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```
each: function(e, t, n) {
  var r, i = 0,
      o = e.length,
      a = M(e);
  if (n) {
    if (a) {
      for (; o > i; i++)
        if (r = t.apply(e[i], n), r === !1) break;
    } else
      for (i in e)
        if (r = t.apply(e[i], n), r === !1) break;
  } else if (a) {
    for (; o > i; i++)
      if (r = t.call(e[i], i, e[i]), r === !1) break;
  } else
    for (i in e)
      if (r = t.call(e[i], i, e[i]), r === !1) break;
  return e
},
trim: b && !b.call("\uffeff\u00a0") ? function(e) {
  return null == e ? "" : b.call(e)
} : function(e) {
  return null == e ? "" : (e
),
makeArray: function(e) {
  var n = t || 1;
  return n
},
isArray
```

# Patent Prosecution Strategies to Mitigate Post-Grant Challenges under the AIA

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# Application and Claim Drafting Strategies for Software Inventions



## Issue: Claim Interpretation

Strategy: Use multiple examples and/or layers of refinement in specification to strengthen understanding.

Comment: May be an effective way to distinguish entire categories of prior art.



## Issue: Claim Interpretation

Strategy: Make sure each key innovation factor in the specification is broadly described through three or more alternate embodiments.

Comment: Builds fuller understanding of term scope.



Issue: Subject Matter Eligibility

Strategy: In the specification, explicitly point out the technical problem that is solved by the innovation and how the described embodiments solve the technical problem.

Comment: Works for business problems with technical solution as well.



Issue: Subject Matter Eligibility

Strategy: Avoid solution-based claims.

Comment: Integrate the “how” of the described technical solution into the claim. Make sure the claims are distinguishable from claims that merely link the use of the judicial exception to a particular technological environment.



Issue: *Written Support*

Strategy: *Craft intricate flow diagrams.*

Comment: *Decision points, branches, and loops demonstrate the underlying complexity of logic flows.*



## Issue: Written Support

Strategy: Describe each innovation and its various embodiments using multiple types of figures.

Comment: System flow diagrams and “swim lane” communication diagrams merge structural and method elements, providing support for claimed structures.



# Example System Flow Diagram

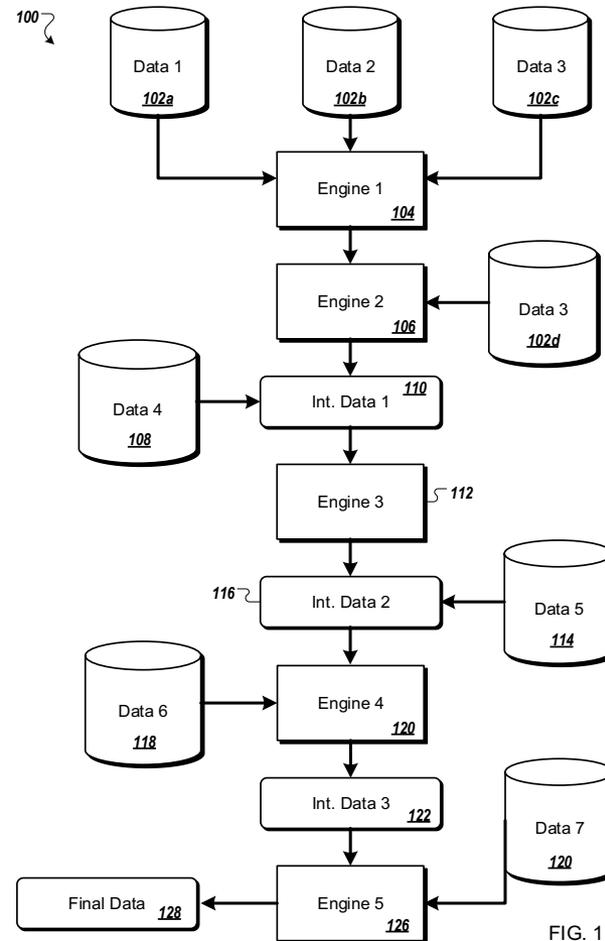


FIG. 1



# Prosecution Strategies for Software Inventions



Factor: Similarities and material differences between the asserted art and the prior art involved during examination

Strategy: File comprehensive Information Disclosure Statements.

Comment: This is a best practice. Consider cross-citing between related portfolios as well.



Factor: Extent to which the asserted art was evaluated during examination

Strategy: Specifically identify related art by patent owner in related applications section or background.

Comment: This works for other known art as well, with caution.



Factor: Cumulative nature of the asserted art and the prior art evaluated during examination

Strategy: Conduct a pre-filing prior art search.

Commentary: This continues to be a best practice for targeted claim drafting and IDS development.



Factor: Extent to which the asserted art was evaluated during examination, including whether the prior art was the basis for rejection

Strategy: For key features, address the asserted art in the response.

Comment: Important where an interview or amendment leads to allowance without necessity for commentary.



Issue: Claim interpretation

Strategy: Use differing language between continuations.

Comment: Diversification of terms increases the difficulty of broad attack across a portfolio.



Issue: Breadth of claims

Strategy: For patents to be asserted, pursue relatively narrow claims.

Comment: Focusing on “must have” narrow features may substantially limit the number of relevant prior art references.



Issue: Continuation practice

Strategy: Keep continuation pending.

Comment: Continuations arguably now more important than ever.



# Prosecution Strategies for Overcoming 101 Rejection



# Subject Matter Eligibility

post-*Alice* 35 U.S.C. § 101

- 2019 Revised Subject Matter Eligibility Guidance- Revised Step 2A of the Subject Matter Eligibility Determination for determining whether a patent claim or patent application claim is directed to a judicial exception
  - **Prong One:** Determining whether the claim recites a judicial exception (i.e., an abstract idea) based on one of the defined groupings (mathematical concepts, certain methods of organizing human activity, mental processes)
  - **Prong Two:** Evaluating whether the claim recites additional elements that integrate the exception into a practical application of that exception



## Prong 1: Does the claim “recite” a judicial exception?

- Point out that just because a claim may *involve* one of the subject matter groupings of abstract ideas identified in the guidance (i.e., mathematical concepts, certain methods of organizing human activity, and mental processes), the core of the inventive solution is directed to a solution that is necessarily rooted in computer technology (e.g., inventive methods of manipulating/storing data).
- Show that the claimed innovation functions differently than conventional systems as in *Enfish*.
- *Finjan* Memo of 2018 confirmed that software-based innovations can make ‘non-abstract improvements to computer technology’ and be deemed patent-eligible subject matter at Step 2A.



## Prong 2: If the claim recites a judicial exception, does it integrate the recited exception into a practical application?

- Claim element(s) reflects an improvement in the functioning of a computer, or an improvement to other technology or technical field.
- Claim element(s) implements a judicial exception with, or uses a judicial exception in conjunction with, a particular machine or manufacture that is integral to the claim.
- Claim element(s) applies or uses the judicial exception in some other meaningful way beyond generally linking the use of the judicial exception to a particular technological field.



# Distinguish claims from those in patent-ineligible rulings

- *Electric Power Group*
  - Claims were patent-ineligible under § 101 because...
    - The claims were entirely directed to collecting, analyzing, and displaying information without any recited technical improvement thereto
    - The claims were directed to the result of a problem and not a specific solution to the problem.
  - The court stated that “there is a critical difference between patenting a particular concrete solution to a problem and attempting to patent the abstract idea of a solution to the problem in general.”



# Illustrate how claims are similar to those in patent-eligible rulings

- *McRO, Inc. v. Bandai Namco Games America, Inc.*
  1. A method for automatically animating lip synchronization and facial expression of three-dimensional characters comprising:
    - obtaining a first set of rules that define output morph weight set stream as a function of phoneme sequence and time of said phoneme sequence;
    - obtaining a timed data file of phonemes having a plurality of sub-sequences;
    - generating an intermediate stream of output morph weight sets and a plurality of transition parameters between two adjacent morph weight sets by evaluating said plurality of sub-sequences against said first set of rules;
    - generating a final stream of output morph weight sets at a desired frame rate from said intermediate stream of output morph weight sets and said plurality of transition parameters; and
    - applying said final stream of output morph weight sets to a sequence of animated characters to produce lip synchronization and facial expression control of said animated characters.



## *McRO, Inc. v. Bandai Namco Games America, Inc.*

- Claims were not abstract because they represented a technical improvement and there was “no evidence that the process previously used by animators is the same as the process required by the claims.”
- The court acknowledged that the rule-based claims of *McRO* could be carried out manually and yet were not directed to an abstract idea because they recited an unconventional procedure that had not previously been carried out manually.
- The *McRO* court held that the claimed method of automating animated lip synchronization was patent-eligible for being “limited to a specific process for automatically animating characters using particular information and techniques and does not preempt approaches that use rules of a different structure or different techniques.”

