EPM5700 Project Management and Information Technology

How IT systems are used to Support Project Management

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Intellectual property

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Introduction

Project Management

Life is a series of projects - goals to achieve, work to complete, resources to allocate, and results to communicate. Where time is money, precise project management requires foresight, experience and a regular supply of up-to-the-minute information.

To meet these demands, IT Software and Tools for project management systems are being applied across all types of industries, to encompass many facets of executive planning, resource scheduling, and time management and cost control.

What Projects?

Most managers in any organisation become involved with projects from time to time. Projects can be defined as numbers of inter-dependent operations that end in one or more deadlines and may or may not utilise people, machines, materials or money.

Whether or not these activities are called 'Projects' or are organised by people bearing the title 'Project Manager' does not alter the fact that IT applications can help with their coordination and control.

Users of various IT software systems report a variety of applications, here are just a few.

- Design projects in various industries
- Research and development
- Construction projects
- Mechanical and electrical engineering
- Heavy engineering contracts
- Works scheduling for industries with one-off orders
- Organisation of exhibitions or other "events"
- Product launches or marketing campaigns
- Company Audit
- Political campaigns
- Installation of plant or equipment
- Film or television production
- Commissioning of plant or equipment
- Data processing projects
- Office reorganization
- Plant breakdowns planned maintenance or retooling
- Military exercises

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How do we use IT software applications for Project Management?

What Is It For?

The many software systems and tools for project management are designed with the important aspects of monitoring and control as major objectives. These can be summarised like this…

CONTROL OF PROJECTS: to constantly organise and monitor complex projects, producing schedules and reports that people understand.

CONTROL OF TIME: to figure out feasible deadlines and show how to meet them. To identify those operations which are critical.

CONTROL OF RESOURCES: to smooth out workloads for increased efficiency. To identify critical, insufficient or excessive resources.

CONTROL OF COSTS: to calculate the costs of running the project. To identify how fixed costs or overheads increase if the project is delayed.

PROGRESS CONTROL: to track and record actual achievement of project operations and to highlight progress slippage and problem areas. To compare Actual Costs with Earned Values to control against budgets. To analyse the planning of corrective action.

SIMULATION: to explore possible alternatives in "What-if?" or "Where do we go from here?" situations.

Some High-Level Critical Path Management IT Software Systems and Tools for Project Management

- Micro Planner X-Pert
- Microsoft Project 2016
- Primavera P6 V18.1
- Deltek Open Plan

Micro Planner X-Pert

Planning is a vital part of project management, but it is important to understand where the planning process finishes, and the control or management process takes over.

The disciplines, which differentiate serious management from simple planning, are those concerned with:

- Setting Cost, Resource and Time baselines.
- Monitoring progress against those baselines.

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- Taking remedial action and rescheduling.
- Reporting and communicating management intentions.

Micro Planner's strengths in handling these disciplines is what sets X-Pert apart from ordinary planning packages.

General Benefits

- Better control of time and resources saves money and increases margins.
- Delivery dates or other deadlines can be reliably forecast and met.
- Increased communication from easy-to-read reports helps to avoid confusion.
- Confidence is enhanced as risks are reduced.
- Opportunities for greater involvement of the whole project team in the actual planning process.
- Excellent value for money: low cost for a complete system when compared with similar functionality elsewhere.
- Ability to manage in a multi-project environment (programme management).

Ease of Use Without Compromise

Although it has arguably the most powerful and sophisticated analysis engine on the market, X-Pert is designed for ease of use - to be flexible and responsive to your requirements. After all, you need to be in control of your project right from the start - not wrestling with the software!

The X-Pert approach is to confront the complexities of project scheduling in order to focus on solutions. Rather than simplify the techniques it creates an intuitive graphical environment that provides a unique overview of your project data.

X-Pert embodies a disciplined approach that enables you to use it as the cornerstone of your Project Management quality procedures. It does not duck out when the going gets tough. Beginners can use the software at a simple level - to "hit the ground running". The more sophisticated features can remain out of sight to avoid confusion but as your knowledge of the package increases, you will not run out of power to tackle the most complex projects.

Graphical Visibility

X-Pert provides a unique "desktop" approach to the management of your projects. The desktop window is laid out with icons and "folders" providing mouse access to all the information in the project.

In addition to the first Subproject icon, Work Breakdown icon and five folders provided in a new project, you can create new subprojects, new folders and icons, name them to suit your needs, and even nest folders inside other folders. Naturally, since folders are used for filing information about your project, you can decide where you wish to store items - networks, calendars, resources, reports etc.

The Custom Menu folder provides a quick and easy method for selecting frequently used items, such as a weekly status report that you may have designed yourself. Items stored in this folder appear as a Custom Menu item accessible from the View menu.

X-Pert gives you a unique overview of your project, empowering you to experiment with alternative schedules and adapt your schedule to accommodate the most unexpected circumstances.

Multi-Platform

Micro Planner X-Pert is available for computers running both Windows and MacOS.

Both systems share the same features and capacities, but the user interface has minor differences to conform to Windows or Macintosh standards wherever possible.

Collaboration

X-Pert has features that make it ideal for collaboration on large multi-site or multi-departmental projects.

Self-contained project models can be created at each site using the resources at those sites and subject to different project management teams if necessary. However, where those different disciplines interface with each other, X-Pert has a unique feature to link projects together from one project file to another. This linking can take place across local or wide area networks or even from mailed-in floppy disks.

Where there is a need to consolidate data from various disciplines then X-Pert can merge data from each site to form one large multi-project file where results from each section can then be viewed or rolled up into a single Work Break-down Structure.

While it is desirable that all parties collaborating should be using X-Pert, it is possible to consolidate projects with varying degrees of precision from other programs including Micro Planner Manager or Microsoft Project.

Exporting and Importing

In addition to its facilities to move information around from project to project, X-Pert also has Export and Import features which allow it to communicate with other software - typically databases or spreadsheets.

Using basic data files that can be almost universally read, X-Pert exports selected task or cost data with specific fields. Using similar file formats, X-Pert is also able to import new tasks or update existing tasks from other software.

It is therefore possible to create a scenario, for example, where project data may be updated to include actual cost information that has been generated by external financial software.

Multiple Projects

If your organisation needs to manage several projects simultaneously or if there is a need for collaboration between several groups working on the same project you will find that X-Pert rises to the challenge:

Programme Management

When multiple schedules are running in parallel with each other, they can be entered as distinct network diagrams and segregated using X-Pert's labelling system. During analysis, the program can take the requirements of all schedules into account, with the facility to impose specific priorities for schedules or tasks.

X-Pert's ability to copy and paste sections of network from one place to another or to transfer whole subprojects from one project to another enable you to store libraries of standard plans or recycle previous plans.

The reporting facilities enable you to prepare reports for individual projects as well as the whole workload while integrated results for resource requirement or cash flow are also available.

Creating the Project

Logic Networks

Unlike many simple planning packages that rely on Gantt chart data entry, Micro Planner is designed to assemble projects as logic networks (sometimes referred to as PERT charts). This is a more professional approach that, as projects become more complex, provides greater discipline and proves easier to understand and manipulate. Gantt charts are, of course produced automatically as presentation reports and can be used to add progress or modify durations.

There are two different techniques for drawing logic networks, Precedence or Activity-on-Arrow.

X-Pert is one of the very few packages available that offers a choice of both techniques. It is the only package that can use both techniques within the same project.

Easy Drawing

X-Pert's unique network approach allows you to draw the network on screen more easily than using pencil and paper! Electronic drawing windows called Subprojects allow you to assemble networks of inter-linking operations that in turn can be linked to other subprojects. Networks produced on screen can be printed, retaining the layout in the same form as it was entered.

Logic networks provide a powerful overview of the challenges facing a project and X-Pert's clear view and responsive power allows project team members to work together at a computer screen to cooperate at the heart of the planning process.

Rapid Network Construction

A powerful facility allows you to save time by copying and pasting typical network sections from within the network or from library files. Whole subprojects can be merged from one datafile to another allowing rapid construction of standard project elements and cooperation between management teams.

Open Access to All Information

In addition to the network diagrams, the program offers a variety of ways to enter or modify your project information …Spreadsheet-style tables allow bulk data entry.

An outliner allows you to combine the construction of a Work Breakdown Structure (WBS) with task input.

Information can be modified from any view including networks, Gantt charts cost reports etc., choose whichever method is appropriate.

A Wealth of Features

As your knowledge of the software increases, X-Pert provides an abundance of options to fully define each activity and ensure the accuracy of your plan –these include an organisational structure of three separate labels with a variable hierarchy, descriptions, sort codes, comment fields, WBS and explanatory illustrations.

Durations can be expressed from weeks to minutes - even mixing scales in the same project.

You can choose to run your project using calendar or numeric dates, choosing either or both for your reports. Milestones, overlapping relationships, 'elastic' tasks, and hammocks - all these and more are standard.

Rapid Relocation

- X-Pert's design allows rapid access to any information on the project model:
- Find facilities help to locate a task by identifying part of its description or its code name.
- Rapid opening and closing of subproject windows Zoom out, locate by sight and zoom in again.
- Multiple open windows.

These entire methods enable you move around your project model with a minimum of wasted time.

Time Analysing the Project

Critical Path Analysis establishes each task's start and finish dates, highlighting jobs that must not be delayed if the project is to finish on time. A host of facilities are available for controlling Time Analysis - including various types of imposed start and finish dates, dynamic linking from different project networks and negative float where the projects overrun contract deadlines.

Getting It Right

Following Time Analysis, you may wish to edit your project model to correct mistakes or adjust sequences to meet imposed requirements. You can alter or update project information by opening tasks from within any report or chart. Alternatively, you may prefer to drag the bars on a Gantt chart view to directly alter an operation's duration (or add progress at a later stage).

Controlling paths, supercritical paths and listings of all preceding or succeeding events can be isolated for review. Activities can be overlapped using Start-to-Start, Start-to-Finish, and/or Finish-to-Finish dependencies in Precedence diagrams (or ladders in Arrow diagrams). Multiple calendars can be specified from five day to seven day or 'weekend only' work weeks (or any working pattern you specify), shift work and planned overtime can be introduced, and so on, until the Time Analysis results reflect your project's exact requirements.

Adding Resources and Costs

Time Analysis provides you with accurate time constraints for your project but frequently it is the availability of resources that will determine your completion dates. Resources can include anything required to complete your project (people, plant or materials) and the balancing of those resources that are under the project's control may be crucial to your plan.

No matter how complex your project becomes, adding resources and their costs couldn't be simpler: specify what resources can be used, how many there are and when they are available; apply cost rate changes to resources to build in real-time resource cost inflation.

Tasks can use resources partially over the task's duration, either at 'rate-per-day' or 'total work-days', or in quantity steps of 2 decimal places.

Each resource can work to its own calendar if required, four cost rates (idle time, normal hours, overtime and overload) and availability profile with both normal and threshold levels.

X-Pert also allows the use of Pool (consumable) resources like bricks or other bulk materials.

Cash can be added as a resource when it covers costs that are independent of other resources.

Skill Sets

Individual resources with similar skills can be held in skill groups - each resource within a group can be allocated an efficiency percentage.

When you assign a group resource to a task, X-Pert locates the least used but most effective member of the group for the work.

Durations are normally based on everyone being 100% efficient if an individual is rated higher or lower, the duration is adjusted.

Resource Analysing the Project

Having allocated resources to your project, Resource Analysis shows you how long the project will take using the resources you have available (Resource Critical), or how many resources you will require to finish within the minimum time (Deadline Critical).

This powerful analysis process juggles the requirements for resources (maybe several per task), multiple calendars, varying priorities, group resources, splitting of tasks etc. - and it produces the results right down to the minute.

Controlling Analysis

In addition to the above Resource Critical and Deadline Critical options, you can choose
Early or Late Aggregation (all activities starting on their earliest and latest dates respectively). With Deadline Critical Resource Smoothing, activities with float are delayed until they become critical, then resources are overloaded; Resource Critical smoothing does not overload resources until the project maximum delay (specified by you) is reached.

You can decide whether to allow Resource Analysis to split activities when there are not enough resources available, or to demand an immediate start irrespective of resource availability. Specialist activities may be used to fine tune resource usage - for example, Sponge Hammocks may soak up spare resources carrying out fallback tasks. Find out what your staffing levels should be next year, or whether you can realistically slot in that extra contract without jeopardising existing work. Whether you have to say, "YES" or "NO', you can be confident of your future resource loading.

Visible Analysis Results

The revised timings that result from resource smoothing are placed in a specific time schedule that can be examined as a Gantt chart and compared directly with the original Time Analysis schedule.

Resource Histograms give a clear overview of leveling results – you can freeze the current histogram, or have it updated with future leveling trials. Filtered network views represent another way to assess the full impact of resource smoothing. For example, you might display only those activities with a certain amount of free time or alternatively the most critical activities; such filtered displays reduce network clutter allowing you to focus on a project area and add refinements.

Having assessed your Resource Analysis results, "What-if…" simulations allow you to experiment to find the best solution (a balance of time constraints versus the associated cost and resource implications) - one that fits your company's policies and is realistically achievable.

Project Costing

When all is said and done, a Project Manager's prime objectives are to complete the project on time and within budget. In order to meet those objectives, X-Pert offers facilities to build up a cost plan that is linked directly to the time and resource plan.

In costing too, X-Pert maintains an extensive range of facilities. Costing results flow from resource analysis and go on to add cost accruals, monthly budgets for the next six months, Earned Value Analysis, budget-vs-actual cost comparisons, global or activity level adjustments and most of the other features required by current cost management standards.

This means, for example, that inflation forecasts can be accounted for, as can fluctuations in charge out rates for hired equipment or personnel; it will also make allowances for the time lag between invoices being sent out and paid. In addition, resources may be switched off so that their costs are accumulated without the
resource affecting the schedule. The program also has a unique facility to cost out resources that are NOT used.

X-Pert has several standard graphic, planning, and cost summaries. For example, a selection of cost reports provides cash flow forecasting, job costing, Earned Value Analysis, and wastage analysis (charting inefficiencies when resources are under-utilised or over-utilised). Cost/Time curves show when money is spent, and Pie Charts can show where it is spent.

Communicating the Plan

Effective presentation and communication are essential for effective project management. X-Pert has a selection of Standard Reports that can be edited to suit your presentation needs. These include: Progress Report, Job Card, Milestone Report, and of course Gantt Reports (or bar charts). In addition to this suite of reports, X-Pert also provides a range of quick-view charts, allowing you to access project results more quickly - these include Gantt View, Linked Gantt Chart, Resource Histogram, and Network Diagram.

The reporting facility allows tasks for inclusion in any of these reports to be selected and sorted on almost any field. Further fine-tuning allows you to hand-prune and delete unwanted reports without going through the process of re-selecting.

Complex sorting and selection criteria can be saved as virtual macros for use in other reports or other projects. If none of the standard reports meet your exact requirements, you are free to design and save your own report layouts. Report Stationery allows you to create reusable report templates containing preferred fonts, logos and legends - as well as resources and tasks. X-Pert gives you a blank drawing area to arrange headers, footers, labels, resources and any data field - including static graphics or dynamic images that change with each record. The whole process is straightforward, just grab report components with the mouse and place them anywhere on the page. A ruler and guidelines help to precisely position elements. Moreover, reports can be saved in a Custom Report Menu for instant recall.

Enhanced Reports

Reports may be annotated with pictures or text to provide clarification of project phases. In addition, reports and charts can be saved in picture format for use in tender documents or other documents - you can even produce composite reports by placing a Gantt chart, Resource Histogram or Pie Chart as an illustration into another report.

Immediate Access

All your reports which include standard reports, schedules, histograms, cost pies and cost curves can be reduced to icons with all their settings on the X-Pert desktop and stored in folders. These icons are virtual macros which allow X-Pert to redisplay the report without your having to restructure the commands used to set them up in the first place.

This means that a series of reports required, for example every time you update your project can be opened and printed quickly and easily.

Microsoft Project

Here's how Microsoft Project interface looks like
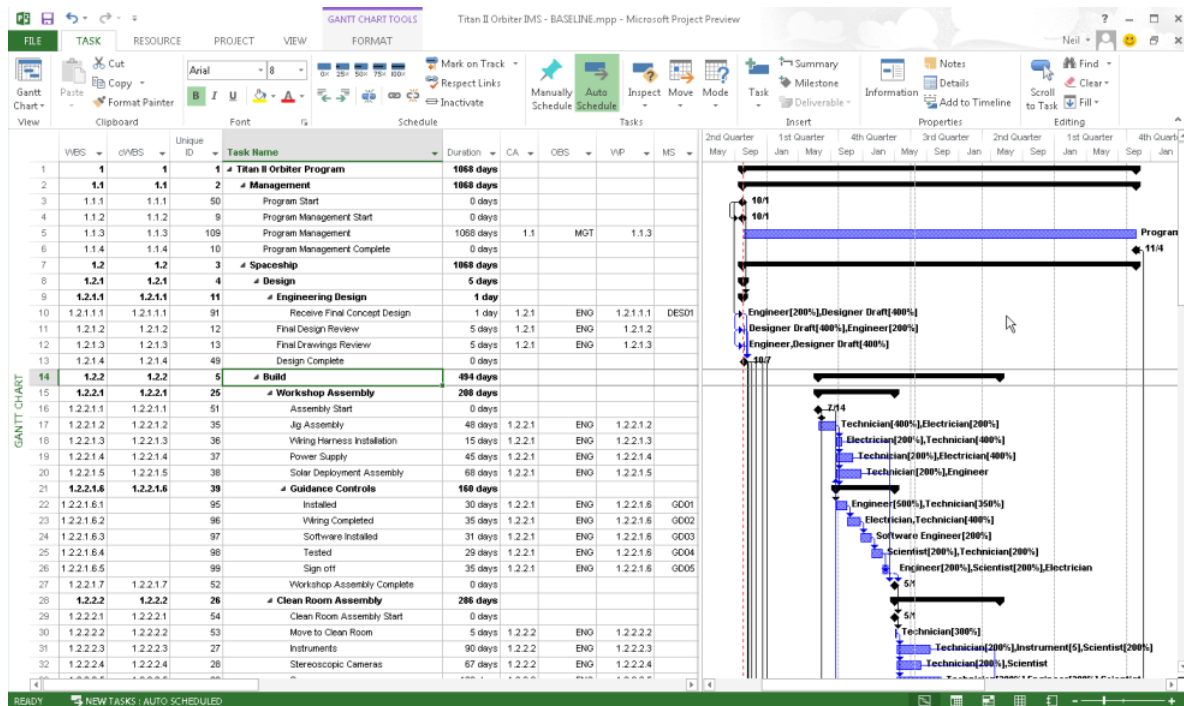
Microsoft Project allows companies to handle project portfolio investments, as well as successfully deliver projects with the intended business value. The tool is a flexible solution for your project portfolio management needs and daily operations, delivered through Office 365.

The tool gives companies a powerful, efficient, and visually enhanced way to manage a comprehensive range of their projects as well as programs. From meeting crucial deadlines, to selecting the right resources and boosting your office teams, Microsoft Project can deliver new and intuitive experiences to set up, manage, as well as collaborate with various teams, individuals, and enterprises.

One of important competitors of Asana and a great project management tool, Microsoft Project is a good choice for any business that is tired of attempting to improve its productivity with post-it notes, scraps of paper, and whiteboard scribblings.

Microsoft Project is created by people who have handled real-life projects and realize that some things and activities are always changing regularly. Thus, with this solution, adding new tasks or tweaking the organization of a task or a project midway through can be a fast thing to do. Microsoft Project deals with complexity in business operations in a very simple manner. While Project has an impressively comprehensive range of capabilities and features, it is relatively fast for any user to use it to perform exactly what she or he needs.

Extremely intuitive, Microsoft Project offers great balance of complexity and usability. No wonder, this project management solution is used in different industries including pharmaceuticals, construction, manufacturing, financial services, retail, health care, and government ones.

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Link tasks using a drop-down menu

Since the 2016 version a new facility has become available where the user longer has to remember the ID of the task to link to. Instead, select a cell in the **Predecessors** column, and then select the down arrow, a list of all the tasks in the project will appear. The task hierarchy and order match the project exactly, making it easier to scroll to the right task and then select the check box beside it.
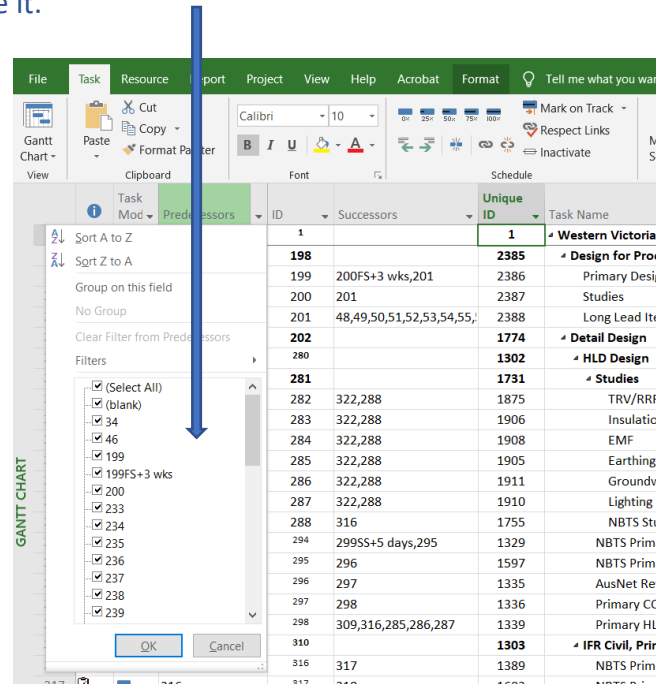
Can also select tasks from the same kind of drop-down in the **Successors** column. For more details, see **Link tasks in a project**

Task Summary Name field

With long lists of tasks, it can be difficult to know what a task is indented under in the overall project plan. The **Task Summary Name** field is a read-only field that shows the name of a task's summary task. Adding this field as a column in the Task view can help clarify the project's structure. To add this field, right-click the title of a column (to the right of where to add the field), select **Insert Column**, and then choose **Task Summary Name** from the drop-down list.

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Timeline bar labels and task progress

Communicating project progress is now made easier! Timeline bars can now be labelled, and task progress is shown right on the tasks themselves, making it simple to quickly illustrate the plan and the work in progress when sharing status.
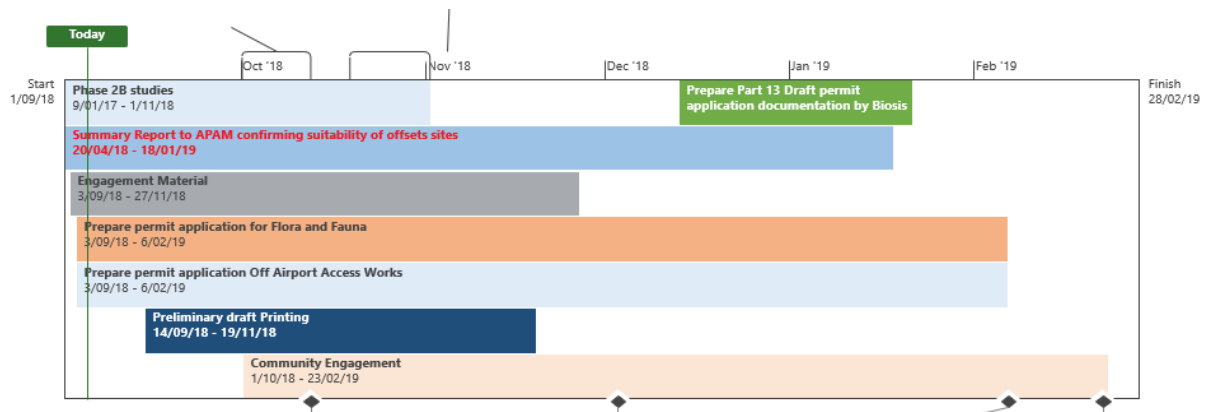
Accessibility improvements

Microsoft is continuing to improve the accessibility of Project for all its customers. In Project 2019 Microsoft have worked to make it easier for Windows Narrator and other assistive technology to read more elements of Project and improved the contrast and keyboard support.

Using Kanban Boards in Microsoft Project

Introduction

Kanban is a visual system for managing work as it moves through a process. Kanban visualizes both the process (the workflow) and the actual work passing through that process. The goal of Kanban is to identify potential bottlenecks in your process and fix them so work can flow through it cost-effectively at an optimal speed or throughput. This is especially effective when using the Kanban Board when constructing multi story building's

What is a Kanban Board?

A Kanban Board is a technique that allows us to visualize and show how work moves from left to right. Each column on the board represents a stage of the overall process. To be more precise, the board gives up a visualization of the project. On a physical board, a team would pull cards (each card representing a task) from one column to another to show progress (left to right). The columns on the Kanban board represent the state/stage of the task.

Examples of stages include:

• Waiting, Work in progress, and Completed
• Backlog, Ready, Coding, Testing, Approval, and Done

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- Next, In Development, Done, Customer Acceptance, and Live

A typical Kanban Board is illustrated below
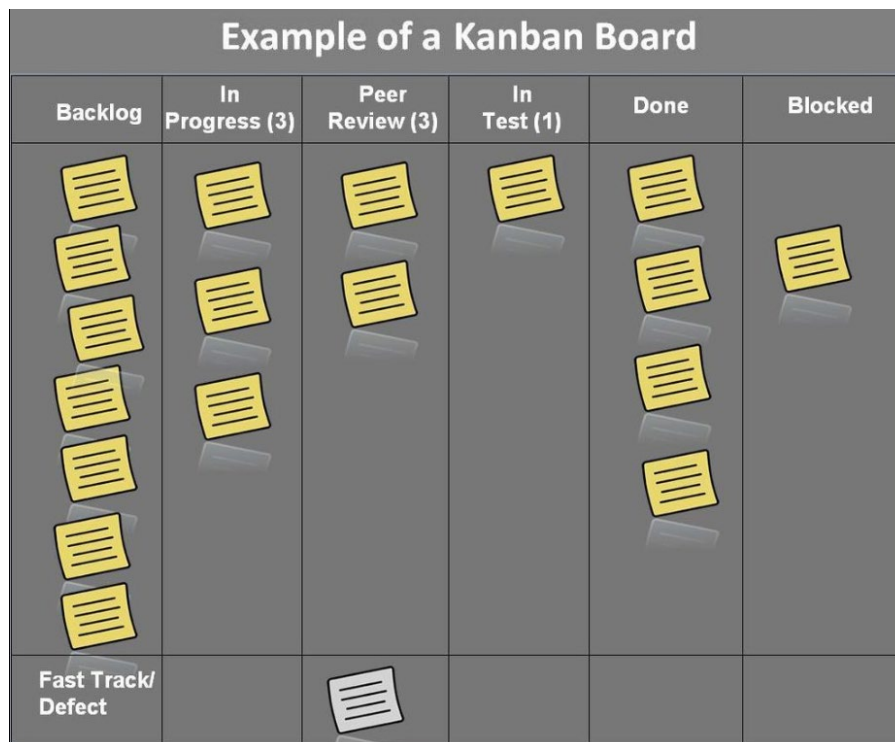
Using Kanban, Agile and Scrum techniques require the subscription version of Microsoft project.

Oracle Project Management Systems and tools

Project Planning and Control

Oracle Project Planning and Control provides project managers the visibility and control they need to deliver their projects successfully, improve profitability, and operate more efficiently. It consolidates project information into one repository: work plans, progress, issues, changes, documents, costing information, budgets, actuals and forecasts, performance, and status reports. Oracle Project Management empowers project managers to plan the work, assign resources, forecast to completion, and communicate to stakeholders, while streamlining the collaborative execution of project work. Oracle IT Systems for Project Planning and Control Processes Oracle Project Planning and Control is part of the Oracle Projects Portfolio Management family of applications, which integrates seamlessly with other Oracle E-

Business Suite applications, including Oracle Financials, Oracle Supply Chain Management, Oracle Human Resources Management, Oracle Customer Relationship Management, Oracle Sales, Oracle Advanced Procurement and the Oracle Collaboration Suite.

BENEFITS

Integrate Project Planning and Tracking
‣ Assure projects satisfy time and budget commitments.

Improve Budget and Forecast Oversight
‣ Enable visibility into project budgets and forecasts to determine overall financial health.

**Effectively Control Project Issues and Changes**
‣ Determine the impact of potential changes on cost. Schedule and plan accordingly and charge or bill appropriately.

Track, Manage, and Communicate Project Performance
‣ Provide real-time, accurate project status and issue management.

Project Management Applications

Accelerate innovation projects and craft a high performing product portfolio. Maximize product throughput while compressing cycle times with modern, social, tightly synchronized project management that's integrated with the enterprise product record.

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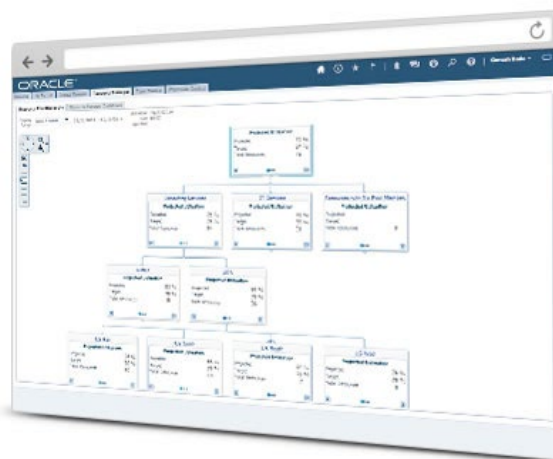
Project Execution

Ramp productivity across the enterprise with a centralized, connected project and portfolio management solution.

- Enhance decision support with cross-project dashboards and portfolio analytics
- Accelerate throughput with automated task completion and go/no-go decisions
- Establish best practice project management across global teams
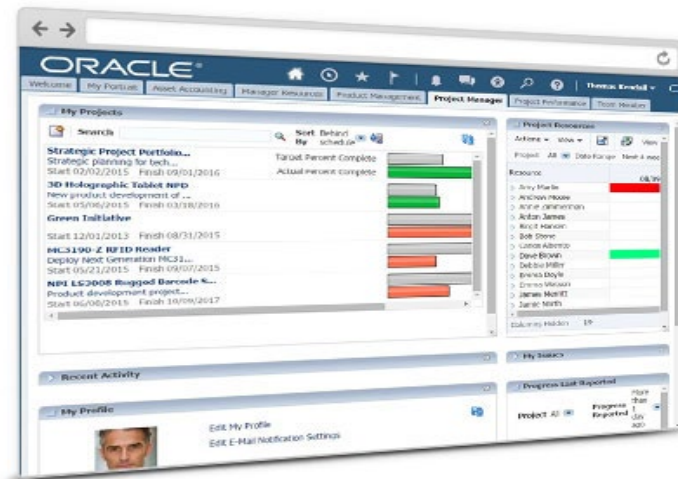
Schedule Management

Simplify scheduling and accelerate project delivery with intuitive, integrated scheduling tools.
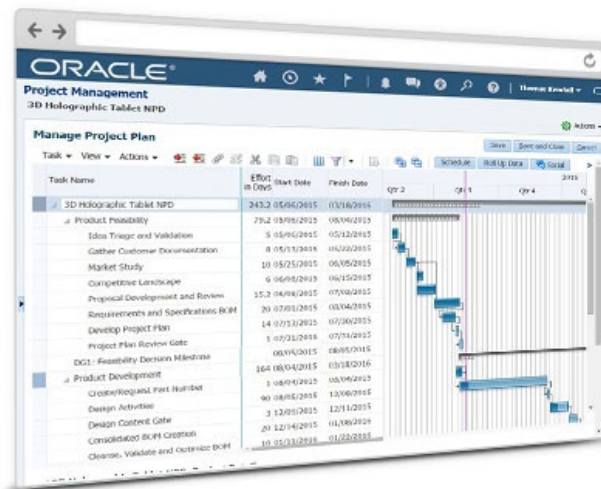
- Enable global teams to collaborate on plans, delivery schedules, and dependencies
- Promote collaborative decisions with interactive role-based dashboards
- Use mobile apps to visualize and communicate project plans and status on the go

Resource Management

Find best-fit project resources and skills with powerful search tools to keep your people engaged and motivated.

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- Match skills and experience levels with project requirements
- Optimize utilization with real-time performance monitoring
- Meet strategic business needs with focused resources
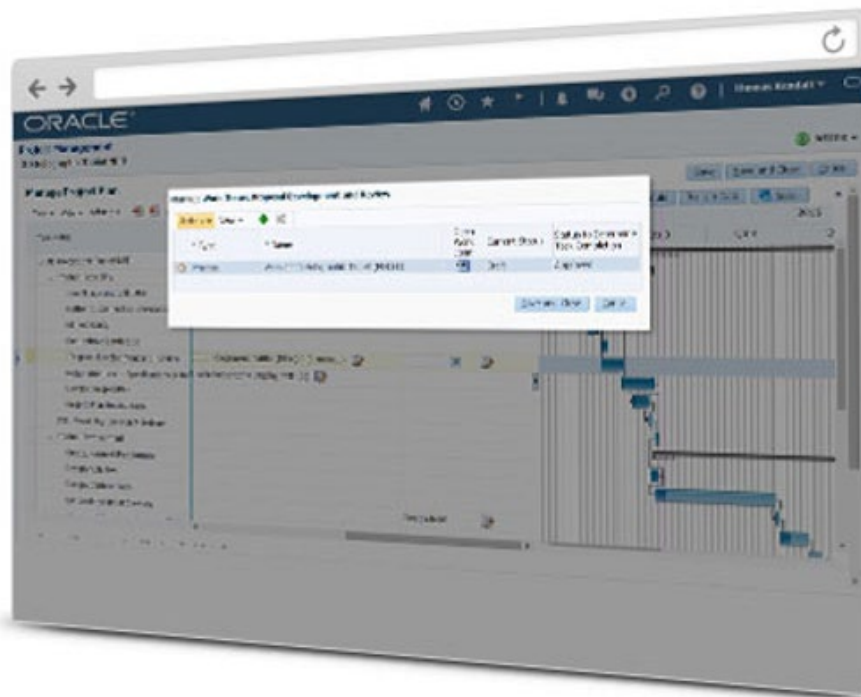

Task Management

Consolidate and automate the completion of tasks to save time and resources.

- Allow teams to collaboratively manage all work in one place
- Discuss tasks and annotate documents with embedded social collaboration tools
- Update tasks with mobile access anytime, anywhere

Portfolio Integration

Closely tie project execution to portfolio management to build a stronger pipeline of achievable concepts—faster.

- Leverage deep integration between project execution and portfolio management
- Manage product development projects in a single, integrated process
- Automate, streamline, and synchronize project management and execution
- Focus on and accelerate innovation projects

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Low level basic PM tools

Many of the low level and basic Project management software is created to coordinate and streamline activities and efforts within a company. Important features of such software solutions enable the organization and delegation of tasks, essentially enhancing visualization levels of project timelines as well as processes. There are countless project management solutions that claim to be the "best" tool for entrepreneurs and businesses.

Thus, selecting the best solution can be a huge effort, as none of these tools are based on CPM technology and do not calculate to the known project management standards or best practices as defined by the ACS, AIPM, AACEi, Guild of Project Controls, ISO21500 PM standards and the PMI

Asana
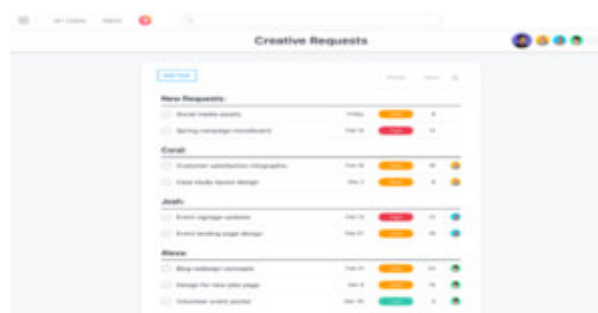
asana.com

What is Asana?

Asana claims to be the most popular project management software currently available on the market. However, another provider of these low-level apps is Wrike who claim to be now, the leader in the project management software category.

In general terms, Asana is a project and task management app that facilitates team communication and collaboration. You can use Asana to create projects and tasks within the projects and follow the progress of those tasks from various browser and devices. You can then add your team members to the projects and tasks, share files, and communicate with them.

Once set up, Asana eliminates the need to use email and third-party apps for corporate communication. Sharing notes, uploading several formats of attachments', and organizing tasks is made easy, and eventually reflects on streamlined workflows and time-efficient delivery. As soon as a change is made, or a task is assigned, Asana users receive notifications in their inbox, and are invited to check, follow, like, or comment the update. You can even draw the attention of a user by simply mentioning him/her in task comments to make sure they're in the loop. The same process applies for each project-related activity, as this is the essential mechanism Asana uses to balance between prompt project delivery and adequate communication.

As to **advanced features**, Asana developers are proud to suggest task relating, following and searching public tasks, prioritizing completion, and change management. From the team's perspective, the best thing about Asana is how it lets employees manage their working space, prioritize and organize tasks the way they deem necessary, upload files, delegate duties, and finally report in a clean and accurate way.

Finally, Asana genuinely complied with all customer support expectations, as it has a brilliant technical team you can contact in several ways. Technicians are fast, knowledgeable, and ready to help, and can also offer some quality onboarding for new and current integrations. If you're lucky enough to run a small and efficient team, you may even benefit from Asana for free. Larger teams, on the other hand, make use of a moderate pricing scheme, where the amount to pay depends exclusively on the number of involved users. The more members your team has, the less you will pay for each of them. As simple as that!

Overview of Asana Benefits

As noted previously, the secret of Asana's success is the unique combination of project management and collaboration tasks, which eventually streamlines even the most complex workflows in the largest teams. The platform is most frequently applied to create, categorize, and schedule projects in a special calendar, prioritize daily tasks, and improve concentration using the outstanding Focus mode feature. As satisfied users confirm, the ability to add custom fields and track only what is exclusively important to you is the biggest catch about this system.

At the same time, Asana allows users to track their tasks and projects up to completion, and to generate amazingly detailed progress reports. Within the same platform, you can attach various file formats, and share project-related documents with your team without having to use emails or third-party communication channels. At the same time, projects and tasks can

be starred or tagged as favourites, so that the seeker won't have any trouble locating them in the database.

Another top benefit is that Asana eliminates most of the challenges large teams face when trying to keep their teams together, and that's all thanks to its email notifications. For timely and easy viewing, team members can discuss the project's progress while it is happening, share it, comment on it, upload a file, or simply let everybody know that they like the change. All relevant conversations are saved on Team Pages, which is where most innovative ideas come from.

This way, the employee won't miss any important update; neither will the team deal with the consequence of duplicated work. As a project manager, you will oversee deciding who gets to do what and assign permissions for each project member/manager. Once they jump on their tasks, you can use the Harvest integration to follow their progress but leave an open opportunity for them to unfollow if the task doesn't concern them.

As an employee, on the other hand, you should look forward to private and group conversations where you can exchange opinions and get involved abandoning neither the office nor the system.

What we've mentioned so far is critical to every project management system, but it doesn't really show the competitive power of Asana compared to other collaboration and PM apps. For the purpose, one must try the product for free and navigate its intuitive interface or get a grasp on advanced features the way our experts did. What they really appreciate about this system are the efficient dashboards, where the structure is once again team-friendly. Each member can simply log in and see how a project is doing, without necessarily attending meetings. As you can guess, this is a genuine blessing in disguise for remote teams.
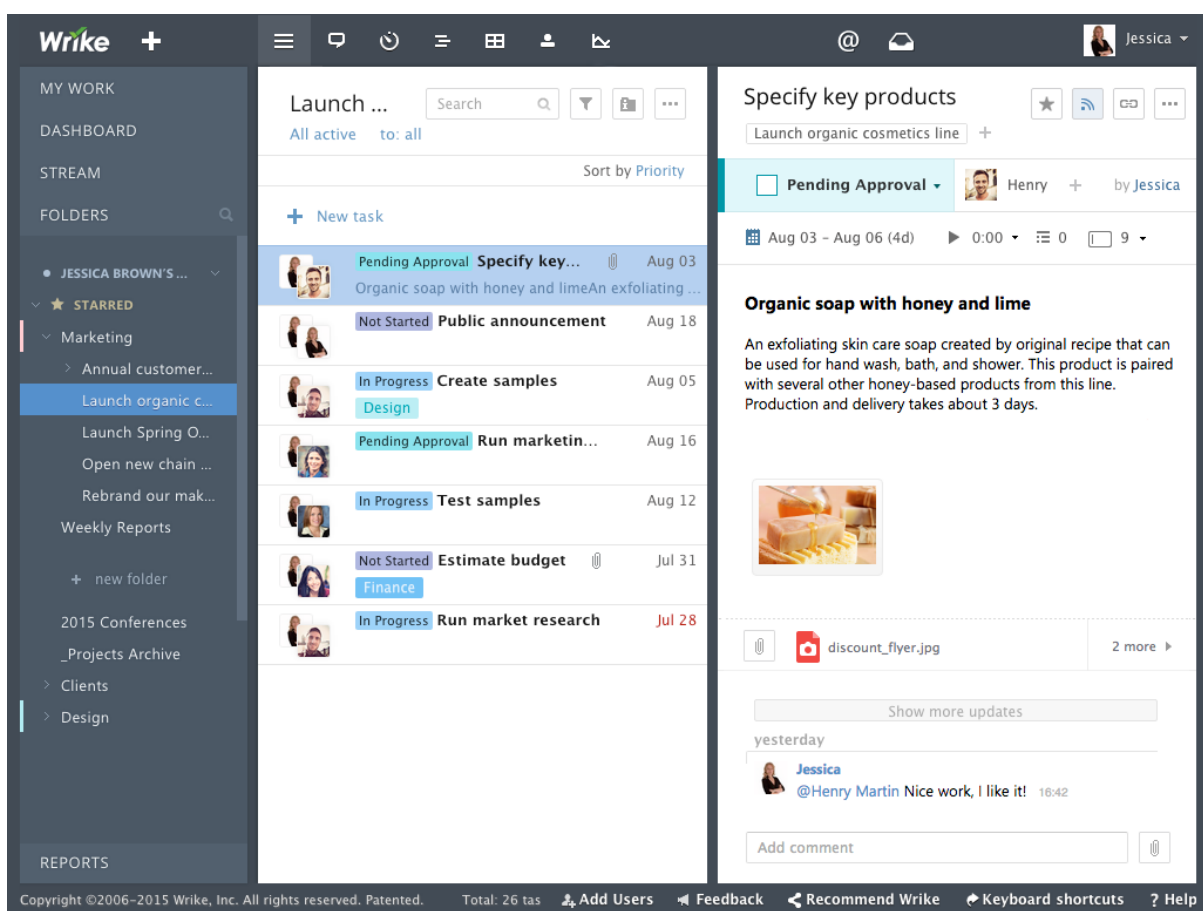
Another advanced capture that deserves attention is the smart inbox – instead of tons of boring and unwanted messages, the employee will receive only important project updates, and convert them into actionable tasks the very same moment. Meetings, nevertheless, are not excluded from the game: they simply become more productive, particularly in terms of fixing bugs, generating leads, or hiring an applicant. Depending on the permissions assigned by the admin, the meetings can even be attended by guests, partners, and other external collaborators.

Asana Overview Functions

- Activity feed
- Add assignees, attachments, and hearts to tasks
- Automatic updates to email/inbox
- Create custom calendars and views
- Email bridge
- My Tasks list and Focus Mode
- Track tasks and add followers
- Get notifications and reminders
- iPhone support, HTML5 mobile site
- Multiple workspaces

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- Project Sections and Search Views
- Real-time updates
- See team members' tasks and priorities
- Set goals, priorities, and due dates
- Set project permissions
- Project and task creation
- Comment on tasks
- Task dependencies
- Gantt Charts (Asana has Timeline)
- Kanban support (Asana has boards)

Wrike

Wrike is a management and collaboration solution that can give you real-time project insights. Created with the aim of making your day-to-day work operations faster and more transparent for your teams, Wrike will work as your business project hub, allowing users to discuss tasks and ideas easily, manage schedules and securely store files in the cloud.

With Wrike, your teams can organize tasks and projects in a single, unified workspace. At any given time, your employees can easily access the uploaded files. Your managers can delegate tasks to employees, participate in group discussions, manage schedules using interactive Gantt charts, all in

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real time. This real-time feature is a crucial part of Wrike, as it aims to provide users the latest updates based on the status of your projects. Wrike's built-in analytics tools on the other hand can give companies a quick visual update of their projects' progress.

When it comes to management tools, the tool offers useful features that are mainly designed for management purposes. Depending on your management style, the tool's wide range of features, such as the time-tracker, is effective in monitoring how the resources of your company are being managed.
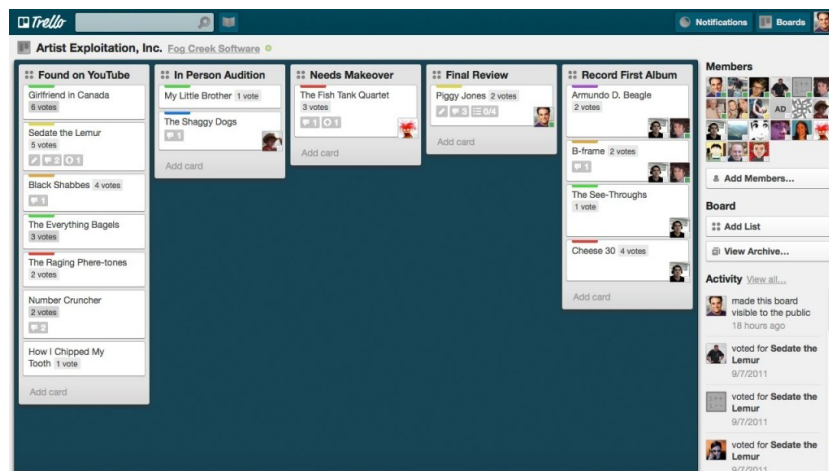

Trello

Trello claims to be another of the important Agile style PM apps and is better than its competitors. It is a uniquely structured and highly visual project management tool. Adopted from a Kanban model, Trello basically runs like a company bulletin board where you can use and pin virtual 3×5 cards. Though it's a relatively simple tool, Trello offers many extra features including customizable permissions, file storage, and automatic email notifications.

Compared with Asana, the tool is more visual-oriented as Trello's projects and tasks are pinned on cards. Other important features include checklists, card aging, the capacity to copy cards or boards, customizable permissions, producing templates for projects or tasks, markdown formatting, interface customization, and unlimited file attachments.

JIRA –
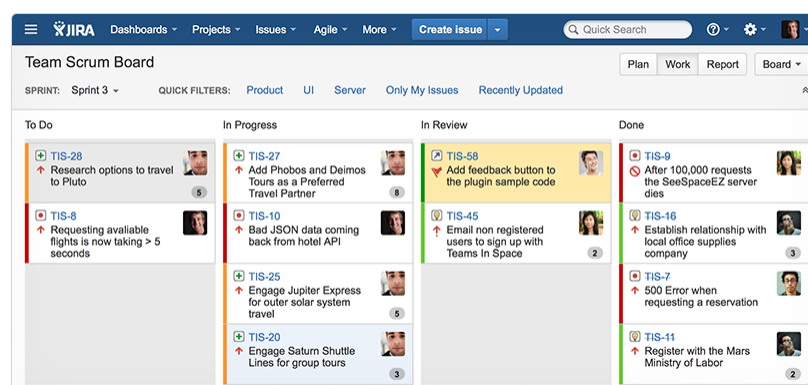
Another competitor to ASANA and WRIKE is JIRA a that fights with Asana for a chunk of the project management software market. This tool was designed to help you capture, assign, and set priorities to your work. It enables you to manage the project development process making sure all things will be covered, from start to launch. JIRA has a simple and intuitive interface that enables better collaboration with your teammates and allows you to effectively get the job done.

JIRA's cloud-hosted version offers the following benefits:

- Instant set-up
- Distributed collaboration
- Bundled add-ons and remote integrations
- Subscription pricing: month-to-month
- JIRA's on-premise version offers the following benefits:
- Perpetual license: one-time purchase
- Extreme customization
- Complete application control
- Add-ons are available from the tool's Atlassian Marketplace

NUTCACHE

A quick glance at Nutcache interface

Nutcache puts efficiency in your project management and collection process, monitoring the whole thing from estimates to you getting paid. The tool's free version can immediately track the time you spent on your projects and quickly generate invoices. Developed by Dynacom Technologies, this project management solution allows you to send invoices and quotes to clients, allowing you to collect payments faster.

Being a good tool for small businesses and even large companies, Nutcache combines project management, time management, collaboration, and invoicing into a neat, single, but very powerful platform. Nutcache provides users with a platform that offers collaborative boards, a useful project dashboard, as well as invoicing and time management tools. In addition, Nutcache comes with a multilingual capacity, making it a good partner for companies that have a global reach and for firms that are based outside the United States.

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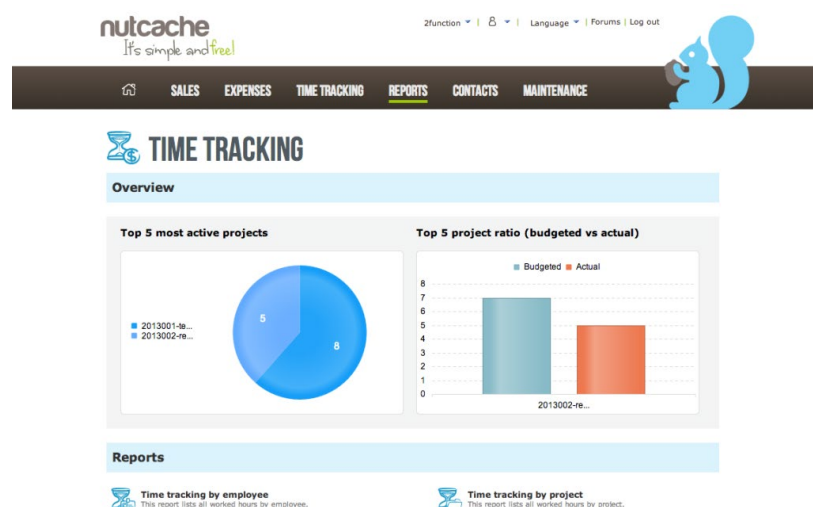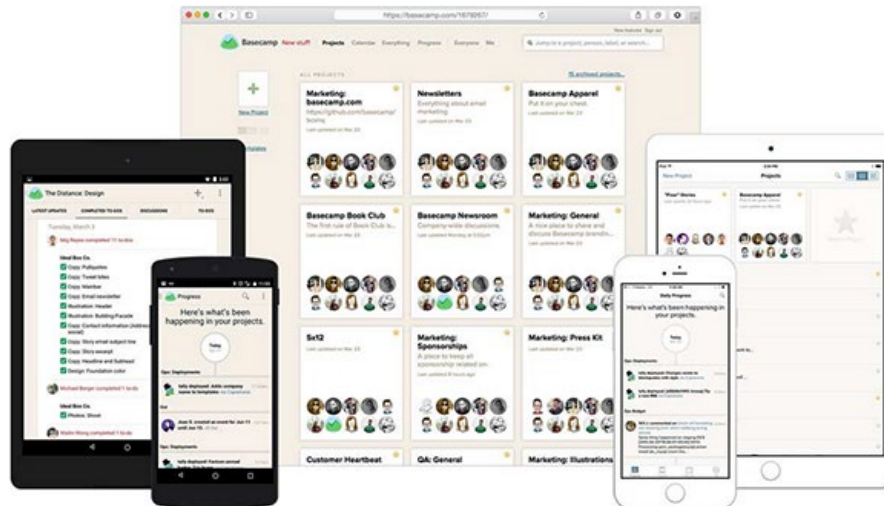
Basecamp

Basecamp is another app that offers a comprehensible solution across various devices

It boasts a phenomenal track record with a lot of popular companies such as Twitter, National Geographic, and Nike. Basecamp web portal has a to-do list and a discussion board, enabling your group members to comment on various tasks, while at the same time serving as a streamlined hub for your file sharing needs that you can quickly integrate with your email.

What's more Basecamp features a user-friendly calendar so you can stay on top of deadlines and monitor progress on your tasks. Basecamp also provides you with the capacity to upload collaborative files as well as customize the site's granular controls to only include relevant information to selected users. You can find more information about this tool in our detailed review of Basecamp.

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