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Terri D Fox (Signature) | 11/8/99 (Date of Signature and Deposit) | EL379087334US (Express Mail Label No.) A/PROV

PROVISIONAL APPLICATION COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(b)(2).

Docket Number	15365-1	Type plus sign (+) inside this box ➢	+

INVENTOR(S)/APPLICANT(S)			
LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
Owen	Daniel	L.	Lakeville, MI
Kusnic	Michael	W.	Lakeville, MI

TITLE OF THE INVENTION (280 characters max)

COLLABORATIVE DECISION PLATFORM

CORRESPONDENCE ADDRESS

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ENCLOSED APPLICATION PARTS (check all that apply)

☒ Specification — 5 Number of Pages — ☒ Small Entity Statement
☒ Drawing(s) — 6 Number of Sheets — ☐ Other (specify) — Claims - page Part of pages

METHOD OF PAYMENT (check one)

☐	A check or money order is enclosed to cover the Provisional filing fees	PROVISIONAL FILING FEE AMOUNT ($)75.00
☒	The Commissioner is hereby authorized to charge filing fees and credit Deposit Account Number: 50-0567	

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government.

☒ No.

☐ Yes, the name of the U.S. Government agency and the Government contract number are: _____

Respectfully submitted,

SIGNATURE William J. Clemens Date Nov. 8, 1999

TYPED or PRINTED NAME William J. Clemens REGISTRATION NO. 26,855

☐ Additional inventors are being named on separately numbered sheets attached hereto

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Applicant/Patentee: David L. Owen and Michael W. Kusnic
Serial/Patent No.: _____ Attorney's Docket No.: 15365-1
Filed or Issued: _____
For: COLLABORATIVE DECISION PLATFORM

VERIFIED STATEMENT (DECLARATION) CLAIMING SMALL ENTITY STATUS
(37 CFR 1.9(f) and 1.27(c)) - SMALL BUSINESS CONCERN

I hereby declare that I am

[X] the owner of the small business concern identified below:

[ ] an official of the small business concern empowered to act on behalf of the concern identified below:

NAME OF CONCERN Collaborative Decision Platform, LLP
ADDRESS OF CONCERN P. O. Box 22, Lakeville, Michigan 48366

I hereby declare that the above identified small business concern qualifies as a small business concern as defined in 13 CFR 121.3-18, and reproduced in 37 CFR 1.9(d), for purposes of paying reduced fees under section 41(a) and (b) of Title 35, United States Code, in that the number of employees of the concern, including those of its affiliates, does not exceed 500 persons. For purposes of this statement, (1) the number of employees of the business concern is the average over the previous fiscal year of the concern of the persons employed on a full-time, part-time or temporary basis during each of the pay periods of the fiscal year, and (2) concerns are affiliates of each other when either, directly or indirectly, one concern controls or has the power to control the other, or a third party or parties controls or has the power to control both.

I hereby declare that rights under contract or law have been conveyed to and remain with the small business concern identified above with regard to the invention, entitled COLLABORATIVE DECISION PLATFORM, by inventor(s) DAVID L. OWEN and MICHAEL W. KUSNIC described in

[X] the specification filed herewith.

[ ] application serial no. _____, filed _____.

[ ] patent no. _____, issued _____.

If the rights held by the above identified small business concern are not exclusive, each individual, concern or organization having rights to the invention is listed below* and no rights to the invention are held by any person, other than the inventor, who could not qualify as a small business concern under 37 CFR 1.9(d) or by any concern which would not qualify as a small business concern under 37 CFR 1.9(d) or a nonprofit organization under 37 CFR 1.9(e). *NOTE: Separate verified statements are required from each named person, concern or organization having rights to the invention averring to their status as small entities. (37 CFR 1.27).

NAME _____
ADDRESS _____
[ ] INDIVIDUAL [ ] SMALL BUSINESS CONCERN [ ] NONPROFIT ORGANIZATION

I acknowledge the duty to file, in this application or patent, notification of any change in status resulting in loss of entitlement to small entity status prior to paying, or at the time of paying, the earliest of the issue fee or any maintenance fee due after the date on which status as a small entity is no longer appropriate. (37 CFR 1.28(b)).

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patent issuing thereon, or any patent to which this verified statement is directed.

NAME OF PERSON SIGNING DANIEL ~~DAVID~~ L. OWEN
TITLE OF PERSON OTHER THAN OWNER _____
ADDRESS OF PERSON SIGNING P. O. Box 22
Lakeville, Michigan 48366

SIGNATURE Daniel Owen DATE: 10/5/99

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TITLE

COLLABORATIVE DECISION PLATFORM

Field of the Invention

The invention relates to a computer-based platform which supports a decision making process.

Background of the Invention (Disclosure statement)

One of the first recorded decision making processes was proposed in the 18th century when Benjamin Franklin suggested a process by which one of two decision alternatives could be selected through listing advantages of the alternatives side by side and canceling out advantages or groups of advantages judged to be equal on both sides. Subsequently many decision processes have been proposed and are in use today. These include popular ones, such as Kepner-Tregoe where criteria for making the decision are listed and the alternatives are assessed (on a scale from 1 to 10) as to how they perform on each of the criteria. The criteria are also weighted on a similar scale and the best alternative is judged to be the one with the highest dot product of the criteria weights and the respective assessments for the alternative against the criteria. Various modifications to this basic process in order to take into account complexities of having multiple decision makers, refining the assessment process through pair-wise comparison, etc., have resulted in many other such decision processes such as Value Management, Analytic Hierarchy Process, and others. There are also several methodologies (such as decision analyses using decision trees and probability methods) aimed at assisting a decision-maker think through the options one has in making a decision and potential outcomes of each option. However many of these decision processes are in fact not processes, but only individual tools to compare pre-defined alternatives within a pre-specified problem frame.

In order to create a process which enables multiple decision makers to make strategic decisions in organizationally and technically complex circumstances, the Dialogue Decision Process (DDP) was proposed as a sequence of four steps (framing, alternatives, analysis, connection) and is well described in literature [Barabba, V.P., Meeting of the Minds, Harvard Business Press, and other sources].

However to date, a short-coming of the process above, as well as other processes, is

that there has been no way to ensure that it can be applied to any decision regardless of type, complexity or number of decision makers. Furthermore there has been no software that supports the complete sequence of these steps since each decision tends to be unique. This has resulted in each instantiation of decision processes being tailored to a particular decision. In the case of DDP, this has resulted in the process being a relatively sophisticated tool only used in certain circumstances and only when facilitated by experienced practitioners.

Summary of the Invention

To overcome the disadvantages of the aforementioned decision processes, the present invention is brought forth. A platform, known as the Collaborative Decision Platform, enables any decision to be reduced to a set of common displays which are inter-connected through the platform and act as the user interface. Furthermore it enables the creation of decision applications which run on the platform and are structured to address different types of decisions (buying a home, major surgery, corporate strategy, etc.).

Description of the Drawings [see attached drawings]

Figure 1: Block Diagram – computer, CDP, Decision application, User

Figure 2: Set of common displays enabled by the CDP

Figure 3: Displays enabled during Framing

Figure 4: Displays enabled during Alternatives

Figure 5: Displays enabled during Analysis

Figure 6: Displays enabled during Connection

Description of the invention

The platform acts as a "decision engine" which drives the decision process through a sequence of logical steps to a conclusion. The user interface during these steps is the set of common displays exhibited by the platform. The user provides specific decision information to the platform by entering decision-relevant information into the display areas where appropriate. In order to start the process, the platform hosts a decision application which provides the structure for the type of decision that the user wants to make. The application and platform communicate through a standard interface protocol. The platform guides the user through four steps (framing, alternatives, analysis and connection), but these are tailored to the decision at hand through the decision application.

During Framing, the specific decision application provides certain key pieces of information about the decision at hand (the policies that form boundary conditions for the decision, the strategic decision areas that need to be made, the values that are important to the decision maker(s), the uncertainties that may impact the values desired, and the relationship of the above elements).

The platform, using these key pieces of information, generates visual displays of the decision hierarchy and the influence diagram, to be confirmed by the user.

The platform moves to Alternatives, and prompts the decision application (user) for decision options in each of the strategic decision areas.

The platform generates the visual display of a strategy table using these options and decision areas. This needs to be approved by the user, who uses it to generate alternative strategies, each consisting of a set of coordinated actions – one within each column of the strategy table.

Moving to Analysis, the platform then prompts the application for assessments on each of the uncertainties specified in a format specified as low estimate, nominal estimate, and high estimate. These assessments are made for uncertainties influenced by the choice of decision, as well as independent uncertainties.

Using the information generated to date, the platform builds Tornado Diagrams and Decision Sensitivity output displays for each of the alternative strategies. This is for the information and use of the decision maker(s) in understanding the ramifications of the decisions and uncertainties.

Lastly, during Connection, the platform requests the application to provide potential feasible hybrid themes which consist of the best of the outputs within each decision sensitivity option (profit center).

The platform then computes the value of the highest hybrid strategy generated, and provides it to the application. The user uses this to build a compelling explanation which connects to the enterprise.

While an embodiment of the present invention has been explained, it will be readily apparent to those skilled in the art that there are modifications without departing from the spirit and scope of the invention as encompassed by the following claims

In accordance with the provisions of the patent statutes, the present invention has been described in what is considered to represent its preferred embodiment. However, it should be noted that the invention can be practiced otherwise than as specifically illustrated and described without departing from its spirit or scope.

Claims

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

WHAT IS CLAIMED IS:

Claim 1:

A platform for decision-making, called the Collaborative Decision Platform (CDP) which can host decision applications which are used to structure different types of decisions.

Claim 2:

A platform which enables decision-making processes through the sequence and connectivity of a set of common displays which describe the decision to be made.

Claim 3:

A platform as described in Claim 1 or Claim 2 which enables asynchronous, remote decision making processes, i.e. the ability to have different people input data into the set of common displays at different times and from different places.

Claim 4

A platform as described in Claim 1 or Claim 2 which prescribes a standard interface protocol for data to be used in the decision making process in order to focus the collection of information from the internet and other sources.

Claim 5

A physical design for a decision environment which houses a platform as described in Claim 1 or Claim 2 and is designed to foster an atmosphere dedicated to clear and conscientious decision making.

Abstract - Description of what the invention is and does

A platform which supports decision-making processes for a variety of decisions in a variety of circumstances for a variety of decision makers.

The platform enables the decision process by providing a sequence of interconnected displays that describe the decision. This sequence of displays is used to guide the user through a defined process to a final decision and the set of displays is common to all decisions regardless of decision type. The displays form a user interface through which the user customizes the decision to a particular situation and receives guidance on the decision.

The platform enables different types of decisions by hosting a specific decision application that is loaded onto the platform and customizes the process for a particular type of decision (e.g. buying a home). In addition, information can also be obtained as required by the platform in the format most relevant for decision making (e.g. database on homes in Rochester Hills, MI). A particular instantiation of the process is required for each decision (e.g. Mr. & Ms. Smith, buying a home, Dec 1999, in Rochester Hills, MI)

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Figure 1: Block Diagram of the Collaborative Decision Platform in operation.

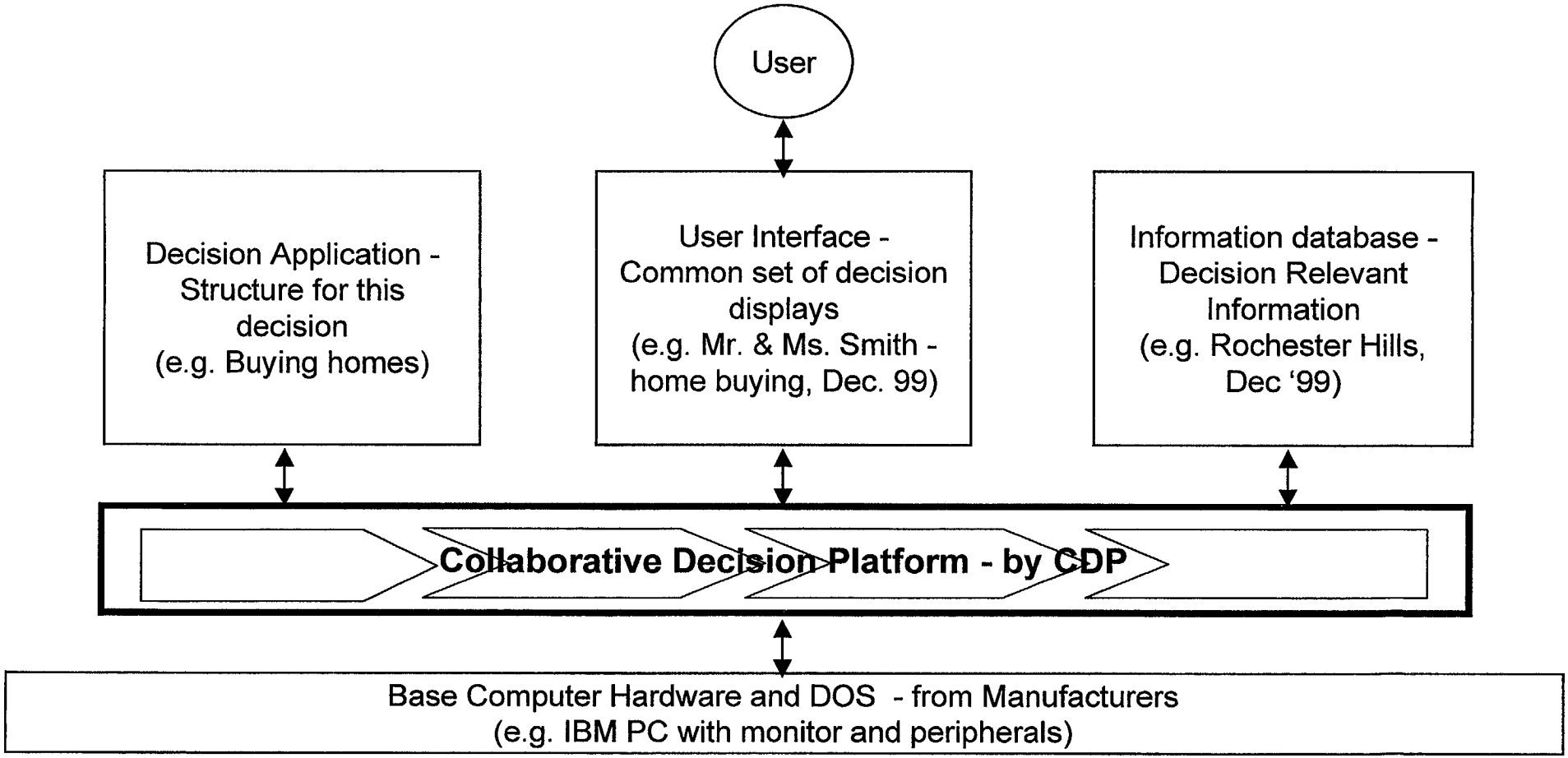


Figure 2: The CDP and its user interface: a set of common displays, regardless of decision.

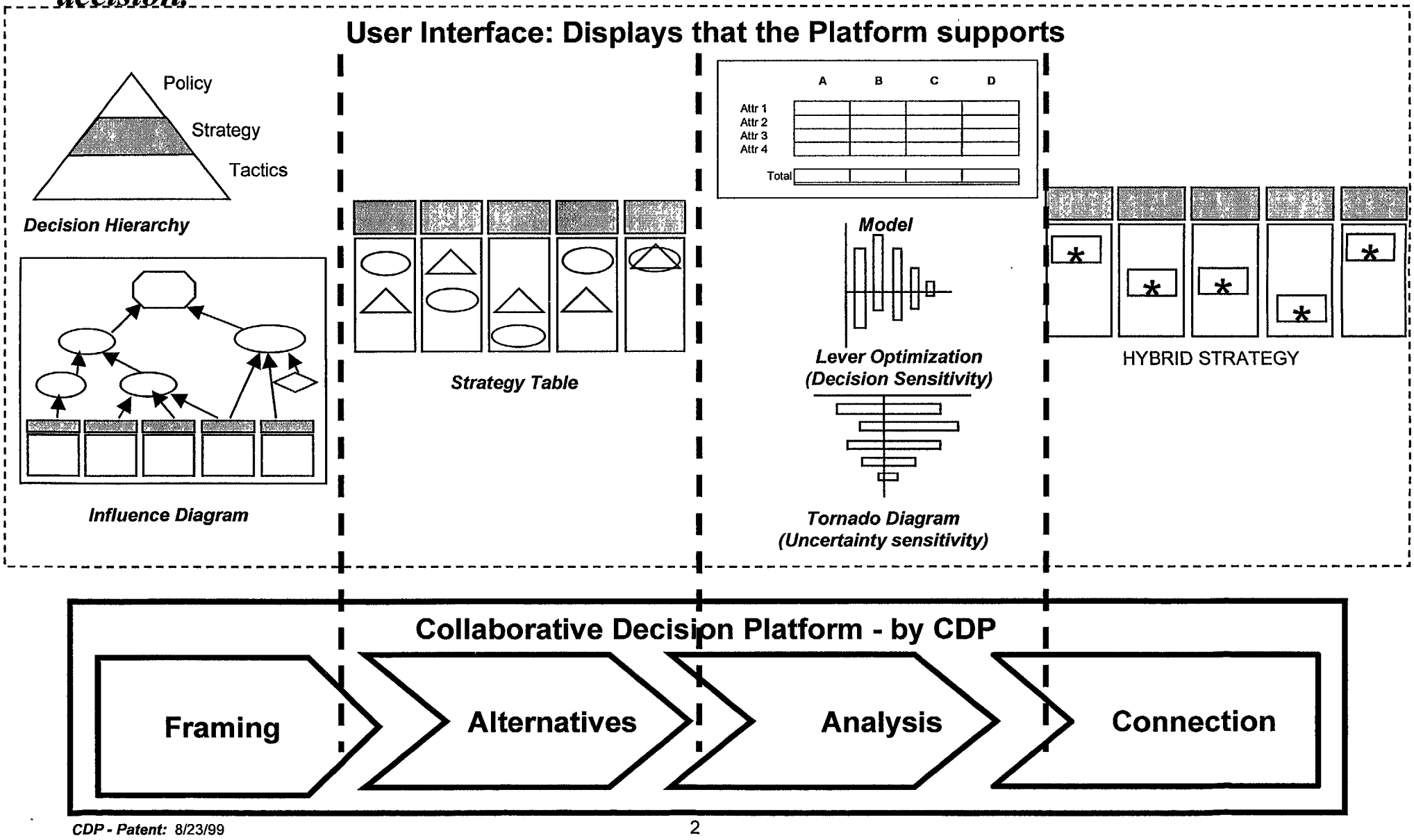
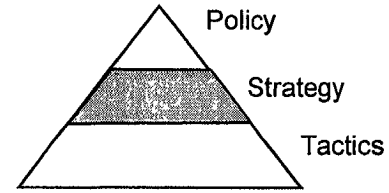
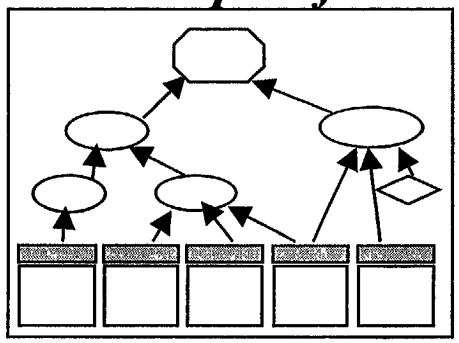


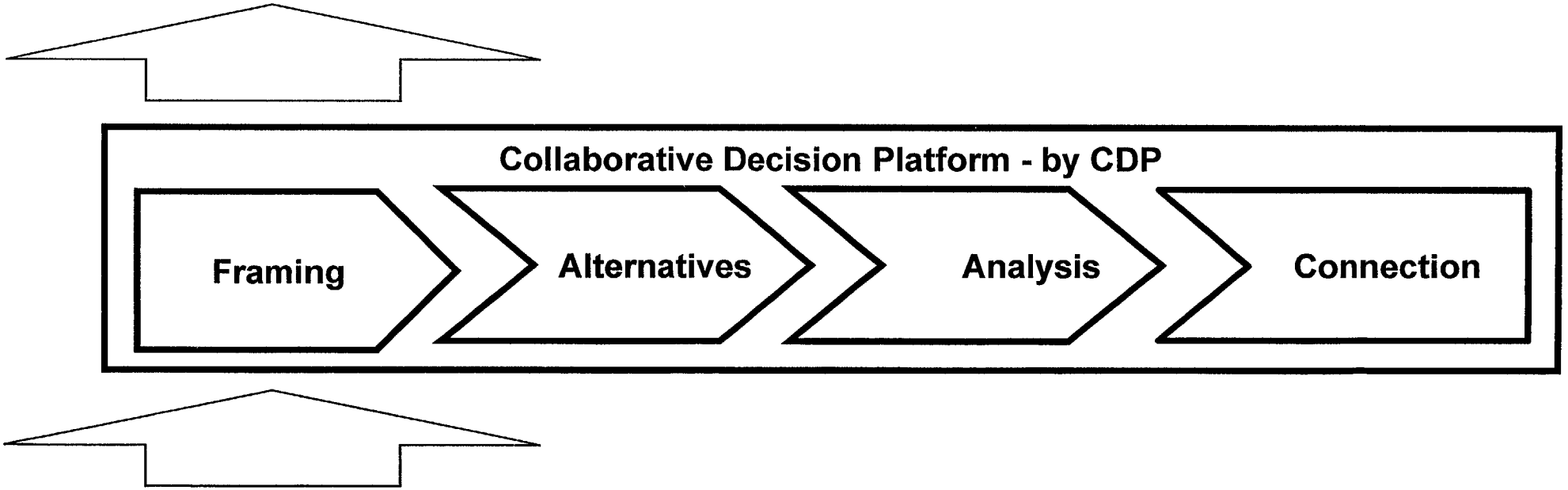
Figure 3: Inputs and outputs from the Platform during Framing



Decision Hierarchy



Influence Diagram



Issues list
Decisions
Uncertainties, etc.

Figure 4: Inputs and outputs from the Platform during Alternatives

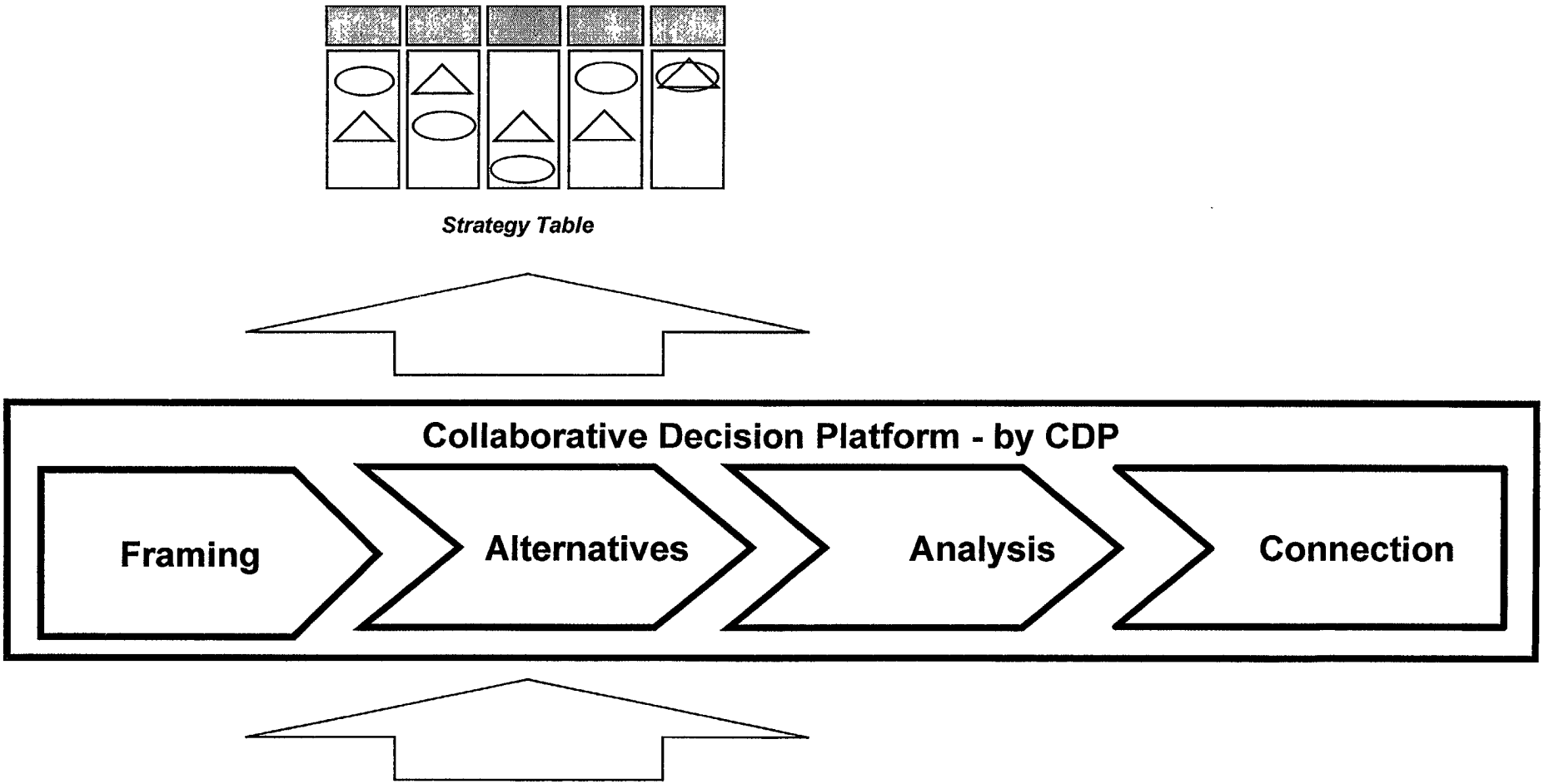
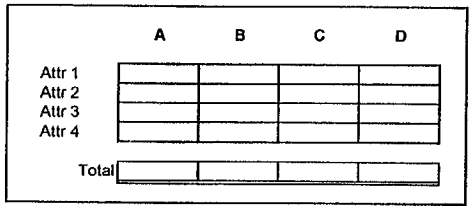
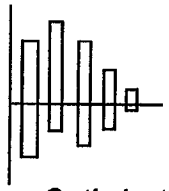


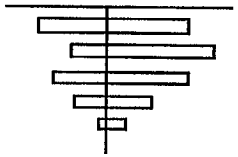
Figure 5: Inputs and outputs from the Platform during Analysis



Model



Lever Optimization (Decision Sensitivity)



Tornado Diagram (Uncertainty sensitivity)

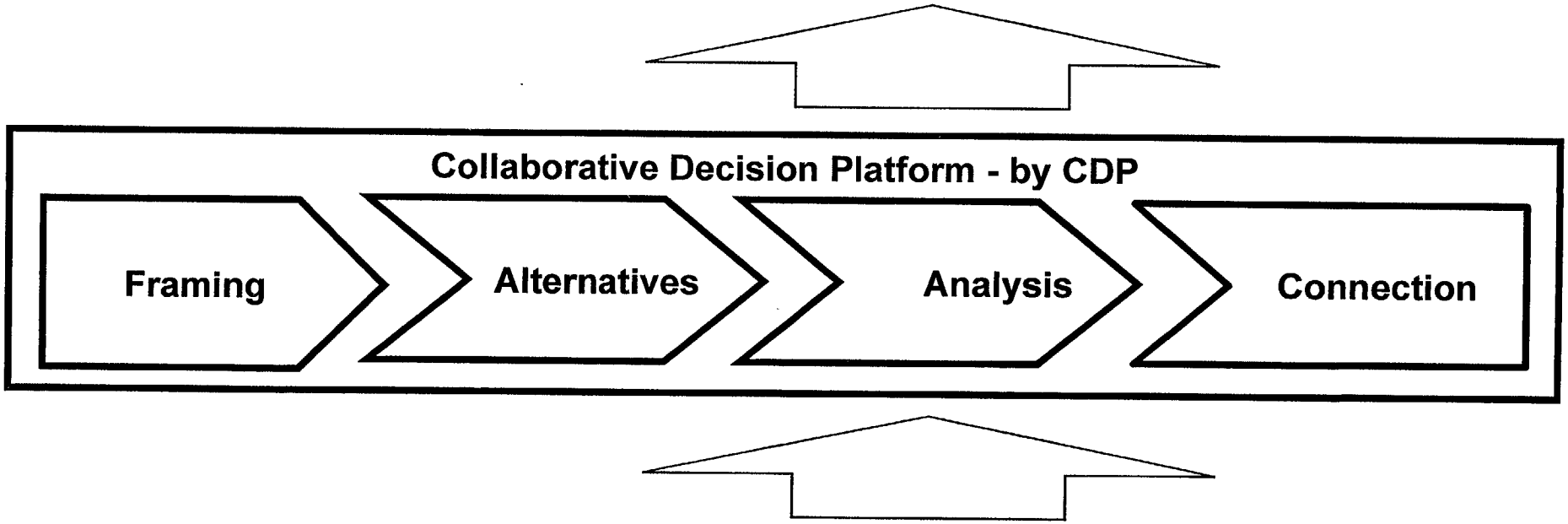


Figure 6: Inputs and outputs from the Platform during Connection