

General principles and architecture of Adlib and Adlib API

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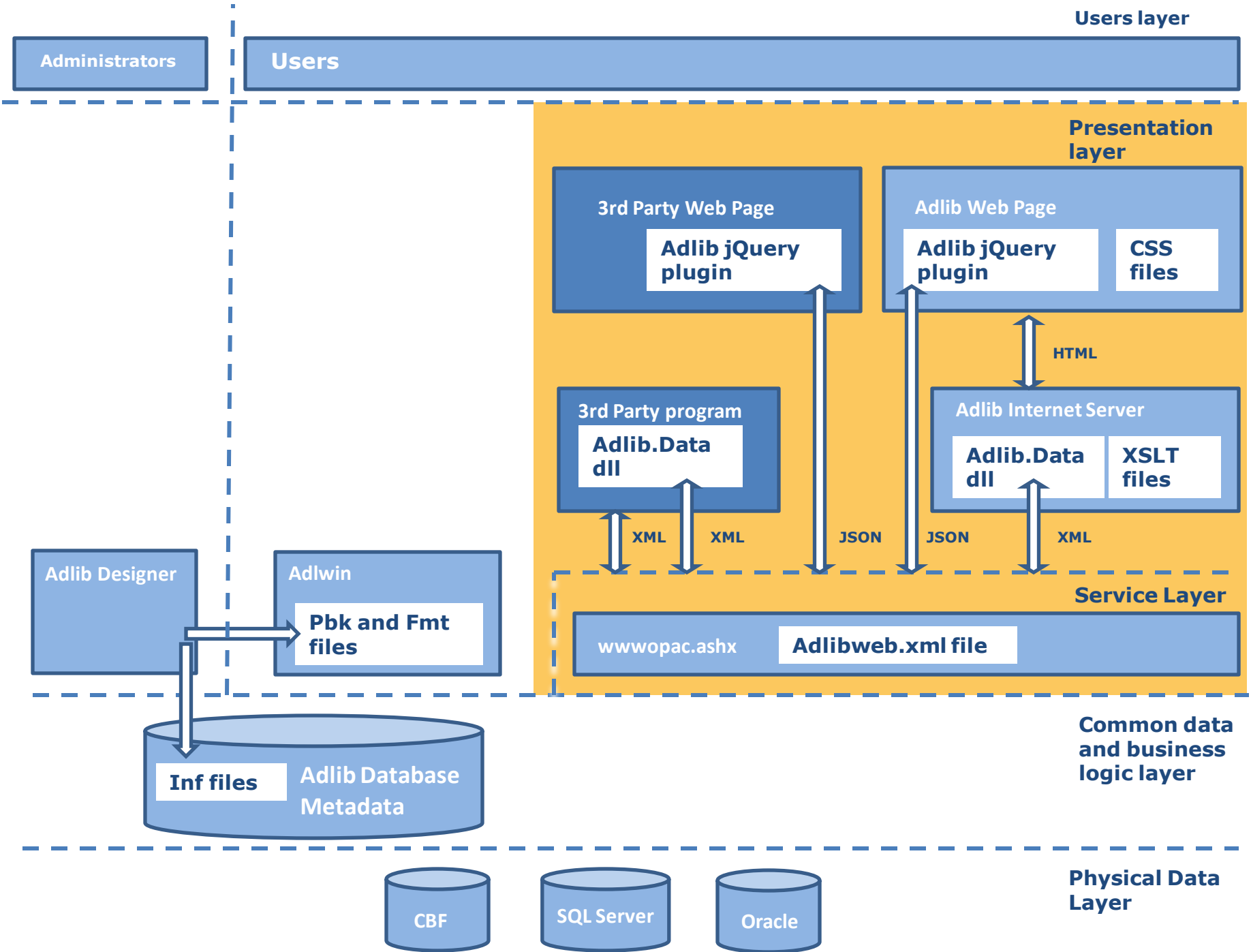
Adlib

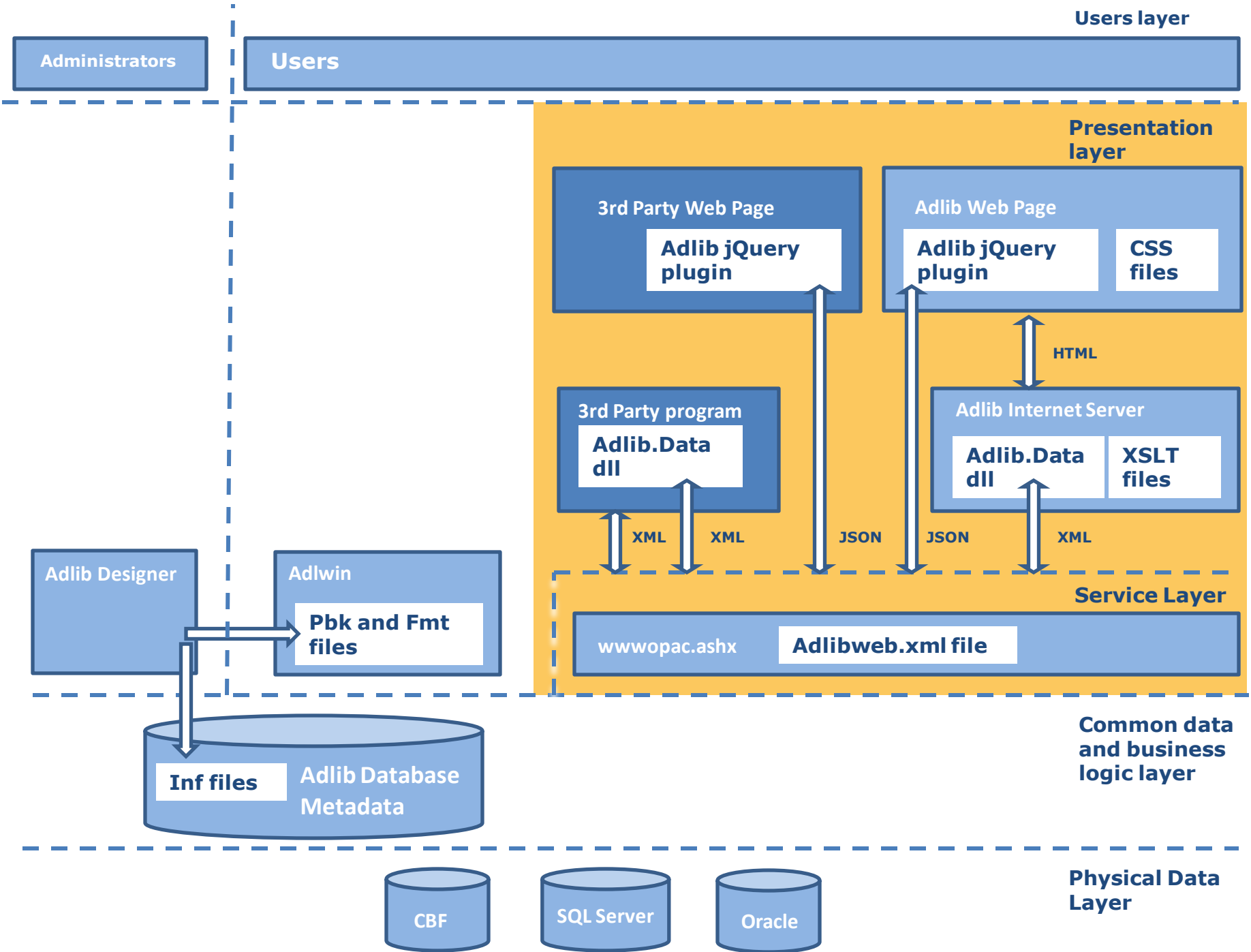
- Database management program, mainly for libraries, museums and archives
- 1600 customers in app. 30 countries
- Multi lingual (user interface and data)
- Adaptable (using Adlib Designer)
- Different 'sizes': from 'lite' (free version) to 'Adlib Enterprise' (multiple site installation)

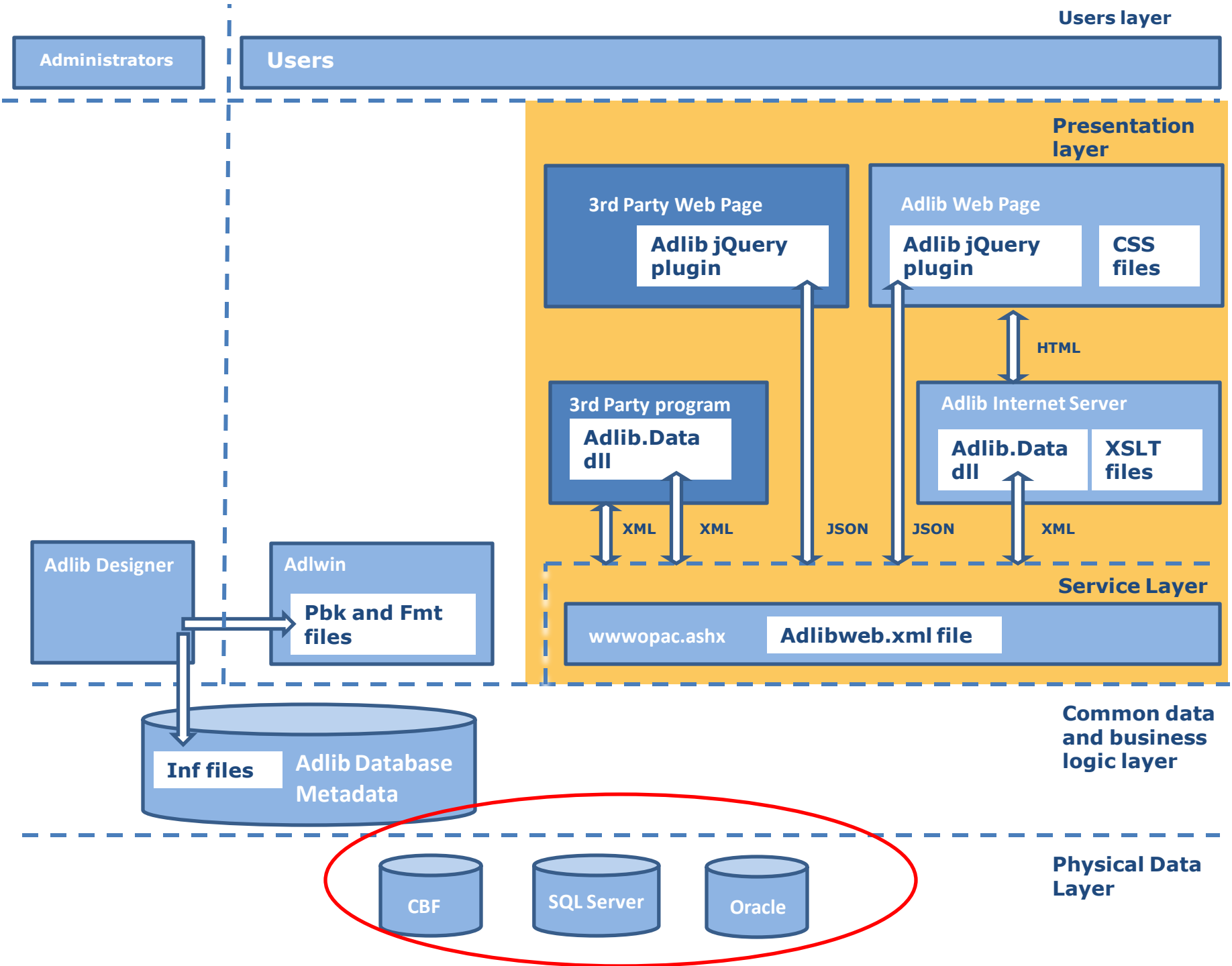


Adlib API

- Adlib is a back office solution for information storage and retrieval
- Customers often have specific requirements for the presentation of information
- Exporting data from Adlib and importing it in a CMS is not a good solution
- The Adlib API enables third parties to build a customised user interface directly on the Adlib data









Physical Data Layer (1)

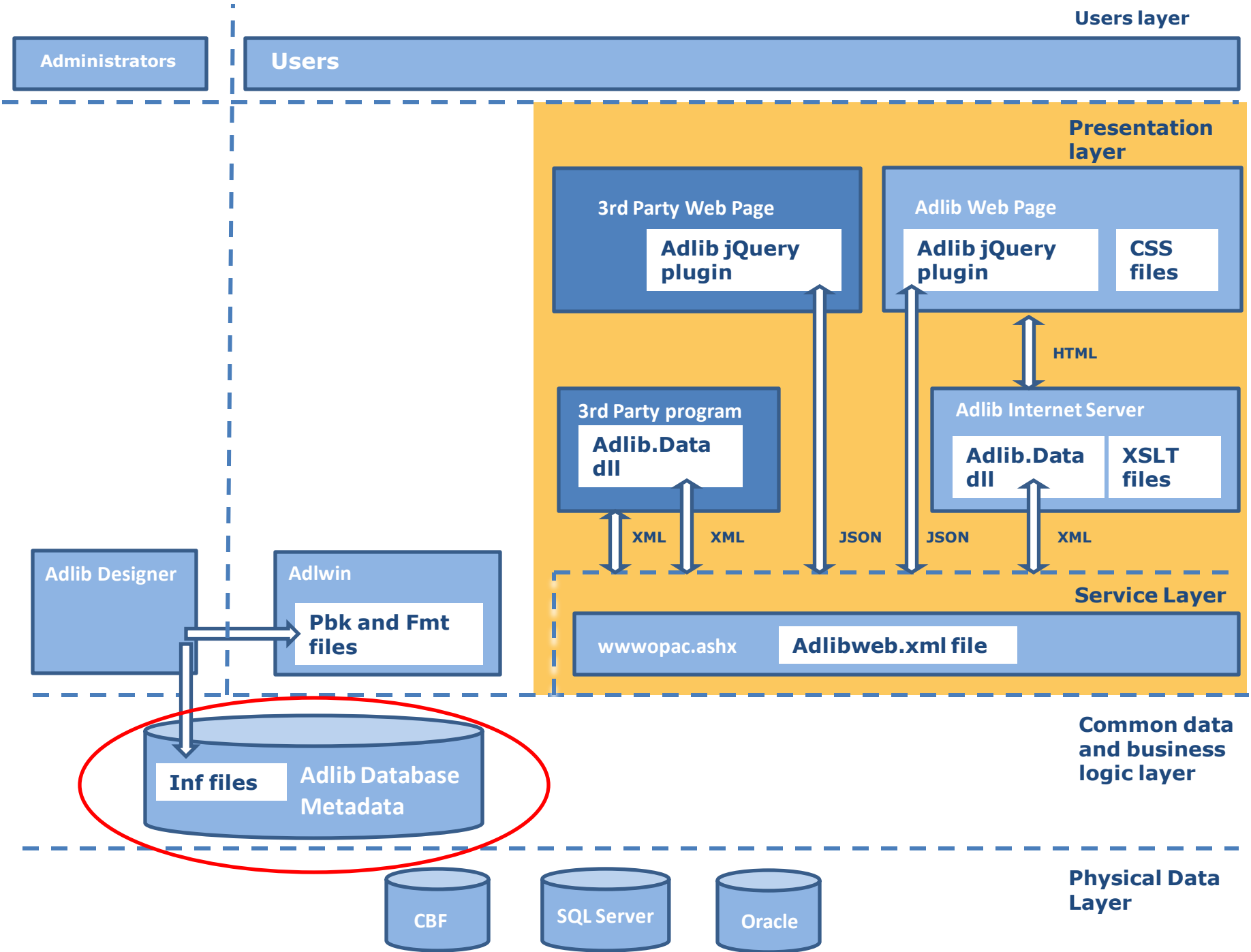
Adlib databases come in three 'flavours'

- Cbf: 'original', Adlib propriety database, B-tree format
- SQL (SQL server 2005 or 2008)
- Oracle (10G)



Physical Data Layer (2)

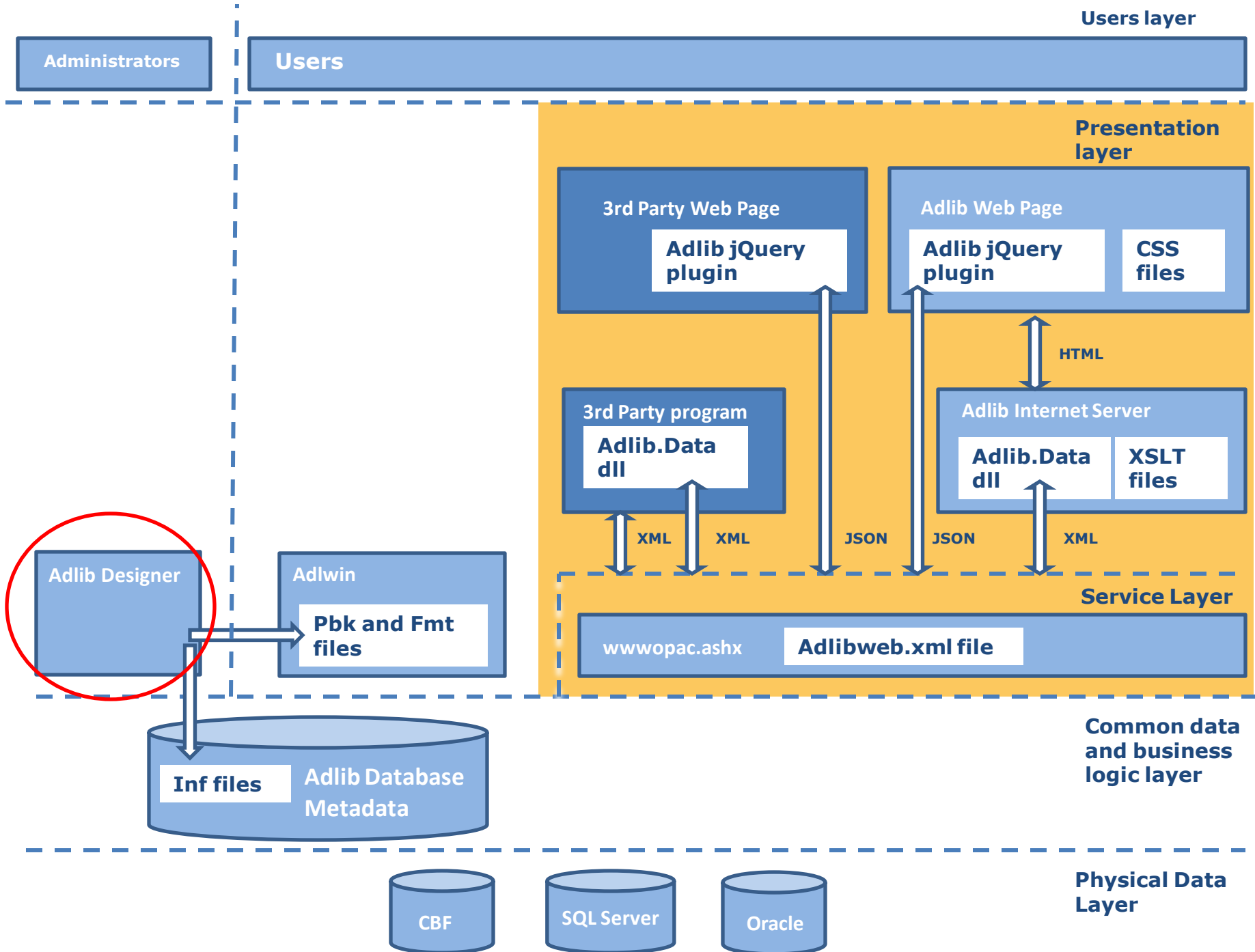
- SQL and Oracle make additional functions possible, such as multilingual data storage
- Use of SQL statements (applied by Adlib software) make queries faster and makes join possible to link information from different tables
- The Adlib API only works with SQL and Oracle, not CBF.





Common data and business logic layer

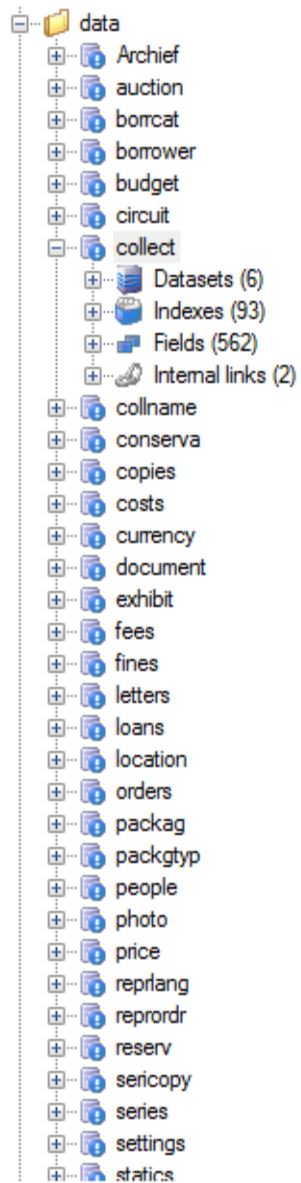
- Adlib meta data is stored in 'inf-files'
- One file per database, located in 'data' folder
- File contains database definition, data dictionary, link information, etc.
- Inf-files are maintained with Adlib Designer



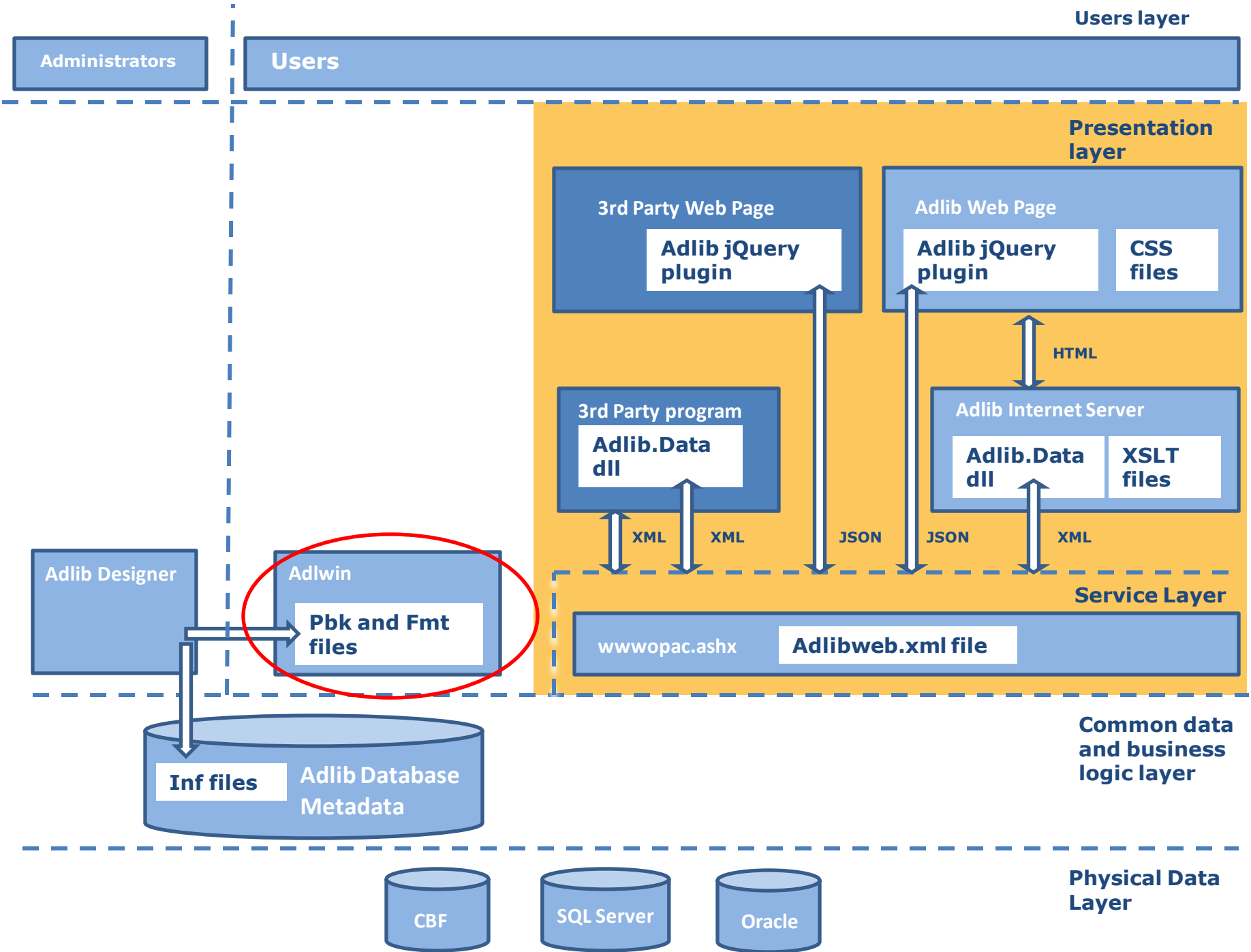


Adlib Designer

- Adlib's 'all purpose' tool for database and application definition
- The user interface of Adlwin can also be built and modified in Adlib Designer



General	
Database name	collect
Path	C:\project\digipolis\applic.2010.04\ADLIBSQL\data\COLLECT.inf
Encoding	Unicode (UTF8)
Authorisation and security	
Authorisation type	None
Authorization field	<input type="text"/> ...
Authorization rights tag	<input type="text"/> ...
Default access rights	Full
Record owner tag	<input type="text"/> ...
Encryption	None
Record size	
Minimum record size	4096
Index parameters	
Locale	ANSI (ISO-Latin)
Left truncation	<input checked="" type="checkbox"/>
Include in full text index	<input type="checkbox"/>
Logging	
Logging file	\\sfs1\cs\afdelingen\mbe\CollectieRegistratie\Adlib Applicaties_logfiles\Adlib SQL.log
Data storage	
Storage type	Microsoft SQL server
Data Source Name	adlmusea
Server	sql1.p.adlib.local\msse





Adlwin

- Offers a Windows interface to the Adlib databases.
- Different applications, e.g. Adlib Library, Adlib Museum, Adlib Archive, Adlib Archive, Adlib Xplus.
- Besides inf-files for database metadata, also uses pbk- and fmt-files.



Adlwin: pbk and fmt files

- User menu's: .PBK
Contains application setup such as data sources, which indexes (access points), screen templates, output formats.
- Screen templates: .FMT
Contains which fields are available for the user, lay-out, style elements such as colour, fonts, boxes.



Search wizard - Step 1 of 4

Select database:

- Objects
 - Internal object catalogue
 - External object catalogue
 - Archives (accessions)
 - Archives (catalogue)
- Library catalogue
 - Books
 - Audio-visual materials
 - Articles
 - Serials
 - Loose-leafs

Description
Select the database you want to use

< Back Next > Cancel Help



- Acquisition
- Disposal
- Usage
- Object history
- Ownership
- Location
- Future movements
- Location history
- Field collection
- Exhibitions
- Research/use
- Loans
- Entry
- Despatch
- Identification
- Production
- Dating
- Physical characteristics
- Iconography
- Inscriptions
- Markings
- Associations
- Numbers
- Relationships
- Documentation
- Documentation (free)
- Reproduction

Identification

Institution name [The Fitzwilliam Museum](#)

Institution code

Administration name PDP

Collection

Object number **1131** Rec. type [single object](#)

Part Tot. number

Copy number Edition

Distinguishing features:

Current location

Object name

Object category [painting](#)

Object name Type

Notes

Other name Type

Title and description

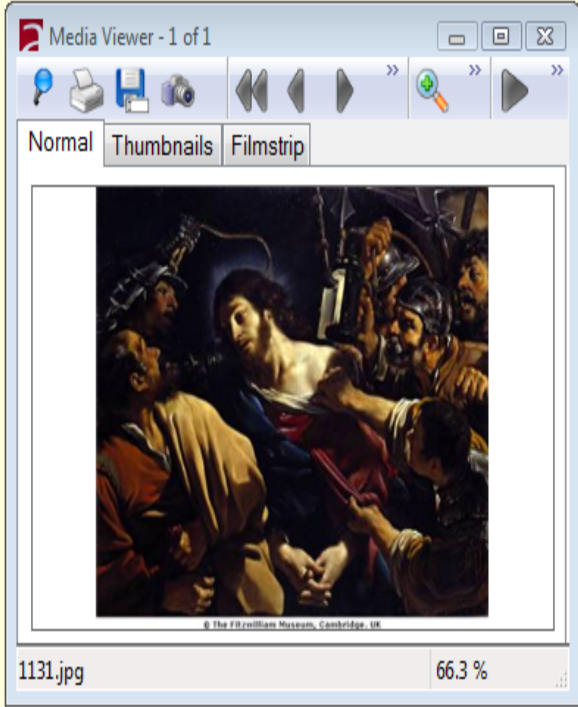
Title [The Betrayal of Christ](#) Type

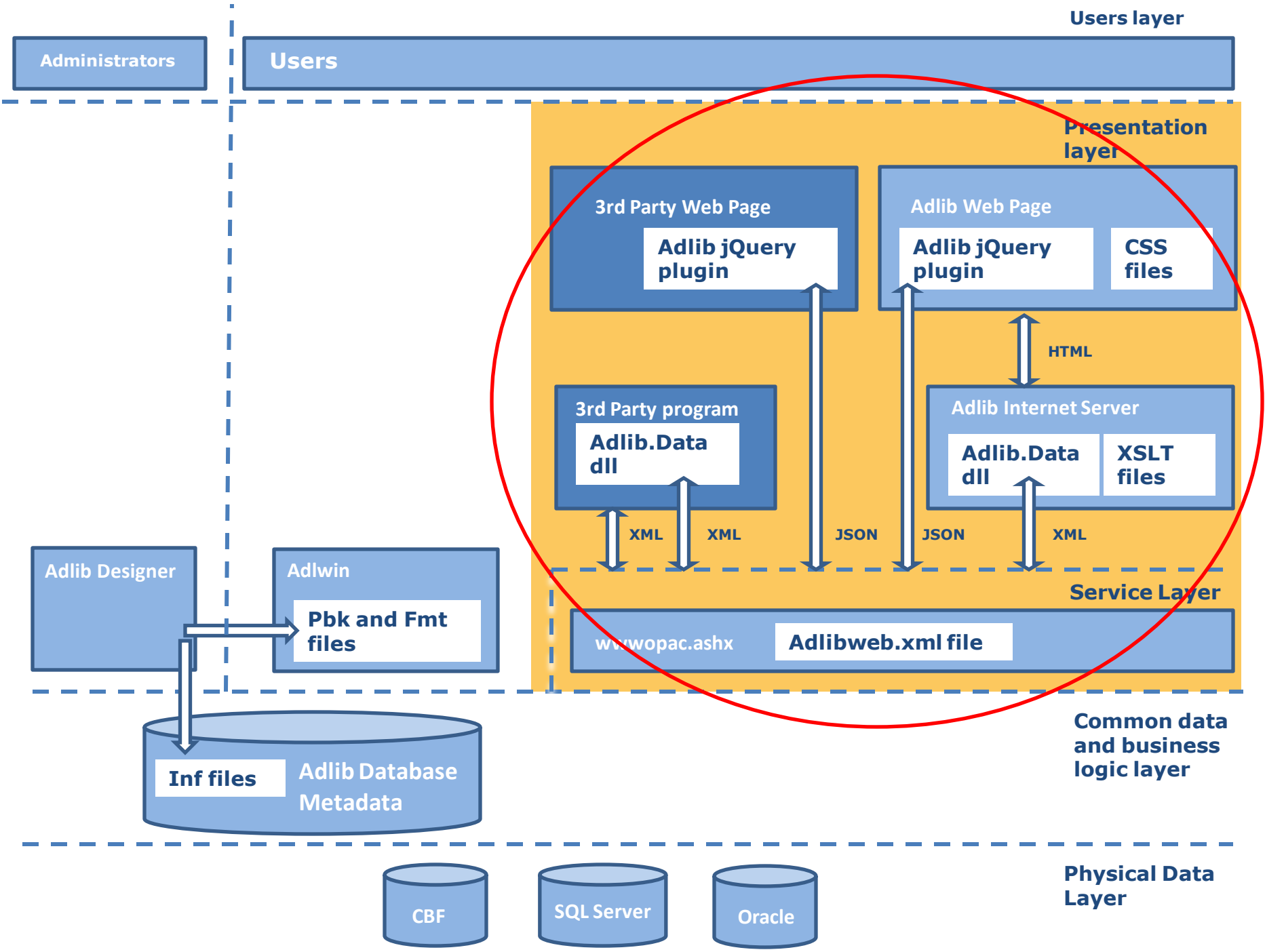
Notes

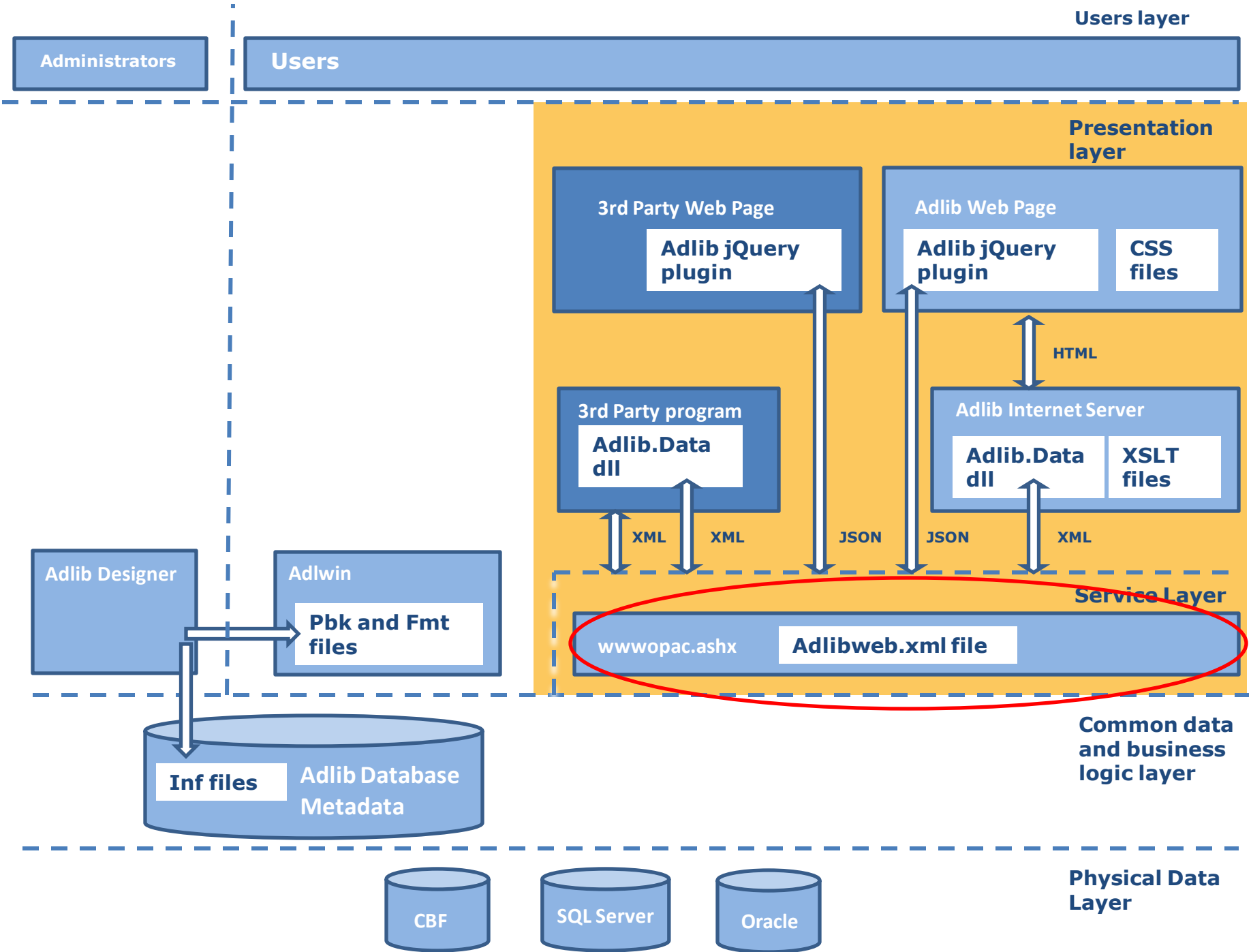
Translated title Language

Description

Describer Date









Wwwopac.ashx

- .NET http handler
- URL in browser to the database and returns data as XML
- Use as a URL in the browser, e.g.
<http://test.adlibsoft.com/adlibapi/api/wwwopac.ashx?database=collect.inf&search=all>



By using the `wwwopac.ashx` you can...

- Search for data in an Adlib database or search pointer files
<http://test.adlibsoft.com/adlibapi/api/wwwopac.ashx?database=collect.inf&search=pointer 3>
- Manage your session (log in, start session, etc.)
<http://test.adlibsoft.com/adlibapi/api/wwwopac.ashx?database=collect.inf&command=startsession>
- Get general information about available databases, fields or pointer files and the version number
<http://test.adlibsoft.com/adlibapi/api/wwwopac.ashx?command=listdatabases>



And more....

- Writing and deleting records and pointer files, including record locking
For writing records, you have to include the record XML in the URL. This can lead to very long URL's. Use the Post method in C# instead.
- Scan indexes
<http://test.adlibsoft.com/adlibapi/api/wwwopac.ashx?database=collect.inf&scan=creator>



... and even more....

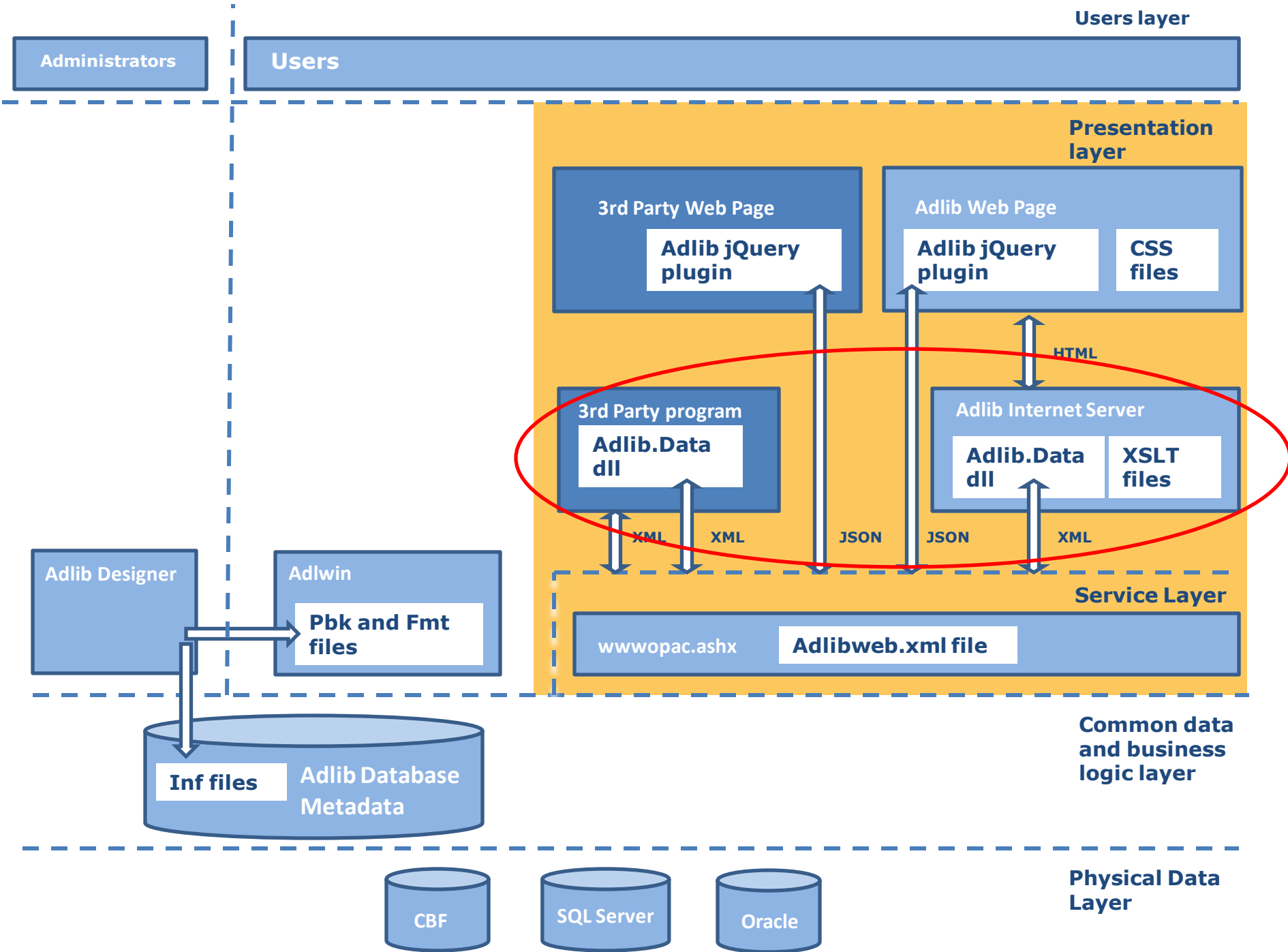
- Retrieve and manipulate images (formerly known as 'the image handler'), including rescaling and adding overlays.

<http://test.adlibsoft.com/adlibapi/api/wwwopac.ashx?command=getcontent&server=adlibimages&value=2043.jpg&width=100&height=200>



adlibweb.xml

- Configuration file for wwwopac.ashx
- Specify paths of data folder and other relevant folders
- Method for user authentication
- Configure image retrieval
- List of fields to be included in search results



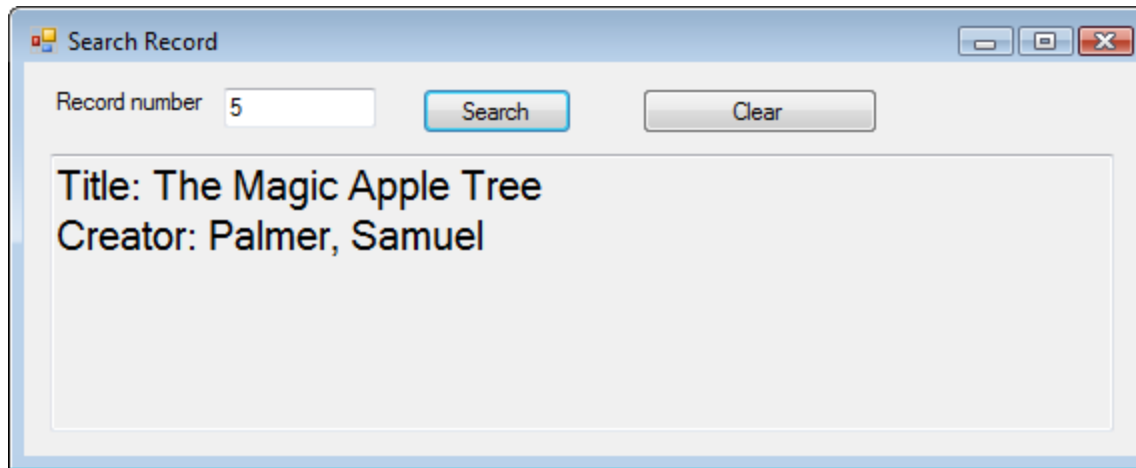


Adlib.data.dll

- Wrapper around `wwwopac.ashx`
- Can be included in C#, VB or other managed code programs
- Enables access to Adlib data and adlib data structure



Example of use of adlib.data.dll



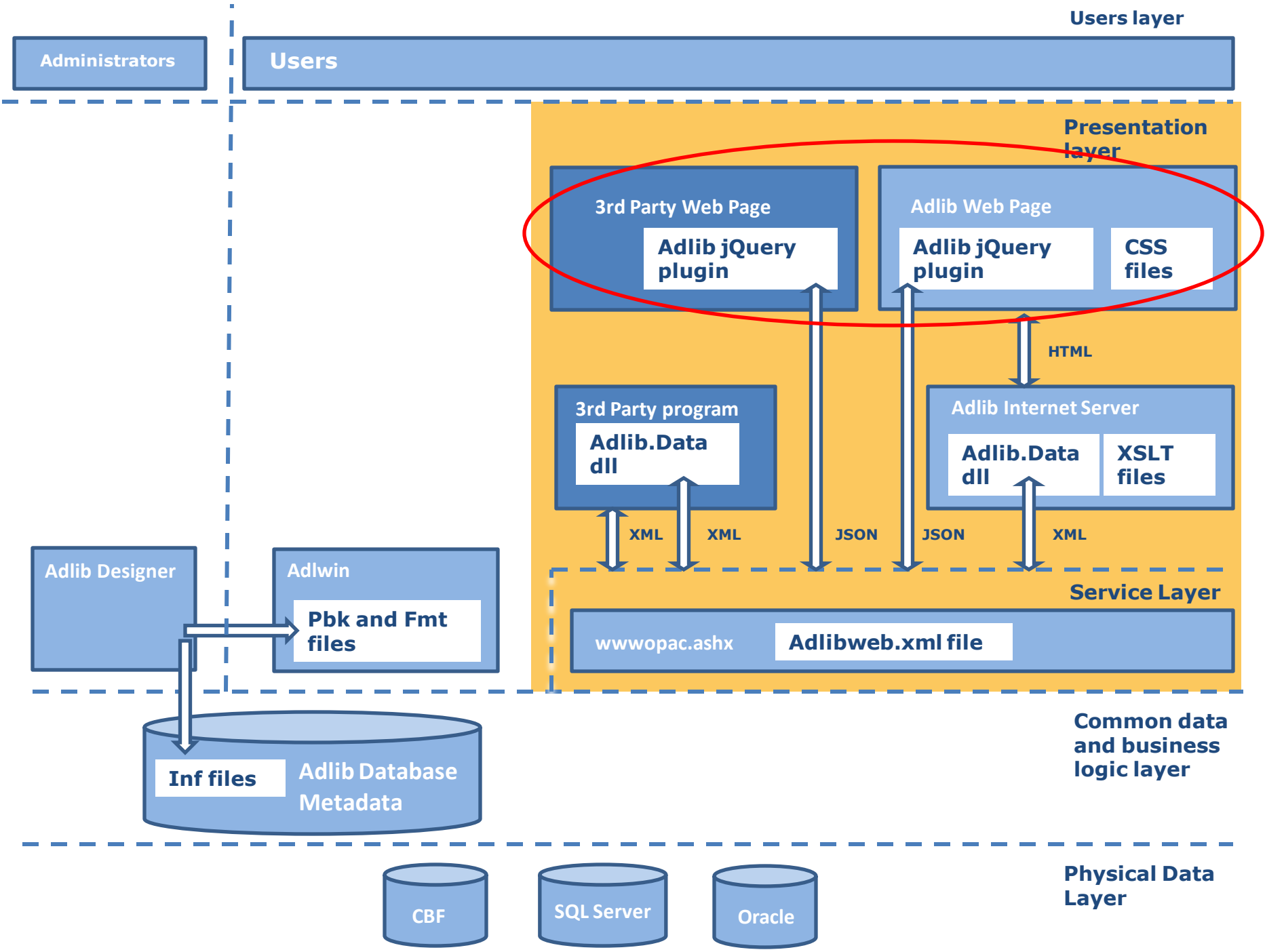


Code of RetrieveRecord.exe

```
private void searchButton_Click(object sender, EventArgs e)
{
    resultTextBox.Text = "";
    AdlibConnection connection = new
    AdlibConnection("http://test.adlibsoft.com/adlibapi/api/wwwopac.ashx");

    AdlibRecord adlibRecord = new AdlibRecord(connection, "collect.inf");
    adlibRecord.Search(Convert.ToInt32(recordNumberTextBox.Text));

    if (adlibRecord.Hits > 0)
    {
        // Put some data in result text box
        resultTextBox.Text = "Title: " + adlibRecord["title"] + "\r\n";
        resultTextBox.Text += "Creator: " + adlibRecord["creator"];
    }
    else
    {
        // Record not found
        resultTextBox.Text = "Record " + recordNumberTextBox.Text + " does not exist";
    }
    clearButton.Enabled = true;
}
```





Adlib JQuery plugin

- Javascript library to get data from `wwwopac.ashx` through AJAX requests
- Works with data in JSON format (lighter than XML)
- Simple to use. It simplifies the complexity of url requests to the `wwwopac.asxh`