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SUBJECT MATTER ELIGIBILITY WORKSHEET
Abstract Idea Workshop

This worksheet can be used to assist in analyzing a claim for “Subject Matter Eligibility” (SME) under 35 U.S.C. 101 for any judicial exception (law of nature, natural phenomenon, or abstract idea) in accordance with the [2014 Interim Eligibility Guidance](#). As every claim must be examined individually based on the particular elements recited therein, a separate worksheet should be used to analyze each claim. The use of this worksheet is optional.

Worksheet Summary: Section I is designed to address the first activity in examination, which is to determine what applicant invented and to construe the claim in accordance with its broadest reasonable interpretation (BRI). Next, referring to the eligibility flowchart reproduced in the *Quick Reference Sheet*, Section II addresses *Step 1* regarding the four statutory categories of invention. Section III addresses *Step 2A* by determining whether the claim is directed to an abstract idea. Section IV addresses *Step 2B* by identifying additional elements to determine if the claim amounts to significantly more than an abstract idea.

Application/Example No. and claim: Example 23, claim 3

I. What did applicant invent?

Review the disclosure to identify what applicant considers as the invention. (MPEP 2103(I))

Applicant invented:

a graphical user interface for dynamically relocating/rescaling obscured textual information of an underlying window to become automatically viewable to the user. By permitting textual information to be dynamically relocated based on an overlap condition, the computer's ability to display information is improved.

Establish the broadest reasonable interpretation (BRI) of the claim.

II. Does the claimed invention fall within one of the four statutory categories of invention (process, machine, manufacture or composition of matter) (Step 1)?

Choose A or B:

- A. Yes, the claimed invention is a series of steps, which is a process.

Continue with the SME analysis.

- B. No, the claimed invention is not one of the four statutory categories. Make a rejection of the claim as being drawn to non-statutory subject matter. Use *Form Paragraphs 7.05 and 7.05.01 available in Custom OACs*.

If the claim could be amended to fall within one of the statutory categories, it is recommended to **continue with the SME analysis** under that assumption. Make the assumption clear in the record if a rejection is ultimately made under *Step 2*, and consider suggesting a potential amendment to applicant that would result in the claim being drawn to a statutory category.

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If no amendment is possible, **conclude the SME analysis** and continue with examination under each of the other patentability requirements.

III. Is the claim directed to an abstract idea (Step 2A)?

Courts have found certain concepts to be “abstract ideas”, for example fundamental economic practices, certain methods of organizing human activity, ideas themselves (standing alone), or mathematical relationships/formulae. Identify the claim limitation(s) that correspond to the abstract idea, and explain how such is similar to concepts previously held by the courts to be abstract (Refer to the July 2015 Update Quick Reference Sheet, page 2). A claim is “directed” to an abstract idea when the abstract idea is recited (*i.e.*, **set forth** or **described**) in the claim.

Choose A, B, or C:

- A. No, the claim does not recite a concept that is similar to those found by the courts to be abstract. **Conclude SME analysis** and continue with examination under each of the other patentability requirements. If needed, the record can be clarified by providing remarks in the Office action regarding interpretation of the claim (*for example*: the broadest reasonable interpretation of the claim is not directed to an abstract idea.)
- B. Yes, but the streamlined analysis is appropriate as the eligibility is self-evident, and a full eligibility analysis is not needed. Applicant’s claimed invention, explained in Section I above, is not focused on the abstract idea, and the claim clearly does not attempt to tie up an abstract idea such that others cannot practice it. (Refer to the [February 2015 Training Slides](#) for information and examples of a streamlined analysis.) **Conclude SME analysis** and continue with examination under each of the other patentability requirements.
- C. Yes, identify the limitation(s) in the claim that recite(s) the abstract idea and explain why the recited subject matter is an abstract idea. After identifying the abstract idea, **continue with SME analysis**.

The limitation(s) in the claim that set(s) forth or describe(s) the abstract idea is (are):

the steps of generating first data for describing the area of a first graphical element, generating second data for describing the area of a second graphical element containing textual information, and calculating a scaling factor proportional to the difference between the first data and the second data. The steps of generating, based on their broadest reasonable interpretation in view of the background, require calculating the area of the underlying window (the first graphical element) and calculating the area of the unobstructed portion of the underlying window (the second graphical element). The step of calculating the scaling factor uses a mathematical algorithm to obtain a factor that is proportional to the difference in area

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between the underlying window and the unobstructed portion of the underlying window. These three steps recite and describe mathematical relationships and algorithms.

Judicial exceptions need not be old or long-prevalent.

The reason(s) that the limitation(s) are considered an abstract idea is (are):

mathematical relationships and algorithms have been found by the courts (e.g. *Benson*, *Flook*, *Diehr*, *Grams*) to be abstract ideas. For example, in *Benson*, a mathematical procedure for converting one form of numerical representation to another was found to be an exception, as was an algorithm for calculating parameters indicating an abnormal condition in *Grams*.

IV. Does the claim as a whole amount to significantly more than the abstract idea (Step 2B)?

- A. Are there any additional elements (features/limitations/step) recited in the claim beyond the abstract idea identified above?

Choose 1 or 2:

1. **Conclude SME analysis** by making a § 101 rejection and continue with examination under each of the other patentability requirements. Use Form Paragraphs 7.05 and 7.05.015 available in Custom OACs.

Are there elements in the disclosure that could be added to the claim that may make it eligible? Identify those elements and consider suggesting them to applicant:

2. Yes, the claim elements (features/limitations/steps) in addition to the abstract idea are:

the "computer-implemented" method limitations of resizing textual information within a window displayed in a graphical user interface. The claim recites that the step of calculating a scaling factor is performed by "the computer" (referencing the computer recited in the preamble). Such a limitation gives "life, meaning and vitality" to the preamble and, therefore, the preamble is construed to further limit the claim. (See MPEP 2111.02.) Thus, the claim recites the additional limitations that the mathematical algorithm is implemented by a computer in a graphical user interface environment.

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Continue with the SME analysis.

- B. Evaluate the significance of the additional elements. Identifying additional elements and evaluating their significance involves the search for an “inventive concept” in the claim. It can be helpful to keep in mind what applicant invented (identified in Section I above) and how that relates to the additional elements to evaluate their significance.

Consider all of the identified additional elements individually and in combination to determine whether the claim as a whole amounts to significantly more than the abstract idea identified above. Reasons supporting the significance of the additional elements can include one or more of the following:

- improves another technology or technical field
- improves the functioning of a computer itself
- applies the abstract idea with, or by use of, a particular machine
 - *not* a generic computer performing generic computer functions
 - *not* adding the words “apply it” or words equivalent to “apply the abstract idea”
 - *not* mere instructions to implement an abstract idea on a computer
- effects a transformation or reduction of a particular article to a different state or thing
- adds a specific limitation other than what is well-understood, routine and conventional in the field
 - *not* appending well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality
 - *not* a generic computer performing generic computer functions
- adds unconventional steps that confine the claim to a particular useful application
 - *not* adding insignificant extrasolution activity, such as mere data gathering
- adds meaningful limitations that amount to more than generally linking the use of the abstract idea to a particular technological environment

Complete (1) or (2) below:

1. Yes, the additional elements, taken individually or as a combination, result in the claim amounting to significantly more than the abstract idea because

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If any elements, individually or as a combination, amount to the claim reciting significantly more than the abstract idea, **conclude SME analysis** and continue with examination under each of the other patentability requirements. If needed, the record can be clarified by providing remarks in the Office action regarding interpretation of the claim (*for example*: the claim recites the abstract idea of “x”, but amounts to significantly more than the idea itself with the additional element “y” because “abc”).

2. No, the additional elements, taken individually and as a combination, do not result in the claim amounting to significantly more than the abstract idea because

the mere recitation of “computer-implemented” and “by the computer” is akin to adding the words “apply it” with a computer in conjunction with the abstract idea. Such limitations are not enough to add significantly more to the method of calculating areas and a scaling factor, which represent mathematical relationships and algorithms. With regards to the graphical user interface limitation, the courts have found that simply limiting the use of the abstract idea to a particular technological environment does not add significantly more. (See, e.g., Flook.) Considering all the limitations in combination, the claimed additional computer elements do not show any inventive concept in applying the mathematical operations, such as improving the performance of a computer or any other technology, such as graphical interfaces. The steps describe nothing more than a computer’s basic function of numerical calculation, and do not meaningfully limit the performance of the calculation.

Even though the disclosed invention is described in the background as improving computer technology, the claim provides no meaningful limitations such that this improvement is realized. Therefore, the claim does not amount to significantly more than the abstract idea itself.

The claim is ineligible.

If no elements, taken individually and as a combination, amount to the claim reciting significantly more than the abstract idea, **conclude the SME analysis** by making a § 101 rejection and continue with examination under each of the other patentability requirements. Use Form Paragraphs 7.05 and 7.05.015 available in Custom OACs.

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Are there elements in the disclosure that could be added to the claim that may make it eligible? Identify those elements and consider suggesting them to applicant:

Yes, e.g., the disclosed steps of scaling and relocating the textual information in overlapping windows improve the ability of the computer to display information and interact with the user. For an example of a claim reciting these elements in a manner that results in the claim as a whole amounting to significant more, see claim 4 of Example 23.

Sample Rejection:

Claim 3 is rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Claim 3 is directed to

Note: There could be other limitations that could potentially be added such that the claim would be directed to significantly more than the abstract idea.

generating first and second data, i.e., calculating a first area and a second area which use mathematical relationships, and using the areas to calculate a scaling factor, which is a mathematical algorithm. Mathematical relationships and algorithms have been found by the courts to be abstract (e.g., *Benson*, *Flook*, *Diehr*, *Grams*).

The claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception because

the mere recitation of "computer-implemented" and "by a computer" is akin to adding the words "apply it" in conjunction with the abstract idea. Such limitations are not enough to add significantly more to the claimed method. With regards to the graphical user interface limitation, the courts have found that simply limiting the use of the abstract idea to a particular technological environment does not add significantly more. (See, e.g., *Flook*.) The claimed invention provides no meaningful limitations on the abstract idea, for example although a computer is utilized no improvement to the computer or another technology is realized. Therefore, the claim does not amount to significantly more than the abstract idea itself (*Step 2B: NO*). The claim is not patent eligible.

The examiner's burden is met by clearly articulating the reasons why the claimed invention is not eligible. While factual evidence that an idea is abstract is not required for a *prima facie* rejection, examiners are encouraged to cite any additional resources that support their rejections.

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Worksheet Summary: Section I is designed to address the first activity in examination, which is to determine what applicant invented and to construe the claim in accordance with its broadest reasonable interpretation (BRI). Next, referring to the eligibility flowchart reproduced in the *Quick Reference Sheet*, Section II addresses *Step 1* regarding the four statutory categories of invention. Section III addresses *Step 2A* by determining whether the claim is directed to an abstract idea. Section IV addresses *Step 2B* by identifying additional elements to determine if the claim amounts to significantly more than an abstract idea.

Application/Example No. and claim: Example 23, claim 4

I. What did applicant invent?

Review the disclosure to identify what applicant considers as the invention. (MPEP 2103(I))

Applicant invented:

a graphical user interface for dynamically relocating/rescaling obscured textual information of an underlying window to become automatically viewable to the user. By permitting textual information to be dynamically relocated based on an overlap condition, the computer's ability to display information is improved.

Establish the broadest reasonable interpretation (BRI) of the claim.

II. Does the claimed invention fall within one of the four statutory categories of invention (process, machine, manufacture or composition of matter) (Step 1)?

Choose A or B:

A. Yes, the claimed invention is a series of steps, which is a process.

Continue with the SME analysis.

B. No, the claimed invention is not one of the four statutory categories. Make a rejection of the claim as being drawn to non-statutory subject matter. *Use Form Paragraphs 7.05 and 7.05.01 available in Custom OACs.*

If the claim could be amended to fall within one of the statutory categories, it is recommended to **continue with the SME analysis** under that assumption. Make the assumption clear in the record if a rejection is ultimately made under *Step 2*, and consider

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suggesting a potential amendment to applicant that would result in the claim being drawn to a statutory category.

If no amendment is possible, **conclude the SME analysis** and continue with examination under each of the other patentability requirements.

III. Is the claim directed to an abstract idea (Step 2A)?

Courts have found certain concepts to be “abstract ideas”, for example fundamental economic practices, certain methods of organizing human activity, ideas themselves (standing alone), or mathematical relationships/formulae. Identify the claim limitation(s) that correspond to the abstract idea, and explain how such is similar to concepts previously held by the courts to be abstract (Refer to the July 2015 Update Quick Reference Sheet, page 2). A claim is “directed” to an abstract idea when the abstract idea is recited (*i.e.*, **set forth** or **described**) in the claim.

Choose A, B, or C:

- A. No, the claim does not recite a concept that is similar to those found by the courts to be abstract. **Conclude SME analysis** and continue with examination under each of the other patentability requirements. If needed, the record can be clarified by providing remarks in the Office action regarding interpretation of the claim (*for example*: the broadest reasonable interpretation of the claim is not directed to an abstract idea.)
- B. Yes, but the streamlined analysis is appropriate as the eligibility is self-evident, and a full eligibility analysis is not needed. Applicant’s claimed invention, explained in Section I above, is not focused on the abstract idea, and the claim clearly does not attempt to tie up an abstract idea such that others cannot practice it. (Refer to the [February 2015 Training Slides](#) for information and examples of a streamlined analysis.) **Conclude SME analysis** and continue with examination under each of the other patentability requirements.
- C.** Yes, identify the limitation(s) in the claim that recite(s) the abstract idea and explain why the recited subject matter is an abstract idea. After identifying the abstract idea, **continue with SME analysis**.

The limitation(s) in the claim that set(s) forth or describe(s) the abstract idea is (are):

the steps of calculating a first measure of the area of the first window and a second measure of the area of the unobstructed portion of the first window and calculating a scaling factor which is proportional to the difference between the first measure and the second measure. The steps of generating, based on their broadest reasonable interpretation in view of the background, require calculating the area of the underlying window (the first window) and calculating the area of the unobstructed portion of the underlying window (the second window). The step of calculating the scaling factor uses a mathematical algorithm to obtain a factor that is proportional

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to the difference in area between the underlying window and the unobstructed portion of the underlying window. These three steps recite and describe mathematical relationships and algorithms.

The reason(s) that the limitation(s) are considered an abstract idea is (are):

mathematical relationships and algorithms have been found by the courts (e.g. *Benson, Flook, Diehr, Grams*) to be abstract ideas. For example, in *Benson*, a mathematical procedure for converting one form of numerical representation to another was found to be an exception, as was an algorithm for calculating parameters indicating an abnormal condition in *Grams*.

IV. Does the claim as a whole amount to significantly more than the abstract idea (Step 2B)?

- A. Are there any additional elements (features/limitations/step) recited in the claim beyond the abstract idea identified above?

Choose 1 or 2:

1. No, there are no other elements in the claim in addition to the abstract idea.
Conclude SME analysis by making a § 101 rejection and continue with examination under each of the other patentability requirements. Use *Form Paragraphs 7.05 and 7.05.015* available in *Custom OACs*.

Are there elements in the disclosure that could be added to the claim that may make it eligible? Identify those elements and consider suggesting them to applicant:

2. Yes, the claim elements (features/limitations/steps) in addition to the abstract idea are:

the additional limitations of a computer with a screen and a processor. The claim further recites the limitations of displaying a first and second window, constantly monitoring the boundaries of the first window and the second window to detect an overlap condition indicating the windows overlap such that textual information in the first window is obscured from view, determining whether the textual information is too large to fit in an unobstructed portion of the first window, scaling the textual information based upon the calculated scale factor, automatically

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relocating the scaled textual information to an unobstructed portion of the first window so that it is viewable by the user, and automatically returning the textual information to its original format when the overlap condition no longer exists.

Continue with the SME analysis.

- B. Evaluate the significance of the additional elements. Identifying additional elements and evaluating their significance involves the search for an “inventive concept” in the claim. It can be helpful to keep in mind what applicant invented (identified in Section I above) and how that relates to the additional elements to evaluate their significance.

Consider all of the identified additional elements individually and in combination to determine whether the claim as a whole amounts to significantly more than the abstract idea identified above. Reasons supporting the significance of the additional elements can include one or more of the following:

- improves another technology or technical field
- improves the functioning of a computer itself
- applies the abstract idea with, or by use of, a particular machine
 - *not* a generic computer performing generic computer functions
 - *not* adding the words “apply it” or words equivalent to “apply the abstract idea”
 - *not* mere instructions to implement an abstract idea on a computer
- effects a transformation or reduction of a particular article to a different state or thing
- adds a specific limitation other than what is well-understood, routine and conventional in the field
 - *not* appending well-understood, routine, and conventional activities previously known to the industry, specified at a high level of generality
 - *not* a generic computer performing generic computer functions
- adds unconventional steps that confine the claim to a particular useful application
 - *not* adding insignificant extrasolution activity, such as mere data gathering
- adds meaningful limitations that amount to more than generally linking the use of the abstract idea to a particular technological environment

Complete (1) or (2) below:

1. Yes, the additional elements, taken individually or as a combination, result in the claim amounting to significantly more than the abstract idea because

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while the claim includes hardware components recited generically (e.g., the computer screen and processor), when viewing these computer limitations as a combination with the other additional elements, the claim as a whole amounts to significantly more than the abstract idea.

An explanation of why the claim is eligible is not necessary in the Office action unless there would be a question as to the reasoning such that the record would benefit from clarification.

The claim further recites the limitations of displaying a first and second window, constantly monitoring the boundaries of the first window and the second window to detect an overlap condition indicating the windows overlap such that textual information in the first window is obscured from view, determining whether the textual information is too large to fit in an unobstructed portion of the first window, scaling the textual information based upon the calculated scale factor, automatically relocating the scaled textual information to an unobstructed portion of the first window so that it is viewable by the user, and automatically returning the textual information to its original format application of the mathematical algorithm that improves the functioning of the basic display function of the computer itself. The scaling and relocating the textual information in overlapping windows improves the ability of the computer to display information and interact with the user. Taking all the claim elements both individually and as a combination, the claim as a whole amounts to significantly more than the mathematical algorithm of calculating a scaling factor (Step 2B: YES). Thus, the claim recites patent eligible subject matter.

The claim is eligible.

If any elements, individually or as a combination, amount to the claim reciting significantly more than the abstract idea, **conclude SME analysis** and continue with examination under each of the other patentability requirements. If needed, the record can be clarified by providing remarks in the Office action regarding interpretation of the claim (*for example*: the claim recites the abstract idea of “x”, but amounts to significantly more than the idea itself with the additional element “y” because “abc”).

2. No, the additional elements, taken individually and as a combination, do not result in the claim amounting to significantly more than the abstract idea because

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If no elements, taken individually and as a combination, amount to the claim reciting significantly more than the abstract idea, **conclude the SME analysis** by making a § 101 rejection and continue with examination under each of the other patentability requirements. *Use Form Paragraphs 7.05 and 7.05.015 available in Custom OACs.*

Are there elements in the disclosure that could be added to the claim that may make it eligible? Identify those elements and consider suggesting them to applicant:

Sample Rejection:

Claim _ is rejected under 35 U.S.C. 101 because the claimed invention is directed to a judicial exception (i.e., a law of nature, a natural phenomenon, or an abstract idea) without significantly more. Claim _ is directed to

The claim does not include additional elements that are sufficient to amount to significantly more than the judicial exception because
