



e-Granthalaya

A Digital Agenda for Library Automation and Networking

Ver.3.0 (2007)

(Network Edition)

(Local/LAN Based Database Connectivity)

Installation Guide for 64 Bit PC

(Windows Server 2008/R2/Win 7/Win 8/Win10)

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<http://egranthalaya.nic.in>

National Informatics Centre

Department of Information Technology

Ministry of Communications & Information Technology

Government of India

A-Block, CGO Complex, Lodhi Road,

New Delhi – 110 003

Email: rkmatoria@nic.in

Ph. 011 - 24305487 / 24360567

IP Phone for NIC Official: 5487

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Chapter 1

Introduction

1.1. Project Background

“**e-Granthalaya**” version 1.0. was released during Jan/2003 after selection by a “**Review Committee**” set up by DG(NIC). This version of “**e-Granthalaya**” was designed and developed by Karnataka State Unit (KSU) of NIC, Bangalore primarily for Public Libraries in Karnataka state.

NIC Library, New Delhi was also given the responsibility to implement “**e-Granthalaya**” in Northern part of the country. During implementation of this software, it was observed that the software was lacking many of the features and modules which are necessary to make this a standard package for Indian Libraries.

To implement these features, it was decided to **re-design** next higher version of the software by a team of experts from computer and library professionals working in NIC Library, New Delhi. As a result of this, the Ver.2.0 of the e-Granthalaya was released during 2005 by the Library and Information Services Division of NIC HQs, New Delhi. Later as forced by the new technologies and user requirements to cover-up the multi-lingual capability with UNICODE compliant data and for networking of libraries, a new upgraded version of the software was released during 2007 as named as “**e-Granthalaya Ver.3.0**”. The main changes done in the third version are:-

- To make the software multi-lingual, we have used the .NET technology from Microsoft for design and development of the software. Now the software supports the data entry in all the Indian languages supported by the Windows OS.
- To make the database UNICODE compliant, we have used the SQL Server 2005 which supports data in UNICODE
- We have used Crystal Reports for generating various reports in the software.
- PUB_CODE, VEND_CODE, AUTH_CODE, Bar Code Number have been omitted
- New look to the forms and screens of the Data Entry Program
- This is a Network Edition of **e-Granthalaya** where a cluster of the libraries can use the same/common/centralized database and thus can generate union catalog
- Web OPAC interface has been re-designed in ASP.NET with advance features and new look
- LAN/WAN based connectivity possible to update the remote database from client PCs
- New fields in various tables have been added like ‘Translated By’, Status of the Member, etc.

1.2. Purpose of this Document

Purpose of the “Installation Guide” is to enlist the procedures / steps required to install the components of “**e-Granthalaya**” ver.3.0. Main objectives of this document are:

- To provide an overview of the Project
- To define the Hardware Requirements
- To define Software Requirements
- To Set the Systems Settings

1.3. References

1. e-G2 PMP

1.4. Glossary

1. “e-G2” (e’Granthalaya, version 2.0)
2. AACR2 (Anglo-American Cataloging Rules 2nd Edition)
3. MARC21 (MAchine Readable Catalog)
4. Customer : User Library
5. ODBC (Open Data Base Connectivity)

Chapter 2

Systems Requirements

e-Granthalaya runs only on Windows platform and not implemented in Linux. To implement the software successfully customers require following systems in their libraries:-

2.1. For Client/Server Mode of Implementation

2.1.1. Hardware Requirements

1. One Server PC with (Preferable Rack Server) (any CPU: 32 bit or 64 bit)
 - i. Standard Configuration
 - ii. Minimum 2 GB RAM or more
 - iii. 80GB or above HDD or more
 - iv. Network/Internet Connectivity
2. Clients PC with (As many as required by the library)
 - i. P -4 PC with standard configuration
 - ii. Minimum 1 GB RAM
 - iii. Min 40 GB HDD
 - iv. Network/LAN/Internet Connectivity

2.1.1.1. Software Requirements

1. Server PC with (Operating System)
 - i. Windows Server 2008 or Higher
 - ii. MS SQL Server 2005/2008 /2008R2 (Standard Edition) for Client/Server Mode
2. Clients PC with
 - i. Windows XP/Vista/Win 7/Win 8/ Win 10

2.2. For Stand Alone Implementation

Windows Server 2003/2008, Win XP/Vista/7/8/10 with MS SQL Server 2005 / or any version (Express Edition) With Min 1 GB RAM/ 40 GB Hard Disk

NOTE: Those who do not possess license version of MS SQL Server 2005, they may use MS SQL Server 2005 (Express Edition) – given with the e-Granthalaya Software CD / free downloadable from Microsoft web site at

<http://msdn.microsoft.com/vstudio/express/sql/download/>

2.3. Optional Requirements

- 2.3.1. Laser Printer
- 2.3.2. Bar Code Printer
- 2.3.3. Bar Code Readers
- 2.3.4. Internet Connectivity

Chapter 3

Installation Summary

3.1. Installation of eG3 Components on 64 Bit PC

(Supported OS: Windows Server 2008/ Win 7)

1. Install **.NET Framework 4.0** from eG3 CD – **Chapter 4**
2. Install **MS SQL Server 2005 Setup** (Express Edition) – **Chapter 5**
3. Install ‘**Crystal Report Executable**’ – **Chapter 8**
4. Install **eG3 Client Program** from CD– Read **Chapter 6**
5. Make Database Connectivity (If installed in Client/Server Mode) –
Read **Chapter 7**

3.2. System Setup and How to Run e-Granthalaya Software—**Chapter 9**

3.3. Install of eG3 Web OPAC – Read **Chapter 10**

NOTE: After installation of SQL Server then you need to install Crystal Report Executables Manually by double click “CRRedist2005_X64” file from ‘Crystal Report’ folder under ‘Client Program’ folder of CD. This file/executable can also be downloaded from our web site.

Chapter 4

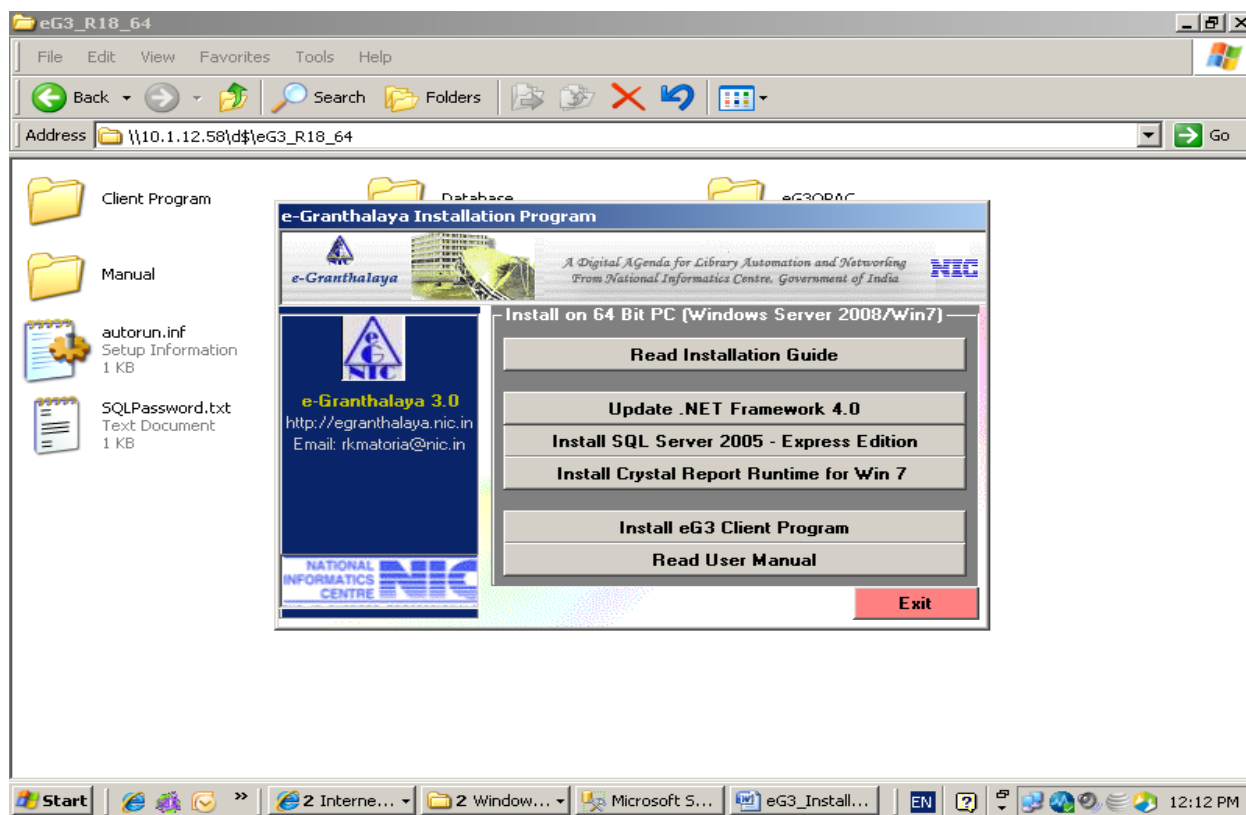
How to Install/Re-install/Repair .NET Framework 4.0

4.1. How to install .NET Framework 4.0 in 64 Bit PC

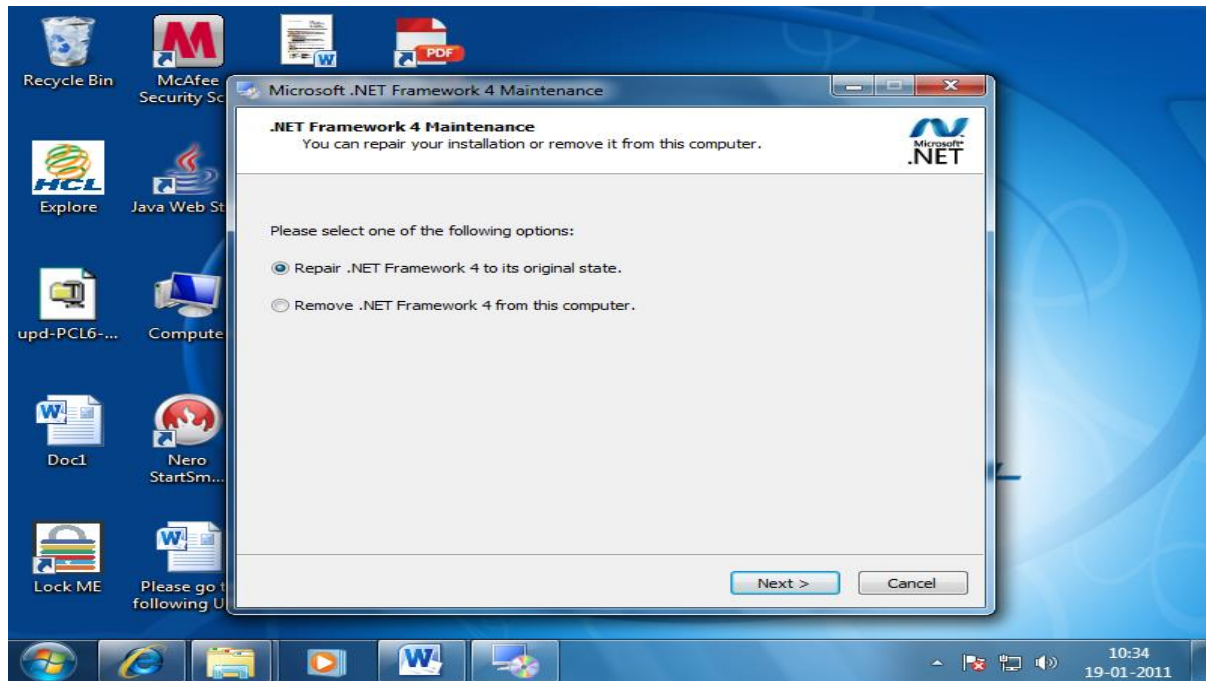
.NET Framework.4.0 is required in 64 Bit PC only as a pre-requisite before installing the SQL Server 2005.

4.2. Steps

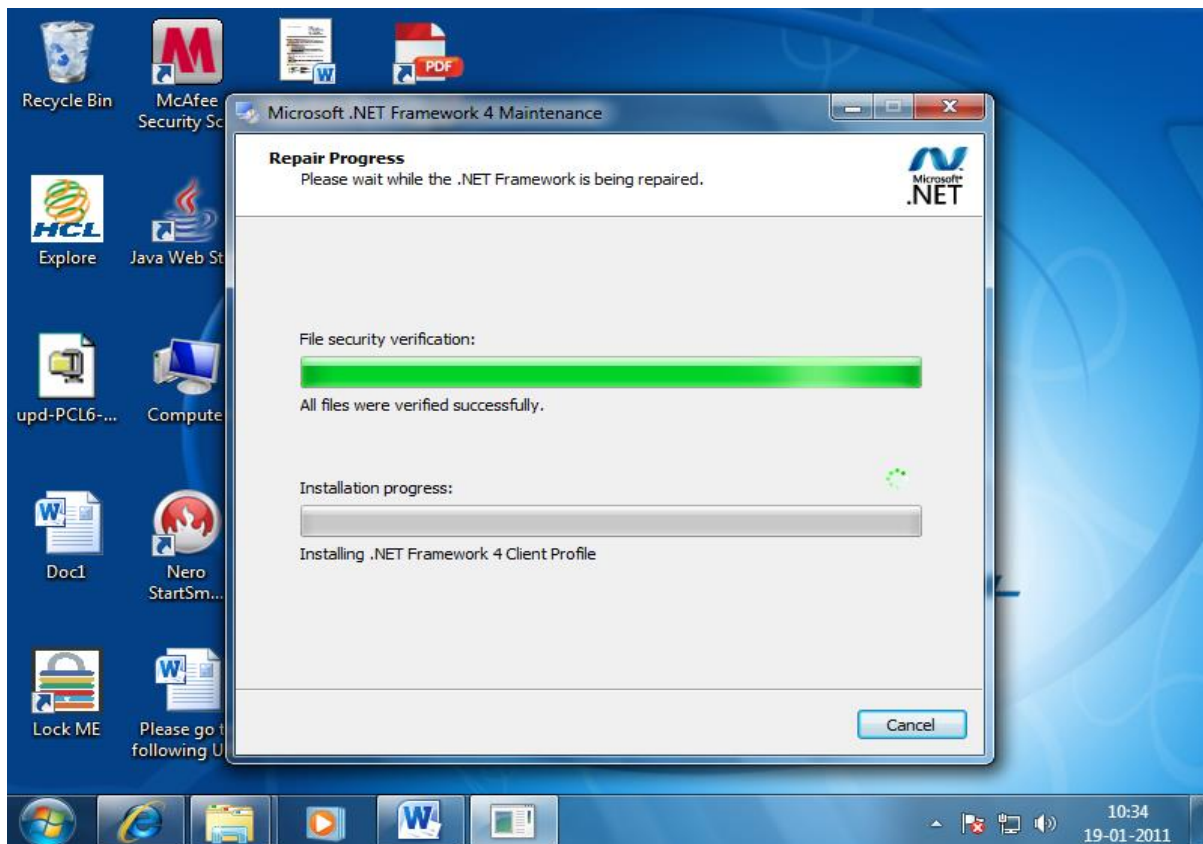
1. Insert the CD of the e-Granthalaya software into the CD Drive – It is Auto Run CD. Once it is run following screen will appear. In case auto run is not working as sometimes it is disabled then explore the CD contents and Double Click the **Autorun.Exe** from CD Root to run it.



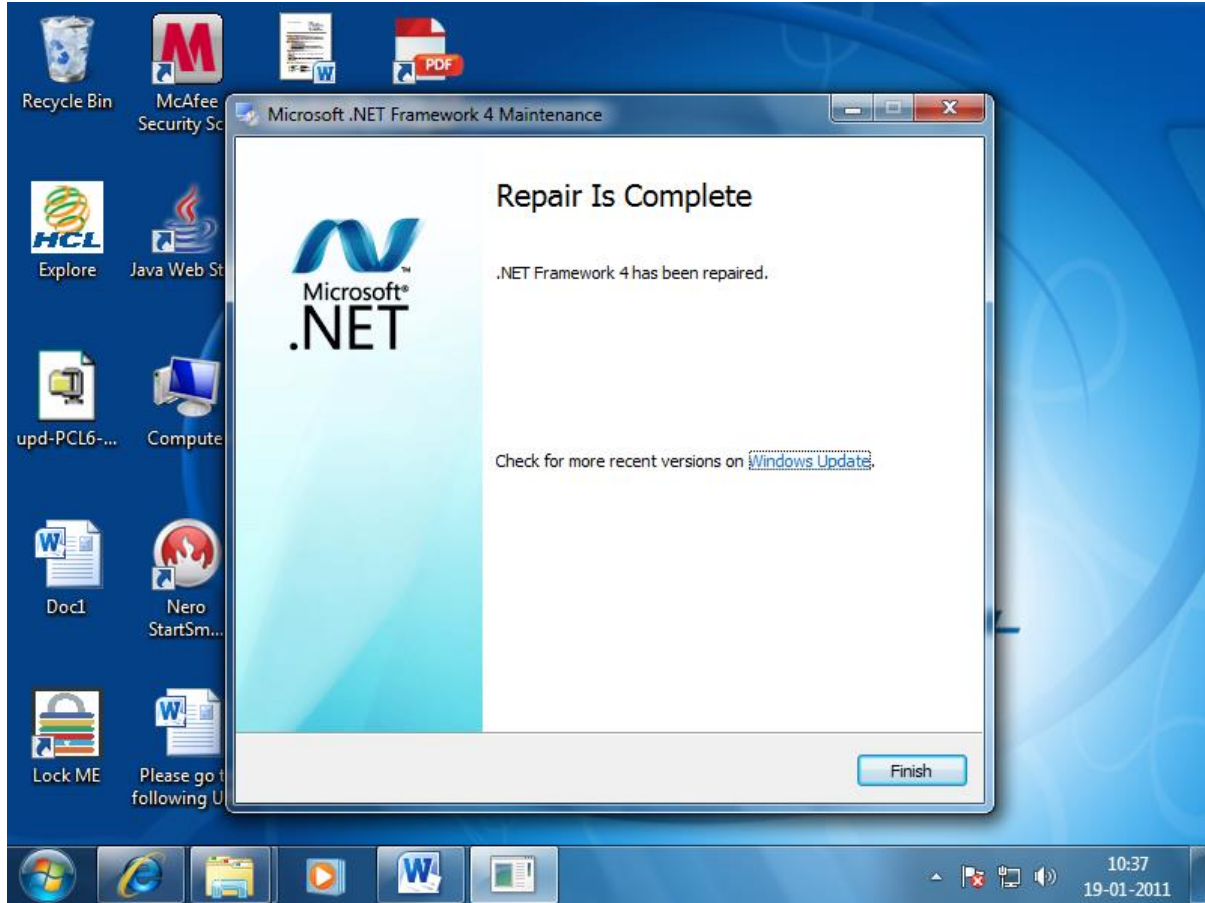
2. For installation of this pre-requisite on 64 Bit PC, press the button from eG3 CD – **Update .NET Framework 4.0**. On clicking this button .NET Framework 4.0 setup/update will started as shown in the following screen (in case this .NET Framework 4.0 setup not started then click the “dotNetFx40_Full_x86_x64.exe” from folder “SQLServer2005_64BitPC-Setup\dotnetfx40”):



3 . IF .NET Framework 4.0 is already installed then select the option - Repair ... other-wise select the option – “Install New .NET Framework 4.0 and press NEXT button



4 . On Successful installation/Repair, following screen will appear and then press FINISH button



Chapter 5

How to Install Microsoft SQL Server 2005 – Express Edition Automatically From eG3 CD

5.1. What is SQL Server 2005

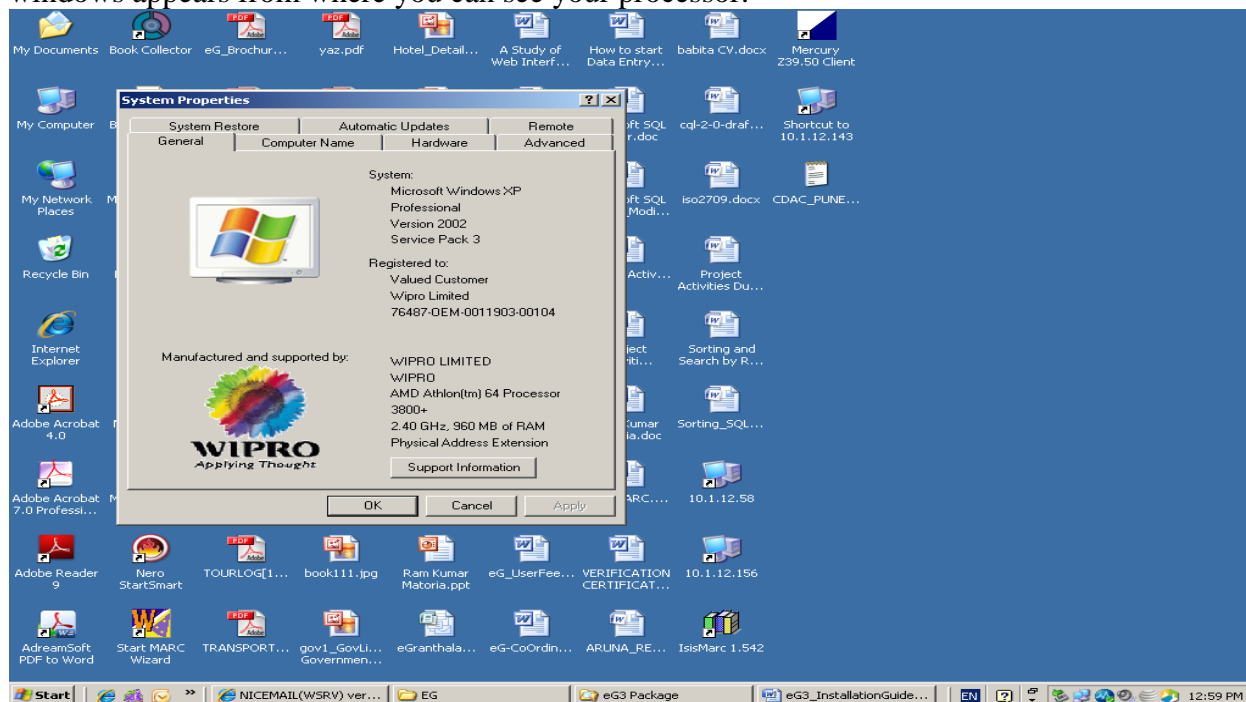
To use the **e-Granthalaya** Software for automation of your library, you need to install the database management program i.e. “Microsoft SQL Server”. Data and library catalog info entered using the e-Granthalaya Data Entry program is stored in a database. We provide the **Expression Edition** of **MS SQL Server 2005** in the CD which is free and can also be downloaded from e-Granthalaya Web Site as well as from internet. In case, you are having Standard Edition or Enterprise edition which are priced ..e-Granthalaya can also be run with these editions of the SQL Server. Free edition (Express Edition) can hold up to 4GB data.

NOTE: In case you wish to publish the OPAC on internet then u must use the Enterprise Edition of the SQL Server

NOTE: CD of the software is having separate setup program of SQL Server 2005 – Expr Ed on 32 Bit and 64 Bit PCs, you need to click appropriate Button from the menu of the CD

5.2. Processor of the PC

Before installing SQL Server 2005 you must identify processor type of your PC whether it is 32 Bit or 64 Bit. Then you must click the appropriate button to start the setup. To know your processor, right click ‘MyComputer’ icon from desktop and select **PROPERTIES** – new windows appears from where you can see your processor:



NOTE: In case you are installing SQL Server 2005 – Expr Ed on 64 bit processor then you need to update/install .NET Framework 4.0 from the same CD

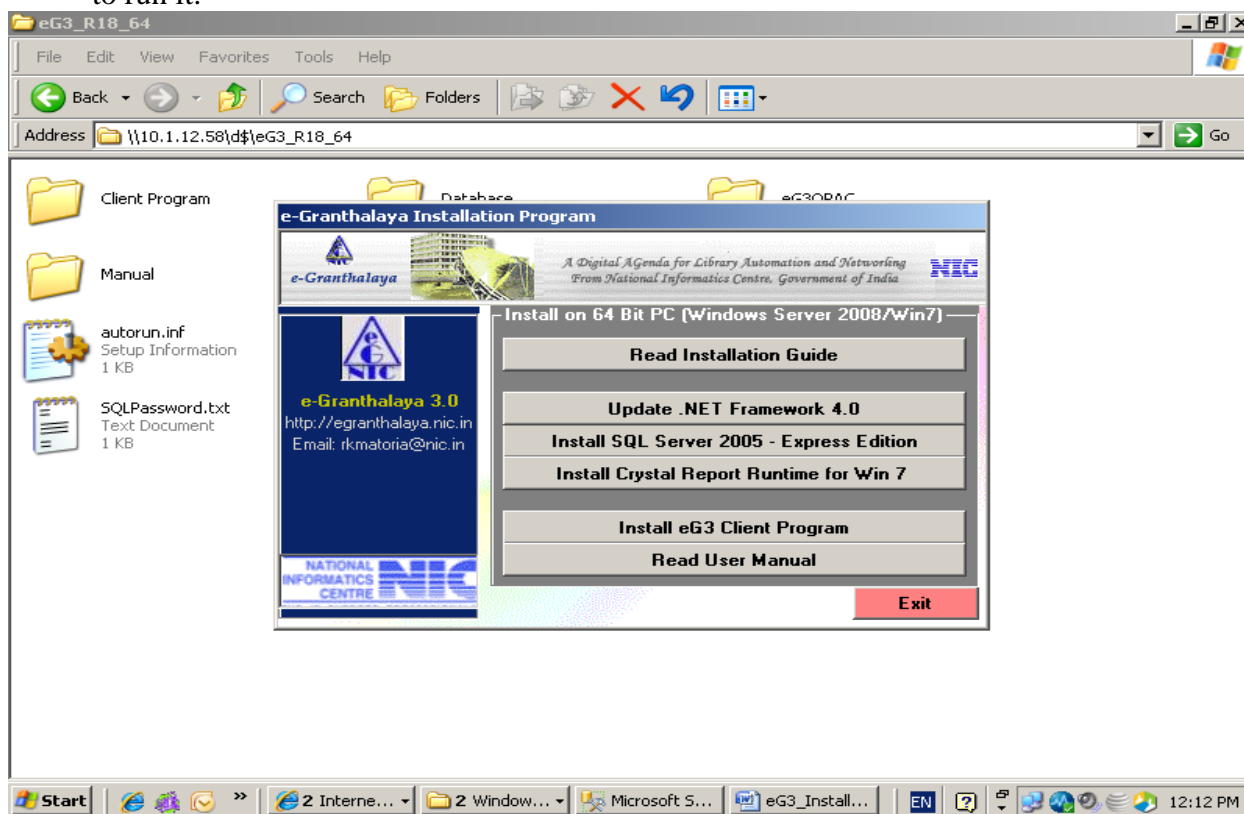
5.3. How to Install SQL Server 2005 from eG3 CD

In case MS SQL Server is already installed then you can skip these steps and can create/restore the database in SQL Server

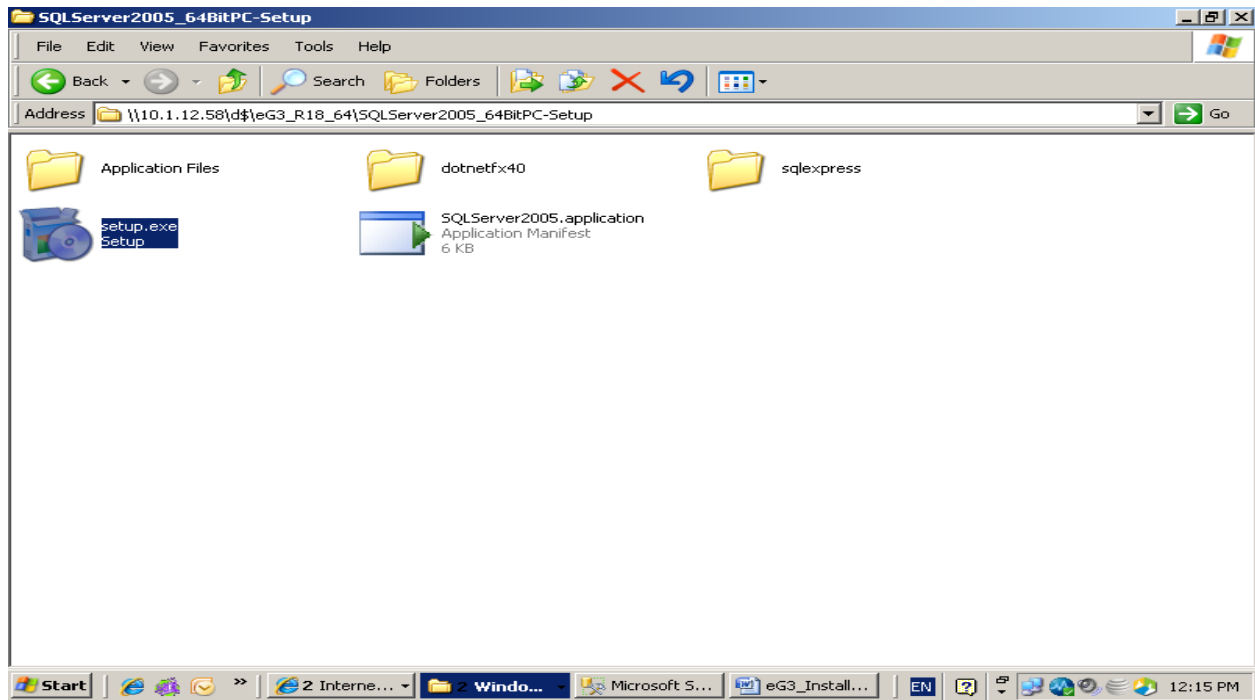
NOTE: However, in case of 64 Bit Processor, first you need to install **.NET Framework 4.0** manually from the CD. – Read **Chapter 4**

5.4. Steps

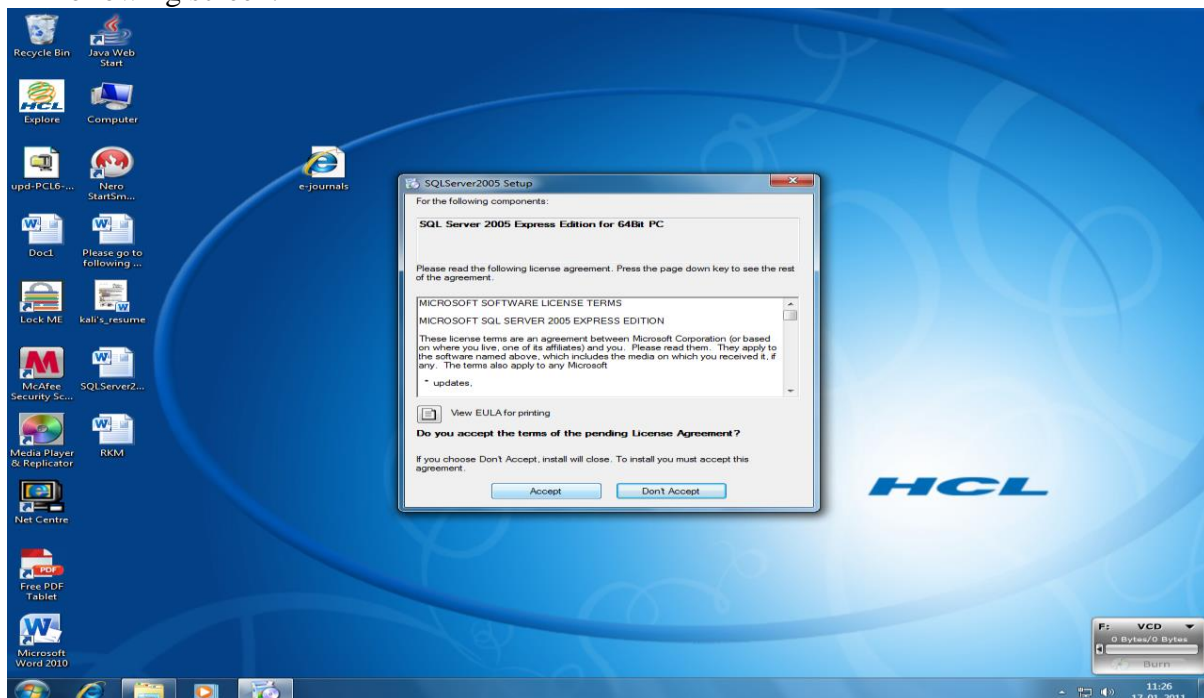
1. Insert the CD of the e-Granthalaya software into the CD Drive – It is Auto Run CD. Once it is run following screen will appear. In case auto run is not working as sometimes it is disabled then explore the CD contents and Double Click the **Autorun.Exe** from CD Root to run it.



2. To start the installation of MS SQL Server 2005, click the button on the above Screen namely “**Install SQL Server 2005 – Express Edition**” from the above menu in the appropriate category of processor type. In case, setup is not started from the above button then double click the “**Setup.exe**” file from the appropriate folder (depends on type of processor (32 bit or 64 bit)) namely - “**SQLServer2005_64BitPC-Setup**” folder of the CD:

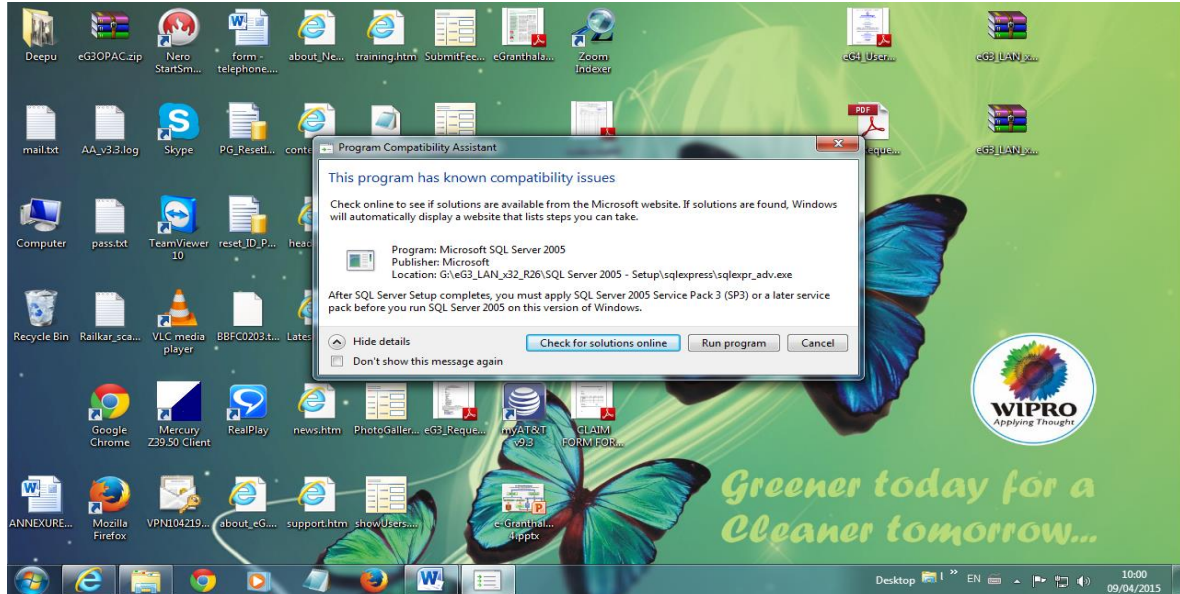


3. Press ‘**Accept**’ button on License agreement if it comes . On running of the Setup, it will installed all the components automatically without interfere of the user, as shown in the following screen:

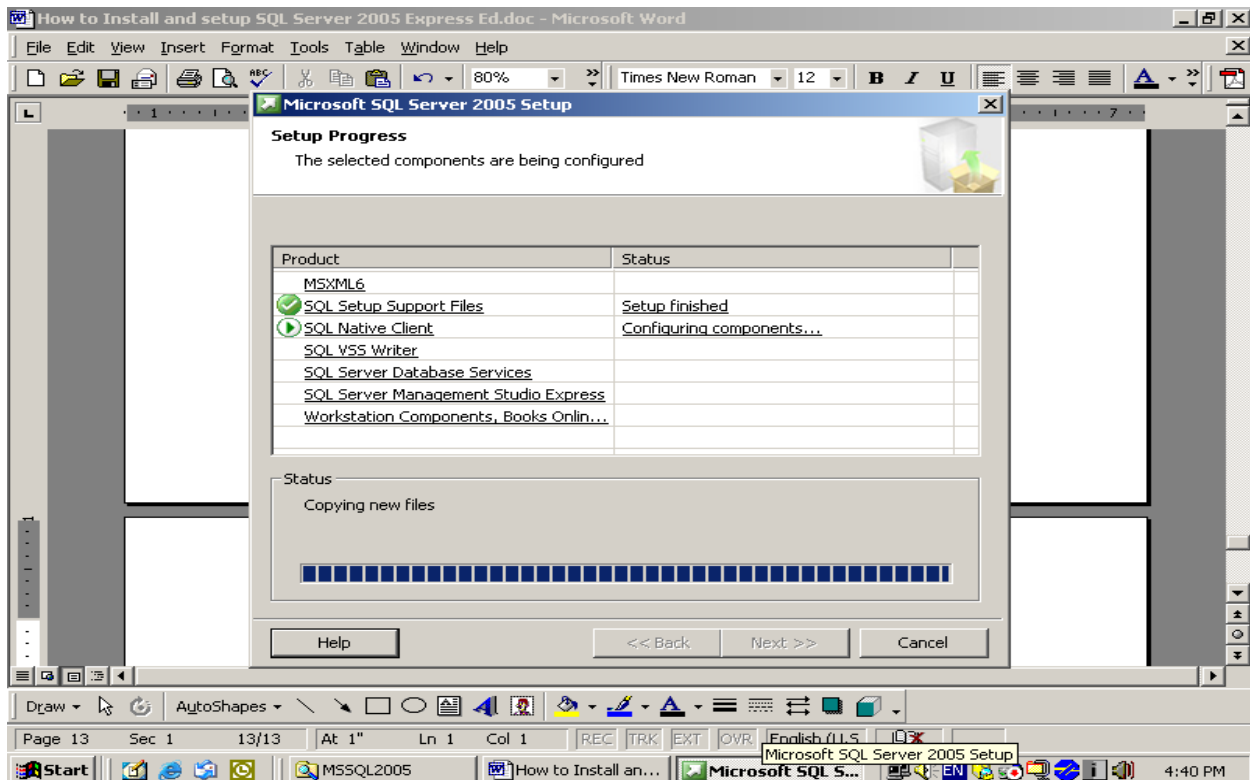


- 4 . After pressing ACCEPT Button, the installation process will start automaticlly as shown in the below screen

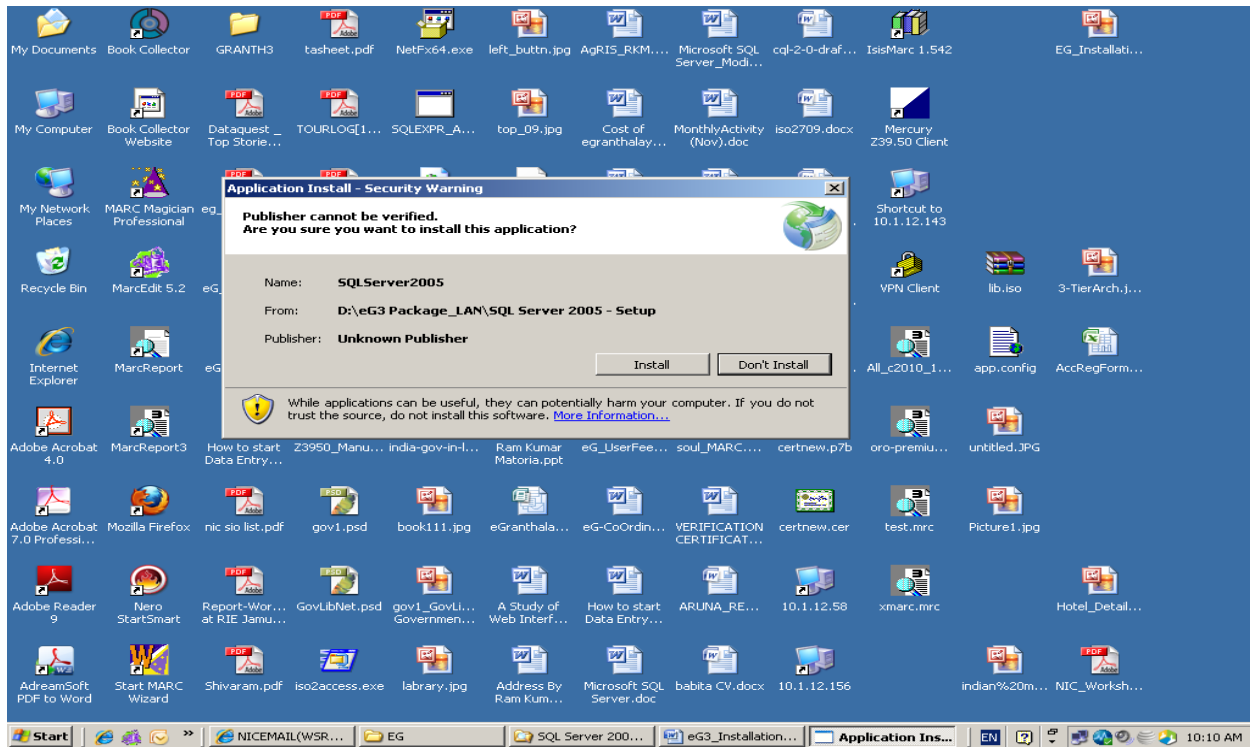
NOTE: During installation a screen may appear many times as given below:



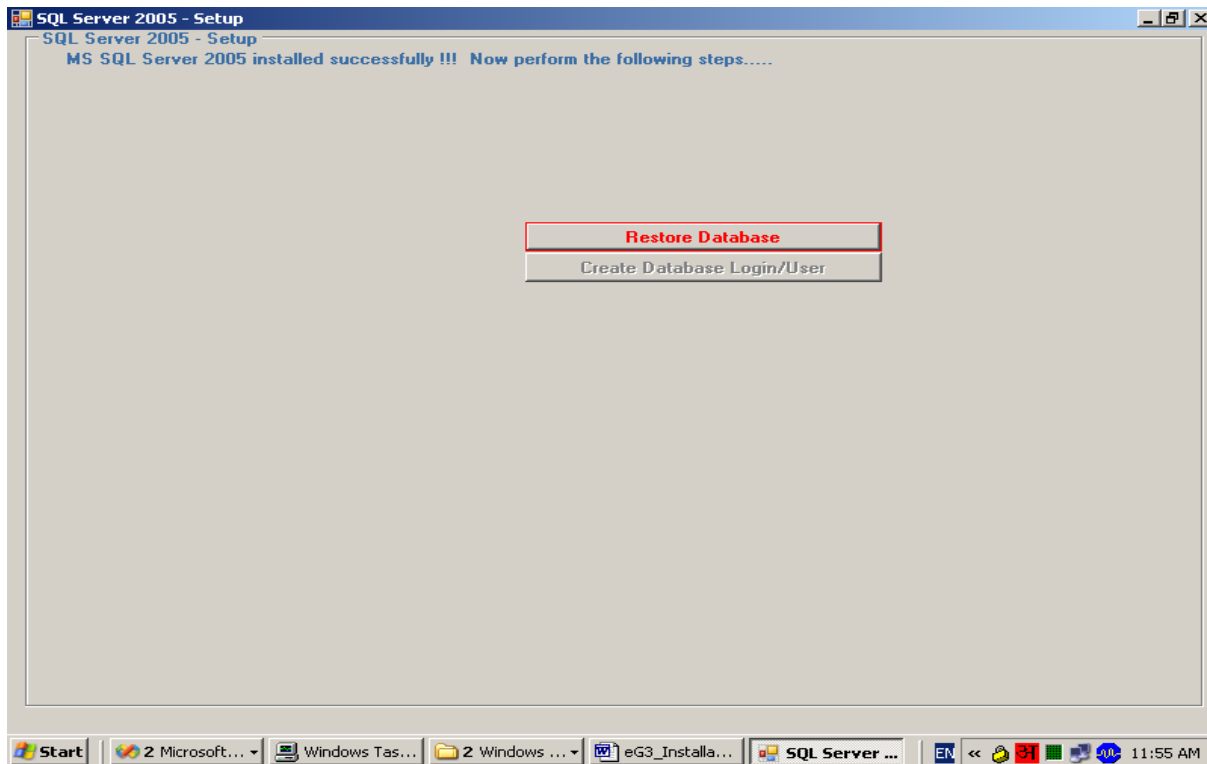
Always Press the option/button – “Run Program”



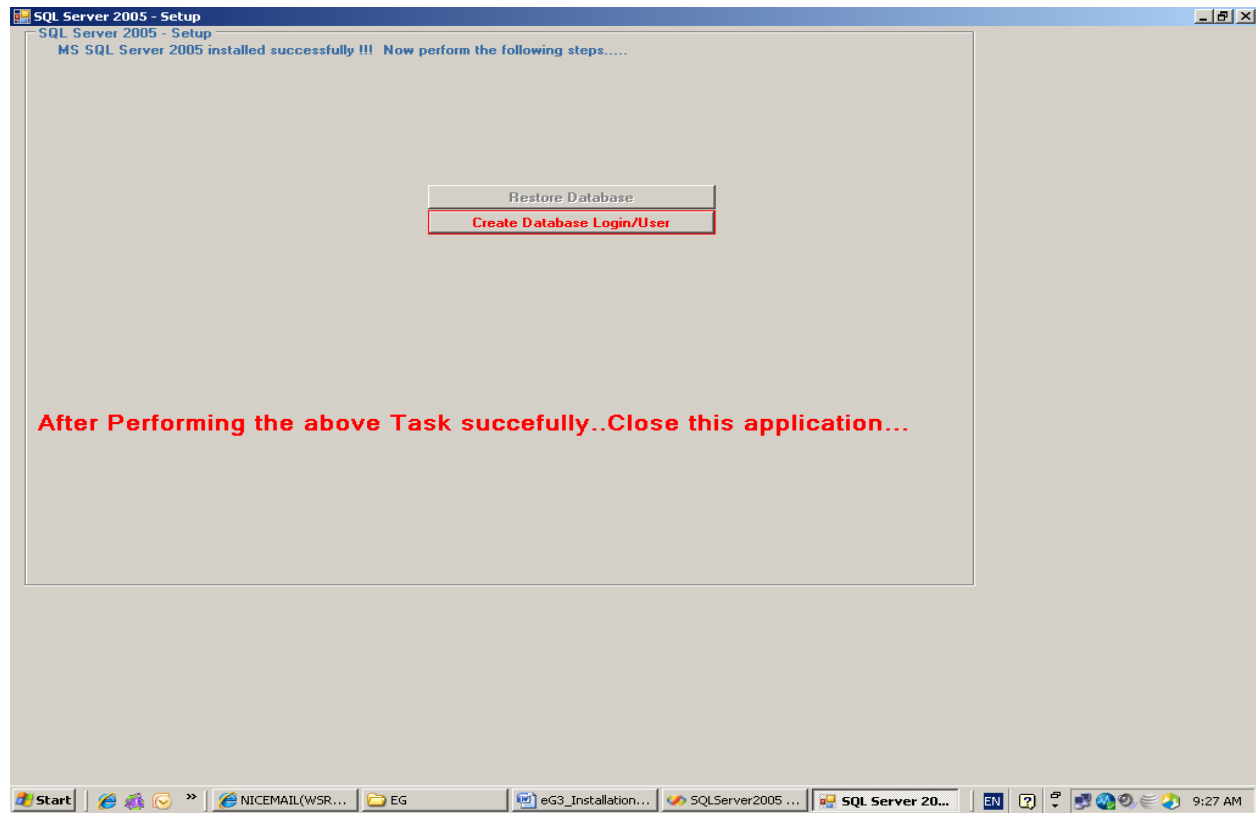
5 After installation of all the services, following screen will appear



6 Press INSTALL button from above screen, following screen will appear



6. Press **RESTORE DATABASE** Button to restore the new database of GRANTH3 automatically in the newly installed SQL Server 2005. This database will be used by the eG3 Software.



7. Then press **CREATE DATABASE Login/User Button** from above screen – it will create new database user with all permission automatically.

NOTE: Now your database is ready for use with the following info

Database Server Name:	(Local)\SQLEXPRESS
Database:	GRANTH3
Login/User:	granth3
Password:	granth3

NOTE: User of the software must note down the four parameters mentioned above to set the database connectivity later from eG3 Client Program, if asked.

8. Now close the screen and ready for eG3 Client Program Installation.

NOTE: In case your automatic setup is failed then you can install the SQL Server 2005 Manually as given in a separate pdf file available in CD as well as on <http://egranthalaya.nic.in>

NOTE: In case above screen does not appear and you are not able to press the above two buttons then you need to do the following task manually:-

- a). Create a new and blank database in SQL Server 2005 and restore it with GRANTH3 database backup file from CD Database Folder – pl read the guide “How to Create and Restore Database Manually” from CD Manual folder
- b). Create a database login with ‘granth3’ name and password ‘granth3’ - read the above mentioned guide

NOTE: After Installation of SQL Server 2005 – a short cut will be created in All Programs – U need to check whether SQL Server Management Studio is installed or Not installed. Got START >> All Programs >>SQL Server 2005 >> here should be atleast following two items:

>> Configuration Tools and SQL Management Studio Express.

In case “SQL Server Management Studio Express” item shown in above screen then you need to install it manually from CD by executing the File –“SQLServer2005_SSMSEE” available in the CD . This file can also be downloaded from Net.

Chapter 6

How to Install e-Granthalaya Data Entry Program in Client PCs

6.1. What is eG3 Client Program

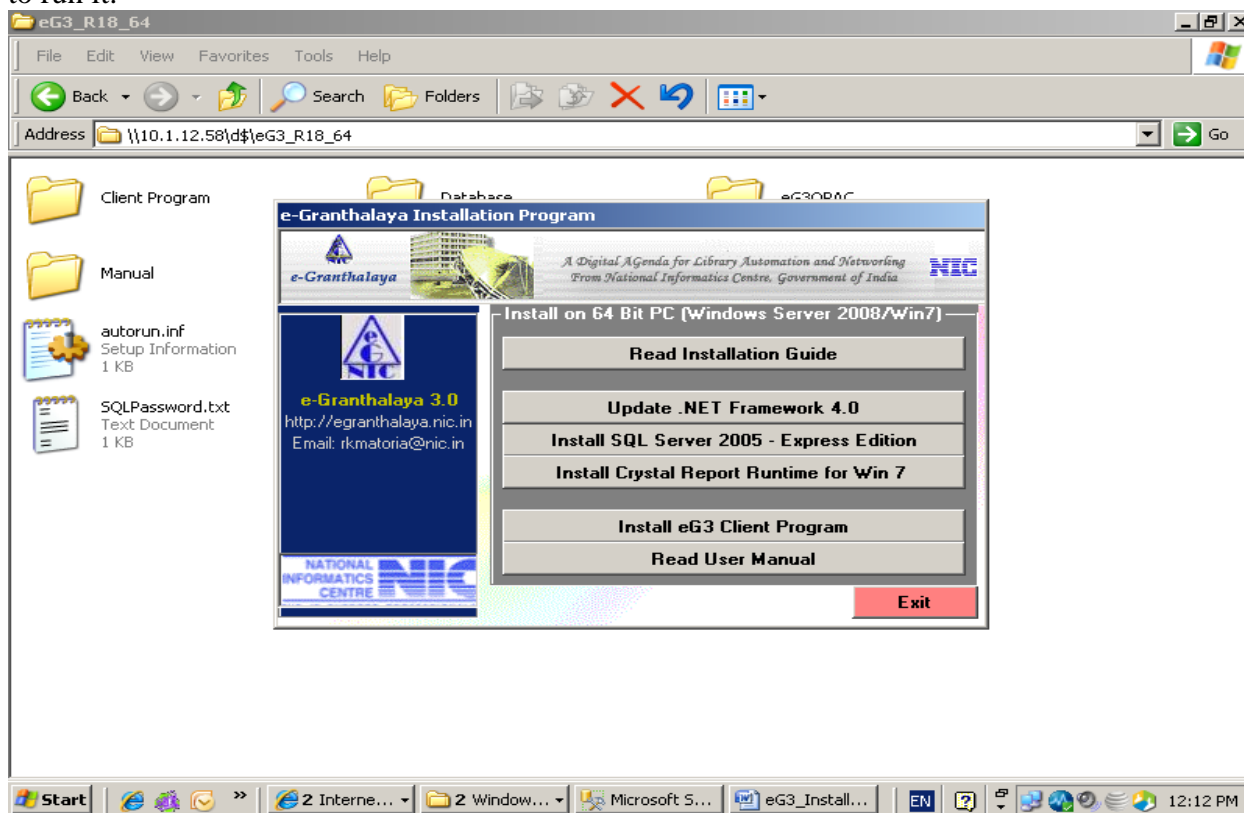
eG3 Client Program is the Data Entry Program and Library Staff User Interface to use for data entry in the database as well to perform all the functions of the software. This program is installed on each client if eG3 is implemented in Client/Server mode where n number of Client PCs are connected with the Server PC where database is residing.

NOTE: In case the Client PC is with 64 Bit Processor, then there is no need of these prerequisites/components as these already available in 64 bit PCs.

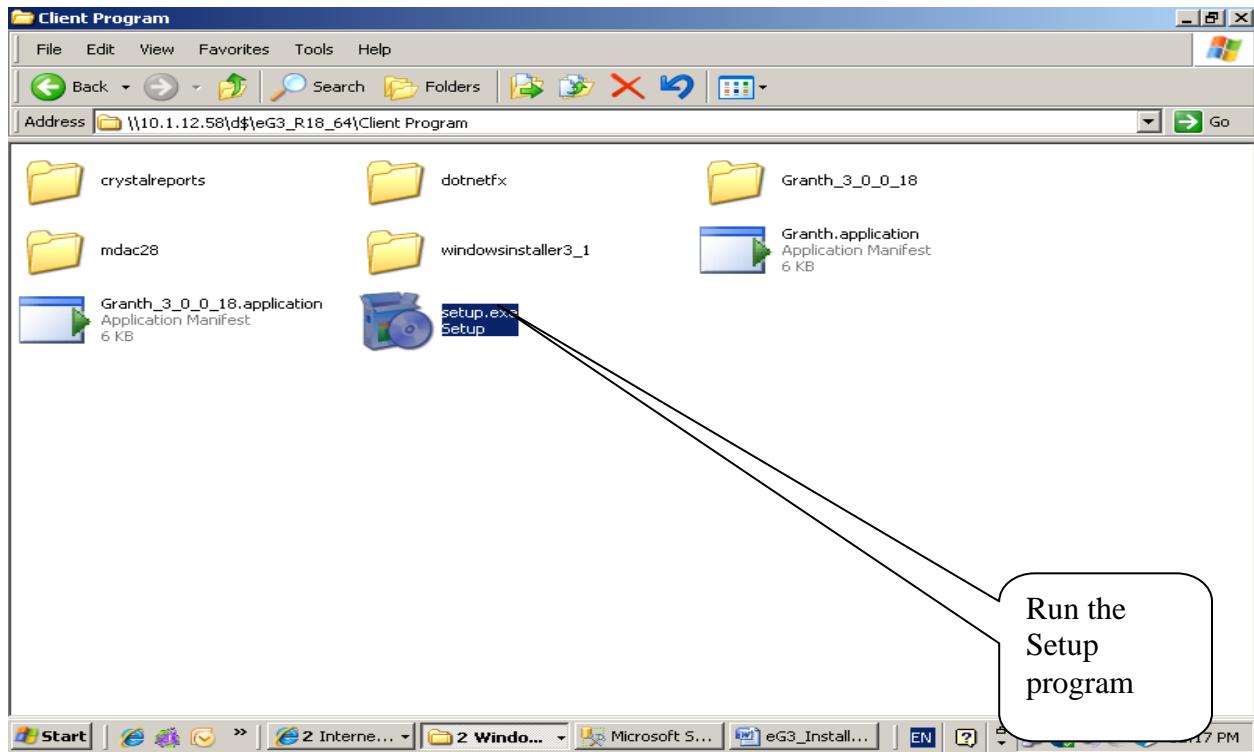
NOTE: There is a single setup program for installation of eG3 Client Program on both the processors i.e. 32 Bit and 64 Bit PC

6.2. Steps

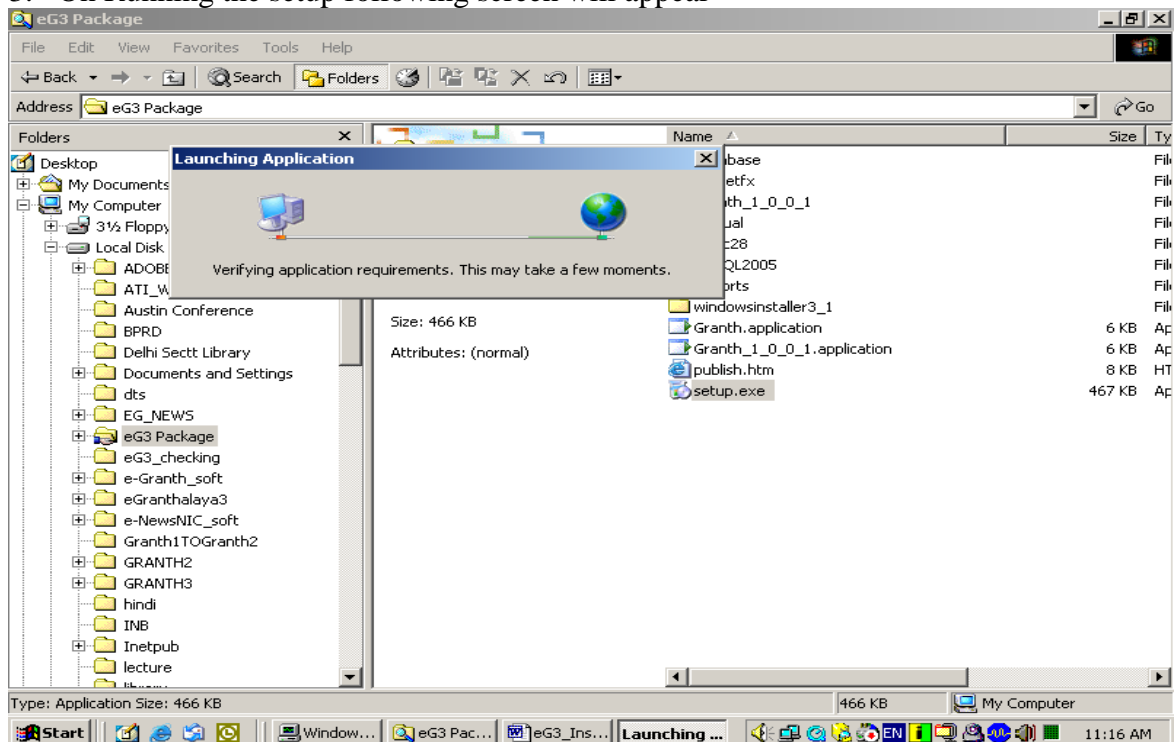
1. Insert the CD of the e-Granthalaya software into the CD Drive – It is Auto Run CD. Once it is run following screen will appear. In case auto run is not working as sometimes it is disabled then explore the CD contents and Double Click the **Autorun.Exe** from CD Root to run it.



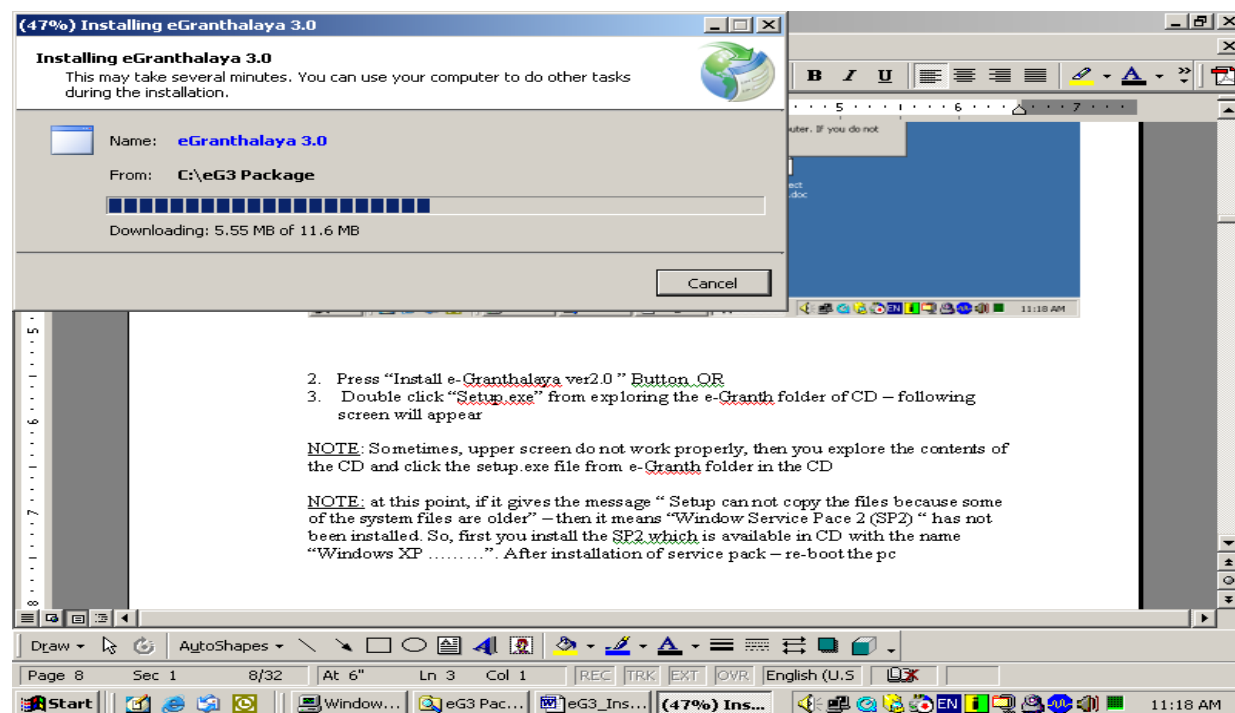
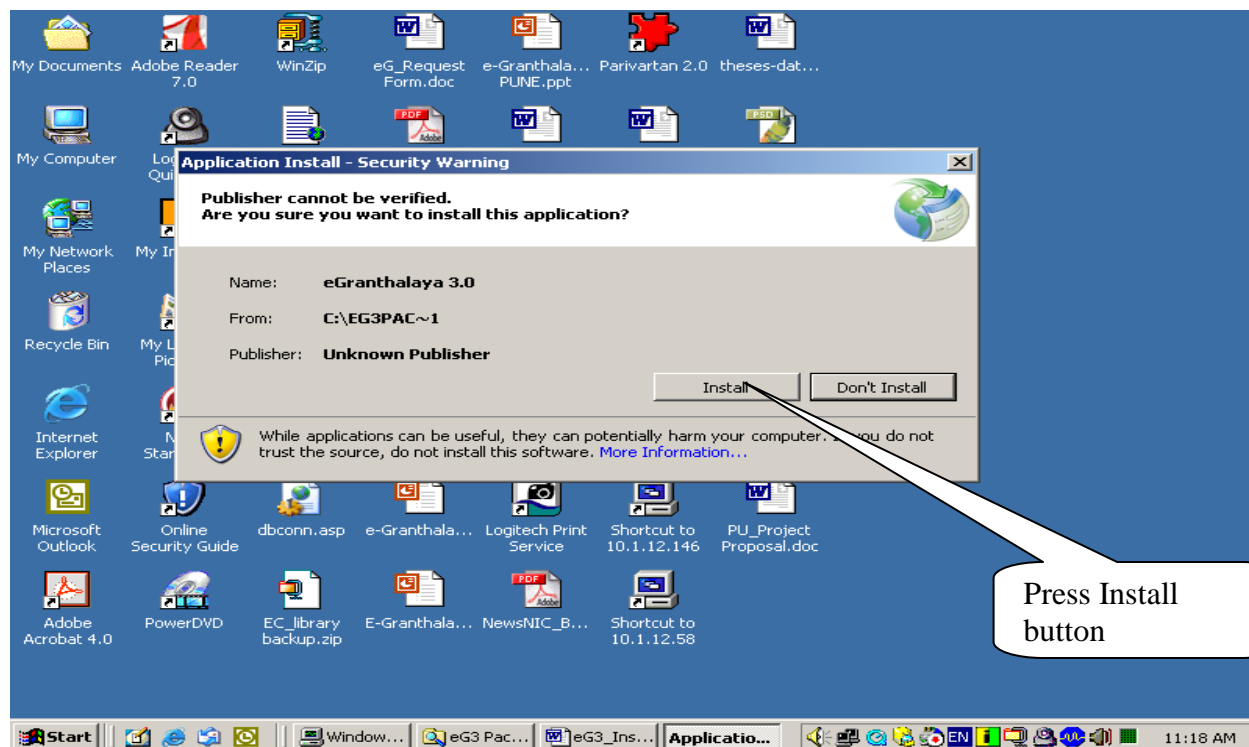
- To start the installation of eG3 Client Program, click the button “**Install eG3 Client Program**”. In case, setup is not started from the above button then double click the “**Setup.exe**” file from the “**Client Program**” folder of the CD:



- On Running the setup following screen will appear

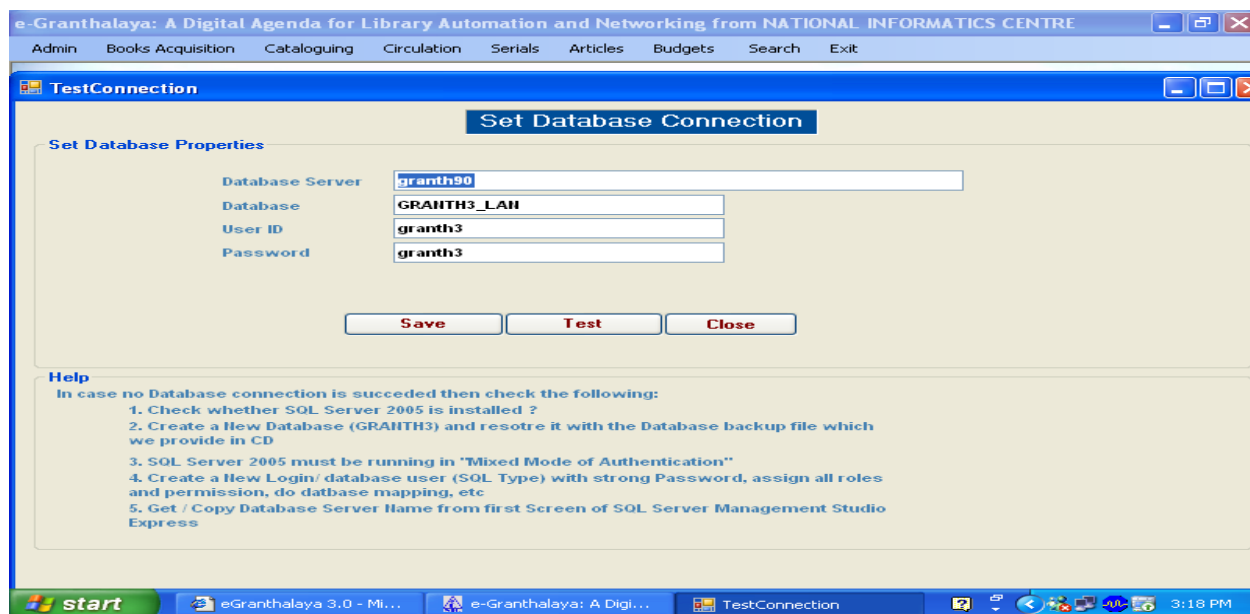


- Click the INSTALL button from below screen



NOTE: In case eG3 is being implemented in Stand-Alone PC then the software will start automatically after installation successfully. In this case, now you are ready to work with e-Granthalaya Software.

NOTE: In case the eG3 is being implemented in Client/Server mode and your database is residing in the Server PC where you have installed SQL Server 2005 then following screen may appear first time (if database connectivity not set). To set the database connectivity Please read **Chapter 7**.



Chapter 7

How to Set Database Connectivity from eG3 Client Program

7.1. How To set Database Connectivity in the Client Program

Whenever you will install the eG3 software on client PC or if already installed and whenever it does not find the database connectivity, the following form will be appear automatically where you will set the database connectivity.

To set the database connectivity, you need to type the following four parameters of the database which you noted down in **Chapter 4, after Step 8**

<u>Database Server Name:</u>	(Local)\SQLEXPRESS or IP Address of Server Name of SQL Server Instance
<u>Database:</u>	GRANTH3
<u>Login/User:</u>	granth3 - it is case sensitive
<u>Password:</u>	granth3 - it is case sensitive

Set Database Connection

Set Database Properties

Database Server:

Database:

User ID:

Password:

Buttons: Save Test Close

Help

In case no Database connection is succeeded then check the following:

1. Check whether SQL Server 2005 is installed ?
2. Create a New Database (GRANTH3) and restore it with the Database backup file which we provide in CD
3. SQL Server 2005 must be running in "Mixed Mode of Authentication"
4. Create a New Login/ database user (SQL Type) with strong Password, assign all roles and permission, do database mapping, etc
5. Get / Copy Database Server Name from first Screen of SQL Server Management Studio Express

Callout Box:

1. Server Name
2. Database Name
3. User/Login
4. Password

After Typing the parameter press TEST button - if message comes “Connection Succeeded ” then press **SAVE** button to save the parameter. Now Close the screen and launch the application from All Programs >> National Informatics Centre >> eGranthalaya3.0

NOTE: In case your connections is Failed then try to give the correct parameter and also check the Services of SQL Server 2005 – running or stopped.

Chapter 8

How to Install “Crystal Report RunTime” on 64 Bit PC

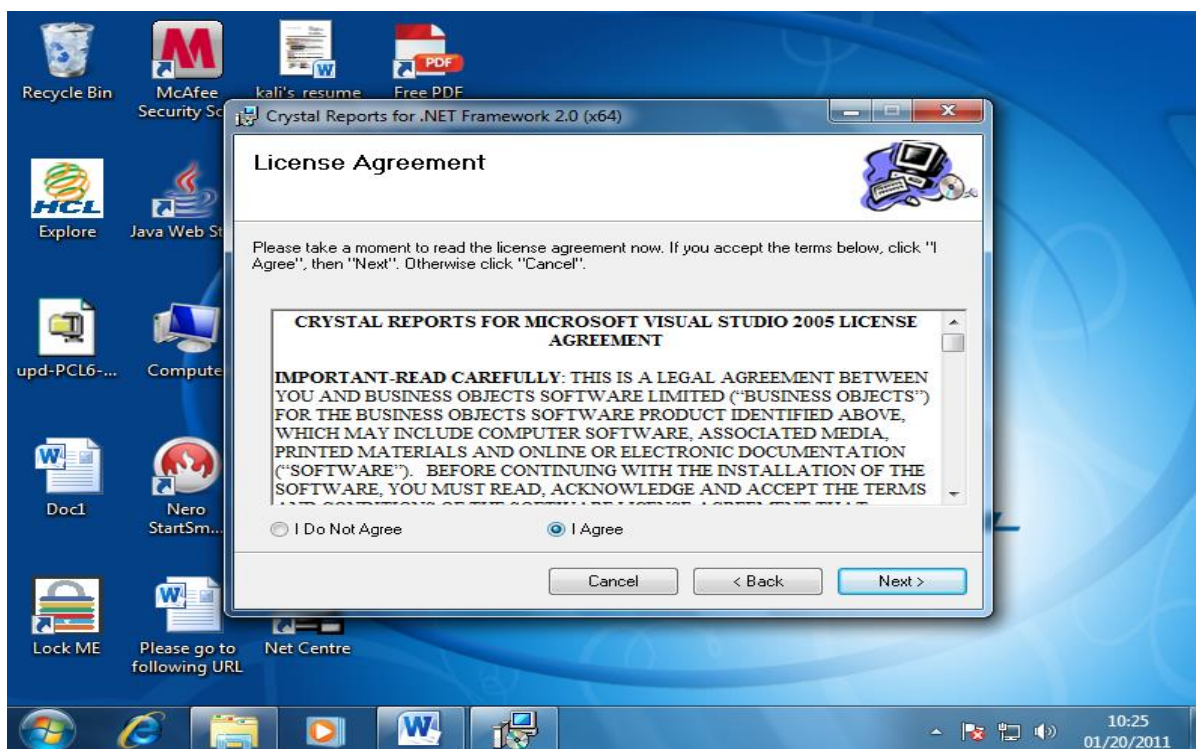
8.1. What is ‘Crystal Report Runtime’

Crystal Report is the report tool for generating various kinds of reports in the e-Granthalaya Software. The reports are integrated with the eG3 Client Program and no need to install the reports separately. However, to run the reports, system needs an appropriate Report Engine to be pre-installed which is called as ‘Crystal Report Runtime’. In 32 Bit PC there is no need of installing it separately as it is installed automatically with eG3 Client Program. In case of 64 Bit PC, we need to install Crystal Report Runtime manually as the steps given below:

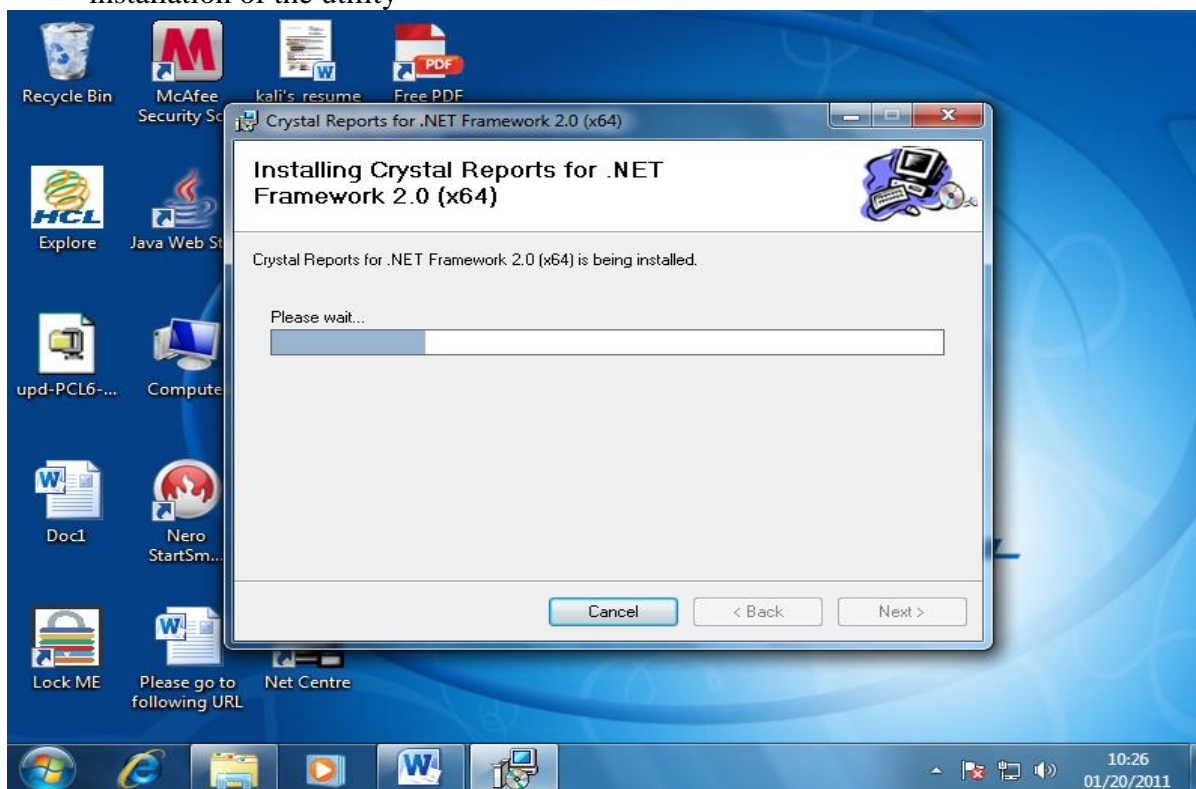
1. Double Click the File ‘**CRRedist2005_X64.msi**’ from CD Folder ‘Client Program/CrystalReports/’ to start the installation, following screen will appear



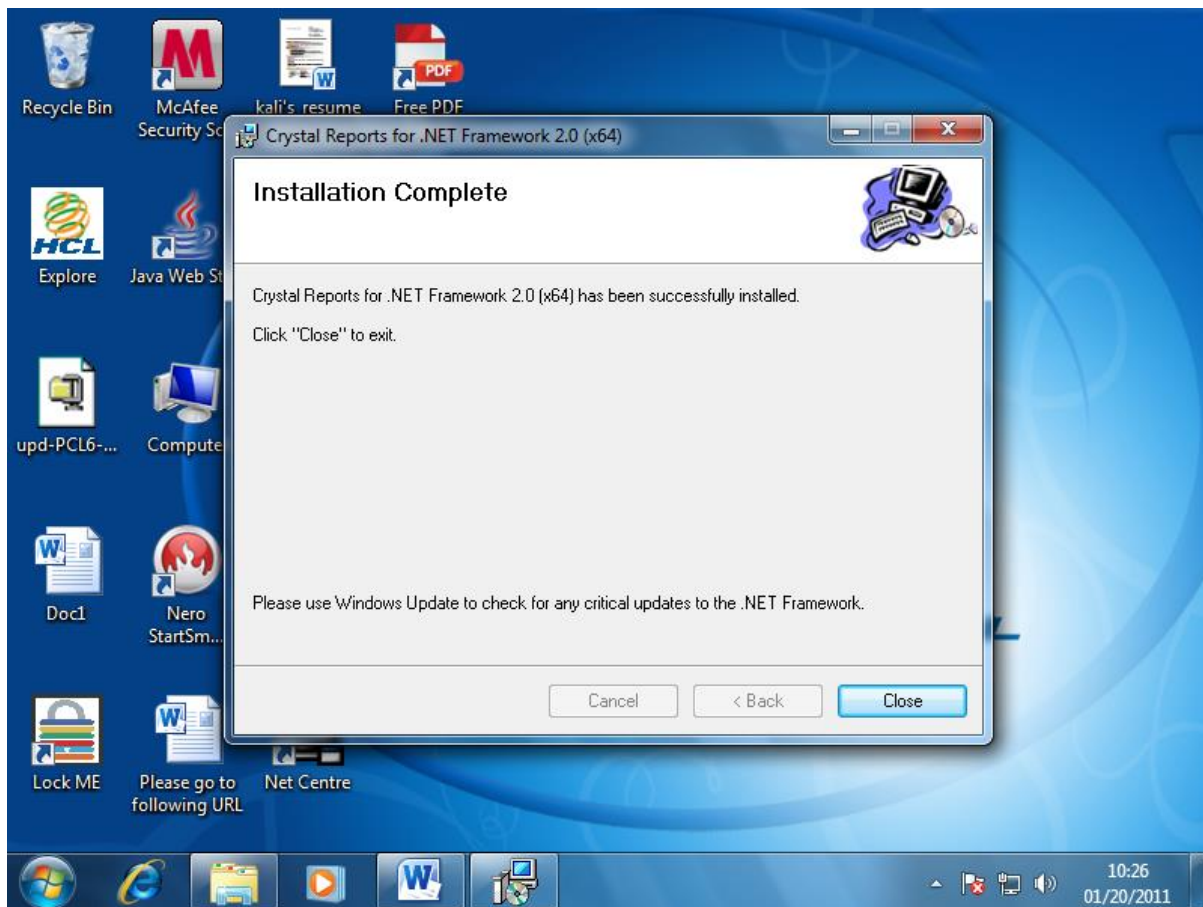
2. Press NEXT Button from the above Screen – following screen will appear



3. Select “I Agree” option from above screen and press NEXT Button – it will start installation of the utility



4. Once Installation Finished then following screen will appear



5. Now installation is complete. Press CLOSE button from the above screen

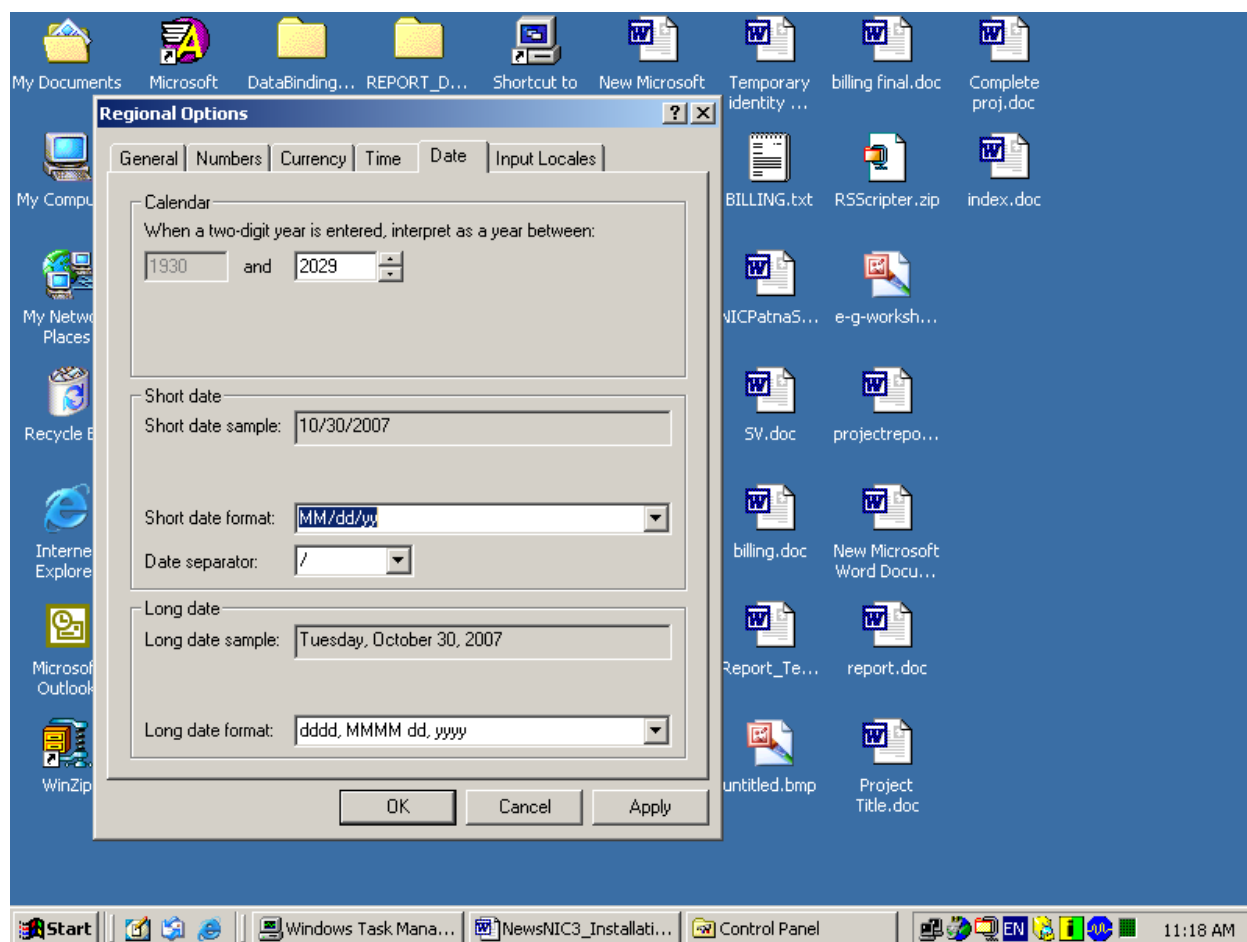
Chapter 9

System Settings and How to Start e-Granthalaya Program

9.1. DATE Setup

1. Before using the e-Granthalaya Software, you must set the **Short Date Format** as “MM/dd/yyyy” in Server PC as well as Client PCs

NOTE: For setting up the Short Date Format , Go to Control Panel >>Regional Options>>Advance Button >>Date Tab (change here the “Short Date Format settings” of the date and save it) – in both Server and Client PC. Date Separator must be “/”. However, while adding the Date in the data entry program you must enter it in Indian Style e.g. 23/01/2011 (Only 10 digits dates are accepted)



9.2. DISPLAY SCREEN

2. Display screen: Best viewed in 600x800 resolution settings of display screen

9.3. How to Display Logo in eG3

To display the logo of the organization in the eG3 software, copy the logo image file on the following location in each of the client PCs. The logo file name must be “Cleint_Logo.gif” only.

C:\Library\Client_logo.gif

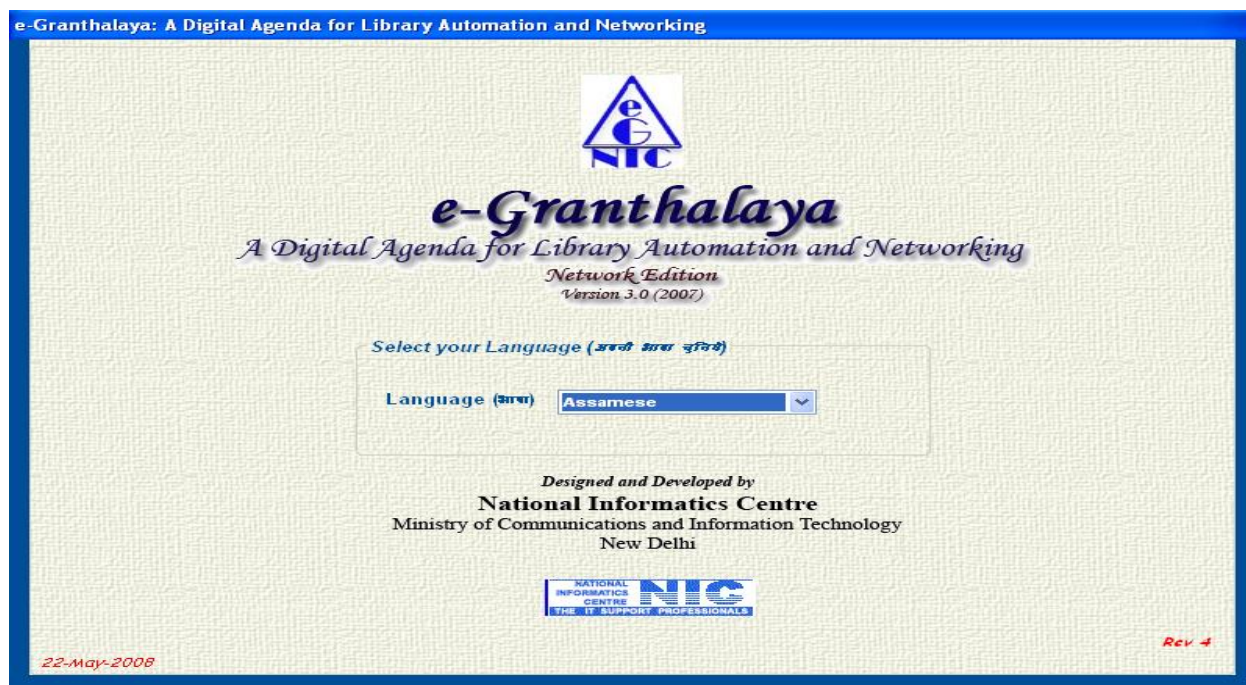
9.4. How to Display Background Picture in eG3

To display the background picture of your choice in the e-Granthalaya main screen, copy the image file on the following location in each of the client PCs. Image File name must be only “library.jpg”

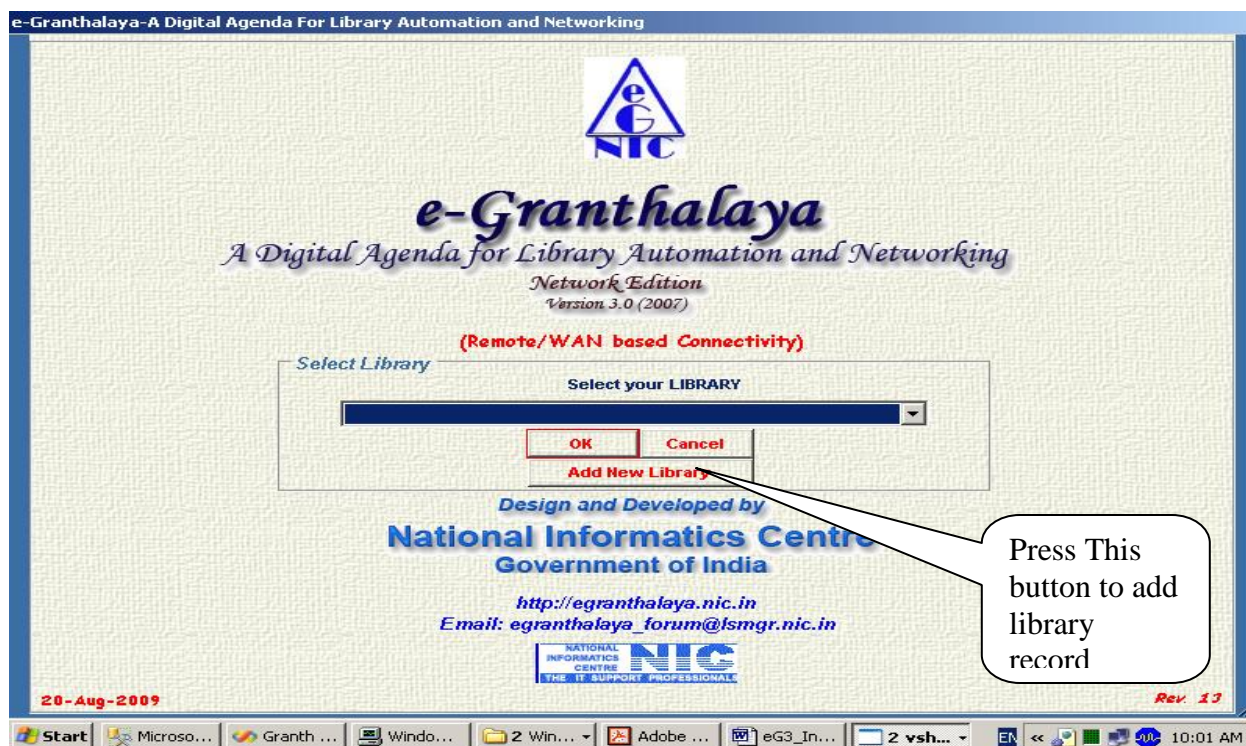
C:\Library\library.jpg

9.5. How to Start eG3

1. After successful installation of eG3 Client and setting up of database connectivity start the software from **START >> PROGRAMS >> National Informatics Centre >> e-Granthalaya3.0** Following screen will appear

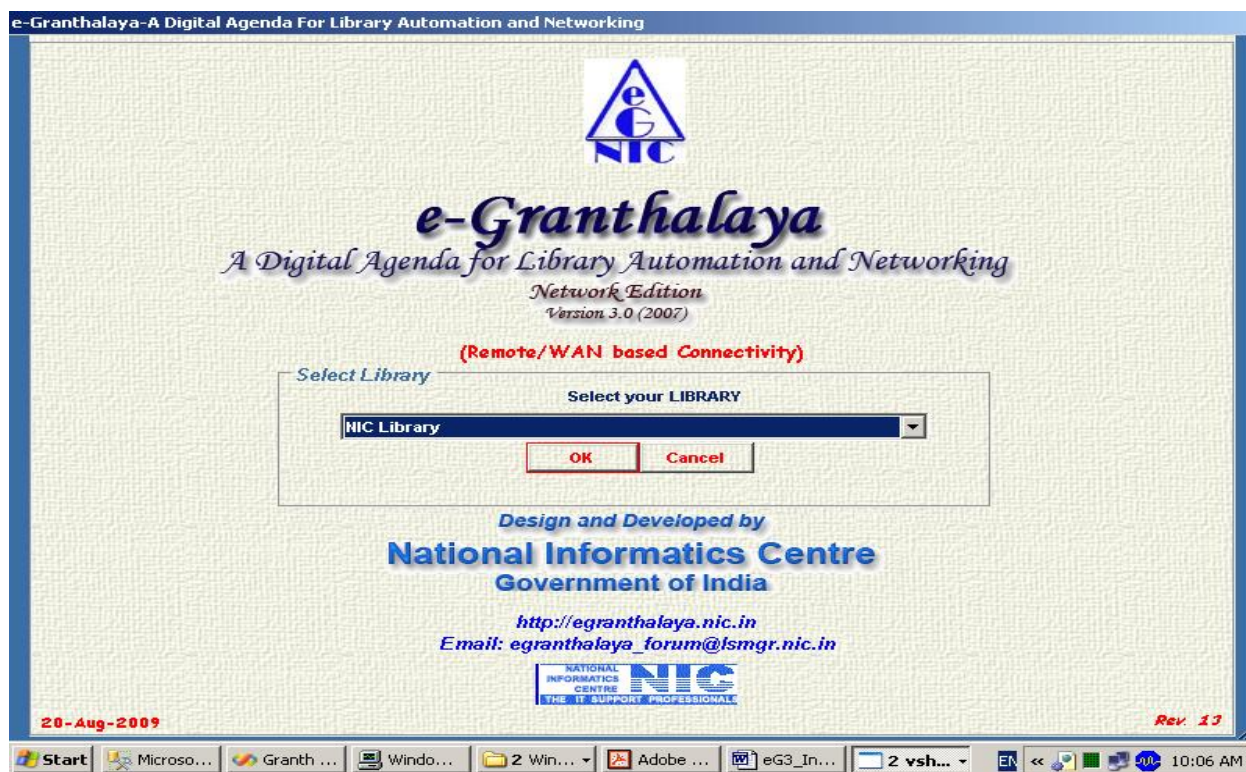


2. Select the **Language** from the Language Drop- Down in which you want to display the labels, next screen will appear

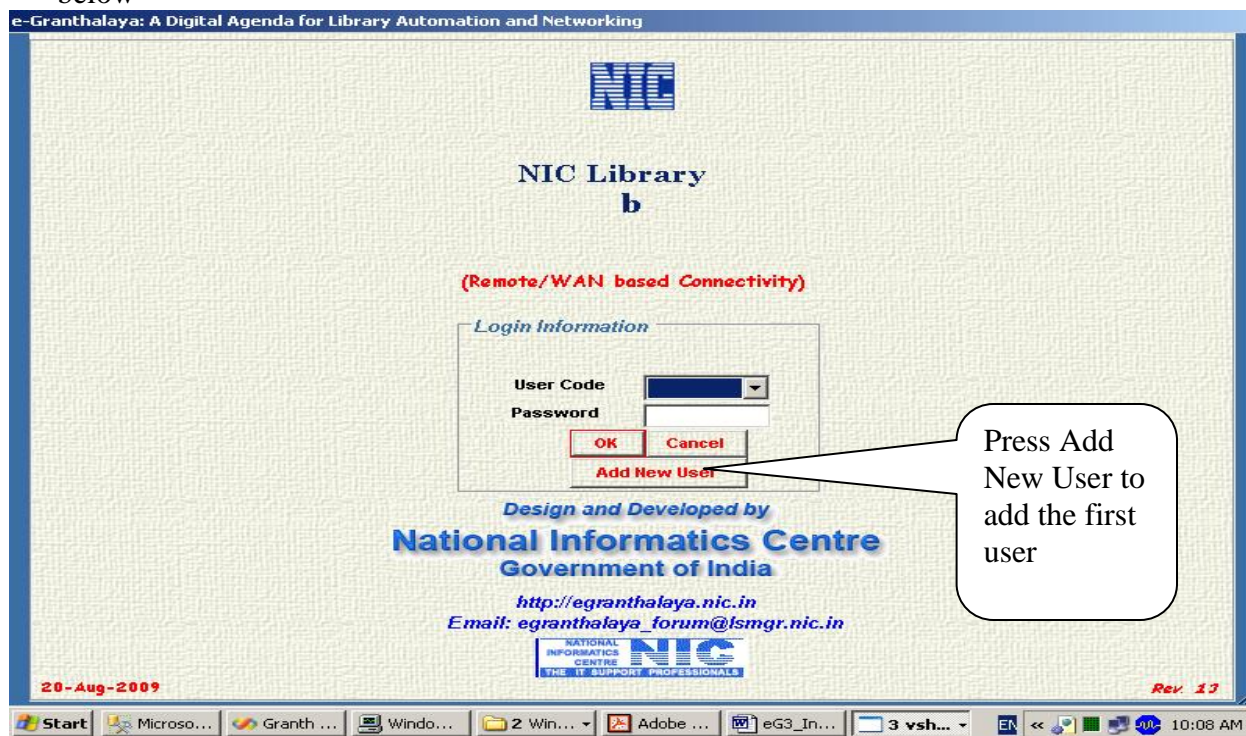


1. Press the 'Add New Library' Record for the first time.. next screen will appear

2. Type the Library Details and press SAVE Button.. then press EXIT button.. you will be back to select the newly added library



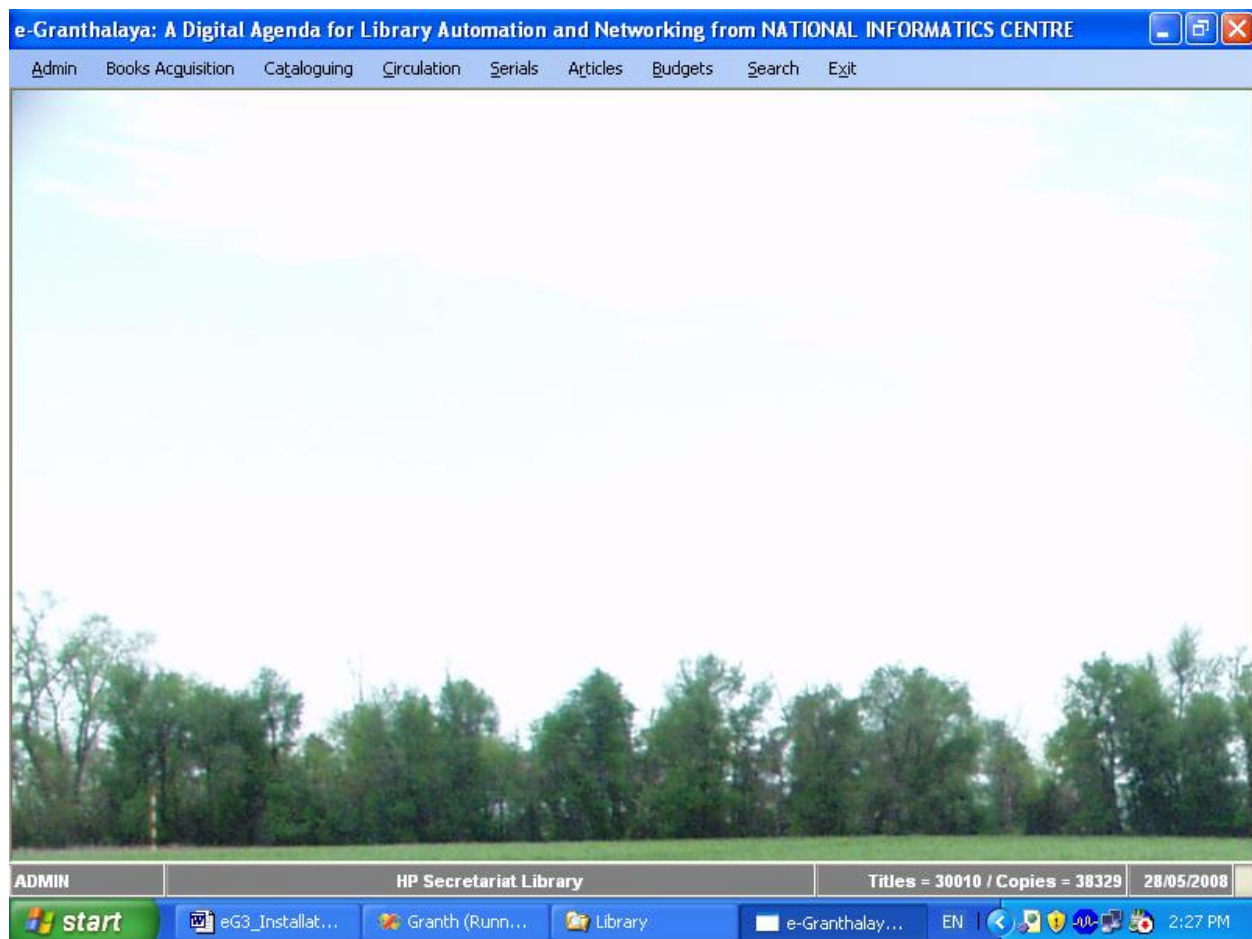
3. Select the Library and Press OK button ... You will be jumped to the next screen given below



4. Press ADD NEW USER button then next screen will appear

5. Add the User Details with password and press SAVE to save the record.. then press EXIT button.. you will be back to the following screen

6. Select **User Code** and **Password** to further proceed



Chapter 10

How to Install and Run Web OPAC

The **e-Granthalaya** software provides “**Web OPAC**” – a web based search interface to access the library catalogs over Internet/Intranet. The Web OPAC is a useful tool to publish the library catalog to be accessed and search the library catalogs as well as to provide the member-specific information like books overdue, recent arrivals, etc. In case your PC is on LAN then WebOPAC interface may be available from any computer in the organization and thus user will be able to search the library catalog from his/her desktop.

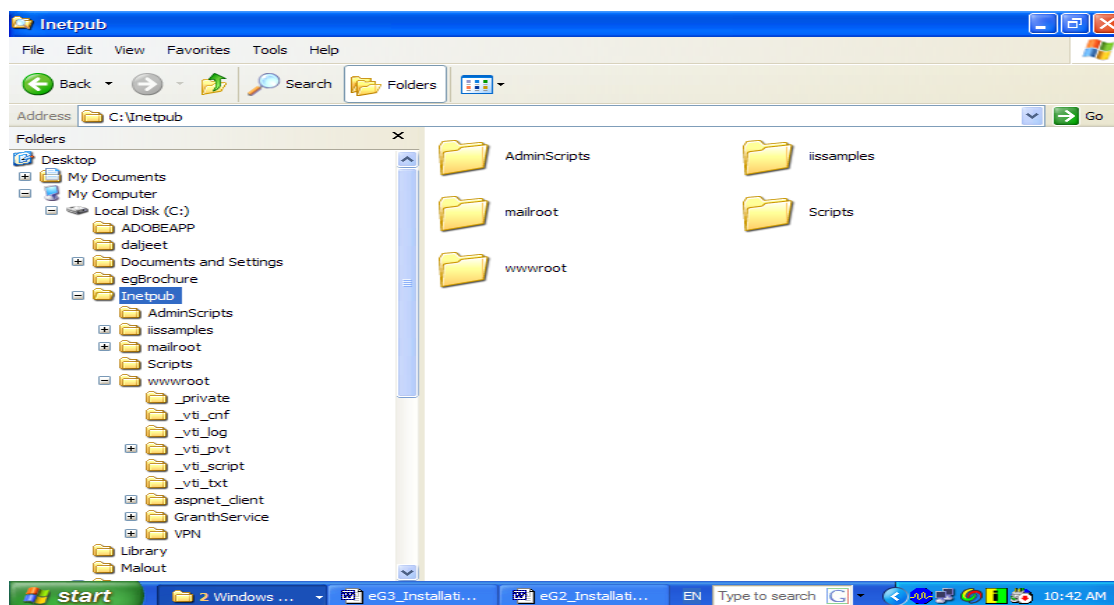
10.1. Pre-Requisites

The Web OPAC of e-Granthalaya is a “Server-Based” component and must be installed in Server PC, generally in the same PC where your database (GRANTH3) is residing. So in case you have implemented the e-Granthalaya software in Client-Server mode then it is advisable to install the WebOPAC interface in Server PC with the OS: Windows Server 2003/2008/2008R2. However, in case you have implemented the eG3 in Stand-Alone mode on single PC (Windows XP/Vista/7) then WebOPAC will be installed in these PCs only.

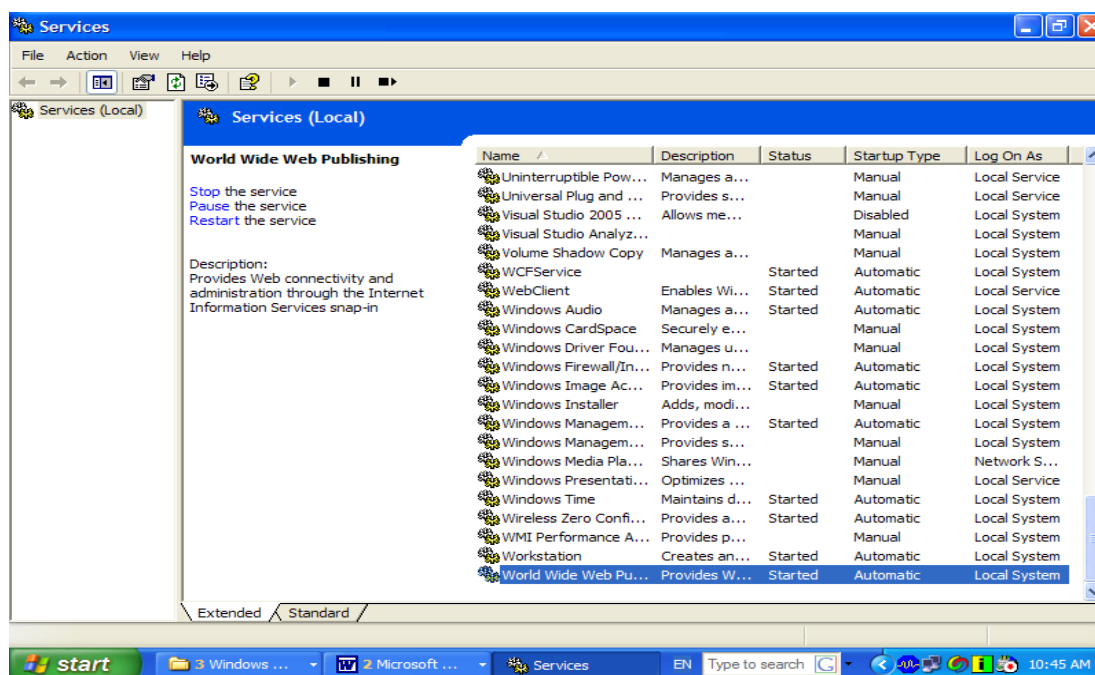
For installation and running successfully the WebOPAC interface, make sure that the PC must be installed with “**Internet Information Server (IIS)**”. In Server OS like Windows Server 2003/2008/2008R2, it is pre-installed while in Windows XP/vista/7 the IIS may be installed before installation of the WebOPAC.

You can check whether your PC is pre-installed with IIS or not with following procedure:-

1. Check whether “**InetPub/wwwroot**” folder/sub-folder exists in C Drive (C:\InetPub\wwwroot) – if available then it is assumed that IIS is already installed.



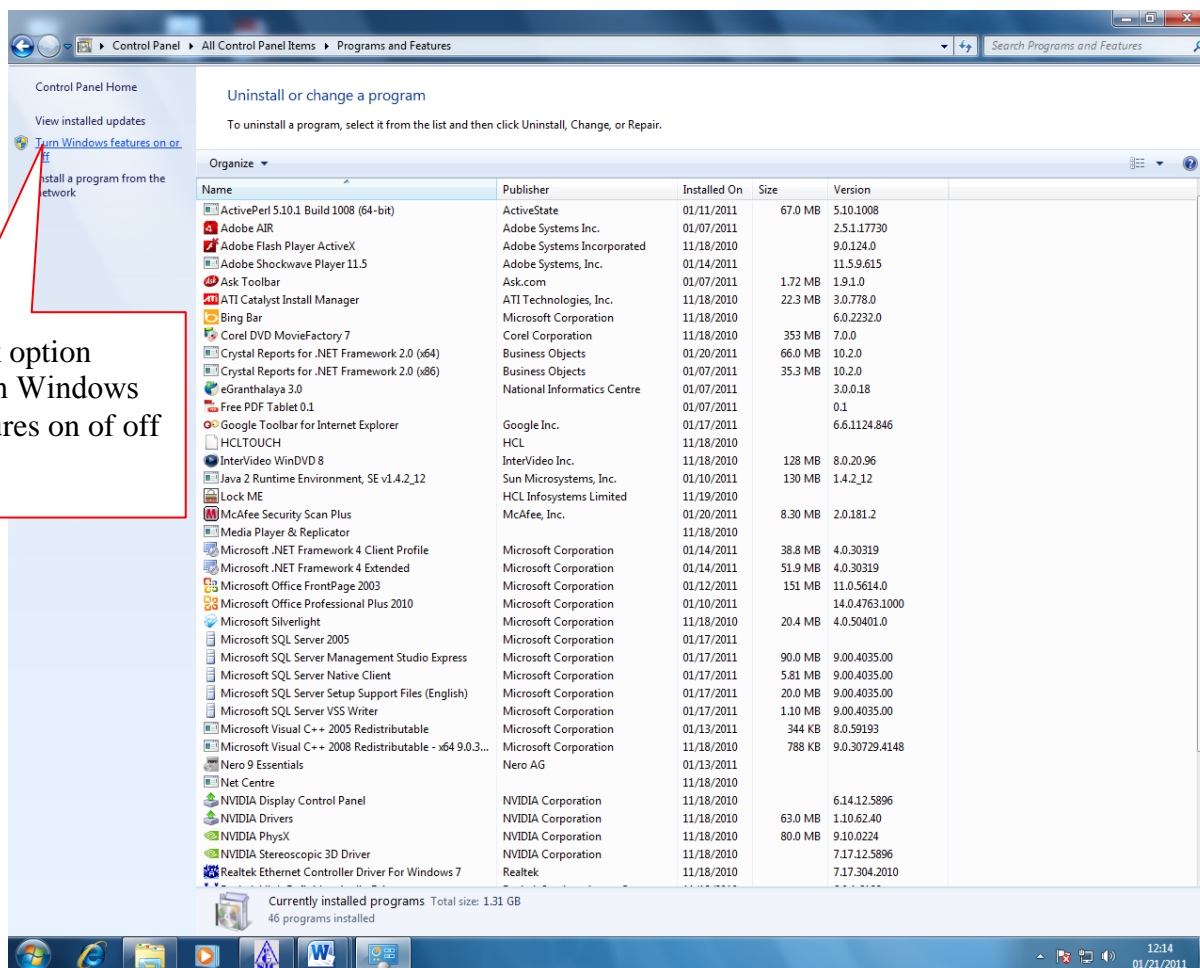
2. Go to Control Panel >> Administrative Tools >> Services and double click it – all services will be displayed, go to the bottom of the services and check whether “World Wide Services” is available and in “Running “ condition



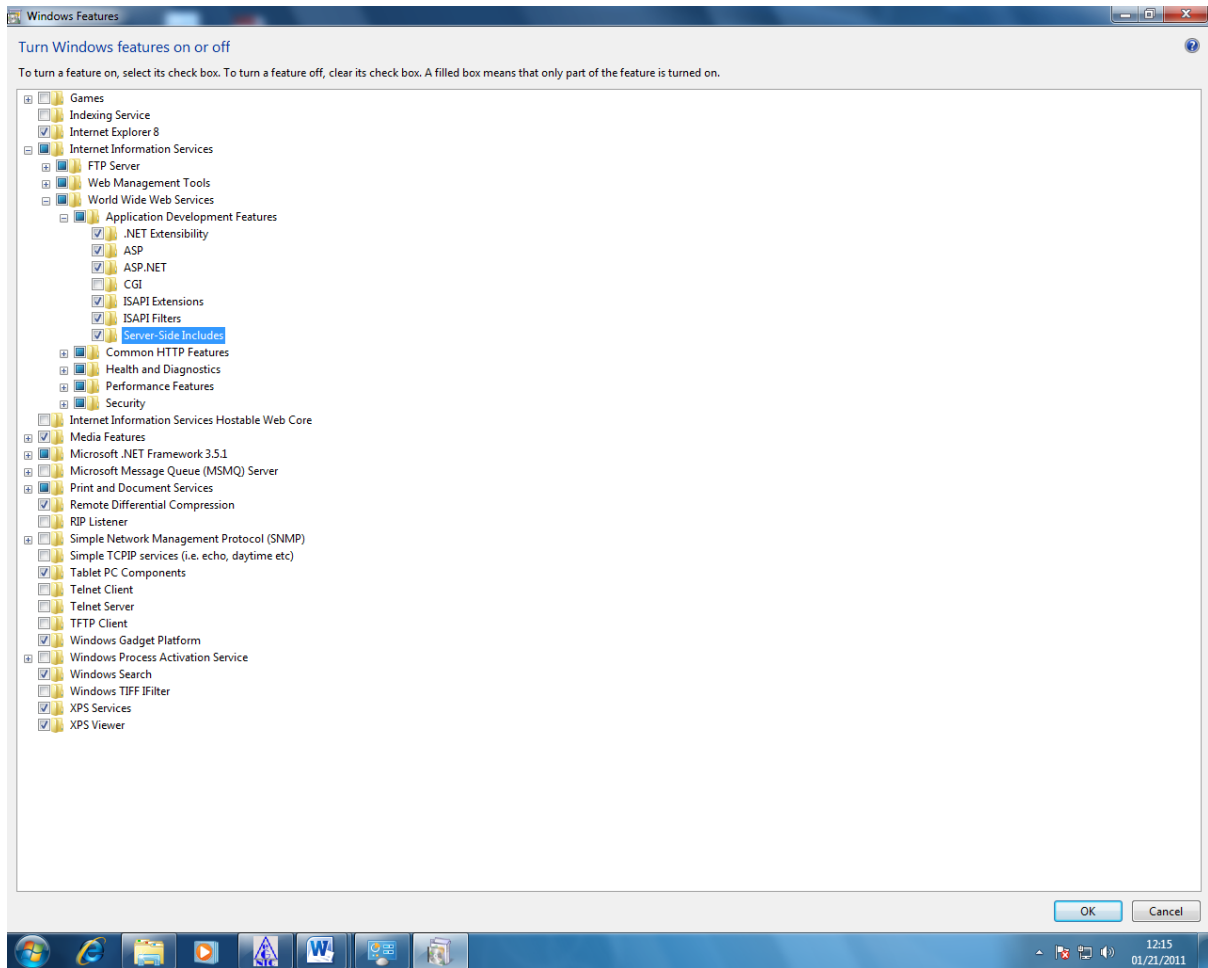
In case “World Wide Service” is not available/running then you have to install the IIS. After installation of IIS, you can install the Web OPAC interface as given below.

10.2. How to Install Web OPAC in Windows Server 2008/Win 7

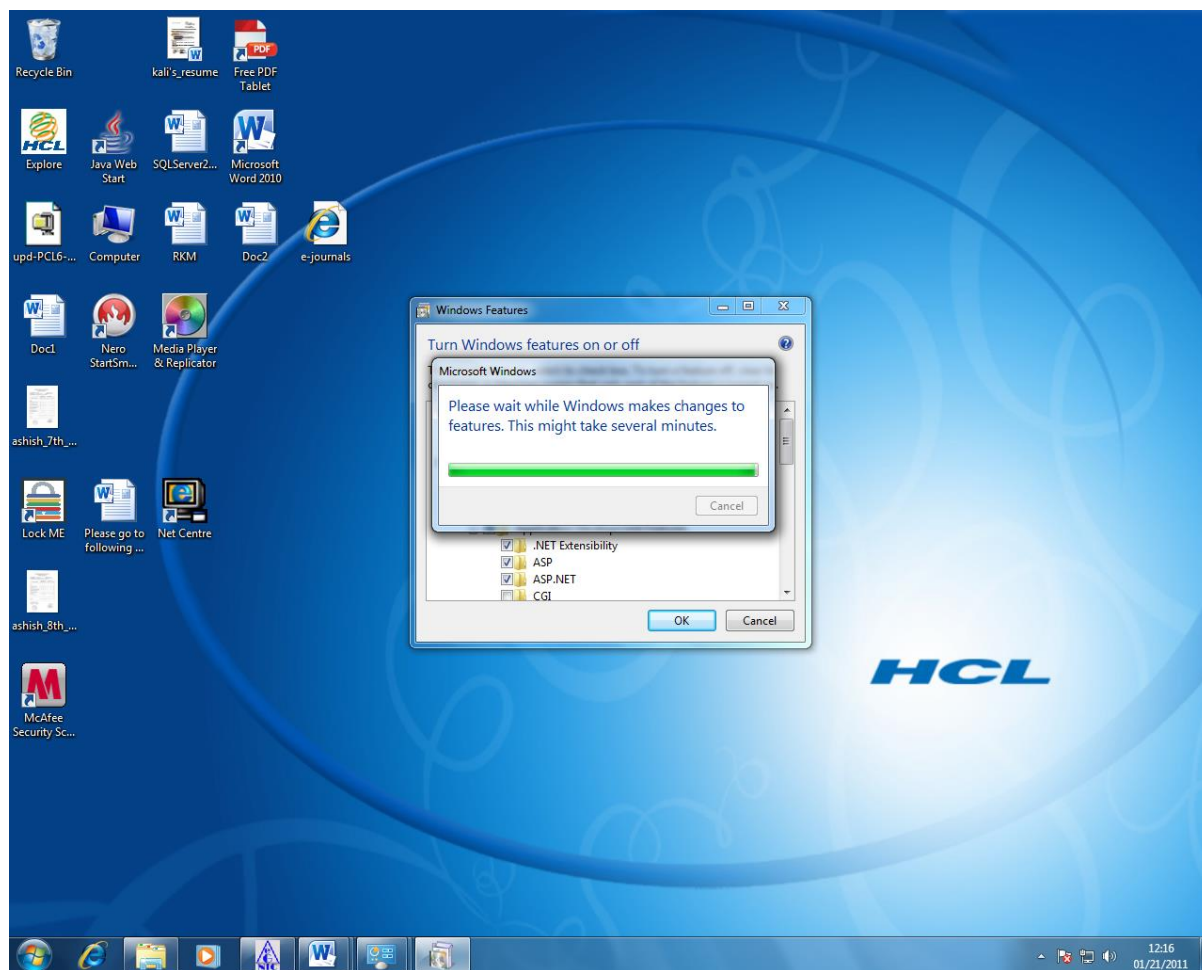
1. Install “Internet Information Server (IIS)” (if not already installed) from **Control Panel** >> **Program and Features** – on Double-Click the Icon following windows will appear



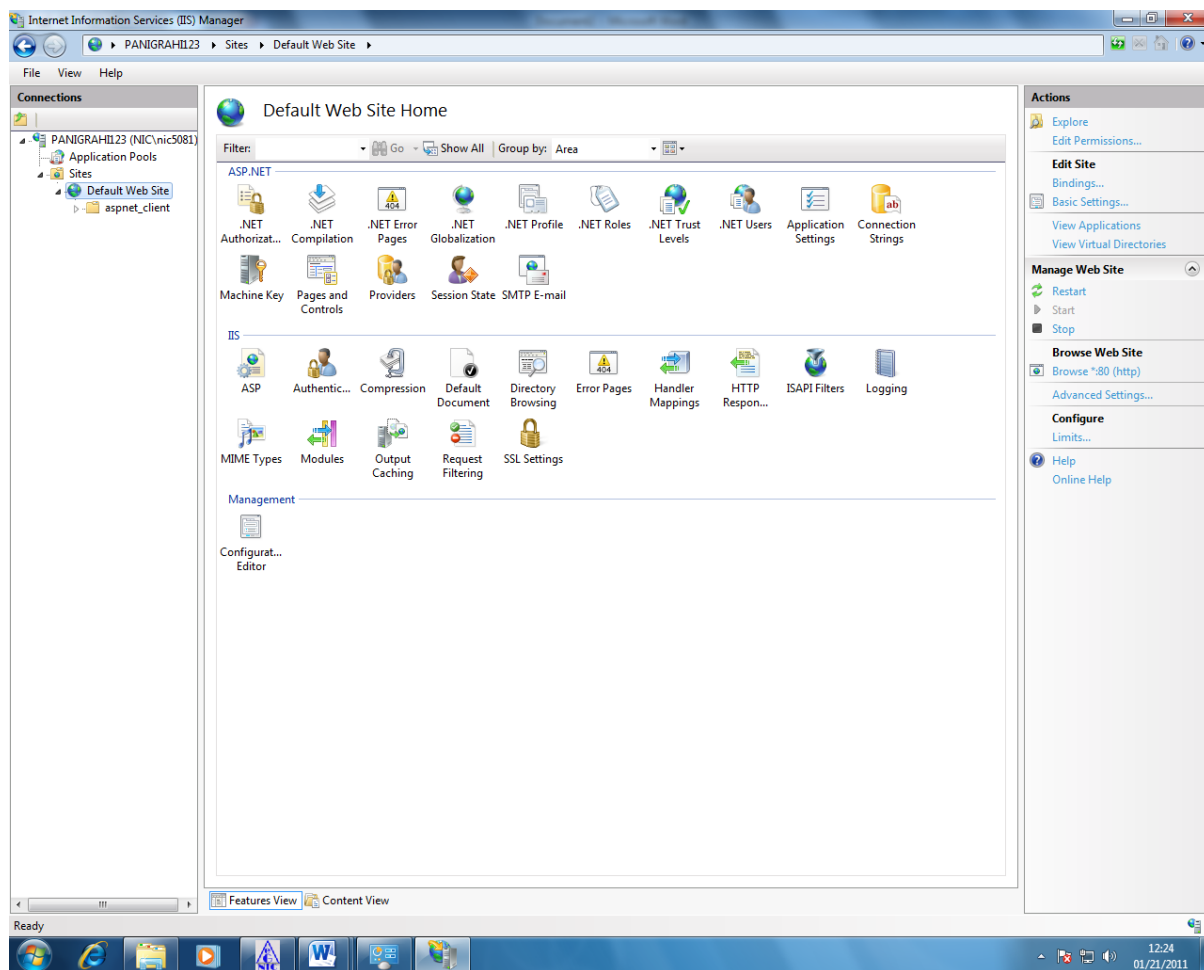
2. Click the option from Left Side of the above screen – “Turn Windows Features on of off”. A new Windows will appear from where u need to select and check the options under “Internet Information Services” >> “World Wide Web Services” >> “Application Development Feature” – select all except CGI as given below.



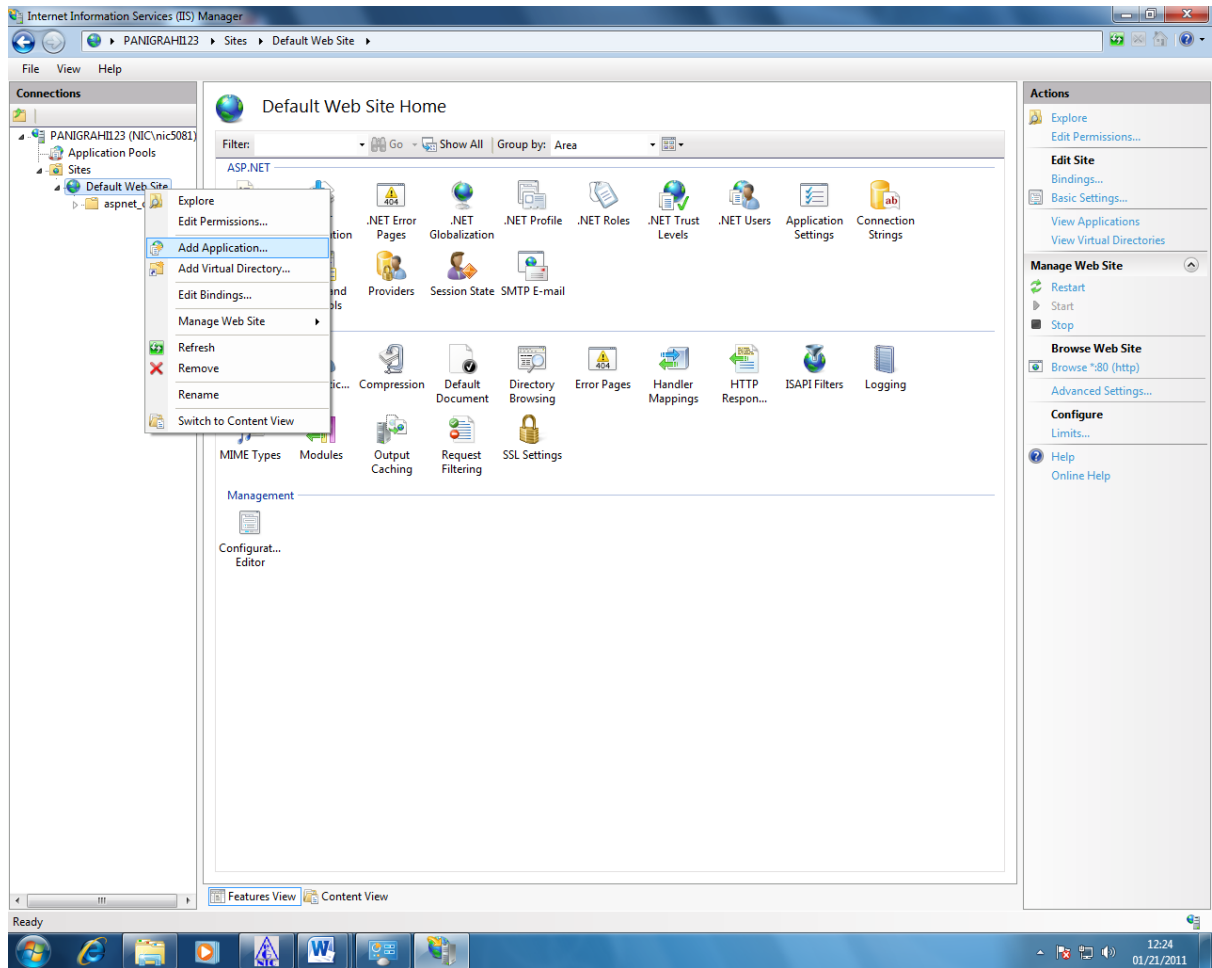
3. Press Ok after selecting all the features from above screen – it will start the installation of the components as shown below



4. After installation of the Internet Information Server, better to reboot the PC and then follow the steps given below
5. Now copy the “eG3OPAC” folder from e-Granthalaya CD in your PC where you want to run the OPAC. In fact, you can copy “eG3OPAC” folder in any drive of the PC (no need to copy in InetPUB folder) – u must remember the path
6. Go to **Control Panel** and double Click the **Administrative Tools**, new window will appear from which you need to expand the node from left just by double click the your computer name >> to Sites >> Default Web Site as shown below

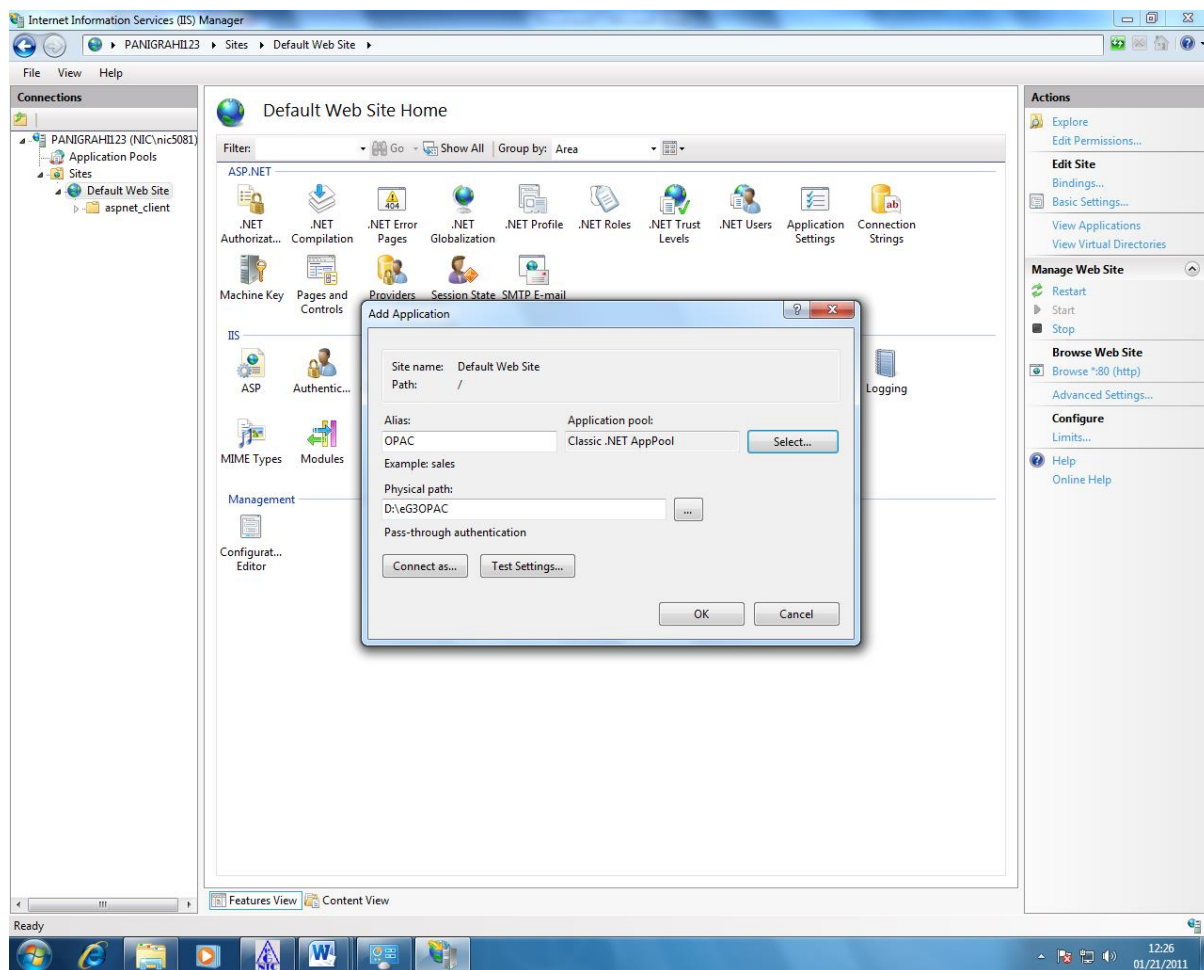


7. Right Click “Default Web Site” and select option “Add Application” –as given in following screen

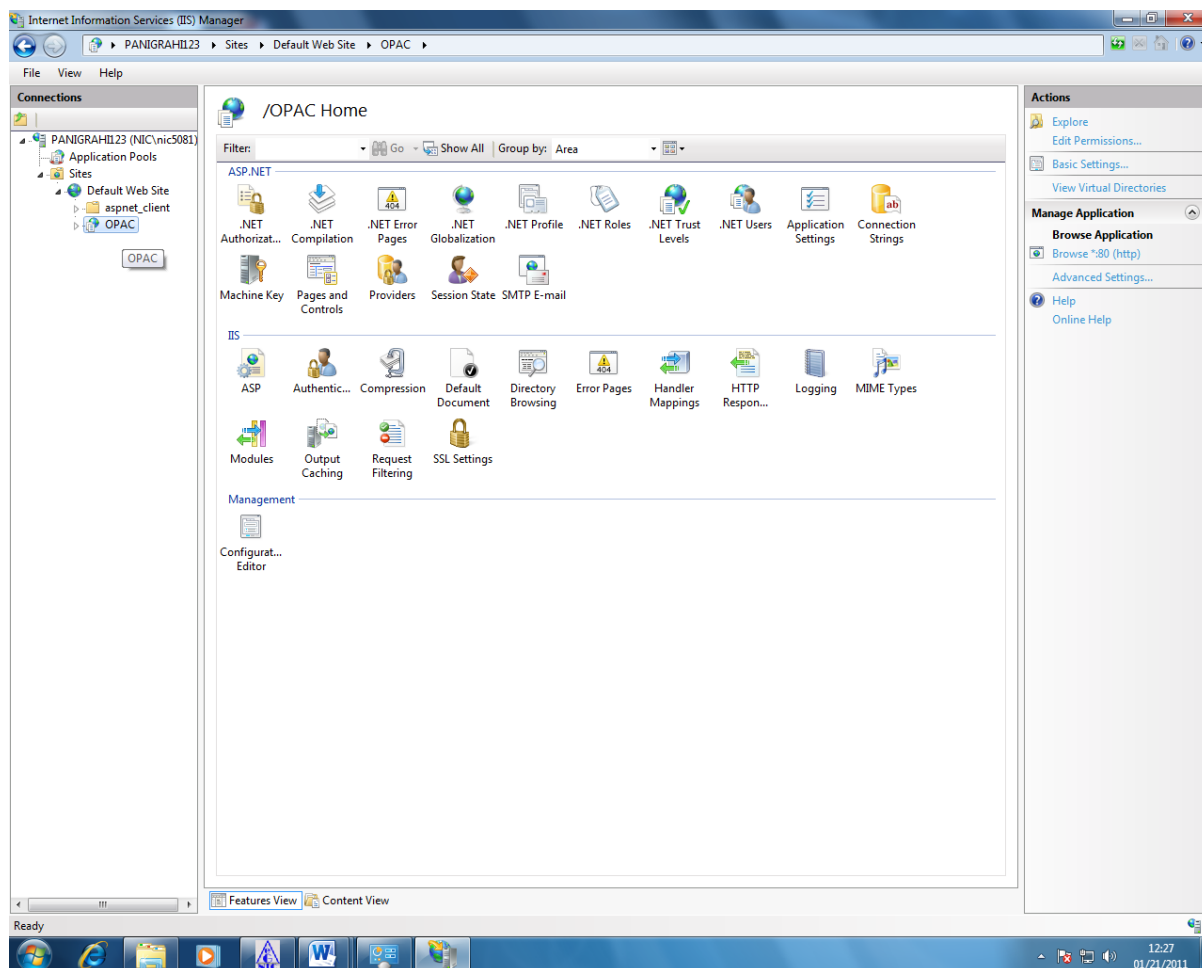


8. On selecting “Add Application” following screen will appear where you will enter :-
Alias : OPAC
Application Pool: Classic .NET AppPool (click SELET Button and pick from drop-down”
Physical Path: Browse the folder eG3OPAC which you copied from eG3 CD into your PC
(e.g. I have copied in “D:\eG3OPAC” drive)

Press OK button



9. After OK it will look like in the below screen



10. Now run Internet Explorer and give the URL to run the opac in browser:

<http://localhost/OPAC/>

or

<http://<your Pc Name>/OPAC> e.g. <http://library/opac>

Or <http://IP address/OPAC> e.g. <http://10.1.12.146/opac/>

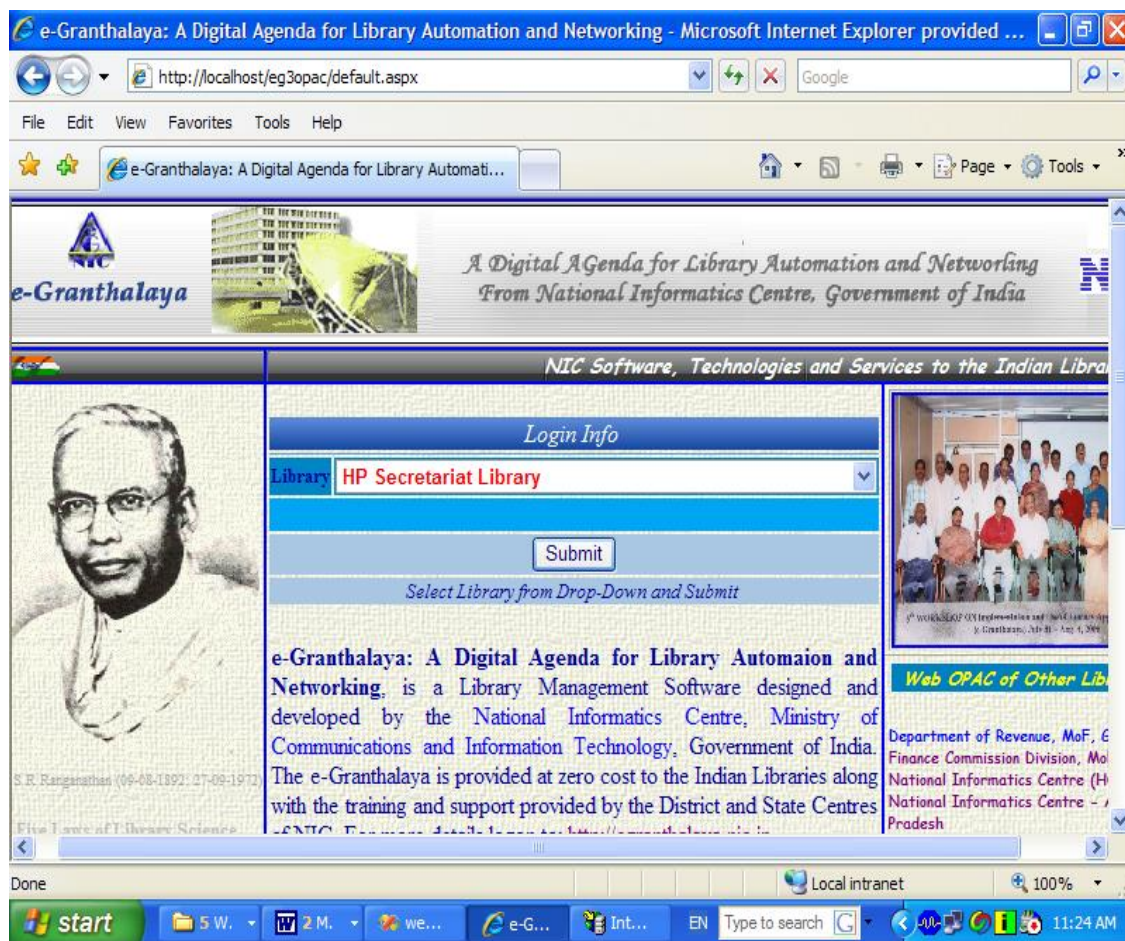


Fig. Web OPAC Interface of e-Granthalaya 3.0

