

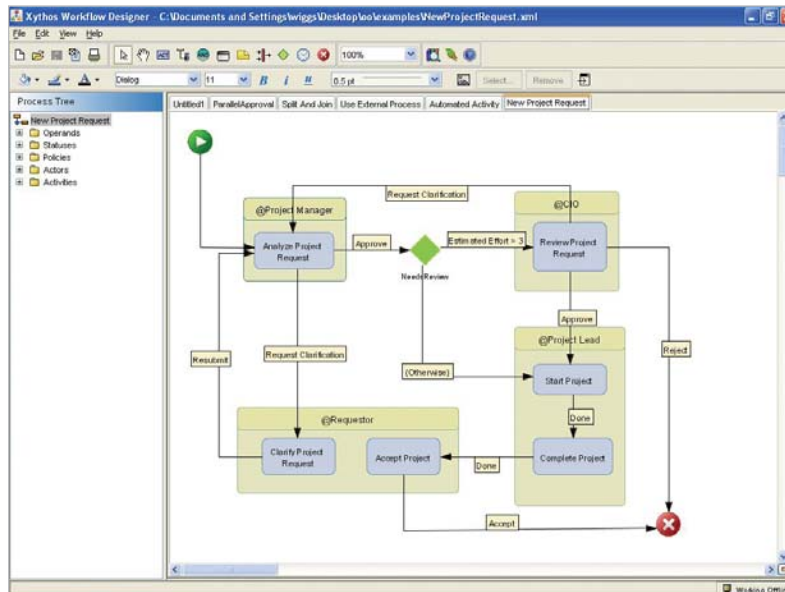
## Developer Studio

Xythos Developer Studio includes everything a developer needs to create or customize a Xythos document management installation. It provides a developer, test and backup instance license for the Xythos WebFile Server, Xythos Drive and Xythos Scan Client.

### The Developer studio includes:

#### Xythos Workflow Designer

The Xythos Workflow Designer provides a graphical design environment that allows users to easily create basic workflows, such as expense report or vacation request approvals. Organizations can either graphically design business rules or develop them with the WebFile Server APIs and import the resulting workflow into the Xythos Enterprise Document Manager or the Xythos WebFile Server.



Xythos Workflow Designer provides a graphical design environment for developers to create custom workflows

The Workflow Designer gives developers the power, speed and flexibility to streamline their development activities, reuse process components, or even modify processes on the fly in response to changing business needs.

*“Xythos is simply the best web-based file management system out there.”*

**Daniel Cane,**  
SVP of Research  
and Development,  
Blackboard

### Benefits

- Accelerate application and project development
- Reduce development time for integrating basic library services
- Reduce development time for basic library services
- Leverage existing technologies with Xythos' open standards-based platform



## Developer Studio

*“Taken to an extreme, WebDAV enables the replacement of traditional document management systems – Xythos' WebFile Server uses this approach.”*

Application Development Times

Workflow Designer is capable of:

- Modeling any business process, including group assignments, parallel tasks and complex conditionals;
- Supporting users and roles with the ability to tie into standard directory services such as LDAP;
- Controlling deployment changes by allowing XML process templates to be cloned into run-time instances; and
- Allowing activities to include sub-processes, calling other applications or other processes activated by internal state changes or external events.

### WebFile Server APIs

The APIs, included in the Developer Studio, include full Java documentation and allow custom applications to extend the functionality of the Xythos WebFile Server. An application built on WebFile Server may be as simple as a nightly trashcan clean up, or as advanced as a completely customized graphical user interface of the WebFile Server.

AccessControlTemplateEntryComparator (Xythos WFS 5.0.10.1 API)

Overview Package **Class Tree** Deprecated Index Help

FRAMES NO FRAMES All Classes  
DETAIL: FIELD | CONSTR | METHOD

com.xythos.common.comparators.api

### Class AccessControlTemplateEntryComparator

java.lang.Object  
└ com.xythos.common.comparators.AbstractComparator  
└ com.xythos.common.comparators.api.AccessControlTemplateEntryComparator

**All Implemented Interfaces:**  
java.util.Comparator

**public class AccessControlTemplateEntryComparator**  
extends com.xythos.common.comparators.AbstractComparator

Provided for use with java.util.Arrays.sort() to provide a sorting mechanism for AccessControlEntries.

This class puts AccessControlTemplateEntries in an order which is useful to display. The order is returned from Arrays.sort is Owner acl first (if present), then Authenticated (if present), the Public acl next (if present) and the remainder sorted alphabetically by their Principal's DisplayName.

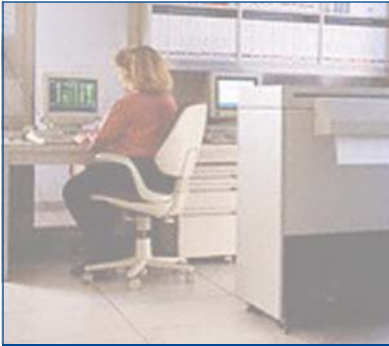
A simple example of using a AccessControlTemplateEntryComparator to sort an array of AccessControlEntries:

```
public AccessControlTemplateEntry[] sortAccessControlTemplateEntries(AccessControlTemplateEntry[] p_aces, String p_languageCode){
    Arrays.sort(p_aces, new AccessControlTemplateEntryComparator(p_languageCode));
    return p_aces;
}
```

*The Xythos WebFile Server APIs allow developers to integrate a standard set of library services*

The APIs offer an unparalleled level of flexibility with its simple, yet powerful set of interfaces and objects. Among other things, the API allows developers to:

- Monitor events occurring anywhere on the system
- Replace the standard encryption routine with a custom algorithm
- Control permissions
- Implement custom security/permissions models
- Perform actions on resources, with or without permission checks
- Create, name, set and delete properties
- Lock directory quotas so they can't be changed by users
- Implement custom logic before or after WebDAV requests are handled
- Incorporate a full-text search engine to search document contents
- Create custom logging classes



## Developer Studio

## System Requirements

### Servers

Any platform supporting J2SE or J2EE including: Windows NT®, 2000, 2003, Linux, Solaris®, IBM AIX®, HP/UX® and Mac OS X®

### Web/Application Servers

Apache Web Server, Microsoft IIS®, BEA Weblogic®, IBM WebSphere® and Tomcat

### Client Systems

HTTP-enabled devices, including those running Windows®, Mac OS® and Linux

### Database

IBM DB2®, Oracle®, Microsoft SQL Server®, PostgreSQL

**For more information  
please call 1.888.4XYTHOS  
or visit [www.xythos.com](http://www.xythos.com)**

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Developers and OEMs can also customize the Xythos WebFile Server core to bring power and intelligence to their own services and offerings.

## Benefits

- **Easily Build New Applications on the Xythos Platform:** Developers have complete access to modify all features within the Xythos system, including: the web user interface, workflow processes, security models, and all document management functions. As a result, developers can easily build new applications, leveraging the collaborative features of the Xythos WebFile Server.
- **Reduce Development Time:** Developer Studio provides extensive sample code, a complete Developer's Guide, and a documented API to accelerate development projects designed for Xythos systems. Common Java development tools can also be used to help reduce training requirements.
- **Leverage Existing Technologies:** Because of the WebFile Server's standards-based architecture, programming through the WebFile Server APIs and the Workflow Designer can be done in Linux, Unix and Windows environments, allowing developers to work within their development environment of choice.

## Xythos Partner Product Integration Examples

### Blackboard

Blackboard is the leading provider of software and services to the education industry. The Blackboard Content System supports the collaborative processes associated with Learning Content Management, e-Portfolio Management, Virtual Hard Drive Management, and Library Digital Asset Management. Xythos WebFile Server has been integrated with the Blackboard Content System to enable students, faculty and researchers to access, store and manage content associated with these processes.

### SAS

SAS is a market leader in providing a new generation of business intelligence software and services. SAS used Xythos WebFile Server APIs to integrate document management and collaboration features within a variety of its enterprise applications. One example is the SAS Drug Development (SDD) application used by life science companies to support the process of developing new pharmaceutical products. SDD uses WebFile Server to manage and share files and documents between researchers, managers and regulators. Using WebFile Server, SAS provides a collaborative environment for document preparation, review and certification to support financial reporting requirements.