

Capital Project Planning Performance Blueprint Powered by TM1



Introduction

This application brief describes the purpose and content of the *IBM Cognos** *Capital Project Planning Performance Blueprint Powered by TM1*, a Web-based planning solution for managing major capital expenditure projections, which companies can use as indicators of future revenue and spending needs and to view effects on other planning processes. The *Blueprint* and processes described in this document are generic for any industry and can be configured to support the complex capital project and requirements for many countries.

Blueprint overview

The Capital Project Planning Blueprint Powered by TM1 manages capital project requests, their justification, the capital request approval process and depreciation expense calculations. The Blueprint combines customized dashboards and reports for three types of users (contributors, managers and executives) with a flexible capital planning model that incorporates multi-national capital planning functionality.

Because it is critical that tactical capital project decisions made at the divisional level be aligned with corporate strategy and objectives, you can use this *Blueprint* to compare capital project plans to high-level corporate targets. Several scenarios are available to assist with the analysis of changes in timing or expenditure amounts for the overall plan. You can adjust requested amounts either up or down; you can reject requests entirely or you can change requested timing to either sooner or later in the planning cycle to meet corporate spending guidelines or cash flow considerations.

This *Blueprint* facilitates capital project expenditures planning over a two-year cycle. You can adjust the cycle as needed to meet specific forward-looking client needs. Three methods of depreciation calculations are available: straight-line, diminishing balance and sum of years digits. Currency calculations are also provided; you can view all outputs in either local currency or in the home-country currency.

The *Blueprint* allows for the customization of depreciation calculations to support the accounting standards of many different countries with a residual asset value, a first year write-off percentage on new assets and the option to change asset lives by country and asset type.

Blueprint objectives

The Capital Project Planning Blueprint Powered by TM1 meets a number of objectives:

- Streamline the capital planning process.
- · Provide management with justification for each capital request.
- Allow for individual expenditure planning in local currency, while consolidating in home-country currency.
- Facilitate assessments based on capital request priorities and risk.
- Manipulate the timing or amount of capital expenditures and compare several different adjustment scenarios.
- Tailor depreciation calculations to match accounting standards in various countries.
- Track the depreciation on existing and forecast assets to see a complete view of projected depreciation expense.

Business intelligence model

The business intelligence components of the Capital Project Planning Blueprint Powered by TM1 focus on providing vital information to contributors, managers and executives. Real-time information and the features implemented provide the tools to evaluate performance against existing plans, make decisions and view their effects on plans and corporate strategic initiatives to drive business performance.

The business intelligence features include:

- Real-time data access
- Dashboards providing key information relevant to business function
- Drill-down from dashboards
- Cross-organizational reporting (multi-node reporting)
- Visual aids showing status, impact and evaluation of plan against performance
- Filtering options to further focus on needed information
- Ad-hoc query to slice-and-dice information to answer questions and monitor impact

These features enable informed decisions about capital project planning requests and their relationship to strategic maps and corporate goals.

Workflow

Contributors in an organization's business units input capital expenditure requests for planned projects to meet business goals or strategies. These requests are reviewed and adjusted as needed to fit the goals of the organization. To provide for a feature-rich business intelligence experience, a business-centered Framework Manager model has been developed on the IBM Cognos 8 Business Intelligence Server.

In the Business Intelligence Server are the dashboards, reports, ad-hoc queries and analyses built on the published Framework Manager package and grouped according to business-function levels. There is a cost-benefit trade-off in capital expenditure that affects the performance metrics of a business. Tactical managers and C-level executives want BI tools to make informed decisions and adjustments aligned with corporate goals. In keeping with this approach, three categories—C-level management, tactical management and contributor—are typical users in the Capital Project Planning Blueprint Powered by TM1 BI implementation.

For the corporate level there are dashboard-style reports that focus on business perspectives, allow for drill-down to gain insight from greater detail and filtering, which focuses the perspective on specific areas of importance such as organization level, strategy or asset class. With real-time data, the impact of decisions on goals and strategies can quickly be seen and responded to.

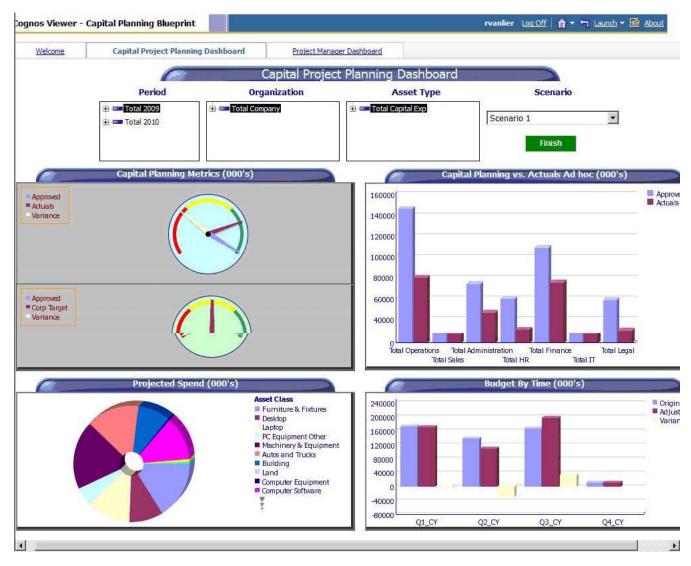
At the manager level, dashboards drillable to details, detailed reports, ad-hoc queries and analyses permit focus on matters of tactical importance. Data and reports are relevant to tactical managers at the business unit level or departmental level. Typically, of interest would be capital requests, adjustments, scenarios, request approval status and impact on that part of the organization. The BI content readily addresses project impacts on organizational strategies and goals, and helps proactive management to reach those goals.

With real-time throughput, one can quickly see the impact of changes on capital expenditure requests. For contributors, focus is on tracking and monitoring capital expenditure requests. Contributors want to know about expenditure adjustments, scenario status and request status. Available contributor reports relate expenditure requests to the bigger picture within the business and indicate their contribution to corporate goals and strategies.

Executive reporting

Executives need to see how planned capital expenditure relates to corporate goals and strategic initiatives, and they want to see the data resulting from capital project expenditure planning. With real-time data access, they can view the scope of planning across organizational levels and the degree of completeness from each contributing business unit. With its reports and ad-hoc analysis tools, the BI component gives executives visibility into the corporate financial impacts of their decision-making.

Because executives seldom use ad-hoc analysis tools, reports provide the information most relevant to them. The executive launch point is the Capital Project Planning Dashboard, which provides a general overview of key metrics and capital planning results and implications against established targets without the need to access the Planning application.



In the dashboard, an executive can select a specific timeframe, organization, asset type and scenario or he or she might choose to view the total Capital plan by year. The Metric dials at the top left show variances between Approved versus Actuals and Approved versus Corporate targets. Hovering your mouse over the dials reveals detailed data. The bar chart on the top right compares total Approved Capital expenditures versus total Actual expenditures by Functional Area. For executives, this type of report shows a great deal of information about the Capital Expenditures for all business units and provides immediate insight to any anomalies.

The pie chart on the lower left half of the dashboard shows projected spending by Asset Type. Again, hovering your mouse over each of the slices reveals the actual numbers projected. The bar chart on the lower right represents spending by quarter for Original versus Adjusted amounts and the respective variances.

Gathering more detail about asset class or approved amounts versus actual or target is similarly facilitated by viewing individual reports. Additionally, the ad-hoc section of this dashboard provides access to views both down and up the organization hierarchy. Using the dashboard as a launch point provides a quick executive summary of important metrics for all organization levels. Executives can gain a focus on higher-level data and establish the impact of that data on organizational strategies or goals along with financial impacts of executive decision making.

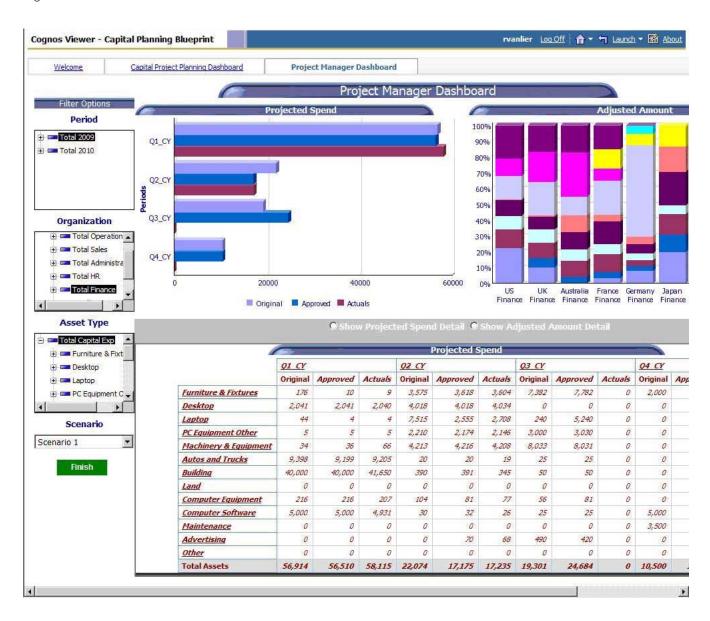
With real-time data access, executives can see the consolidated results of strategic decisions and capital project planning goals and can clearly see when a business unit has completed its capital expenditure planning.

Management reporting

With the business intelligence model, managers make informed decisions affecting tactical goals and strategies. A manager's task of ensuring that departments or organization levels contribute to achieving corporate goals and strategic initiatives might include managing projects, adjusting capital expenditure requests, guiding justifications and monitoring capital expenditure and asset depreciation. The BI component provides a number of tools for reporting, analyzing and querying the data.

Launching the Project Manager Dashboard provides a general overview of asset classes and strategy maps tied to a project. The report gives a high-level view of the Original and Adjusted Amounts related to each asset class and strategy

map per project over time. One might be interested in a broad company view that crosses organization levels or decide to focus on projects at lower levels of the organizational structure.



This example displays two sections of the report. Selectable filters related to each section of the report enable the manager to focus attention on specific assets or business units. Here, the view displayed is of the Finance Manager. The top section in this example shows the capital spending for his or her organization. The Finance Manager Report provides precisely the information needed. The flexibility to choose to report for all organization levels and to focus on specific aspects greatly enhances information-driven decisions and actions.

The bottom section represents spending by asset categories. The manager can view detail to support informed decisions. With real-time data access, as planning contributors input or modify their capital expenditure requests, changes to capital expenditure can be quickly measured against goals and strategies. Managers who might have to adjust and approve expenditure requests can readily see the status of requests and consolidated results. Even though contributor inputs can span geographic locations and organization levels, managers can monitor status of request inputs with the BI components.

Contributor reporting

The BI implementation offers planning contributors reports to review and monitor their contributions. Beyond the bare details of their capital expenditure requests, contributors can see how requests contribute to the broader company goals and strategic initiatives, and gain a sense of ownership and pride as those goals are met. Utilizing the filtering features gives contributors visibility to all information they might need without the risk of inadvertent data modifications. An added advantage is the ability to see how these roll up to become a part of an asset class or interact across organization levels.

BI summary

There is a cost-benefit tradeoff in capital expenditure that is part of the bigger picture of business performance. The feature-rich Business Intelligence component of the *Capital Project Planning Blueprint Powered by TM1* provides information to managers and executives so that they can make informed decisions to drive stronger business performance. Starting from the details captured by planning contributors from all business units and geographic locations, then rolling up to higher organization levels, the *Capital Project Planning Blueprint Powered by TM1* with a Business Intelligence implementation delivers information for operational, tactical, and strategic decisions that drive stronger business performance and a sharper competitive edge.

Planning model

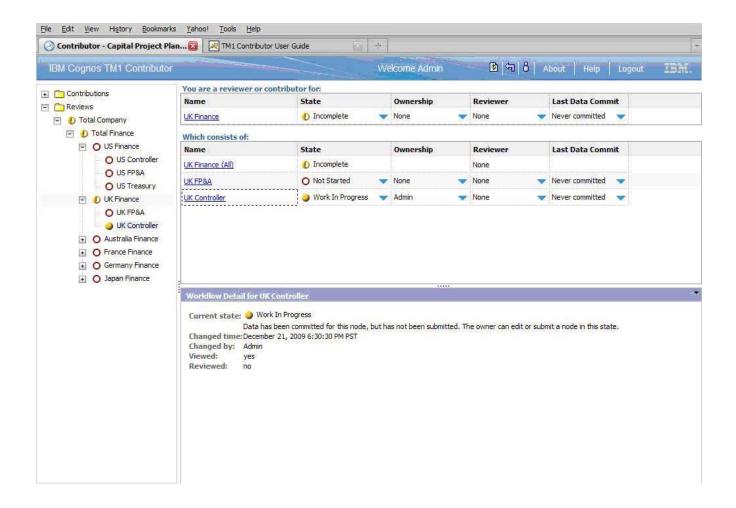
The planning model of the *Blueprint* is powered by Cognos TM1 9.5. The key features of the model are:

- Flexible Blueprint development
- · Web-based deployment of models for data collection and consolidation
- Real-time workflow
- · Real-time consolidation
- Real-time browser-based calculations to yield immediate results
- Scalable architecture with proven deployments to thousands of users
- Linking functionality to provide collaboration between all areas of the organization
- Capability to execute form-based planning using selection boxes to drive application logic and calculations

Workflow

As planners update department-level plans, managers and executives need real-time visibility of the workflow status. In the *Capital Project Planning Blueprint Powered by TM1*, capital plans are entered by function and by country. All countries for each functional area roll up to functional area managers for review. Managers can see consolidated results of capital plans and depreciation expense scenarios for their functions. As plan reviewers, managers can see the workflow status of each function/country under their responsibility and are co-owners of that information, able to make edits as required.

Workflow status changes, data consolidations and aggregations occur in real-time as contributors save information, enabling frequent planning iterations. Before data is entered, the plan is designated **Not started**. Once a plan is saved, it becomes a **Work in progress** and remains accessible for further editing. When an item is submitted, the plan is **Locked** and no more changes can be made. The locked state indicates that the plan is ready for review. A reviewer can review the plan in any state, but can only reject a Locked plan item. When a Locked plan is rejected, it reverts to a Work In Progress, making it editable once again for plan owners. The following graphic depicts workflow that the final reviewer of Total Company data sees, along with Total Finance or the input level of function/country (such as Australia Finance or France Finance).



Capital Requests

The first *Blueprint* tab, **Capital Requests**, is the starting point for the process of requesting a major capital project or resource. After providing a brief description of the expenditure, users enter information required to justify the request. There is a list of selections to be made from drop-down boxes. The data entry items are:

- Expenditure Description: Input a brief description of the expenditure.
- Project Number: Select from a drop-down list of Projects.
- Asset Class: Select from a drop-down list of Asset Types, such as Furniture & Fixtures, Machinery and so forth.
- Priority: Select Low, Medium, High or Committed from a drop-down list.

- Estimated Overall Risk: Select Low, Medium or High from a drop-down list.
- **Describe Problem:** Enter a brief description of the need for this expenditure.
- Primary Benefit: Input a brief description of the benefits to be realized.
- Estimated Years of Benefit: Select from a drop-down list of various time spans.
- ROI: Select from a drop-down list of predefined descriptions, such as Replacement or Efficiency Gain.
- Expected Impact: Input an expected percentage return on the expenditure.
- IT Resources Required: Select Yes or No from a drop-down list.
- IT Man-hours: Input the number of estimated IT worker-hours needed.
- Subject Matter Expert: Select internal, external, both or none.
- Strategy Map: Select from a drop-down list of predefined strategies.
- Budget Amount: Input the Budget Amount.
- Residual Value: Input the anticipated residual amount.
- Purchase Month: Select from a drop-down list of months and/years.
- In-Service Month: Select from a drop-down list of months/and years.

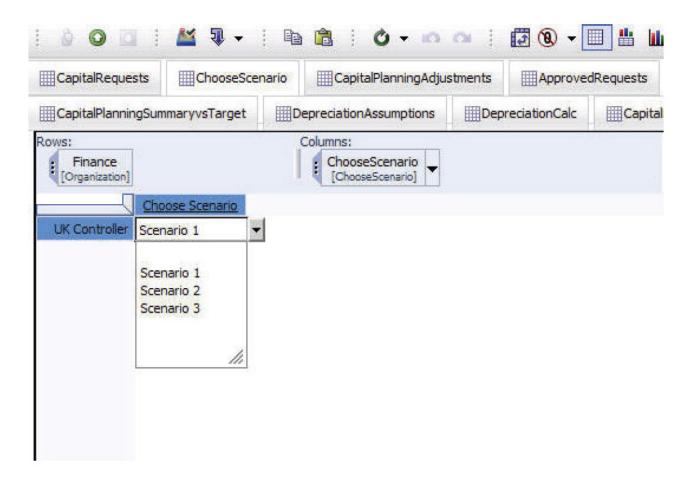
As changes are made, they are highlighted in **blue** along with any cells affected by the change. As table content is altered, the results are automatically made available to subsequent tabs affected by the changes. If data is missing or entered incorrectly, a warning message appears.

Available warnings include:

Please enter Budget Amount
Please enter Purchase Month
Please enter In Service Month
In Service Month Prior to Purchase

Choose Scenario

With the Choose Scenario tab, users can select which scenarios should be used in the forecast. Three scenarios (labeled Scenario 1, Scenario 2, and Scenario 3) are available for comparing the impact of expenditure amounts and timing on capital needs and resulting depreciation expense. The chosen scenario then links forward into the Capital Planning Summary and Depreciation Summary templates.

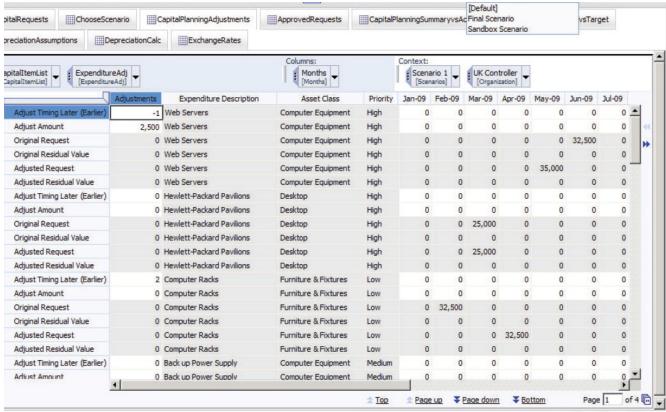


Capital Planning Adjustments

Planners can use the Capital Planning Adjustments tab to review and adjust the timing and budgeted amount of capital expenditures on an item-by-item basis. Three different scenarios are available and each is preloaded with the original capital request for Budget Amount and Residual Value data from the Capital Requests tab. Expenditure Description, Asset Class and Priority are also pulled in from the **Capital Requests** tab.

The planner for this department—or a superior—can adjust the timing or amount of an expenditure. He or she can even change both the timing and amount and analyze the impact on overall capital expenditures and depreciation. The fields that you can edit are in white. The fields in gray are either linked over from previous tabs or are determined based upon the choices made in the white fields.

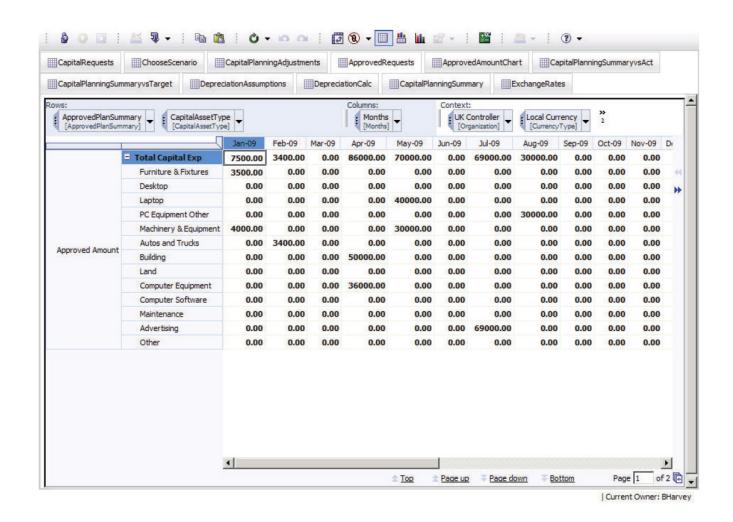
In the following screen capture, the planner increased the amount in Item 1 by 2500 more than originally requested. At the same time, the planner changed the time of Item 1 to occur one month earlier than originally requested. To set timing so that it occurs earlier than originally requested, you enter a negative number of months in the Adjust Timing Later (Earlier) field. Changes are highlighted in **blue**, and you make changes, capital planning impacts are extended automatically to the tabs affected by the changes.



| Current Owner: BHarvey

Approved Requests

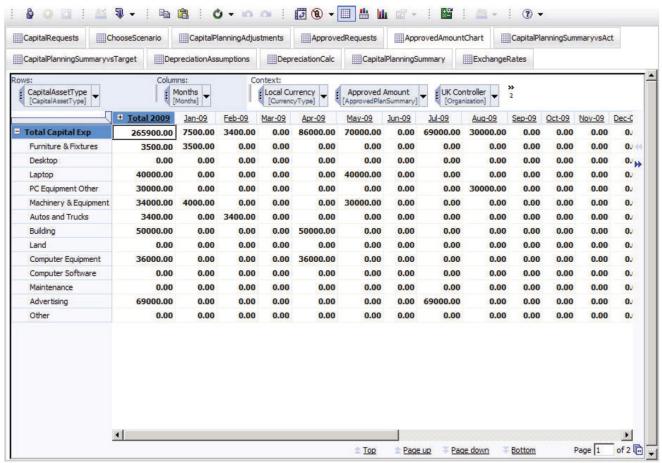
In the next tab, **Approved Requests**, is a view of the Approved Plan Summary cube. The results of previous planning decisions are consolidated together by asset class, month, Original Request and Approved Amount. The Approved Amount is populated with the data from the Capital Planning Adjustments tab for the Scenario that was chosen in the Choose Adjustment Scenario tab. All fields in grey are noneditable, having been linked over from the **Capital Planning Adjustments** tab. If the *Blueprint* were saved at this point, all cells would appear in black with calculated fields in bold black. Changes to this consolidated amount because of data adjustments made to previous tabs since the last save would be highlighted in **blue**, along with any calculated cells that are also affected by the change.



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Approved Amount Chart

This tab is a restatement of the Approved Plan Summary cube. The total years are shown here as well. This tab is derived from the same cube as that shown in the Approved Requests view and demonstrates the ability to provide varying views of the same cube.

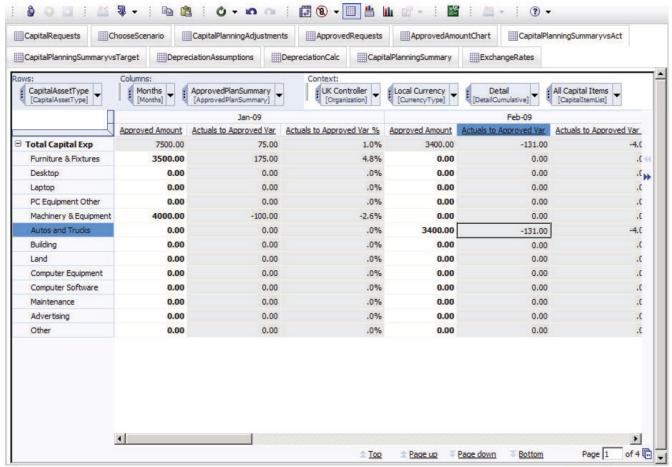


| Current Owner: BHarvey

Capital Planning Summary Vs Act

The ${\bf Capital\ Planning\ Summary\ Vs\ Act}$ tab affords another view of the ${\bf Approved}$

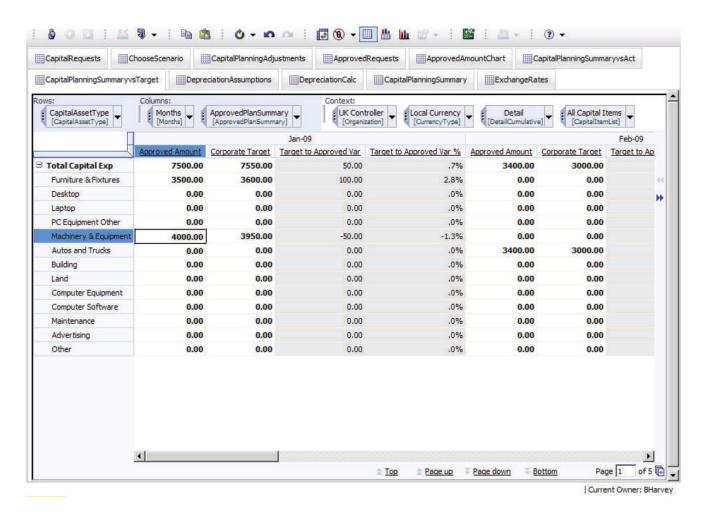
Plan Summary cube. This view shows Approved Amounts versus Actuals by month and includes a variance and variance percentage calculation. As actual capital expenditure data becomes available, it is uploaded into this tab. You can also view the data by months (Detail) or cumulated so you can see capital expenditures to date (Cumulative YTD Spending). You can view the data in either local currency or the home country currency.



| Current Owner: BHarvey

Capital Planning Summary vs Target

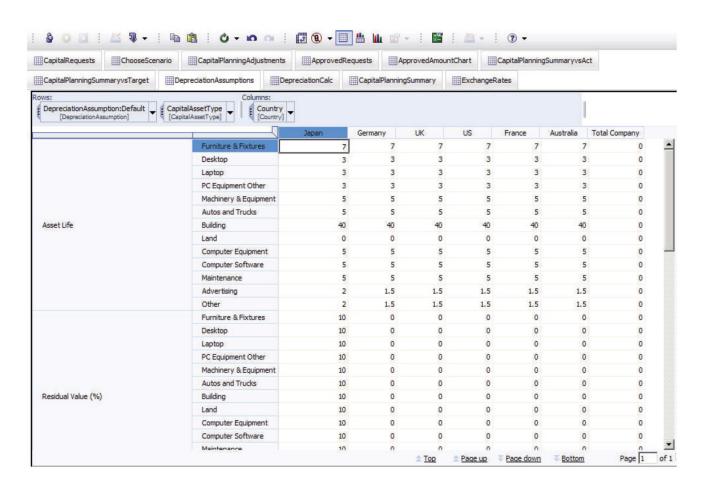
The Capital Planning Summary vs Target tab is yet another view of the Approved Plan Summary cube, providing an annual view of approved amounts versus corporate targets. Annual Corporate Targets are pre-loaded into this tab by Asset Class for the Current Year (CY) and Next Year (NY), if available. By comparing the annual Approved Amount with the annual Corporate Target and then analyzing variances, planners can return to the Capital Requests or Capital Planning Adjustments tab and make any necessary adjustments. This tab can also be viewed by local currency or home-country currency.



Depreciation Assumptions

The next *Blueprint* tab, **Depreciation Assumptions**, holds assumptions data by Asset Class and by Country necessary for calculating depreciation expense. Information in **Depreciation Assumptions** are pre-populated by the Administrator and includes:

- Asset Life in years by Asset Type and Country
- **Residual Value (%)** used if an alternate Residual Value is not entered into the Capital Requests tab
- First Year Write-Off (%) used if country allows a specific percentage of asset value to be written off in the first year with the standard depreciation calculation picking up beginning in second year
- Depreciation Method: Straight Line, Sum of Years Digits or Diminishing Balance
- Annual Depr % for Diminishing Balance Method to be populated when Diminishing Balance is chosen as the Depreciation Method

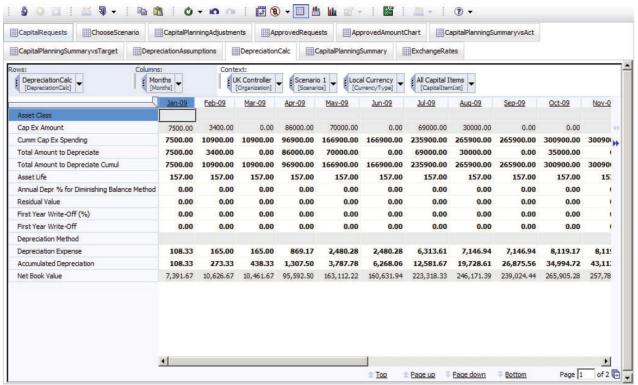


Depreciation Calc

The Depreciation Calc tab calculates depreciation expense by month for each new asset. Because the *Blueprint* offers a choice of three different depreciation methods, includes an option for residual value and allows for a first year write-off percentage to override the standard depreciation calculation, the calculations are quite intricate.

The assumptions for Residual Value (%), First Year Write-Off (%), Depreciation Method, Annual Depr % for Diminishing Balance Method and Asset Life populate from Depreciation Assumptions based on the country and asset type of the capital expenditure. The Adjusted Request and Adjusted Residual Value are linked in from the Capital Planning Adjustments tab. Both Depreciation Expense and the Net Book Value for each capital asset are calculated by month for each of the three scenarios available in the plan.

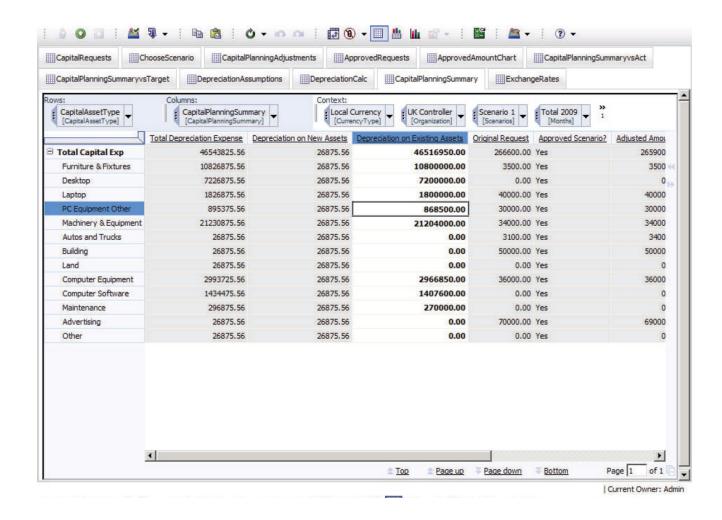
Users can compare the impact of differences in the scenarios and, if necessary, modify which scenario is chosen or modify the adjustments made in the Capital Planning Adjustments tab for any of the capital assets for any of the scenarios. The calculated depreciation expense information can be linked to any system or *Blueprint* that would have a need for it. For example, the *Expense Planning and Control Blueprint Powered by TM1* could use this as a source for the new depreciation expense.

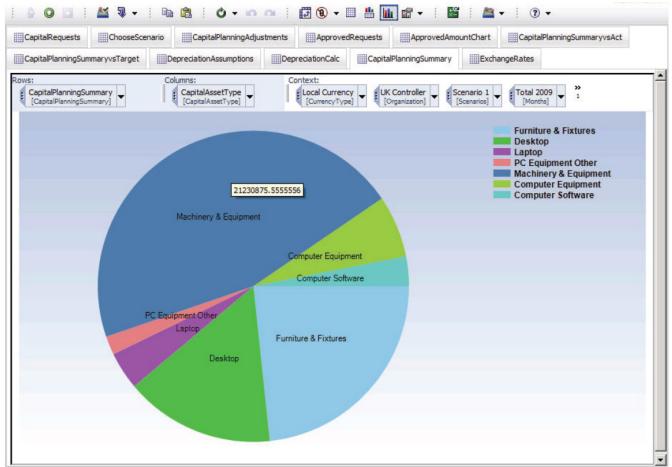


Current Owner: BHarvey

Capital Planning Summary

The Capital Planning Summary tab consolidates data into a summary view, creating a single source for the most common items used in reports. Data items in this tab include Total, Current and New Depreciation expense, Original Amount, Adjusted Amount, Variance vs. Original Request, Adjustments and Variances, Chosen Scenario (will default to 'Yes' for the Chosen Scenario only and will be blank for all other scenarios). You can view data by home country or local currency, capital asset entry number (1 through 25) and by Scenario (Scenario1, 2, or 3). This tab may be hidden from users, but utilized as a data source for the business intelligence dashboards and reports. It can also be used to develop on the fly graphs and charts.





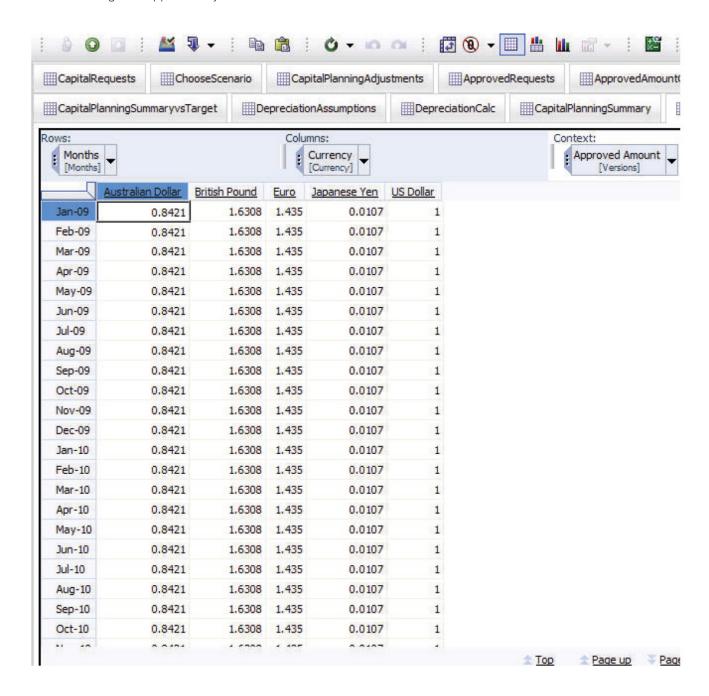
| Current Owner: Admin

Exchange Rates

The final tab, **Exchange Rates**, holds exchange rate assumptions by month for each currency type available in the model. Three versions of exchange rates are available:

- Approved Amount
- Corporate Targets
- Actuals

The Approved Amount exchange rate applies to monthly capital planning scenarios in the model, the Corporate Targets exchange rate applies to the Annual Corporate Target capital numbers in the **Capital Planning Summ vs Targets** tab and the Actuals Exchange rate applies to any Actual data shown in the model.



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- cut costs
- · streamline processes
- boost productivity
- · enable rapid response to opportunity
- increase management visibility

Staffed globally by experts in planning, technology, and performance and strategy management, the Innovation Center partners with more than 600 IBM Cognos customers, academicians, industry leaders, and others seeking to accelerate adoption, reduce risk, and maximize the impact of technology-enabled performance management practices.

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