

eBdesk eXpedition™ Workflow
eBdesk Corporate Portal™ version 3
eBdesk eXpander™ Corporate Portal
Introduction

Software Release 3
July 2002



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Preface

Term of Use

- eBdesk eXpedition Workflow is application package including tool (Workflow) which is only free to be used/distributed with eBdesk Corporate Portal

Guide Organization

Introduction consists of :

- Preface – introduces eBdesk eXpedition Workflow
- eBdesk eXpedition Workflow Component – provides concise description about eBdesk eXpedition Workflow component and the function of each features.

Conventions Used in this Developer's Guide

This document uses conventions as below:

Example	Use
Sample of code, name file, etc.	Describe program output, program code, file name, command, configuration file parameter
<code>command line characters are written by you</code>	Describe characters which are written in the <i>command-line</i> . And also to distinguish certain part of program code
<i><change this text with the correct value></i>	Indicate the text that should be changed with the correct value and implemented to <i>command-line</i> syntax, e.g. code, and configuration file parameter
<i>Italic</i>	Write foreign terminology in the public information

Italic

Write foreign terminology in the program code



Warning. The text on the right side of picture have to be noticed



Note. Be sure to read text on the right side of this picture



Tip. Text on the right side of this picture contains tip to help you

[]

Brackets. Enclose optional item in the *command* syntax

< >

Angle Brackets. Enclose a name (usually *italic*) that represents an argument that have to be substituted with value when uses a *command*

{ }

Curly Brackets. Enclose two or more item which you can choose one of its values at a time. Vertical Bar (|) separates the choices (values)

...

Ellipsis. Indicates that you can repeat certain item in the *command-line*

Comment Welcome

Your comments and suggestions are very important for us.

We wish this *Introduction* will be very useful. You can send any comments/suggestions about this *Introduction* by:

- Dropping us an e-mail at expedition@ebdesk.com with a subject eBdesk eXpedition Workflow: Introduction

Introduction

About eBdesk eXpedition Workflow

eBdesk Workflow is a *Workflow Management System* to define, create, and manage workflow execution by using the correct application that can interpret each process definition and interact with workflow participant, tools, and other information technology application.

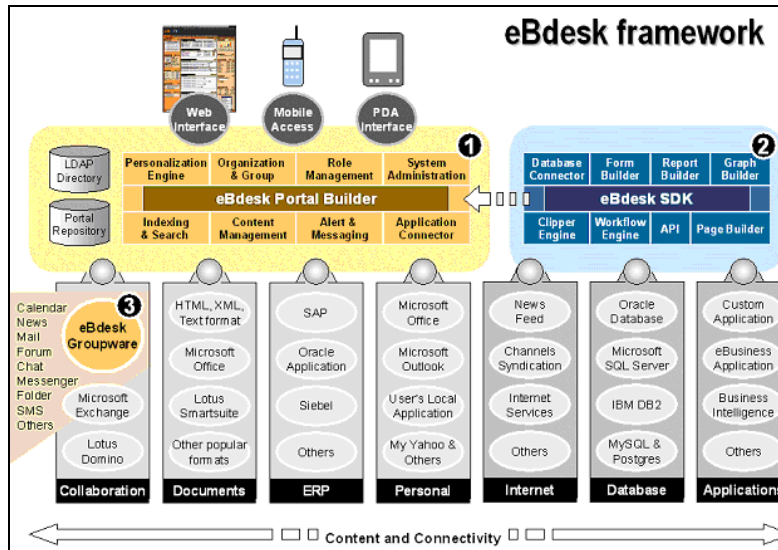
eXpedition is code name used to symbolize dinamism of each process definition that can be expanded and processed by eBdesk Workflow.

Background of eBdesk eXpedition Workflow

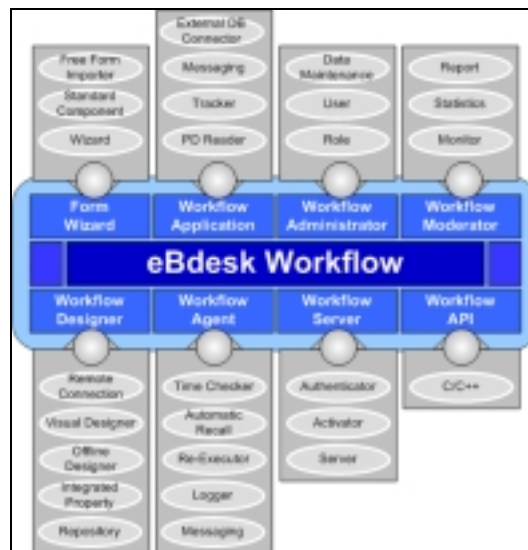
Several factors as background of eBdesk eXpedition Workflow development :

- Modularity is one of eBdesk Portal advantages to enable users develop new independent applications as separate modules
- The demand of developing workflow applications
- The difficulty of using available workflow application although its well enough

Framework



Picture 1. eBdesk Portal Framework



Picture 2. eBdesk eXpedition Workflow Framework

Why Use eBdesk eXpedition Workflow

Several factors support the use of eBdesk eXpedition Workflow :

- Easier and faster development of new application (process definition)
- Developing new application is not limited for eBdesk's developer only, but it also can be done by *third-party*
- Application's customization can be appropriated to developer or *end-user* need
- Enriches eBdesk Portal with various new applications
- Seamless integration with eBdesk Corporate Portal, including *access-right*, color, organization & group

Who Uses eBdesk eXpedition Workflow

The users of eBdesk eXpedition Workflow are eBdesk developers, *third-party developers*, or customers who want to develop new application (definition process) with certain or complex *business rule* and runs in eBdesk Portal.

- eBdesk developers are developers of eBdesk Limited
- *Third-party developers* are channel-partners or software vendors
- Customers are eBdesk Portal users who want to develop new application (process definition) for their business

Who should use this documentation

This documentation is overview of eBdesk eXpedition Workflow and is designed to help everyone understand the features, components of eBdesk eXpedition Workflow in order to create or define new process definition for their business

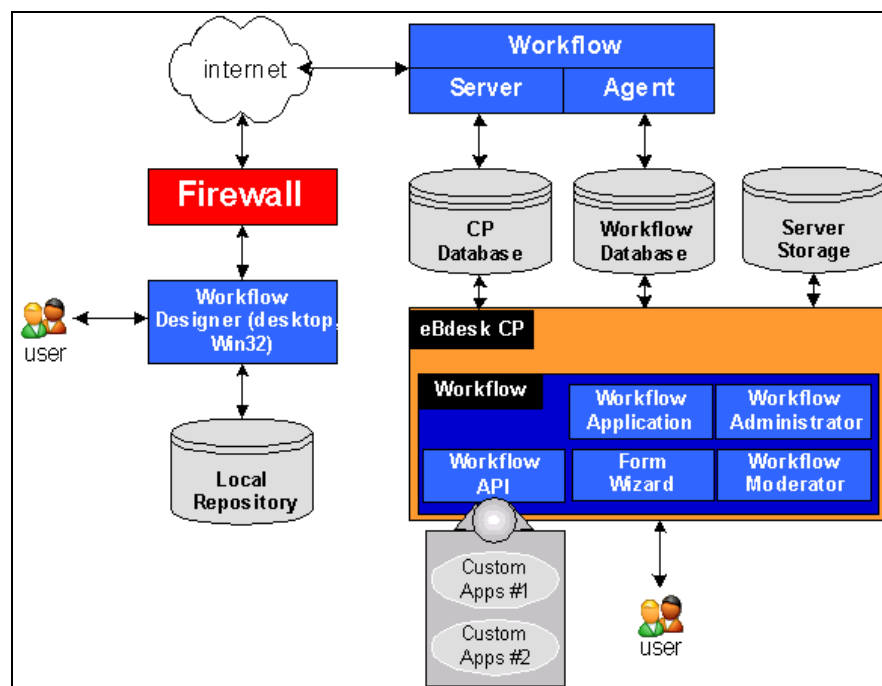
eBdesk eXpedition Workflow Components

Overview

This chapter provides concise explanation about eBdesk eXpedition Workflow components including its features.

Architecture

Below is architecture of eBdesk eXpedition Workflow:



Picture 3. eBdesk eXpedition Workflow Architecture

Architecture above explains each components of eBdesk eXpedition Workflow.

Components

eBdesk eXpedition Workflow consists of two components, *non web-based application* and *web-based application*.

Below are the *non web-based applications* of the eBdesk eXpedition Workflow components:

- ☐ **Workflow Designer** is Win32 *desktop application*. This application consists of *process (flow) designer*, *role manager*, and *Process Definition Exporter/Importer*.
- ☐ **Workflow Server Application**. The main application to handle *request* from Workflow Designer.
- ☐ **Workflow Agent** is the *background application* to check duration (*overdue*) and send automatic notification for occurred event. For example, when a transaction is *overdue*, then the system will send notification via mail and/or SMS to the related person. This application also uses to check stop/pause condition of certain transaction.

The *web-based application*:

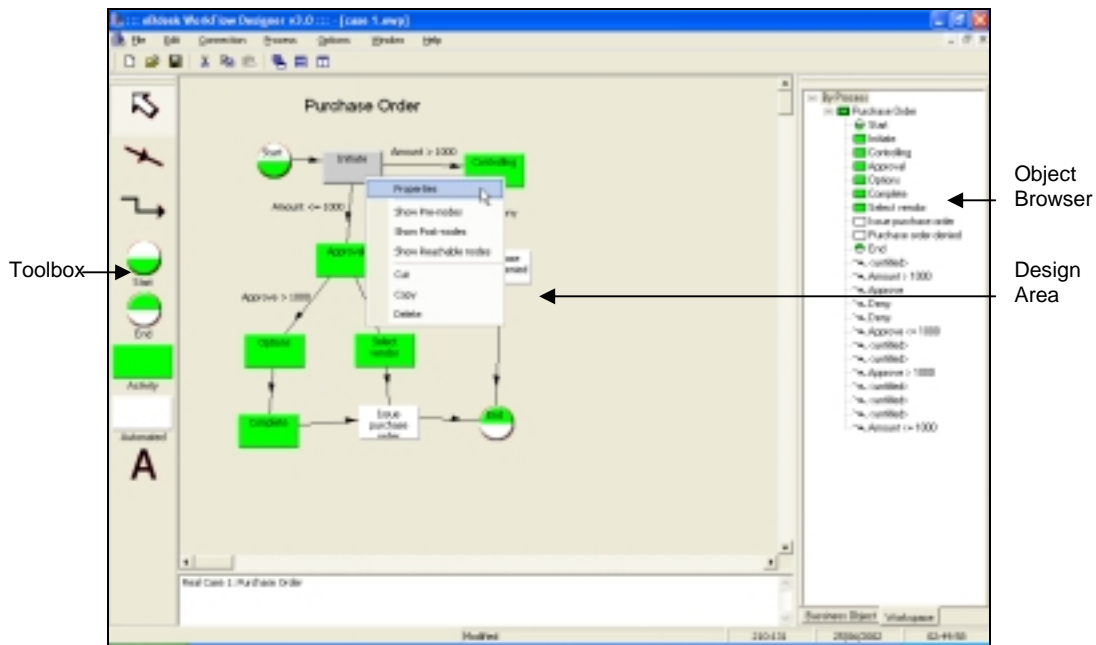
- ☐ **Form Wizard**. User can define or design new form by using this application.
- ☐ **Workflow Application** is *entry point* application for each defined process. With this application, user can initiates a transaction from certain process definition, doing *approval*, and monitor transaction that have been done.
- ☐ **Workflow Administrator**. This application uses to assign access right for each user to have connection activities privilege between eBdesk Workflow Designer with eBdesk Workflow Server such as download/upload process definition. There also provided management role tool (*group*) which is used in eBdesk Workflow.
- ☐ **Workflow Moderator** is used to monitor all transactions and create report and graph for those transactions. Each reports included with *measurement* of each transaction such as status, postpone time, execution time, and total used time.

Feature List

Below are feature list of each components.

Workflow Designer

This application used to define new process, edit available process definition, delete and activate finished process definition. Before doing new transaction, user will get authentication process when they connect to server. The user name used to process authentication maybe have the different access right for each other such as, user can create/edit process, download/upload process definition, or doing activation. You can manage this setting from Workflow Administrator in eBdesk Corporate Portal.



Picture 4. eBdesk eXpedition Workflow Designer
(WIN32 desktop application)

- **Graphical Workflow Design.** Completed with *drag & drop* to facilitate and speed up designing a process.

- **Standard Objects.** The used objects are *start*, *end*, *activity*, *automated-activity*, and *route*.
- **Large Design Area.** *Design area* measures 10.000px X 10.000px
- **Integrated Property.** By using an interface, user can set properties of process and activities.
- **Object Browser** is a *window* contains all created objects to help and speed up the accessing or define object location.
- **(Un)docked Bar.** Each field/area locate the on separated bar such as *toolbar*, *menubar*, *toolbox*, or *object browser*, and it is *dockable*
- **Skins Manager.** User can change and edit *shape/theme* as well as create new *theme* to describe objects which is used in Workflow Designer.
- **Proxy/Firewall Support.** This application can be used to create connection to server although on the behind of *proxy/firewall*.
- **Local Repository** is repository facility in *local storage* contains information about process definition, user, organization, role, and form. That information's are taken from workflow server and can be *updated/synchronized* to get the latest data.
- **Offline Design.** Design process can be done when you *offline*. It means you don't have to connect to server continually, provided the data of form, user, role, organization, etc. have been saved on the *Local Repository*.
- **Authentication Support.** Before doing transaction, user should login to workflow server by entering user name (id), password, and proxy information if needed. User have a certain access right toward transaction facilities in Workflow Designer, such as user can create new process or not, download/upload a process, doing activation, or delete certain process definition.
- **Transaction Report.** The result of transaction will be displayed as information whether transaction is success or fail including any additional information.
- **Authorized User only.** Almost all activities between Designer and Server were bases on user's access-rights, managed by eXpedition Administrator.

Workflow Server Application

This application locate on workflow server and responsible to handle *request* from Workflow Designer.

Workflow Agent

Workflow agent is *background application*. Below are the functions:

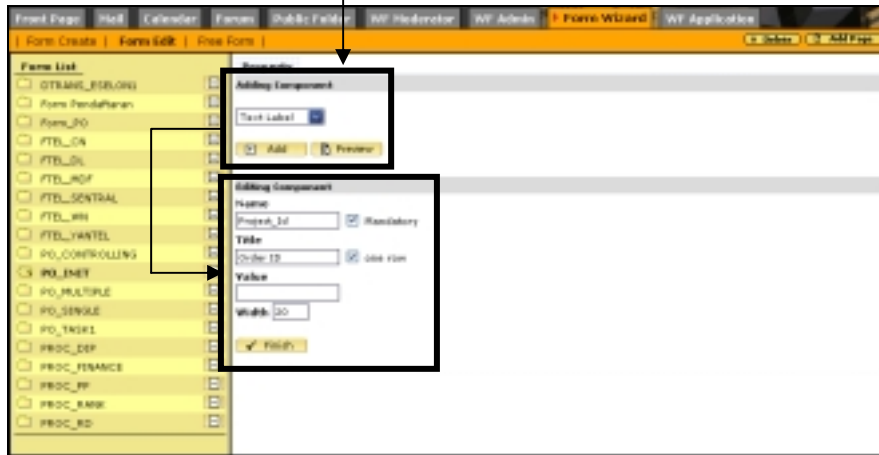
- **Time Limit Checking.** Check the *overdue* of transaction based on time which is defined when design and doing defined action like send notification.
- **Automatic Messaging.** Send notification via e-mail and/or SMS to the related person if one event occurred, such as *overdue*
- **Automatic Delegation Recall.** Take off the delegation right for each defined delegation that has the time range.
- **Database Transaction Re-Execution.** Execute transaction (operation) to *external database* that failed doing by Workflow Application.
- **Transaction Logger.** Check the stop/pause condition of each transaction for the next process.

Form Wizard

This application used to design and define form used by certain process definition. The available form can be used by more than one process definition because connection to external database defined when process definition created using Workflow Designer.

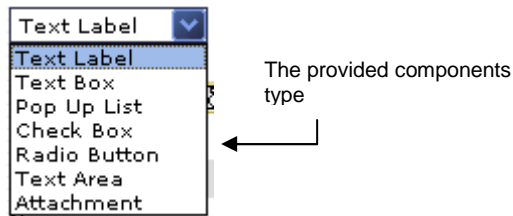
- **Wizard Approach.** Design process done by using *wizard* Approach.

The adding component done by choosing component type and property



Picture 5. Wizard approach

- **Standard HTML Form Components.** Support almost all type standard HTML components such as; text box, combo box/list box, check box, hidden field, radio button, and attachment.



Picture 6. List of standard component form HTML

- **Free-Form Importer.** To facilitate designing form interface. This application provides facility to *import* form including its format so

designing can use your preferred *tools* such as EditPlus, vi, Macromedia DreamWeaver, Microsoft FrontPage, etc.

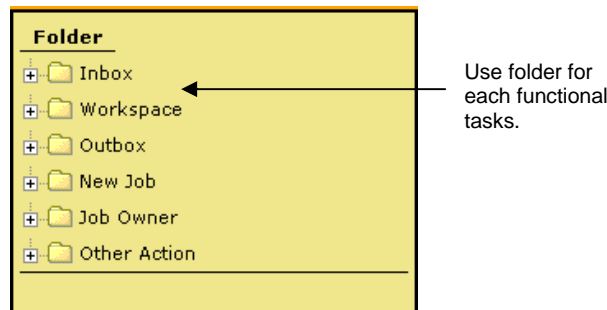
Workflow Application

- **Welcome Page.** This page contains information about new transaction/job in Inbox as well as amount of job for each process.



Picture 7. *Welcome Page*

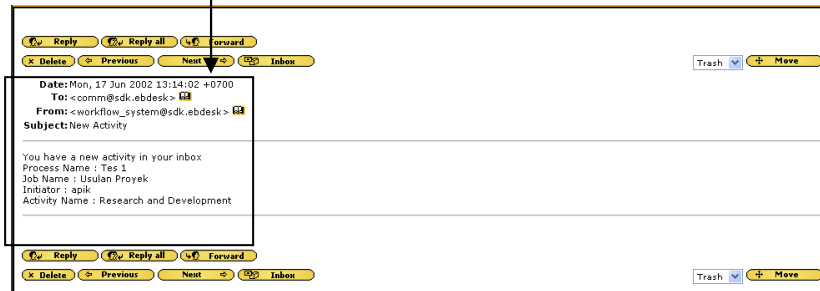
- **Folder Approach.** Uses folder approach that consists of **Inbox**, **Workspace**, **Outbox**, **New Job**, **Job Owner**, and **Other Action**. Each folder has certain function, e.g. Inbox transactions - called job for the related user. Inbox maybe will be different for each user because it depends on their access right given when process definition created.



Picture 8. Folder approach

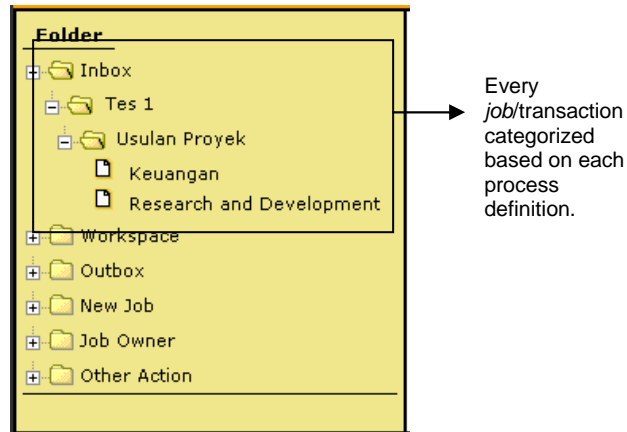
- **Automatic Messaging.** Automatic notification via e-mail and/or SMS will be sent if one event occurred, e.g. job enter Inbox.

Automatic notification via e-mail



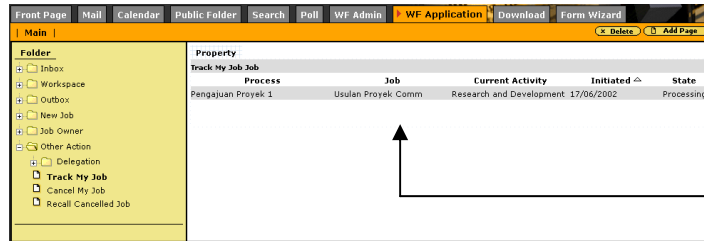
Picture 9. Automatic notification via e-mail

- **Categorized Transaction.** Every transaction/job categorized based on process and activity.



Picture 10. Categorization of *job*/transaction

- **Transaction Tracking.** Every initiator can monitor their transaction.



List of initiated *job* including its status

Picture 11. Tracking transaction

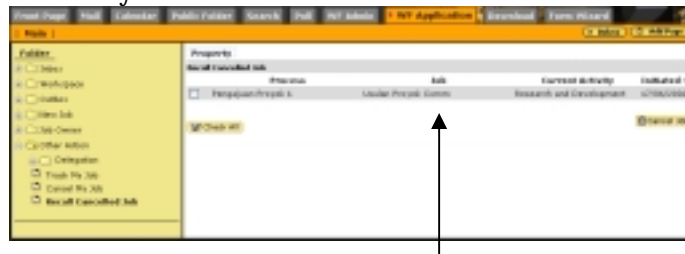
- Cancel Transaction.** Every initiator can send *request* to cancel their transaction. This *Request* must be approved first by *Job Owner* before transaction is canceled. After initiator sending *request*, transaction will be *suspended* and will be unavailable in Inbox.



Every in progress *job* can be canceled

Picture 12. Request to cancel *job*/transaction

- Recall Transaction.** As long as *request* to cancel transaction has not been approved yet, initiator can cancel the canceling transaction by *recall* transaction.



List of requested *job* to be canceled including its latest status

Picture 13. Request to cancel canceled *job*/transaction

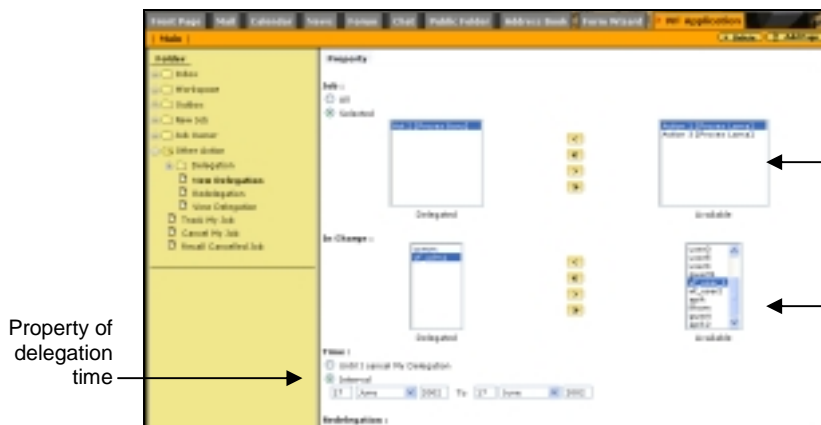
- **Approve Cancel Request.** Every *Job Owner* have the authority to approve canceling transaction *request*, and then transaction will be canceled and delete from their transaction lane. The information about this transaction will be saved for the next necessity, example audit.



List of requested job/transaction to be canceled

Picture 14. Approval request of canceling *job*/transaction

- **Delegation Support.** Every user can delegate their authority to other users appropriate with process *role*



List of activity to be assigned to other user

List user, organization, & role

Property of delegation time

Picture 15. Delegating authority

- **Parallel Processing.** Do parallel process for split transaction.
- **Mandatory-Field Checking.** Checking the *mandatory-field* form, filled or not.

- **Real-Time Processing.** Every transaction were processes directly.
- **Support Printer-Friendly Form.** Every form in any activities can be printed using its printer-friendly formatted form.
- **Support Various DBMS.** This application can access various well-known DBMS such as MySQL, PostgreSQL, MS SQL, Interbase, Oracle, and ODBC.

Workflow Administrator

This application used to manage user access right each to the available process definition, e.g. create new process definition, download/upload from/to server, doing activities, delete process definition using Workflow Designer, manage user access right to access data transaction that can be viewed use Workflow Moderator. This application also has function as role manager so user can create, edit, or delete role. To complete the function as data manager, this application completed with Data Maintainer to delete transaction for each process definition.

- **Workflow User's Manager.** To set user access right to workflow system.
- **Role Manager.** To manage role used by Workflow Designer as input data in designing process definition especially *ownership*.
- **Data Maintainer.** To complete maintenance function and the *data maintenance* provided to complete that function.

Workflow Moderator

This application consists of 3 sections; Monitoring, Statistics, and Report. Each section completed with graph that can be customized their type such as bar (3D), line (3D), area (3D), or pie (3D).

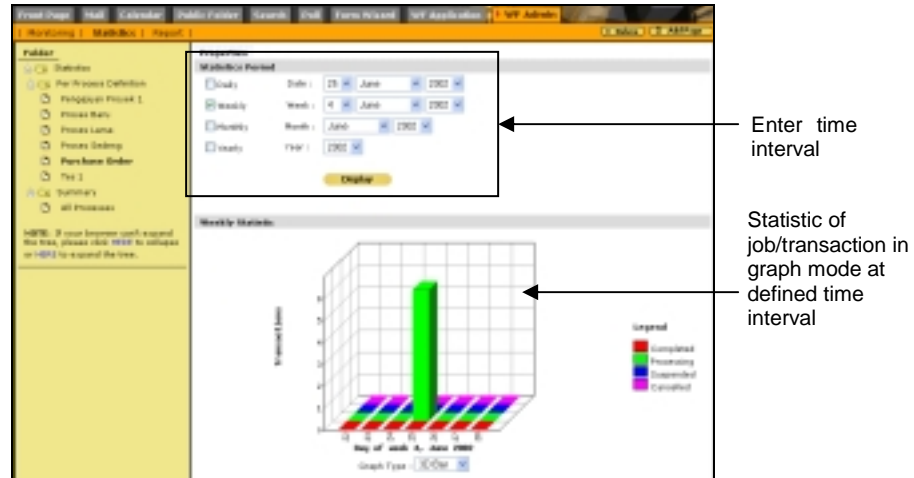
- **Monitoring.** User can view the transaction for each or process by opening this application. Below are information's which is displayed on this page:
 - **Completed transaction.** Processing time, *initiator*, initiation date, and *completed* date.
 - **Processing transaction.** The latest activity, *initiator*, *initiation* date, and the latest status.

- **Suspended transaction.** Transaction has this category if *initiator* requests *to cancel* their transaction or based on system request for maintenance reason.
- **Cancelled transaction.** The canceled transactions by *initiator*.
- **Summary.** Contains information summary about *completed, processing suspended, and cancelled transaction* completed with graph.



Picture 16. Monitoring *job/transaction* traffic

- **Statistics.** User can view statistic of transaction for each/all process in graph form about *completed, processing suspended and cancelled transaction* completed with time range and timing type such as; *daily, weekly, monthly, or yearly*.



Picture 17. Statistic of *job/transaction*

- **Report.** User can define setting and format report contains process name, time range, or graph type to be used.

eBdesk Workflow Report

Based on : Process Definition
Category : Per Process Definition
Interval : June 2002 to June 2002
Group by : Hour

Date : 25/08/2002 22:37
User : comm

Process : Purchase Order

No.	Date	Transaction	Initiated		Completed		Processing		Suspended		Cancelled	
			Time	By	Date	Duration	Activity	State	Date	By	Date	By
25 June 2002												
1.	Hour 15	My 1st Order	15:12	comm			Approval	Claimed				
2.	Hour 15	My 1st Order	15:12	comm			Approval	Claimed				
3.	Hour 17	My 2nd Order	17:41	comm			Approval	Available to proceed				
4.	Hour 17	My 3rd Order	17:45	comm			Approval	Available to proceed				
5.	Hour 18	Initiate	18:35	ses			Approval	Available to proceed				
6.	Hour 21	Initiate Led	21:42	ses			Approval	Available to proceed				
7.	Hour 21	Initiate Led	21:45	ses			Approval	Available to proceed				
Total					0		7		0		0	

Job/transaction report

Picture 18. Job/transaction report



Glossary



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