines of code and does not appear even to have told Mr Ellison what they were, since Mr Ellison has speculated as to what they were.

- (4) Mr Ellison said that he had spoken to Mr Tim Wu, Wintermute’s “internal expert and head of decentralised finance (DeFi) operations”, who was employed by Wintermute in the Relevant Period and involved in Wintermute’s trading in UST and LUNA, but there is no evidence as to what information Mr Wu provided to Mr Ellison.
39. In addition, there was what Mr Byam-Cook termed an imbalance between the expert witnesses:
- (1) Mr Ellison had access to Wintermute’s code, but Mr Boswell did not.
  - (2) Mr Ellison spoke to Mr Wu, but Mr Boswell did not.
  - (3) Mr Boswell was not told what information Mr Wu had provided to Mr Ellison.
40. On 9 March 2024 Terraform’s solicitors requested the opportunity for Mr Boswell to inspect some of the files which Mr Ellison had seen. On 12 March 2024 Wintermute’s solicitors declined that request, contending that the files were part of Mr Ellison’s instructions and that Terraform should apply for an order for inspection if it wanted Mr Boswell to be able to inspect the files. Terraform did not make such an application, contending that it was impractical to do so in the time available.
41. In the light of this imbalance:
- (1) Mr Byam-Cook invited me to disregard Mr Ellison’s evidence, as Joanna Smith QC did in *DBE Energy Ltd v Biogas Products Ltd* [2020] EWHC 1232 (TCC), and to draw adverse inferences against Wintermute.
  - (2) Mr Anderson invited me to rely on Mr Ellison’s evidence, contending that:

    - (a) Terraform should have applied for an order that Mr Ellison give evidence and be cross-examined.
    - (b) Terraform should have applied for an order that Mr Boswell be permitted to inspect Wintermute’s files of code.
    - (c) Terraform was given the opportunity in January 2024 to inspect sample files of code.
  - (3) Mr Byam-Cook replied by saying that:

    - (a) By virtue of changes to the timetable, the time for applying for an order that the experts give oral evidence expired before Mr Ellison’s report was served.
    - (b) In any event, he could not sensibly have cross-examined Mr Ellison without information as to the material which Mr Ellison had seen.

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- (c) There had not been sufficient time between the service of Mr Ellison's report on 6 March 2024 and the hearing on 19 March 2024 for an application for inspection to be heard and determined and for inspection to take place.
- (d) The offers made in January 2024 were subject to the unacceptable condition that Terraform agree not to rely on anything other than the Produced Files at the trial of the US action.

42. The evidence submitted by the parties and the submissions made on their behalf suggested that the parties may have adopted interpretations of the production order which were incorrect. I will say more about this later.

**(6) The Order Sought by Terraform**

43. Terraform applied for an order whose central provisions were a finding that Wintermute has failed to comply with the production order and an order that Wintermute remedy its alleged failure by producing:

- “(a) The code developed by Wintermute between 1 February and 9 May 2022 (inclusive) in order to enter into the “Transactions” (as defined in Appendix A to the 7 December Order) in the sense of the full set, or collection, of instructions for entering the “Transactions”
- (b) The code developed by Wintermute setting out how and when “Transactions” (as defined in Appendix A to the 7 December Order) are to be entered into;
- (c) The “4000 lines of code for new trading algorithms” described in the Forbes Article dated 20 December 2022 written by Jeff Kauflin;
- (d) With regard to the file which Wintermute disclosed on 20 December 2023 entitled [REDACTED], that defines how [REDACTED] is created, provided to the [REDACTED] method, and used in the process of entering into “Transactions” (as defined in Appendix A to the 7 December Order);
- (e) The code constituting the following references in the [*Produced Files*] [*i.e. the 19 files referred to in the Produced Files*].
- (f) The code repository files containing the code developed by Wintermute between 1 February and 9 May 2022 (inclusive) in order to enter into the “Transactions” (as defined in Appendix A to the 7 December Order) in the sense of the full set, or collection, of instructions for entering the “Transactions”.”

44. Terraform also applied for:

- (1) an order that any code produced by Wintermute be produced in native Python format;
- (2) an order that Wintermute make its code repository available for inspection by Terraform; and

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- (3) a declaration that Wintermute was in breach of paragraph 3 of the production order.
45. In relation to the meaning of the production order, Terraform relied, in particular, on the following evidence from Mr Boswell:
- “17. The 7 December Order refers to “the code that was created...”. The word “created” is not one that would be used in a technical coding context. The technical word for the writing of code to accomplish a task (e.g. writing the instructions to enter a transaction of the types referenced above and in the 7 December Order) is to “develop”.
18. The process of code development (in the context of code that will instruct a computer to enter into a transaction) involves building up a collection of components of code, or blocks of code, for the purpose of entering into the transaction. This is the way of building up the complete set of instructions.
19. This process of development is not one whereby all the code instructions are written from a blank page. Rather, the developer starts with certain pre-existing components or blocks of code. These may be blocks that the organization has written in the past, blocks available from open-source software or they may comprise proprietary technology. The developer then combines those blocks in a new manner and adds to them new blocks of code such that the resulting new collection of blocks comprises the complete set of instructions for entering the transaction that the developer set out to be able to enter.
20. The output of this development process is new code that can enter the transaction. It also follows that the resulting code / the full set of instructions can be new even though some of its constituent blocks might have pre-existed the development process. Once the organization wants to start entering into transactions it will run or execute this new code i.e. the full set, or collection, of instructions.”
46. On the basis of this evidence, Terraform submitted that the code created in the Relevant Period included not merely code which was written during the Relevant Period but also any part of the Pre-Existing Code which was used when Wintermute entered into the Transactions or, putting it in another way, the full set, or collection, of instructions for entering the Transactions or the code developed by Wintermute setting out how and when Transactions are to be entered into. Wintermute submitted that this went beyond interpreting the production order and amounted to rewriting the production order.
47. There was an issue between the experts as to how practical it would be for Wintermute to identify and produce all of the files of code required to be produced if an order were made in the terms proposed by Terraform, but I do not need to resolve that issue.

**(7) Decision**

***(7)(a) Has Wintermute Complied Fully with the Production Order?***

48. As I indicated during the hearing, I would not be prepared to make an order declaring that Wintermute was in breach of the production order without specifying the precise nature of that breach. However, I do not consider that it would be fair to either party for me to make any findings of that nature on the current state of the evidence. This is primarily because of what Mr Byam-Cook termed the imbalance between the expert witnesses, together with the other matters to which I have referred.
49. On the one hand, it is unsatisfactory for Wintermute to seek to rely on an expert witness who:
- (1) has received unidentified information from one of the Wintermute's employees; and
  - (2) has had access to Wintermute's code when Terraform's expert witness has not.
50. I do not accept Mr Anderson's criticism of Terraform's conduct once Mr Ellison's report was served. Wintermute was not willing to allow Mr Boswell to have access to its code, there was insufficient time between the service of Mr Ellison's report and the hearing for this issue to be resolved by the court and for Mr Boswell to have access to and report on the code and cross-examination of Mr Ellison would not, in itself, have resolved the imbalance.
51. On the other hand, I was not attracted by Terraform's proposal that I should disregard Mr Ellison's report and draw adverse inferences against Wintermute. Any finding which I were to make that Wintermute was in breach of the production order might be relied on by Terraform in a contempt application and I do not consider that it would be appropriate, at least at this stage, to make such a finding based on adverse inferences.

***(7)(b) The Meaning of the Production Order***

52. Nevertheless, I considered that it may well be the case that Wintermute has not fully complied with the production order. I say this primarily because of the respects in which it appeared that Mr Ellison (and, presumably, Wintermute) has adopted an unduly narrow interpretation of the production order, coupled with the matters referred to in paragraph 38 above. Accordingly, I decided to make an order for production of the documents referred to in paragraph 2 of Appendix A to the production order, but coupled with a declaration as to the meaning of various aspects of the production order.
53. However, I decided not to make a production order in the terms sought by Terraform, essentially because I accepted Wintermute's submission that the various formulations proposed by Terraform all went beyond the scope of the production order. At its widest, the order proposed by Terraform would have required production of all code used in the Relevant Period for the Relevant Purpose, but that is not what the production order says.
54. I accept that "create" is not a word used by code developers, but it is the word used in the letter of request and in the production order. If and insofar as it may be an

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inappropriate word to use in order to obtain what Terraform hoped to obtain, Terraform cannot complain, since, so far as I am aware, Terraform drafted the letter of request. In any event, my task is to interpret the production order, not to amend it. In the hearing, there did not in fact seem to be any dispute that code is created when it is written, and I consider that that is the correct interpretation of the word “created” in the production order, with the refinement that a line of code is also created when it is amended, but not when it is deleted.

55. The production order did not require production of the code created during the Relevant Period for the Relevant Purpose, but rather required production of the file containing the code created during the Relevant Period for the Relevant Purpose. In my judgment, this formulation has two consequences:

- (1) if a file contains one or more lines of code written during the Relevant Period for the Relevant Purpose, then the production order required production of the whole of that file, regardless of when the other code contained in that file was created; but
- (2) if a file contains no lines of code written during the Relevant Period for the Relevant Purpose, then the production order did not require production of that file:
  - (a) whether or not it is referred to in a file which contains such code; and
  - (b) whether or not it is used, or was intended to be used, in order to enter into the Transactions.

56. There did not appear to be a dispute between the parties that, although the production order uses the singular word “file”, it required production of more than one file. However, as I specified in my order, it only refers to the file or files which contain code created during the Relevant Period for the Relevant Purpose and does not include a file or folder which merely contains the file which contains code created by Wintermute in the Relevant Period for the Relevant Purpose.

57. The respects in which it appeared that Mr Ellison and Wintermute may have adopted an unduly narrow interpretation of the production order were as follows:

- (1) It appears that Mr Ellison may have read the production order as only referring to a certain type or types of code, i.e. execution code and trading algorithms. It is not limited to any particular type of code. Different types of code were needed for the Relevant Purpose. For instance, Mr Anderson told me that what enabled Wintermute’s code to start considering trades in UST and LUNA was inputting data about UST and LUNA, which suggests that data collection code was created for the Relevant Purpose. I ordered that:
  - (a) “code” meant any computer code and includes data collection code, trading logic code, trade execution code, integration and connectivity code and any other type of code; and
  - (b) code was created for the Relevant Purpose if it was created to enable data about UST or LUNA to be input into Wintermute’s systems with a

view to Wintermute's systems generating trades in UST or LUNA.

- (2) Mr Ellison's report suggests that he was of the opinion that the production order only required the production of higher level code, written in the Python language, but the scope of the production order was not limited by reference to the coding language used.
- (3) Aspects of Mr Ellison's report suggest that he may have been of the opinion that the production order only required the production of code which was necessary to understand the means through which the Transactions were executed. The production order contained no such limitation.
- (4) Other aspects of Mr Ellison's report suggested that he may have been of the opinion that the production order only applied to code which was created solely for the Relevant Purpose and not to code which could also be used for another purpose or purposes. My order declared that this was incorrect, while also declaring that code was not created for the Relevant Purpose if it was created solely for the purpose of amending the way in which Wintermute entered into transactions generally.

58. There was an issue between the parties whether the production order required production of files whose purpose is to effect transfers of UST or LUNA. I included in my order a declaration that transfers are not Transactions, but I said that this was without prejudice to Terraform's submission that transfers can be necessary in order to enter into Transactions.

***(7)(c) The Format of Any Files Produced***

59. As I have said, Terraform sought an order that the Produced Files and any other files produced in response to my order be produced in native Python format. I declined to make such an order, because this was not specified in the letter of request. The letter of request and, consequently, the production order required that files be produced in electronic format. That has been done.

***(7)(d) Inspection of Wintermute's Code Repository***

60. At the hearing, Mr Byam-Cook did not press Terraform's application for an order that Wintermute make its code repository available for inspection by Terraform. Paragraph 1 of the production order only provided for inspection "To the extent that production by photocopies or in electronic form is impractical". There is no suggestion that that is the case.

61. It may, however, be necessary on a future occasion to consider whether an order should be made permitting Mr Boswell to inspect Wintermute's code to the same extent as Mr Ellison has. Nothing I say in this judgment is intended to prejudge that issue.

***(7)(e) Paragraph 3 of the Production Order***

62. Paragraph 3 of the production order provided that Wintermute was to accompany its production of documents with:

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“a sworn statement...which attests to the fact the production comprises the entirety of the documents herein, or otherwise specifies what documents have been omitted and the reason for their omission”.

63. However, the affidavit which accompanied the production of the Produced Files, Mr Gaevoy’s second affidavit, did not contain such a statement. This omission was remedied in Mr Gaevoy’s fourth affidavit, which stated that:

“subject to the qualification set out in my Second Affidavit, I now confirm that the documents that the First Respondent has produced pursuant to the Wintermute Order are true and accurate copies of the entirety of the documents described in Appendix A, paragraph 2 of the Wintermute Order. Again, I apologise to the Court for this inadvertent oversight”

64. Wintermute has served a further witness statement by its solicitor, Oliver David Felton, explaining that the qualification referred to by Mr Gaevoy was a reference to the statement in his second affidavit that certain elements of what was produced were marked as confidential in order to comply with a confidentiality order made in the US proceedings.
65. Terraform complains that paragraph 3 of the production order did not permit any qualification to be made and sought an order that Mr Wintermute had not complied with that paragraph. This did not strike me as a point of any substance and I declined to make the order sought. The substantive issue is whether what Wintermute has produced so far “comprises the entirety of the documents herein” or whether there are files of code which, as at the date of the hearing, Wintermute ought to have produced, but had not.

**(8) This Judgment**

66. The published version of this judgment has been redacted so as not to disclose the names of files or components of Wintermute’s code, given the commercially sensitive nature of that code.