EPT

The Energy Planning Tool

User Manual

Version 27.03.2012

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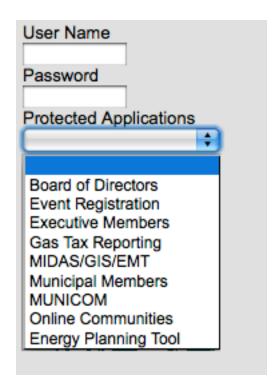
Background on Structure

The Energy Planning Tool or EPT is an energy management desktop. You can use it to collect and manage all your energy information (facility consumption data, energy policies, projects and activities) in one location. If you do this, it can use this information to create reports to the Ministry and allow you to easily plan and manage all your energy management activities.

Basic Navigation / Functional Design

The EPT was designed so that you will rarely be more than ONE screen/level away from the main page. The main headings are ALWAYS available to you and you can click on them at any time to take you to where you want to go. The main headings represent the functional tasks that you want to work on.

Log-in/Log-off Procedures



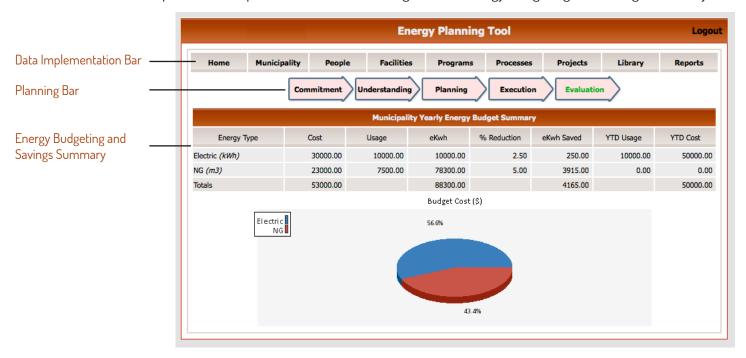
After accessing the AMO/LAS website EPT users will need to log-in to the Energy Planning Tool using a valid User Name and Password.

This security mechanism prevents unauthorized users from accessing the system. After entering the User Name and Password fields, choose "Energy Planning Tool" in the Protected Applications drop-down menu and click on the Login button.

Home Page

This is your EPT home page that appears once you have logged in.

The EPT has three basic parts: Data Implementation Bar, Planning Bar and Energy Budgeting and Savings Summary.



Data Implementation Bar (Tabs)

The tabs across the top contain information about different facets of your municipality's energy profile

- 1. Municipality: basic address information about your municipality
- 2. People: the other EPT users in your municipality
- 3. Facilities: where you specify all of your facilities and enter consumption information
- 4. Programs: where you specify and track your energy programs
- 5. Processes: where you specify and track all your energy activities
- 6. Projects: where you specify and track all your energy projects
- 7. Library: where you can quickly locate any documents that you have uploaded and see those reference documents
- 8. Reports: where you go to generate reports

Most users will fill out the Facilities tab to generate the annual report (Energy Consumption and GHG Emissions) required under Regulation 397/11. Users can also flick back and forth between the tabs to update their Energy Management Plan.

Planning Bar (Chevrons)

9. Each arrow contains mandatory and optional reporting areas that, when completed, allow you to generate compliance reports at the press of a button. Each arrow or chevron is simply a functional area of the overall plan.

Most users will utilize this approach to develop their five-year Energy Management Plan as required under Regulation 391/11.

Energy Budgeting and Savings Summary

10. The Municipal Energy Budget area simply a sum of all the energy data on the facilities that you have entered into EPT. This information is used to create your annual compliance report. The pie chart shows your consumption information in picture form. "CLICK" on it to change the view.

Logout

Creating your Five-Year Energy Management Plan

Compliance Component - HOME Page

On the HOME page you see a series of arrows (Commitment, Understanding, Planning, Execution, Evaluation). Selecting any of them will take you to a list of compliance elements. The elements are marked "MANDATORY" or "OPTIONAL". Once you have provided information to satisfy each of these elements you will mark them as completed.

Planning Bar (Chevrons)

The Planning Bar has five chevrons (arrows) to guide users through developing the five-year energy plan. Each chevron has the same layout and options, and also includes help options and sample text. Users can follow the five steps in order, or jump around as desired. Let's take a look at Commitment as an example.

Commitment:



the list of elements as shown to the right, starting with Declaration of Commitment which is essentially a Council Resolution.

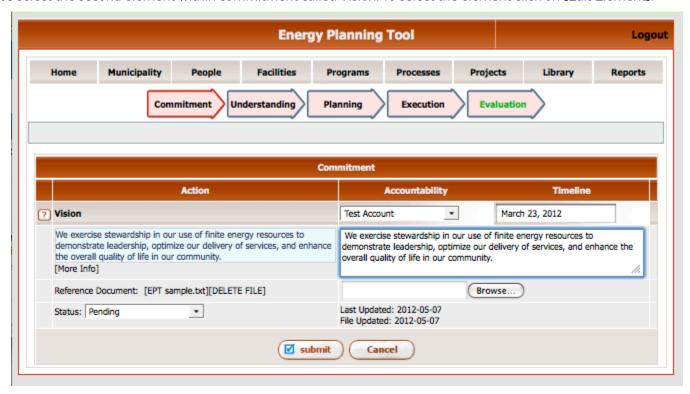
NOTICE:

- All the main headings are still visible.
- The border of the arrow that we are inside has turned RED.

[EDIT ELEMENT] Last updated: by 7 [MANDATORY] Vision We exercise stewardship in our use of finite energy resources to demonstrate leadership, optimize our delivery of services, and enhance the overall quality of life in our community.

[More Info] Reference Document: [EPT sample.txt] Last updated: 2012-05-07 [EDIT ELEMENT] Last updated: 2012-05-07 We will incorporate energy efficiency into all areas of our activity including our organizational and human resources management procedures, procurement practices, financial management and investment decisions, and facility operations and maintenance. [More Info] Reference Document: [EDIT ELEMENT] Last updated: by 7 [OPTIONAL] Goals To continuously improve the energy efficiency of our facilities and proces in order to reduce our operating costs, our energy consumption and the concomitant greenhouse gas emissions. Reference Document [EDIT ELEMENT] Last updated: by We will reduce our consumption of fuels and electricity in all municipal operations by an average of x% per year between now and 2020. [More Info] [EDIT ELEMENT] Last updated: by [OPTIONAL] Objectives To implement energy audits on all municipal facilities during the next five years; In2. To reduce total energy consumption in municipal facilities, normalized to weather conditions, by y% over the next three years; In3. To reduce energy consumption in the municipal recreation complex by z% during fiscal year 2009/2010. [More Info] Last updated: by FEDIT ELEMENTI

Let's select the second element within commitment called Vision. To select the element click on [Edit Element].



Help: On the left side of the page (next to Vision) is a button marked with a "?". Click on this button to bring up help information provided by LAS.

Sample Text: The text box contains sample text that you may consider using as your municipalities' submission. Simply cut and paste it into the empty text box on the right side of the page.

Accountability: If you wish to assign an element to a particular person, simply select them from the drop down menu. (The drop down menu contains a list of all the "people" that are listed in the People tab in EPT)

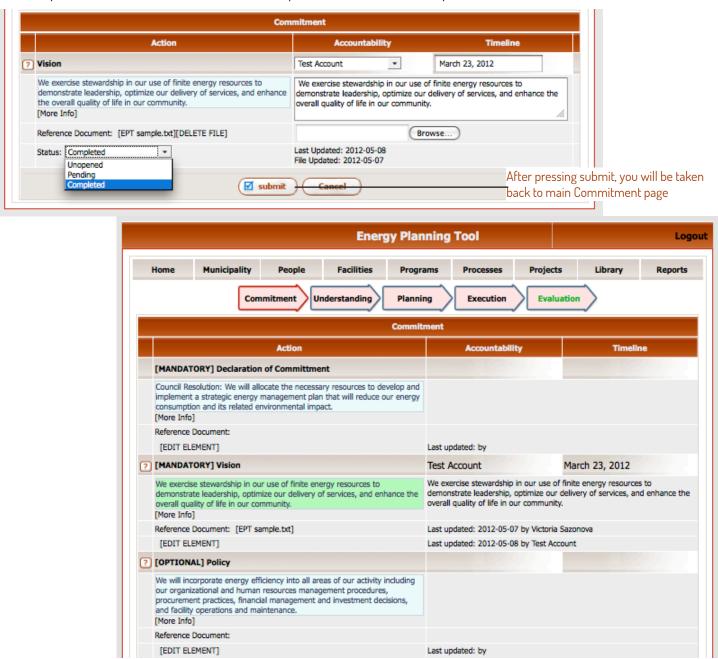
Timeline: If you wish to set a target goal, input that date in the timeline box provided

Sample Document: If LAS has a relevant sample document, it will be provided here for you to view and use as a starting point.

Reference Document: This is where you can upload a document that you wish to reference in your submission. You can view this document later and it will be listed under the "library" tab. The name of this document will be listed in your plan as well.

Status: You control the status of each element. Choose the appropriate setting. When you select "completed" the element turns Green.

Your goal is to be able to mark all the elements as "completed" Completing all of the mandatory elements, in each of the five chevrons, provides a full five-year energy plan as required. Each mandatory element must be marked Completed. To do this click on the Status drop down and mark as Completed.



NOTE: The same options are available and the process applies in each of the five chevrons.

To maintain the integrity of the submission, EPT tracks the users that upload documents and the last user to submit each compliance element:

- Every time a document is uploaded the name of the user is recorded,
- Every time this compliance element is "submitted" the name of the user is also recorded.

Each Chevron has a number of optional sections that are intended to assist in the development of a robust Energy Management Plan, but are not required under Regulation 397/11.

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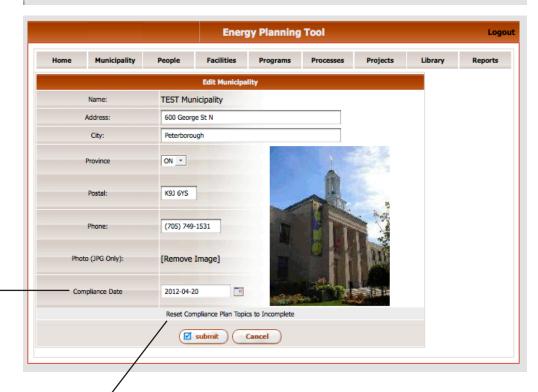
Data and Implementation Bar

Municipality Tab

The municipality page enables users to enter the main address of the municipality and upload a photo.

Edit: This is the button you select to edit the details of your municipality





Compliance Date: This — is where you choose a submission compliance date that you wish to manage towards.

Reset Compliance Plan Topics to Incomplete: This link is where you can force all topics under all the compliance headings to be marked "incomplete".

NOTE: this is not reversible other than by editing each topic and selecting complete one at a time. This would normally be used when you want to start a new submission.

People Tab

Creating Users

There is an ADMINISTRATIVE area inside EPT where they:

- Create the master content for the compliance elements-when they make a change, all municipalities
 receive that change instantaneously.
- Create and manage all users (people).

Facilities Tab

Create a profile for each facility/building that your municipality owns or manages. They will be listed under this tab and included in both the annual report and the five-year plan.



When you select [NEW] or [EDIT] the Edit Facility page will appear.

Edit Facility Page

Name: Enter the building name here.

Description: Enter any description that makes sense.

Address information: Enter the mailing address of the building.

Building #: Enter a numbering system, if applicable.

Year Built: Select the year the building was built

Operations Contact: Select the appropriate person.

Energy Team Contact: Select the appropriate person

Hours of Operation: Chose the hours open each day

Photo: Upload a picture, if desired.

Asset Composition: Specify the area of the building and chose the type of building that best represents it from the drop down menu. (If you have a building that has two or more major profiles you can enter each part to create

Energy Planning Tool Logout Municipality **Programs** Processes Reports **Edit Facilit** City Hall Municipal Centre 123 Main St Toronto ON * A1B 2C3 123.456.7890 12A Building # 2008 * Operations Contact Joe User Energy Team Contact Joe User M8 - T8 - W8 - T8 - F8 - S - S -Hous of Operation Browse... Asset Composition Add Type Office - 5000 0 (Check all that Apply) Energy Types % over 0 0.00 0.00 vear(s) % over 0 0.00 year(s) 5.00 % over 20000.00 10000.00 10000.00 250.00 * year(s) 10.00 % over M NG 15000.00 7500.00 78300.00 3915.00 year(s) % over □ Oil 0.00 + year(s) % over 0.00 year(s) Start Date End Date Cost Actions 2012-04-01 [EDIT] [DEL] 2011-01-01 2011-12-31 10000 5000.00 [EDIT] [DEL] ✓ submit Cancel

the total (ex. Pool attached to a police station)

- Energy Types: Select the types of energy that the building consumes
- **Energy Budgeting**: Under energy type selected, specify the annual budget, annual consumption and your target ENERGY reductions and period over which you hope to accomplish this goal.

This information will be presented as part of the total displayed on the main page.

Energy Consumption:

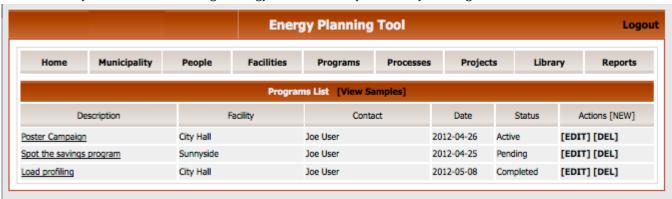
- Input energy consumption from your billing data. (Please be careful that you don't have gaps or overlaps in your billing periods)
- Chose the energy type and the billing period and then enter the quantity of energy consumed the cost.



This is the key section in terms of generating the annual report for the Ministry of Energy.

Programs Tab

This tab is where you record and manage energy activities that you classify as Programs.



NOTE: Next to the title "Programs List" in the second brown bar from the top there is a link called [View Samples]. When you click on it a sample list of programs will download in PDF format, and will resemble the below.



EPT

Sample Programs List

- Add energy awareness to management meetings
- Send key people to "Spot the Energy Savings" Training
- Adopt a council energy challenge, building by building
- Employee participation program: Identification of improvements
- Host Quarterly Lunch and Learns on Energy Measures
- Make use of visual displays to demonstrate the implications of current behaviours
- Develop case studies of successful energy initiatives in your organization
- Create stories about what the municipality could be like in the future
- Participate in a demand management program—where possible to conserve energy and save money, by reducing demand on the provincial electricity grid during peak periods
- Make A Submission to the OPA's Community Conservation Awards

To create a new program select the [NEW] button next to the active column heading.

To edit an existing program select Edit next to the program you wish to edit.

Edit Program Page

Description: Provide a description of the program.

Facility: Select the facility from the drop down menu, if the program is directly related to a specific facility.

Category: Select the appropriate drop down selection, if the program has a duration or timeline. This is simply a way to categorized programs for convenience.

Project: Select the project from the drop down menu, if the program is directly related to a project.

Contact: Select a person from the drop down menu, If there is a principal person in charge of this program.

Program Date: Input an implementation date or due Date.



Photo: You have the option to upload a photo.

Details: Type your description of the program here

Status: Select the status of the program

Program Documents: Upload any program related documents here.

NOTE: there may be size and document type limits. Refer to LAS for guidelines.

Processes Tab

This tab allows you to record and manage energy activities that you classify as Processes.

Energy Planning Tool											
Home	Municipality	People	Facilities	s Pro	grams	Processes	Project	s Lil	brary	Reports	
Processes List [View Samples]											
Description	Facility	Contact	Start	End	Status [%]	Cost	Save(ekWh)	Save(\$)	ROI	Actions [NEW	
Monthly Energy Bill Capture	City Hall	Joe User	2012-04-01	2012-05-31	Act [5%]	0.00	0.00	0.00	0 yr	[EDIT] [DEL	
Preventative Maintenance	City Hall	Joe User	2012-02-01	2012-07-31	Pen [5%]	2,000.00	100.00	1,000.00	1 yr	[EDIT] [DEL	
Energy Reporting	Sunnyside	Joe User	2012-05-08	2012-05-08	Com [100%]	0.00	0.00	0.00	0 yr	[EDIT] [DEL	

NOTE: Next to the title "Processes List" in the second brown bar from the top there is a link called [View Samples]. When you click on it a sample list of programs pops up as shown below.



EPT

Sample Processes List

Consult Audit++ and Energy Performance Benchmark Best Practice Reports on LAS Website in addition to specific recommendations below:

- Energy reports to be distributed to building managers on a monthly basis.
- Make the most of daylighting and shading—reduce the need for electrical lighting by adding south-facing windows or skylights or simply open window treatments to fully to let the sunshine in. Similarly, close blinds and shades when it's sunny and hot to reduce reliance on air conditioning.
- Implement building start-up and shut-down schedules—add into standard work procedure for key building personnel to eliminate waste and maximize equipment efficiencies.
- Have different staff walk through facilities
- Soft drink machine controls: timers and unplug off season. Renegotiate with suppliers to
 potentially include automatic controls or change agreement terms.
- Awareness of operating manuals (make them available to operating staff)
- Use power bars on PCs and turn off at night.
- Make use of 'free' cooling in summer by programming building control system to bring in 100% outdoor air at night.
- Run dishwasher on off peak hours
- Turn off printers at night and on weekends.
- · Unplug coffee maker at night.
- Join an energy organization where members share information and best practices
- · Observe the energy activity in other municipalities
- · Ensure that energy is regularly on the agenda of senior-level meetings
- · Encourage research and experimentation that is aligned with the municipality's energy values.
- Provide autonomy to workers and managers to develop new solutions to energy challenges

Select [Edit] button next to the program, to edit an existing process.

Select the [NEW] button next to the Active column heading, to create a new process

Edit Processes Page

Description: Provide a description of the process.

Facility: Select a facility from this drop down menu, if the process is directly related to a specific facility,

Category: Select the appropriate drop down selection, if the process has a duration or timeline. This is simply a way to categorize programs for convenience

Contact: Select a contact person from the drop down menu, if appropriate.

Process Start Date: Input a start date, if appropriate.

Process End Date: Input an end date, if appropriate.

Photo: Upload a photo, if appropriate.

Details: Type your description of the program here.

Estimated Cost: Enter the estimated cost in Dollars (\$CAD).

Estimated Savings: Enter the estimated Energy Savings.

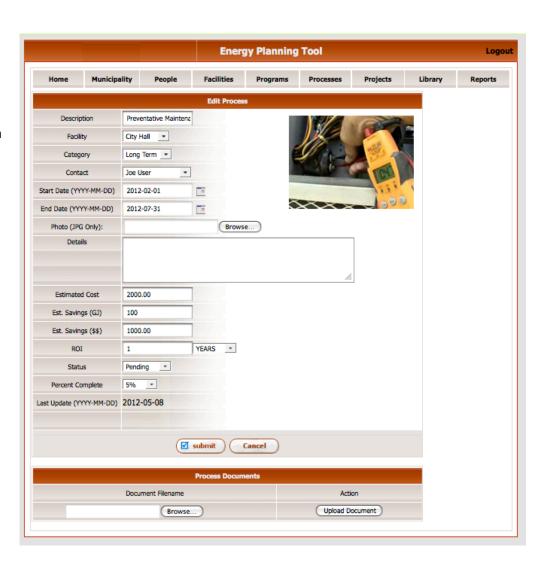
ROI (return on investment): Estimate the timeline for the investment to be paid off.

Status: Select the status of the program.

Percent Complete: Chose a % complete (change this as desired).

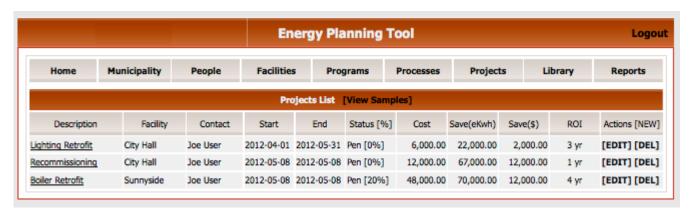
Last Update: This date is captured each time this process is "submitted".

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Projects Tab

This tab is where you record and manage energy activities that you classify as Projects.



NOTE: Next to the title "Projects List" in the second brown bar from the top there is a link called [View Samples]. When you click on it a sample list of projects pops up as shown below.



EPT

Sample Projects List

- Identify unnecessary plug loads (like plug-in-phantom power)
- Increase the utilization of technology (control systems for ice plant). Tie set points (like ice temperature) to programming.
- Investigate using computer programs like localcooling.com to automatically shut down PCs
- Talk to all major venders regarding equipment efficiencies and collect their ideas for improvement
- Fine tune heating system
- Install occupancy (motion) sensors for lights and heating
- Investigate timers for video games
- Enhance Building Envelope—caulking, weather-stripping, and insulating can cut down on air leakage resulting in about 20-40% heating and cooling loss.

Select [Edit] next to the program you wish to edit.

Select [NEW] next to the Active column heading to create a new project.

TIP: If you ever have process's or programs that apply to "ALL" your projects ...create a project called "ALL". It will then be listed in those sections/tabs as a possible project selection along with all the other projects that you create. In the same fashion, you can create "groups" or "regional" projects. This is only a classification system for your convenience.

Edit Projects Page

Description: Provide a description of the project

Facility: Select a facility from this drop down menu, if the project is directly related to a specific facility.

Category: Select the appropriate drop down menu, if the project has a duration or timeline. This is simply a way to categorize projects for convenience.

Contact: Select a contact person from the drop down menu, if appropriate.

Process Start Date: Input a start date, if appropriate.

Process End Date: Input an end date, if appropriate.

Photo: Upload a photo, if appropriate.

Details: Type your description of the program here.

Estimated Cost: Enter the estimated cost in Dollars (\$CAD).

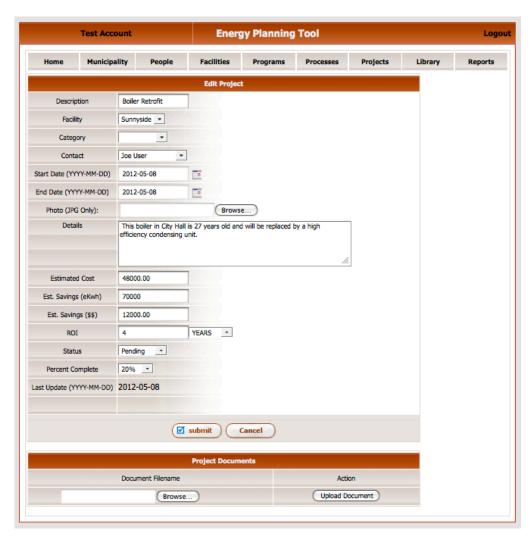
Estimated Savings: Enter the estimated Energy Savings.

ROI (return on investment): Estimate the timeline for the investment to be paid off.

Status: Select the status of the program.

Percent Complete: Chose a % complete (change this as desired).

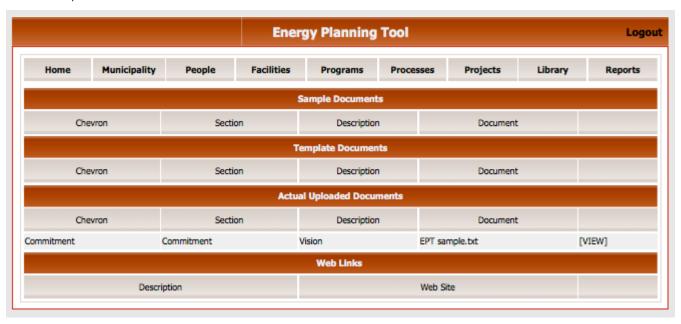
Last Update: This date is captured each time this process is "submitted".



Library Tab

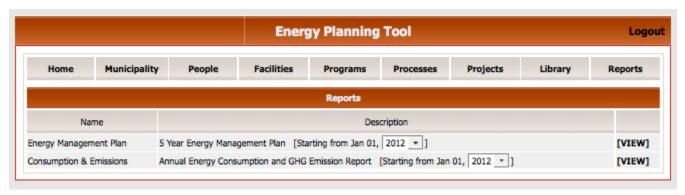
The Library is where you go to view:

- Sample documents provided by LAS
- Template documents provided by LAS
- Your uploaded documents
- Helpful links



Reports Tab

The reports page allows you to generate reports. Select the "VIEW" button at the right and the desired report will be created using the current information contained in EPT.



Troubleshooting/ContactsIf you encounter any issues or need personal assistance with EPT please contact:

For technical assistance: Victoria Sazonova at VSazonova@amo.on.ca or (416) 971-9856 ext. 408. For content or the regulatory requirements: Scott Vokey at SVokey@amo.on.ca or (416) 971-9856 ext. 357



The Energy Planning Tool